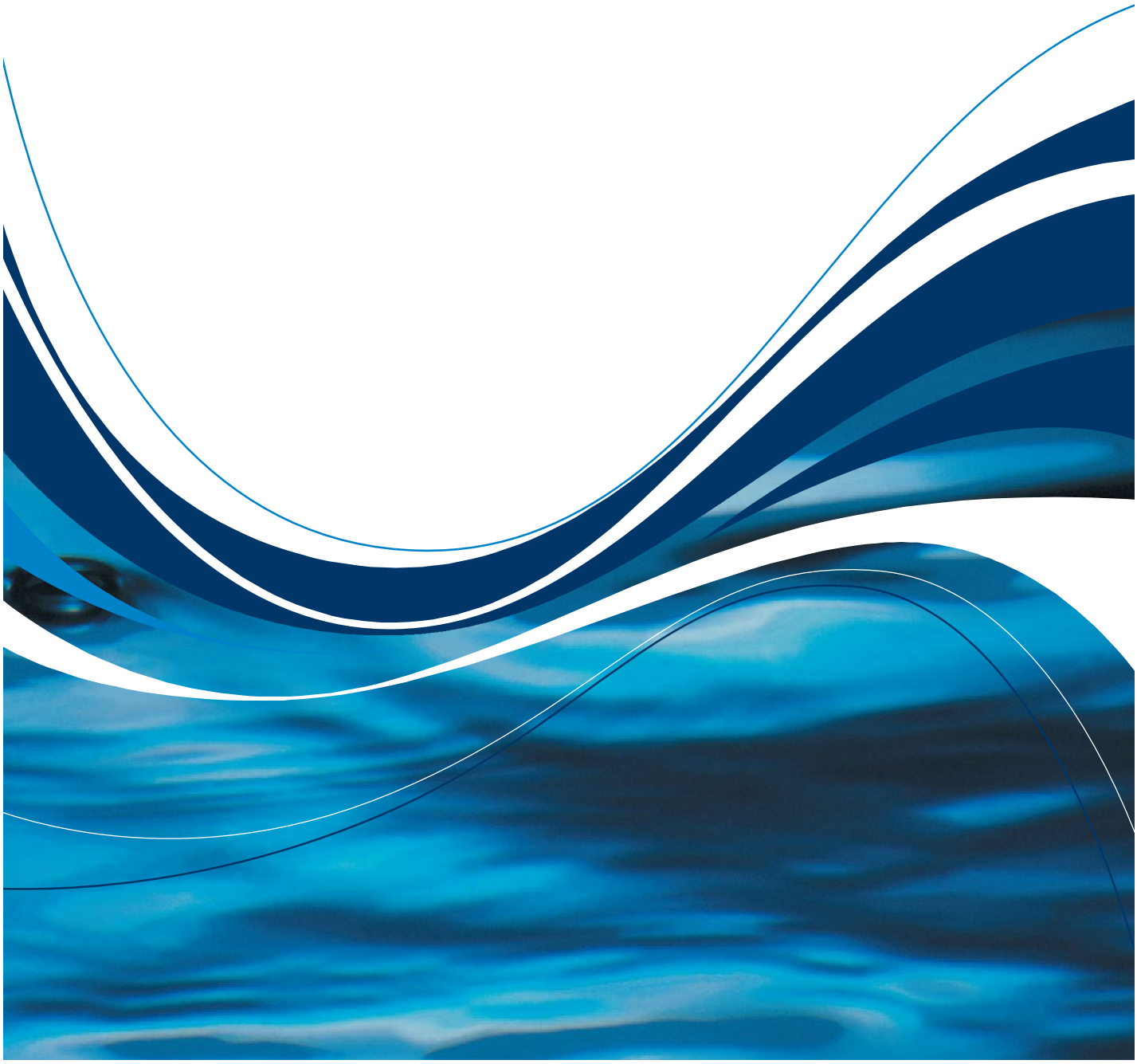
2004/05
WATER SUPPLY AND SEWERAGE

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

2004/05

NSW WATER SUPPLY AND SEWERAGE

BENCHMARKING REPORT

Sam Samra
Senior Manager
Water Utility Performance

Colin McLean
Executive Director
Water Systems

DEPARTMENT OF ENERGY,
UTILITIES AND SUSTAINABILITY
NEW SOUTH WALES GOVERNMENT

Department of Energy, Utilities and Sustainability

Head Office
Level 17, 227 Elizabeth Street, Sydney NSW 2000
GPO Box 3889, Sydney NSW 2001

Tel: 61 2 8281 7777 **Fax:** 61 2 8281 7799

www.deus.nsw.gov.au

information@deus.nsw.gov.au

Hours of business: 8:30am to 5:00 pm Monday to Friday

OUR VISION

Sustainable, safe, reliable and affordable use and supply of energy and water.

OUR MISSION

Achieve sustainable, safe, reliable and affordable energy and urban water outcomes for the people, economy and environment of NSW through the delivery of policy, regulations and programs.

OUR STRATEGIC GOALS

- Achieve a continuous improvement in the sustainable use and supply of energy and water
- Achieve safe, reliable and secure energy and water services
- Ensure the supply of energy and water is efficient and affordable
- Invest in the growth of our people and improve our business capacity

ISSN 1327-6425

DISCLAIMER

Whilst the Department of Energy, Utilities and Sustainability has taken due care in preparation of this report, it accepts no liability for any errors or omissions, nor for any use of the report by any person.

FOREWORD

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[1]. Performance reporting is also required for compliance with the *Best-Practice Management of Water Supply and Sewerage Guidelines*.

This *2004/05 Water Supply and Sewerage Benchmarking Report* discloses the full suite of NSW performance indicators for all NSW water utilities including Sydney and Hunter Water Corporations over the last 5 years. The report enables each utility to monitor trends in its performance indicators and to improve its performance through benchmarking against similar utilities.

The key performance indicators for all NSW water utilities, together with the Statewide performance of the NSW non-metropolitan water utilities and interstate comparisons, are provided in the *2004/05 NSW Water Supply and Sewerage Performance Monitoring Report.*

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

The benchmarking report has been prepared by the Department of Energy, Utilities and Sustainability (DEUS) since 1986. To facilitate comparisons, the Minister for Water Utilities has made both the performance monitoring report and the benchmarking report available on the DEUS website (*www.deus.nsw.gov.au/water*).

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 the utilities.

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

ACKNOWLEDGEMENTS

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

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 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 5 years are therefore particularly acknowledged.

TABLE OF CONTENTS

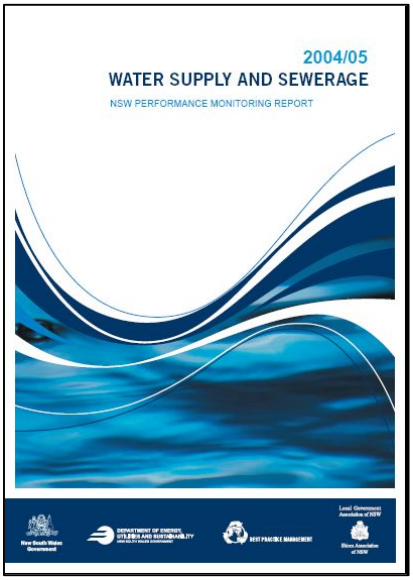
TABLE OF CONTENTS

TABLE OF CONTENTS

TABLE OF CONTENTS

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 water utilities over the last 5 years. The data is presented in the form of figures and tables and provides comparative information to enable each Local Water Utility (LWU) to benchmark its performance against that of similar LWUs. A companion report, the *2004/05 NSW Water Supply and Sewerage Performance Monitoring Report*, provides the key performance indicators for the NSW water utilities together with the Statewide performance of the NSW non-metropolitan water utilities and interstate comparisons. To avoid duplication, the Statewide performance and interstate comparisons are not repeated in this *Benchmarking Report*. To view the Statewide performance refer to pages v to vii 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 WATER UTILITIES

This report discloses performance indicators for all NSW water utilities, comprising the 107 non-metropolitan Local Water Utilities (LWUs) together with the 3 metropolitan utilities (Sydney Water, Hunter Water and Hawkesbury Council). All utilities are listed in the table below in alphabetical order. To facilitate comparisons with similar sized LWUs, Tables 5 to 18 of this report are sorted in order of the number of connected properties served. The number shown in the table below with each utility is its rank in terms of connected properties for water supply. For example, the table shows '11 Albury City', indicating that Albury City is the 11th LWU in the water supply tables. LWUs are grouped in four size ranges, namely over 10,000, 3,001 to 10,000, 1,501 to 3,000, and 200 to 1,500 connected properties.

NSW Water Utilities (Non-metropolitan & Metropolitan) Listed in Alphabetical Order

11	Albury City	54	Deniliquin	59	Lachlan	3	Shoalhaven
29	Armidale Dumaresq	18	Dubbo	48	Leeton	35	Singleton
		64	Dungog (R)	22	Lismore (R)	52	Snowy River
24	Ballina (R)			31	Lithgow		Sydney Water
100	Balranald (DS)	15	Eurobodalla	61	Liverpool Plains		
21	Bathurst Regional			102	Lockhart (NO WS)	13	Tamworth Regional
23	Bega Valley	12	Fish River WS (BS)			69	Temora (NO WS)
47	Bellingen	51	Forbes	5	MidCoast	68	Tenterfield
53	Berrigan (DS)			32	Mid-Western Regional	93	Tumbarumba
72	Bland (NO WS)	84	Gilgandra	38	Moree Plains	43	Tumut
78	Blayney (NO WS)	60	Glen Innes Severn	65	Murray (DS)	6	Tweed
89	Bogan	82	Gloucester	101	Murrumbidgee		
97	Bombala	28	Goldenfields (NO SGE)	41	Muswellbrook	45	Upper Hunter
104	Boorowa	1	Gosford			73	Upper Lachlan
87	Bourke (DS)	20	Goulburn Mulwaree	34	Nambucca	85	Uralla
105	Brewarrina	80	Greater Hume	46	Narrabri	107	Urana (NO WS)
27	Byron (R)	30	Griffith	63	Narrandera		
		94	Gundagai	62	Narromine	9	Wagga Wagga (NO WS)
91	Cabonne	44	Gunnedah			88	Wakool (DS)
92	Carrathool	90	Guyra	83	Oberon (R)	98	Walcha
103	Central Darling (DS)	81	Gwydir	19	Orange	79	Walgett (DS)
40	Central Tablelands					96	Warren (DS)
	(NO SGE)	76	Harden (R)	71	Palerang	55	Warrumbungle
14	Clarence Valley	30A	Hawkesbury (NO WS)	36	Parkes	95	Weddin (NO WS)
67	Cobar (R)	86	Hay (DS)	7	Port Macquarie-Hastings	57	Wellington
66	Cobar WB (BS)		Hunter Water			74	Wentworth (DS)
10	Coffs Harbour			17	Queanbeyan (R)	16	Wingecarribee
99	Coolamon (NO WS)	37	Inverell			2	Wyong
50	Cooma-Monaro			33	Richmond Valley		
75	Coonamble	106	Jerilderie (DS)	8	Riverina (NO SGE)	56	Yass Valley
58	Cootamundra (R)	77	Junee (NO WS)	4	Rous (BS) (NO SGE)	49	Young (R)
42	Corowa						
26	Country Energy	25	Kempsey				
39	Cowra	70	Kyogle				

R – Reticulator; DS – Dual Supply; BS – Bulk Supplier; NO WS – No water supply; NO SGE – No sewerage

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.

Water supply and sewerage data was obtained from each LWU's annual performance reports for their water supply and sewerage businesses. These reports are required to be lodged with DEUS by 15 September each year in order to comply with the *Best-Practice Management of Water Supply and Sewerage Guidelines, 2004*. Financial data was obtained through the Department of Local Government from each LWU's Special Schedules Nos 3 to 6 and DEUS obtained the charging schedules directly from each LWU for information on their tariffs.

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 8 and Note 5 on page 14). Such factors can produce a fundamental difference in performance.

For example, in the case of water supply, a utility which provides a 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 8 to 10).

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 14.

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 syndicate benchmarking pilot project indicates that such process benchmarking should be highly cost-effective for all NSW LWUs. DEUS will be working with LWUs to facilitate appropriate syndicate benchmarking projects and will disseminate the results.

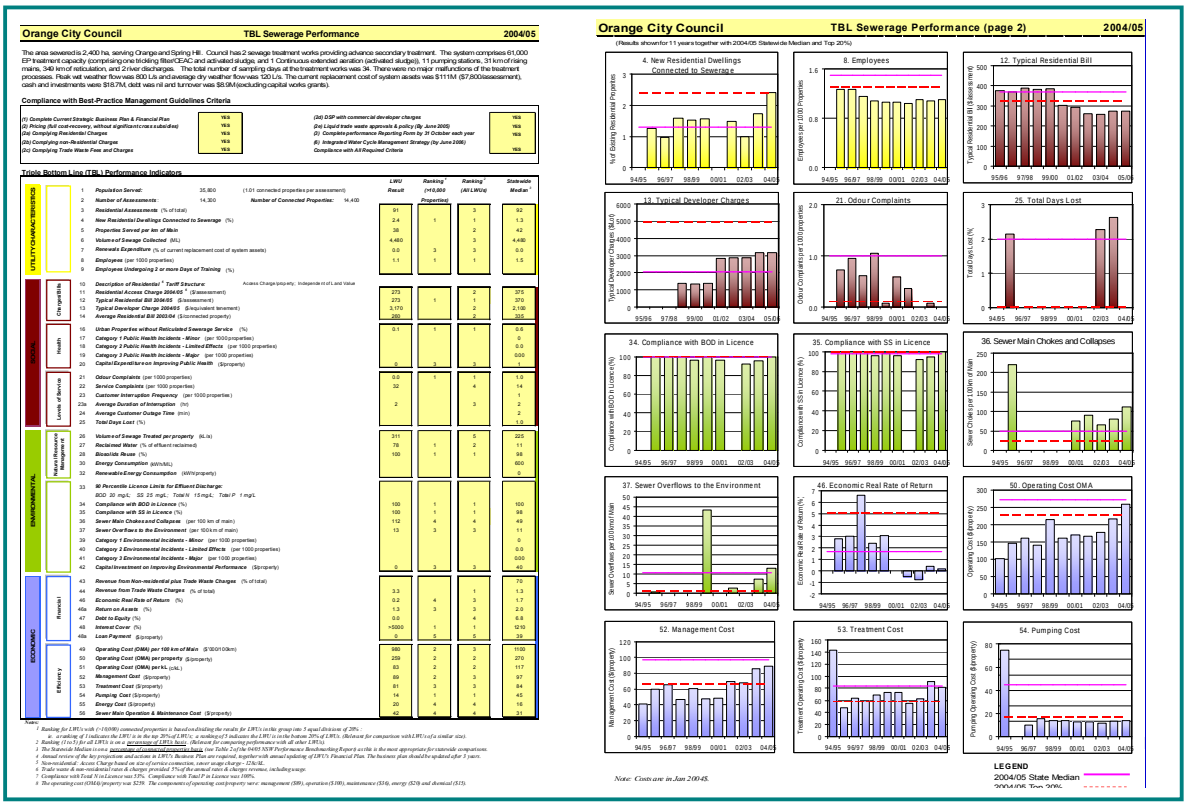
3.4 TBL PERFORMANCE REPORTS

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 12 and 13).

The *2004/05 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*. 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 and the National Water Initiative (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

4.1 REGULATORY FRAMEWORK

Through the *Local Government Act 1993* and the *Water Management Act 2000*, the Minister for Water Utilities is responsible for overseeing the performance of NSW country Local Water Utilities (LWUs) in the sustainable provision of water supply and sewerage services to the community. The aim of Government policy for NSW country LWUs is to achieve sustainable water supply and sewerage services through leadership, guidance and encouragement of the LWUs serving the urban areas of country NSW.

Throughout the twentieth century the State Government has provided substantial assistance to country towns in NSW through the Country Towns Water Supply and Sewerage Program, administered by the Department of Energy, Utilities and Sustainability (DEUS). Building on the advantages of local government management of water supply and sewerage services, the program provides guidance and support to LWUs in the strategic areas of planning and management, operation & maintenance, as well as financial assistance towards the capital cost of backlog water and sewerage infrastructure.

Towards the end of the twentieth century, most country towns had substantial water and sewerage services and it was therefore appropriate in 1996 for the State Government to carry out a review of the program. This was undertaken together with the Local Government Association and Shires Association and resulted in a revised program which aimed to foster the development of best practice management by LWUs in the strategic and operational management of water and sewerage schemes. The role of Government and the Government's expectations of LWUs in the revised program were as follows:

- Government will place increased emphasis on initiatives aimed at assisting LWUs improve their planning and operational management
- Compliance with best practice management will be a pre-requisite for future financial assistance
- Financial assistance will be directed towards the capital cost of backlog infrastructure
- Government expects LUWs to put into place appropriate strategies to ensure that capital works needed to meet growth or renewal are self funded.

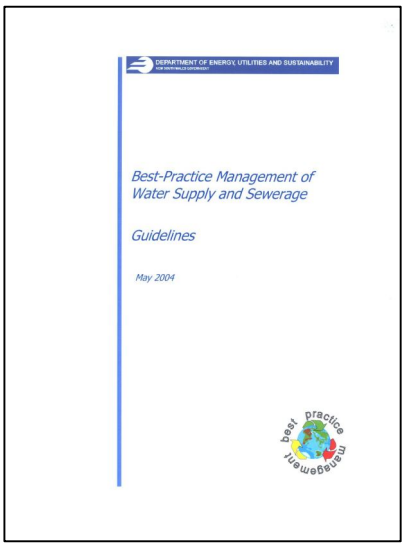
Subsequently, DEUS has published the "*Best-Practice Management of Water Supply and Sewerage Guidelines*" in May 2004, linking compliance with the guidelines to the eligibility of LWUs for:

(a) the payment of a dividend from their water and sewerage businesses to the Council's general revenue and

(b) financial assistance towards the capital cost of backlog infrastructure.

4.2 BEST PRACTICE MANAGEMENT

The NSW Government has published *Best-Practice Management Guidelines* to encourage continuing improvement in performance of water and sewerage businesses in NSW and compliance with the Australian Government's National Competition Policy and the National Water Initiative. The guidelines will assist utilities to identify the key elements in the delivery of water supply and sewerage services to the community. The guidelines are available on the DEUS website (www.deus.nsw.gov.au/water).



In summary, the guidelines require an LWU to prepare strategic business plans and financial plans setting out how it plans to manage these businesses over the next 20 years and to establish an appropriate level of annual income from water supply, sewerage and trade waste charges. In addition to levying commercial water supply and sewerage developer charges, the LWU needs to consider the levels of service, meeting projected infrastructure recurrent costs and capital cost, externalities, dividend and tax-equivalent payments in order to achieve full cost-recovery and to provide appropriate signals to customers about the cost consequences of their water usage. 88% of LWUs have prepared at least draft strategic business plans.

The *Best-Practice Management Guidelines* identify six criteria that each LWU must comply with. These are:

- strategic business planning,
- pricing (including developer charges, liquid trade waste policy and approvals),
- water conservation,
- drought management,
- performance reporting,
- integrated water cycle management.

The reported LWU compliance with the *Guidelines* is shown in Table 3 on page 110 of this report. For water supply, compliance at June 2005 was 58% for business and financial planning, 58% for pricing, 92% for performance reporting, 49% for water conservation and 51% for drought management. 27% of LWUs have complied with all the required criteria. For sewerage, compliance was 57% for business and financial planning, 33% for pricing and 87% for performance reporting. 14% of LWUs have complied with all the required criteria. Compliance for integrated water cycle management (IWCM) is not required until June 2006. However, 28% of LWUs have at least commenced preparation of an IWCM strategy. The highest reported water supply compliances are for pricing with full cost-recovery (82% - column 2) and performance reporting (92% - column 3), while the lowest reported compliances are for drought management (51% - column 5) and water conservation (49% - column 4). The highest reported sewerage compliances are for residential charges (80% - column 2a) and performance reporting (87% - column 3), while the lowest reported sewerage compliances are for non-residential charges (40% - column 2b), complying trade waste fees and charges (33%) and liquid trade waste approvals and policy (42% - column 2d).

All LWUs should address these criteria. Particular attention is required for residential water supply revenue from usage charges [page 40 of *Performance Monitoring Report* and Table 6 on page 122], water conservation and drought management, non-residential water supply and sewerage charges [Table 6B on page 129 and Table 7B on page 143], trade waste fees and charges [Table 7D on page 150] and trade waste approvals and policy.

4.3 ASSET MANAGEMENT

Renewals

Renewals programs vary from LWU to LWU and vary in complexity from a reactive approach (no renewals but repairs (maintenance) undertaken as required) to an approach based on assessment of the condition and performance of assets and developing an asset management plan to maintain agreed levels of service at least cost to the community. Such an asset management plan would comprise an operation plan, maintenance plan and a capital works plan, involving works for improved levels of service, works to service growth and for renewals of existing assets. For a distribution system, for example, an operations review would be required as part of the LWU's risk management which would include an economic analysis, a reliability analysis, a capacity review and a leakage analysis. The Asset Management Plan would provide the foundation for the Strategic Business Plan and Financial Plan.

An economic analysis identifies pipelines where renewal is more economic than continuing with repairs and should take into account the impact of pipe failure (eg. failure of a pipeline in the CBD has more impact than failure of a pipeline on the outer edge of the system). A reliability analysis identifies pipelines where renewal is warranted to ensure performance requirements with regard to supply interruptions can be achieved, while a capacity review identifies pipelines where augmentation or replacement is required to maintain the required pressure or flow. A leakage analysis identifies whether leakage reduction is economically warranted.

The driver of renewals expenditure is ability to meet the LWU's performance requirements ie. the levels of service and the associated Typical Residential Bill (TRB) negotiated with the community. Other relevant considerations are the condition and age of the assets. However, renewals are often quoted as 1 to 2% of capital cost. This is misleading as renewals expenditure will be required mostly towards the end of the economic life of an asset. For example, a new water main with an economic life of 80 years would be expected to have minimal renewal expenditure before year 80. However, LWUs should annually monitor their

breaks/100km of main, paying close attention to any sections of main with a high incidence of breaks (say treble the Statewide median of 11 breaks/100 km). Similarly, sections of sewer main with a high incidence of chokes and collapses warrant close attention. LWUs should not budget on renewals being a percentage of the capital cost and should ensure their financial plan includes the capital expenditure, including renewals, identified in a soundly based asset management plan. Similarly, LWUs should not set aside an annual amount for renewals but should develop an appropriate strategy for funding renewals in their financial plan. This would involve an appropriate mix of funding through the current year's revenues, accumulated cash and investments and borrowings.

Further information on the development of a cost-effective asset renewal program can be obtained from DEUS (Scott Chapman phone 8281 7335, fax 8281 7452, email scott.chapman@deus.nsw.gov.au). Information on asset costing and economic life can be obtained from the *"NSW Reference Rates Manual for Valuation of Water Supply, Sewerage and Stormwater Assets" June 2003*.

Leakage

Leakage and apparent loss are often poorly defined and poorly understood and, in general, water utilities have a relatively limited awareness of the true value of these two parameters within their water supply systems. The International Water Association[2] (IWA) has adopted the following terminology:

- **Real losses** are physical water losses from the distribution system up to the point of customer metering. They can occur through leaks, bursts and overflows.
- **Apparent losses** reflect errors in measurement and/or the documentation process. They generally consist of customer use which is not recorded due to metering error (mostly under-registration of customer meters), incorrect assumptions of unmeasured use or unauthorised consumption.
- **Water losses** are made up of real losses (leakage) and apparent losses (illegal uses, meter errors).
- **Non-revenue water** consists of water losses and unbilled authorised consumption. Unbilled authorised consumption may or may not be metered and may include fire fighting, mains flushing, watering of parks and gardens.

Leakage management is an essential element of asset management. Leakage cannot be totally avoided due to the large number of connections in a water supply network. Small "weeps" in connections result in unavoidable losses and these losses increase with higher system pressure.

Leakage and unaccounted for water have historically been reported as a percentage of water supplied. Although these indicators identify the significance of these parameters in relation to the total water supplied, they are not helpful in monitoring the effectiveness of a utility's performance in reducing losses and are perversely affected by reductions in water consumption and water restrictions due to drought. In addition, these indicators do not measure the efficient management of leakage in a distribution system because they take no account of multiple properties, density of service connections, length of mains, customer meter location in relation to the property boundary or the operating pressure. Water loss in L/d per connection when the system is pressurised is recommended by IWA as the best of the traditional basic technical indicators for real losses, although it does not account for other factors such as length of main or operating pressure. In particular, reductions in operating pressure have been shown to greatly reduce system leakage.

The infrastructure leakage index (ILI) has been proposed as an indicator which measures how effectively real losses are being managed at current operating pressure while accounting for other influential factors such as length of mains, number of service connections and customer meter location. The ILI is calculated from the ratio of the Current Annual Real Losses (CARL) to the Un-Avoidable Real Losses (UARL). CARL is the annual real losses divided by the number of service connections and percent of time that the system is under pressure, while UARL is a function derived from the length of mains, number of service connections and the average system pressure.

[2] *The Blue Pages, Losses from Water Supply Systems: Standard Terminology and Recommended Performance Measures,* International Water Association, October 2000

Both parameters are usually recorded in L/d per service connection when the system is pressurised. An ILI of 1.0 indicates that only unavoidable losses are occurring and that optimum leakage management is in place. There is of course a cost associated with operating a system with an ILI of 1.0 and this may not be warranted. An ILI of less than 1.0 is meaningless while an ILI greater than 1.0 can identify areas where there may be leakage problems. For example, it has been suggested that an ILI in the range 1.0 to 2.9 indicates that substantial efforts are being made to manage and maintain infrastructure and that active leakage control on a continuous or semi continuous basis is being undertaken, while an ILI greater than 2.9 suggests that there may be poor or old infrastructure or a relatively relaxed active leakage control policy. ILI values reported by WSAA members in *WSAAfacts 2004* lie in the range 0.5 to 4.9 with a median of 1.7. WSAA Facts 2005 reports an ILI range of 0.3 to 2.5. These results suggest that Australian water utilities are among the international leaders in leakage management or that they are operating with newer infrastructure or a combination of the two, when compared to overseas utilities which reported ILI values of 0.6 to 11.9 with a median of 2.5.

When interpreting ILI data it should be noted that many of the inputs are imprecise and therefore, while an ILI of 2.2 appears to be better than one of 2.5, in practice it is likely that they both represent similarly well managed systems.

The ILI is now widely accepted and has been adopted in many countries as a more meaningful indication of leakage in a system. However, it is still relatively new to the water industry. The National Performance Framework[3] (NPF) and also DEUS have adopted the ILI as a measure of leakage and will be collecting relevant data and reporting the ILI for each LWU commencing in 2005/06. DEUS will also continue to report leakage as L/d per connection and ML/100km of main [Figure 29 on page 52], which are good measures for tracking an LWU's leakage performance over time. These indicators have also been included in the NPF.

A previous leakage study for over 40 NSW water utilities found that leakage ranged from 6% to 35% of water supplied with an average of 17%. It is suggested that at present, most water utilities do not have sufficient data to determine the true extent of leakage in their system. The best means of assessing leakage is to either undertake a reservoir drop test or detailed waste metering and it is recommended that each LWU undertake such a program of testing. In the absence of such testing, DEUS continues to recommend a minimum value of leakage of 6% of water supplied be adopted. Statewide analysis also indicates a minimum value for the sum of real losses and apparent losses of 10% of the water supplied.

Greenhouse Gases

The National Water Initiative requires LWUs to report both direct and some indirect greenhouse gas (GHG) emission estimates. Direct emissions are produced from sources within the boundary of an organisation and as a result of that organisation's activities. Direct emissions mainly arise from the following activities:

- Generation of energy, heat, steam and electricity,
- Manufacturing processes,
- Transportation of materials, products, waste and people,
- Fugitive emissions (eg. Intentional or unintentional emissions from natural gas leaks, joints and seals), and
- On-site waste management such as emissions from landfill sites.

For example, LWUs with a car fleet should report gas emissions from combustion of petrol in those motor vehicles as direct emissions.

[3] *National Performance Framework – 2006 Urban Performance Reporting Indicators and Definitions*, National Water Commission/Water Services Association of Australia, June 2006

Emission factors for calculating direct emissions are generally expressed in the form of the quantity of GHG emitted per unit of energy (kg CO2/GJ). Emission factors are used to calculate GHG emissions by multiplying the factor (eg. Kg CO2/GJ energy in petrol) with activity data (eg. kL x energy density of petrol used).

Indirect emissions are emissions generated in the wider economy as a consequence of the LWU's activities, but which are physically produced by the activities of another organisation. For example, off-site waste disposal.

Emission factors and examples of the calculation of GHG emissions are provided by the Australian Greenhouse Office (www.green house.gov.au/challenge/tools/workbook/factorsmethod_section2-2html#5.2).

5 IMPROVING 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 and making provision for any dividend payments, each utility should minimise its typical residential bill in current dollars on a sustainable basis.

In practice this means reviewing whether your performance indicators under "Social", "Environmental" and "Economic" 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 14, 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 – operation, maintenance and administration) is efficient.

To assess performance, you should:

(1) ***Review your performance*** using your *2004/05 TBL Performance Report* for each of water supply and sewerage [sample review is on page 11, sample reports are on pages 12 and 13].

(2) ***Identify any trends*** in your performance indicators over the last 10 years using the second page of the 2004/05 *TBL Performance Report*, 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 51].

(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 59].

The components of operating cost are:

(4a) ***Management cost*** – this includes administration, engineering and supervision and is typically almost 40% of the total operating cost [Figure 40 on page 62].

(4b) ***Treatment cost (water)*** [Figure 41 on page 63] – 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 103] – 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 64] – this is dependent on topography and, for water supply, the location of the water source. For example, Country Energy 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 per property.

(4d) ***Energy cost*** [Table 13 on page 181] – 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 a number of large water supplies).

For sewerage, energy cost is a component of pumping and treatment costs. 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 sewage treatment works).

(4e) ***Water and Sewerage mains cost*** [Figure 43 on page 65] – 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 the LWU has a ranking of 3 to 5 relative to LWUs with similar characteristics [Table 13 on page 181].

5.2 FACTORS IMPACTING PERFORMANCE

Many factors impact on a utility's performance and make comparison of water businesses a complex analysis. These factors include the extent of the services provided by each utility, geography, climate etc. An understanding of these factors is vital for valid interpretation of performance data.

The most meaningful indicators are the trends over time for each utility. However, even with these, care needs to be exercised due to changes in the factors over time. For comparison between utilities, each utility should benchmark its performance with utilities having similar characteristics. An example of some of the factors affecting performance of a *water supply* system are outlined below.

UTILITY CHARACTERISTICS

(1) ***Climate*** – the variability of rainfall is a key driver of water supply costs in relation to water demand and drought security. This will affect both capital and operational costs.

(2) ***Geography –*** The geology, geography and topography can have a significant effect on water transportation costs.

(3) ***Asset Life Cycle –*** Recently constructed systems have much lower maintenance and renewals costs compared to older systems.

(4) ***Development density***– Distribution networks are a major investment component of a water system. The density of urban development has a large effect on the infrastructure cost (eg. the number of properties served per km of main varies in non-metropolitan NSW from 5 to over 90 [Figure 6 on page 27]).

(5) ***Bulk storage and/or long transfer systems*** – can incur significant capital and operating costs. Such costs would not apply for utilities relying on groundwater or those receiving a regulated supply from a State Water dam [Note 15 on page 15].

(6) ***Size of LWU*** – there are significant economies of scale for large utilities, particularly the capital cost of infrastructure and operation of water treatment works [Figure 41 on page 63].

SOCIAL – Levels of Service

(7) ***Service standards –*** Increasingly stringent standards for water quality and environmental health may result in additional capital and operational costs to the utility. Similarly, requirements for minimum pressures or rates of flow can also affect costs.

(8) ***Filtered supply*** – will incur a high treatment cost per property for small water supply systems (utilities without 'unfiltered' or 'groundwater' after their name in Tables 3, 5 and 6 have water treatment involving at least filtration and disinfection for over 50% of their water supply) [Note 16 on page 15].

ENVIRONMENTAL

(9) ***High residential consumption per property*** [Figure 28 on page 51]- such utilities should examine opportunities for reducing consumption through water conservation and implementation of best-practice water pricing.

ECONOMIC

(10) ***High loan payment per property*** [Figure 36 on page 58] - indicates a relatively high capital cost per property, recent construction of significant capital works or use of short-term loans.

(11) ***High pumping cost*** [Figure 42 on page 64] - is influenced mainly by topography and geography. As noted on page 9, the LWU may be able to achieve significant savings in energy cost.

There is a strong correlation between the management cost per property and the number of employees per 1000 properties and the management cost is a large proportion of the operating (OMA – operation, maintenance and administration) cost.

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 2004/05

Size of LWU / *Performance Indicator*	*Over 10,000 Connected Properties (26 LWUs)*	*3,001 to 10,000 Connected Properties (21 LWUs)*	*1,501 to 3,000 Connected Properties (19 LWUs)*	*200 to 1,500 Connected Properties (25 LWUs)*
Operating Cost/property ($)	248	314	342	341
Operating Cost (c/kL)	79	56	64	56
Operating Cost/ 100 km ($'000)	980	765	670	575
Management Cost/property ($)	107	110	104	84
Treatment Cost[1]/property ($)	26	81	68	117
Pumping Cost/property ($)	23	26	33	56
Energy Cost[2]/property ($)	18	19	19	28
Water Main Cost/property ($)	46	53	58	72
No. of Employees/1000 properties	1.3	1.7	2.0	2.2

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 2004/05

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 ($)	305	270	230	260
Operating Cost (c/kL)	125	115	100	110
Operating Cost/ 100 km ($'000)	1155	925	690	580
Management Cost/property ($)	105	105	85	70
Treatment Cost/property ($)	95	92	78	95
Pumping Cost/property ($)	45	31	35	40
Energy Cost[1]/property ($)	7	7	5	8
Sewer Main Cost/property ($)	31	37	30	26
No. of Employees/1000 properties	1.5	1.6	1.7	2.1

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

6 REVIEW OF PERFORMANCE

6.1 EXAMPLE WATER SUPPLY BUSINESS – ORANGE COUNCIL SEWERAGE

An example Performance Report is shown on pages 12 and 13 for Orange City Council Sewerage which has 2 sewage treatment works.

Summary

The performance of Orange City Council Sewerage is very good. Orange City Council should continue to monitor and improve its performance and ensure that the business is sustainable. In particular, Council should continue to move to appropriate trade waste and non-residential fees and charges to ensure a positive economic real rate of return and should continue to review the efficiency of the business, focussing on operating cost (OMA) and management cost.

INDICATOR[+]	*ISSUE*	*ANALYSIS / ACTION PLAN*
Compliance with Best-Practice Management Guidelines		
	Compliance with the Best-Practice Management Guidelines.	*Orange City Council complies with the Best-Practice Management (BPM) Guidelines except for items (6) Integrated Water Cycle Management Strategy which is not required until June 2006.*
Note 6	*Trade waste and non-residential rates and charges provided 5% of the annual rates and charges revenue.*	*Orange Council should continue to move to appropriate trade waste and non-residential fees and charges to remove present cross subsidies and achieve full cost recovery.*
	Integrated Water Cycle Management (IWCM) Strategy	*Orange Council should complete and implement an IWCM strategy by June 2006.*
Performance Improvement		
7	*Renewals Expenditure – Ranking of 3(3). However, Council's maintenance and renewal expenditure is low.*	*Orange Council should examine its asset management policy and ensure that sufficient funds are directed to maintenance and renewals.*
12	*Typical residential bill. High ranking[#] of 1(1).*	*Performance is satisfactory (page 27). Typical residential bill is lower than the statewide median.*
10	*Employees. Low ranking of 1(1).*	*Excellent performance and is significantly lower than the statewide median.*
17, 18, 19	*Public health incidents. Not reported.*	*Council should report on this indicator. Report either zero if there are no incidents or the actual number if there has been any incidents.*
20	*Capital expenditure on Improving Public Health. Low result with ranking of 3(3).*	*Council has reported zero expenditure per property. Council should investigate and ensure that this item is not under reported.*
21	*Odour complaints. High ranking of 1(1).*	*Council has reported zero odour complaints. This is commendable and is a significant improvement on previous years' results.*
22	*Service Complaints. Low ranking of (4).*	*Identify cause of poor performance and examine remedial options.*
23	*Customer Interruption Frequency. Not reported.*	*Council should investigate and report on this indicator*
24	*Customer Outage Time. Not reported.*	*Council should investigate and report on this indicator*
28, 30	*Reclaimed Water and Biosolids Reuse. High ranking of 1(1).*	*Excellent performance for both these indicators.*
34, 35	*Compliance with BOD and SS in Licence. High ranking of 1(1).*	*Excellent performance for both these indicators.*
36	*Sewer Main Chokes and Collapses. Low ranking of 4(4).*	*Identify cause of poor performance and examine remedial options.*
39, 40, 41	*Environmental Incidents. Not reported.*	*Council should investigate and report on this indicator.*
42	*Capital Expenditure on Improving Environment. Low result with ranking of 3(3).*	*Council has reported zero expenditure per property. Council should investigate and ensure that this item is not under reported.*
46	*Economic Real Rate of Return is 0.2% with ranking of 4(3).*	*Council should continue to move to full cost recovery for trade waste and non-residential sewerage as indicated for Note 6 above.*
49, 50, 51	*The operating cost (OMA – Operation, Maintenance and Administration) per property, per 100km of Main and operating cost/kL was low (ranking of 2(3), 2(2) & 2(2) respectively).*	*Performance is satisfactory. Similarly, Council's management costs are lower than the median with a ranking of 2(3).*
56	*The Energy Cost and Sewer Main Operation and Maintenance Cost was high, ranking of 4(4).*	*Identify cause of poor performance and examine remedial options.*

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

[+] *Orange Council's results for each indicator are shown on page 12. Performance trends for key indicators over the last 10 years are shown on page 13.*

Performance Trends

The figures on page 13 indicate a lower number of employees per 1000 properties than the Statewide median (Fig 8). Also the typical residential bill is lower than the Statewide median (Fig 12), and typical developer charges are now slightly higher than the Statewide median (Fig 13).

Compliance with BOD and SS in the Licence (Fig 34 and 35) were excellent at 100%. Sewer main chokes and collapses and overflows to the environment (Fig 36 and 37) were both slightly higher than the Statewide median. The operating cost (Fig 50) and management cost (Fig 52) were both slightly below the Statewide median although both are trending upwards and should be kept under review. The economic real rate of return has been around zero for the last 5 years and Council should continue to move to appropriate trade waste and non-residential fees and charges to achieve full cost recovery and ensure that its sewerage business is sustainable.

Orange City Council Sewerage (TBL Performance Report Page 1)

Orange City Council — TBL Sewerage Performance — 2004/05

Orange Council has a sewered area of 2570 ha serving Orange and Spring Hill and has 2 sewage treatment works providing advanced secondary and tertiary treatment. The system comprises 61000 EP treatment capacity (comprising Continuous extended aeration (Activated sludge) and biological nutrient removal), 11 pumping stations (ML/d),32 km of rising mains, 349 km of reticulation, with discharge to river and land. The total number of sampling days at the treatment works was 34. There were no major malfunctions of the treatment processes. Peak wet weather flow was 800 L/s and average dry weather flow was 121 L/s. The current replacement cost of system assets was $111M ($7,800/assessment), cash and investments were $18.7M, debt was nil and turnover was $8.9M (excluding capital works grants).

Compliance with Best-Practice Management Guidelines Criteria

(1) Complete Current Strategic Business Plan & Financial Plan	YES	*(2d) DSP with commercial developer charges*	YES
(2) Pricing (full cost-recovery, without significant cross subsidies)	YES	*(2e) Liquid trade waste approvals & policy (By June 2005)*	YES
(2a) Complying Residential Charges	YES	*(3) Complete performance Reporting Form by 31 October each year*	YES
(2b) Complying non-Residential Charges	YES	*(6) Integrated Water Cycle Management Strategy (by June 2005)*	
(2c) Complying Trade Waste Fees and Charges	YES	*Compliance with All Required Criteria*	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:***	35,800 (1.01 connected properties per assessment)				
		2	***Number of Assessments*** :	14,300 ***Number of Connected Properties:*** 14,400				
		3	***Residential Assessments*** (% of total)		91		1	92
		4	***New Residential Dwellings Connected to Sewerage*** (%)		2.4	1	1	1.2
		5	***Properties Served per km of Main***		38		3	42
		6	***Volume of Sewage Collected*** (ML)		4,480		1	4,500
		7	***Renewals Expenditure*** (% of current replacement cost of system assets)		0.0		2	0.4
		8	***Employees*** (per 1000 properties)		1.0	3	1	1.5
		9	***Employees Undergoing 2 or more Days of Training*** (%)		100		1	6
SOCIAL	Charges/Bills	10	***Description of Residential [5] Tariff Structure:***	Access Charge/property; Independent of Land Value				
		11	***Residential Access Charge 2005/06*** [5] ($/assessment)		273		1	370
		12	***Typical Residential Bill 2005/06*** ($/assessment)		273	1	1	370
		13	***Typical Developer Charge 2005/06*** ($/equivalent tenement)		3,170		2	2,300
		14	***Average Residential Bill 2004/05*** ($/connected property)		260	1	1	335
	Health	16	***Urban Properties without Reticulated Sewerage Service*** (%)		0.1	1	1	3.3
		17	***Category 1 Public Health Incidents - Minor*** (per 1000 properties)					0
		18	***Category 2 Public Health Incidents - Limited Effects*** (per 1000 properties)					0.0
		19	***Category 3 Public Health Incidents - Major*** (per 1000 properties)					0.00
		20	***Capital Expenditure on Improving Public Health*** ($/property)					27
	Levels of Service	21	***Odour Complaints*** (per 1000 properties)		0.0	1	1	1.0
		22	***Service Complaints*** (per 1000 properties)		32		4	16
		23	***Customer Interruption Frequency*** (per 1000 properties)		0		1	15
		23a	***Average Duration of Interruption*** (hr)					2
		24	***Average Customer Outage Time*** (min)					1
		25	***Total Days Lost*** (%)					3.5
ENVIRONMENTAL	Natural Resource Management	26	***Volume of Sewage Treated per property*** (kL/a)		311		5	230
		27	***Reclaimed Water*** (% of effluent reclaimed)		76	1	2	11
		28	***Biosolids Reuse*** (%)		100		1	100
		30	***Energy Consumption*** (kWh/ML)					600
		32	***Renewable Energy Consumption*** (kWh/property)					8
		33	***90 Percentile Licence Limits for Effluent Discharge:*** *BOD 20 mg/L; SS 25 mg/L; Total N 15 mg/L; Total P 1 mg/L*					
		34	***Compliance with BOD in Licence*** (%)		100	1	1	100
		35	***Compliance with SS in Licence*** (%)		100	1	1	97
		36	***Sewer Main Chokes and Collapses*** (per 100 km of main)		112	5	5	42
		37	***Sewer Overflows to the Environment*** (per 100 km of main)		13	3	3	11
		39	***Category 1 Environmental Incidents - Minor*** (per 1000 properties)					0
		40	***Category 2 Environmental Incidents - Limited Effects*** (per 1000 properties)					0.1
		41	***Category 3 Environmental Incidents - Major*** (per 1000 properties)					0.10
		42	***Capital Investment on Improving Environmental Performance*** ($/property)					76
ECONOMIC	Financial	43	***Revenue from Non-residential plus Trade Waste Charges*** (% of total)		3		5	70
		44	***Revenue from Trade Waste Charges*** (% of total)		1.5		1	1.3
		46	***Economic Real Rate of Return*** (%)		0.2	5	4	1.7
		46a	***Return on Assets*** (%)		1.3		3	2.2
		47	***Debt to Equity*** (%)		0.0	5	4	5.3
		48	***Interest Cover*** (%)		>5000		1	1200
		48a	***Loan Payment*** ($/property)		0	5	4	40
	Efficiency	49	***Operating Cost (OMA) per 100 km of Main*** ($'000/100km)		980	1	3	1160
		50	***Operating Cost* (OMA) per property** ($/property)		259	2	3	270
		51	***Operating Cost* (OMA) per kL** (c/kL)		83	1	1	115
		52	***Management Cost*** ($/property)		89	3	3	100
		53	***Treatment Cost*** ($/property)		115	5	4	84
		54	***Pumping Cost*** ($/property)		14	2	1	45
		55	***Energy Cost*** ($/property)		20	3	4	17
		56	***Sewer Main Operation & Maintenance Cost*** ($/property)		42	4	4	32

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 Table 2 of the 04/05 NSW Performance Benchmarking Report) as this is the most appropriate for statewide comparis

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 based on size of service connection, sewer usage charge - 128c/kL.

6 Trade waste waste volume was 4% of total sewage collected; Trade waste & non-residential rates & charges provided 3% of the annual rates & charges revenue, including usage.

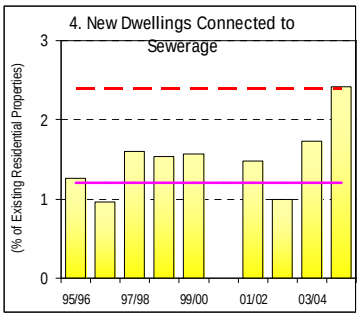
7 Compliance with Total N in Licence was 53% Compliance with Total P in Licence was 100%

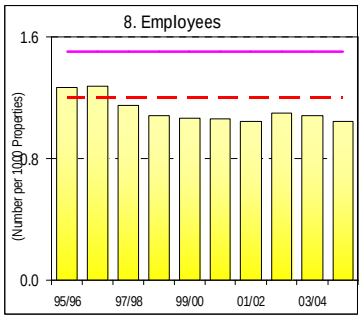
8 The operating cost (OMA)/property was $259. The components of operating cost/property were: management ($89), operation ($100), maintenance ($36), energy ($20) and chemical ($15).

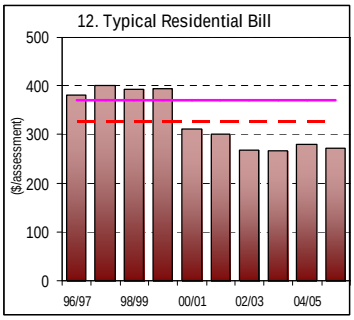
Orange City Council Sewerage (TBL Performance Report Page 2)

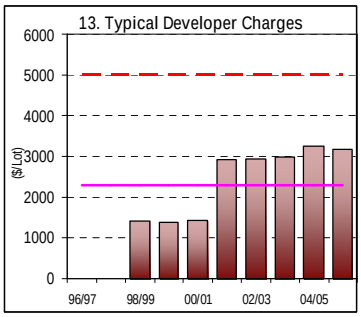
Orange City Council **TBL Sewerage Performance (page 2)** **2004/05**

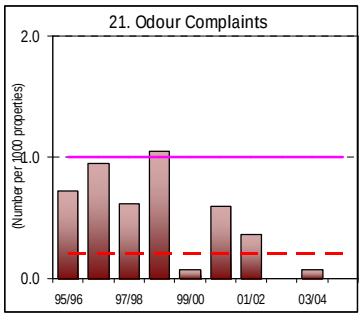
(Results shown for 10 years together with 2004/05 Statewide Median and Top 20%)

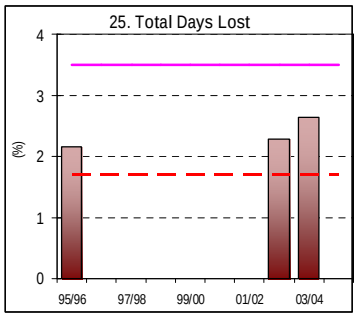


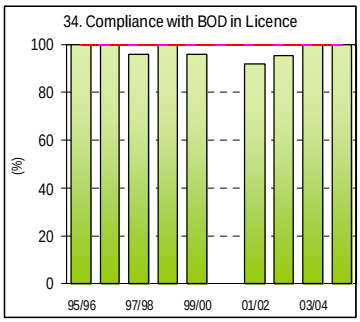


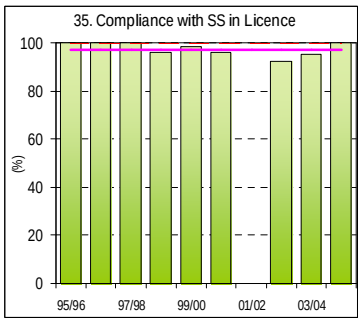


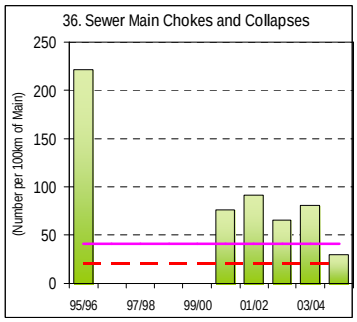


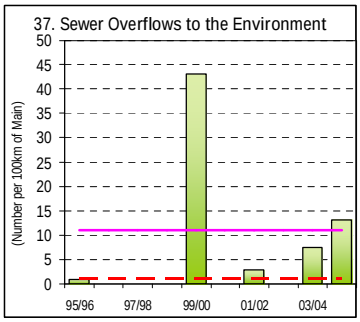


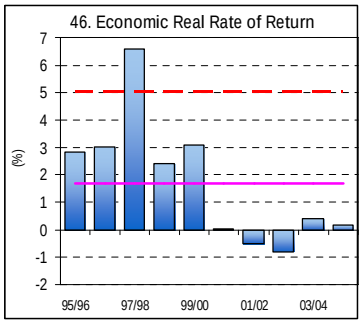


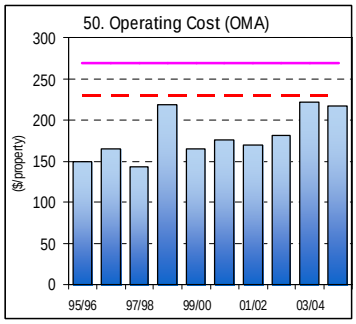


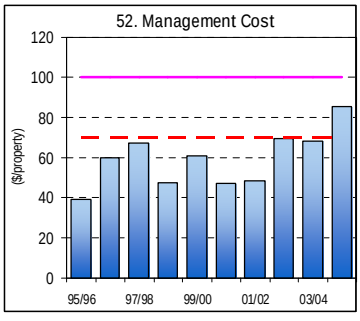


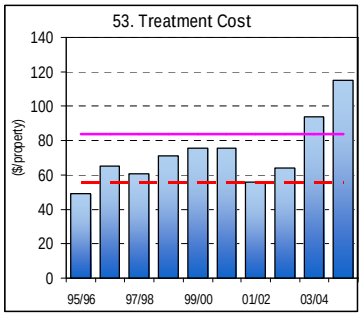


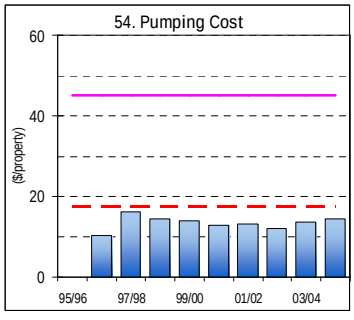












LEGEND
2004/05 State Median
2004/05 Top 20%

Note: Costs are in Jan 2005$.

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

7.2 TABLES

Table 5 on page 116 and Tables 6 to 18 on pages 122 to 203 show water supply and sewerage performance indicators for each of the 110 NSW water utilities (107 LWUs plus Sydney Water and Hunter Water Corporations and Hawkesbury Council) for the last 4 years.

As noted on page 1, these tables are sorted in order of the number of connected properties served in order to facilitate comparisons with similar size LWUs. The table on page 1 shows each LWU's ranking in terms of water supply connected properties. For example, the table shows '11 Albury City', indicating that Albury City is the 11th LWU in the water supply tables. To facilitate comparisons, the tables are also grouped into the same 4 size ranges as for the figures.

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, with performance reported on the basis of **Social**, **Environmental** and **Economic** indicators. As noted on page 1, this report discloses performance on the basis of the 107 LWUs existing in July 2004.

2 Where an LWU has not reported an item for 2004/05, the value previously reported has been used where appropriate, 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 calculated as the product of the number of assessments times the number of connected properties per assessment. The number of connected properties per assessment is calculated as shown on page 243 of Appendix B and for any utility there is minimal change in this ratio from year to year. The connected properties per assessment for water supply and sewerage are shown in column 19 of Table 9 and column 2 of Table 14 respectively. DEUS has worked with LWUs to establish these ratios. Where warranted, for a particular LWU, these ratios are updated from time to time.

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 2005/06 typical residential bill is based on a customer of the LWU's principal water supply or sewerage system using the LWU's 2004/05 average annual residential water consumption. These bills and tariff details are shown in Table 6 (water supply) and Table 7 (sewerage). The typical residential bill for 2004/05 and previous years is based on the reported average annual residential potable water consumption for that year (2004/05 residential consumptions are shown in column 3 of Table 5).

7 The average residential bill per connected property (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. The average residential bill is generally less than the typical residential bill due to the impact of 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 shows 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).

An LWU complies with the guidelines for microbiological water quality if the required number of samples was tested (ie. 100% for column 42k of Appendix D1) and at least 98% of the samples contained no E. coli. An LWU which complies is shown as 100%, while for an LWU which did not comply, the percentage of samples complying is reported.

10 The average annual residential potable water consumption per connected property is shown in Tables 5 and 6. Where an LWU has not separately reported its residential water consumption, this has been estimated using the Statewide average of 56% of the LWU's total potable water consumption.

11 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 2004/05 is shown below, together with their potable residential water consumption in brackets. The total and potable consumptions were: *Balranald 790 (150), Berrigan 450 (141), Bourke 1,780 (500), Central Darling 550 (83), Hay 670 (140), Jerilderie 450 (217), Murray 390 (179), Wakool 1000 (530), Walgett 1100 (450), Warren 380 (170) and Wentworth 680 (104).*

Note that as the potable residential consumption shown above for Berrigan, Central Darling, Murray, Walgett and Wakool is calculated only for those towns with a dual supply (ie. excluding towns with only a potable water supply), it is lower than the value reported in column 3 of Table 5 and column 14 of Table 6.

For LWUs with dual supplies, the typical residential bill has been calculated using the above consumptions.

11 For consistency with national performance reporting, water losses include apparent losses (unauthorised consumption and under-registration of customer meters) plus real losses (leakage). Unbilled unmetered consumption (fire fighting and mains flushing) is not a water loss and is included in authorised consumption.

12 Leakage studies for over 40 NSW water utilities indicate an average leakage from water supply distribution systems of 17% of annual consumption (range 6% to 35%). Therefore, a minimum real loss (ie. leakage) of 6% of the potable water supplied has been adopted for this report. Utilities reporting real losses of less than 6% have not been included unless the utility has carried out a recent reservoir drop test or detailed waste metering which justifies the adoption of a lower value. Similarly, statewide analysis of water losses (apparent losses plus leakage) for NSW water utilities other than bulk water suppliers, has found a minimum water loss of 10% of total potable water supplied. Therefore, reported water losses of less than 10% for any such utilities have not been included unless the utility has evidence which supports the adoption of a value less than 10%.

13 Total annual water supplied comprises the sum of the potable water supplied plus the non-potable water supplied less the recycled water. Recycled water is a component of the non-potable supply which also includes raw water.

14 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 $319/property comprises $223/property for the bulk supply from Goldenfields (bulk supplier) plus $96 for the reticulator (Cootamundra).

15 ***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 5.1 (2) on page 8). The following utilities provided such bulk storage: *Armidale, Ballina, Bathurst, Bega Valley, Bourke, Brewarrina, Byron (Mullumbimby), Cabonne, Central Tablelands, Cobar, Coffs Harbour, Country Energy, Eurobodalla, Fish River, Glen Innes-Severn, Gosford, Goulburn Mulwaree, Guyra, Inverell, Kempsey, Kyogle, Lachlan, Lithgow, MidCoast, Mid Western Regional, Moree Plains, Orange, Palerang, Parkes, Port Macquarie-Hastings, Rous, Shoalhaven, Tamworth, Tenterfield, Tweed, Upper Hunter, Upper Lachlan, Uralla, Warrumbungle, Wingecarribee, Wyong, Yass Valley*.

16 ***Unfiltered*** **-** utilities with over 50% of supply comprising an unfiltered surface water supply ie. the utility does not have a water treatment works involving at least filtration and disinfection for 50% of its supply.
Groundwater - utilities with over 50% of supply comprising good quality unfiltered groundwater.
Reticulator - utilities which purchase over 70% of their source water from a bulk supplier and reticulate water to householders in their area.
Bulk Supplier - utilities whose main task is to provide a piped bulk water supply to other utilities, rather than reticulating water to householders.
Dual Supply - utilities with a potable reticulated water supply for indoor uses and a separate non-potable supply reticulated for outdoor uses to over 50% of their residential customers (refer Note 10 above).

17 The performance indicators shown for Sydney Water Corporation and Hunter Water Corporation were obtained from *WSAA facts 2005*.

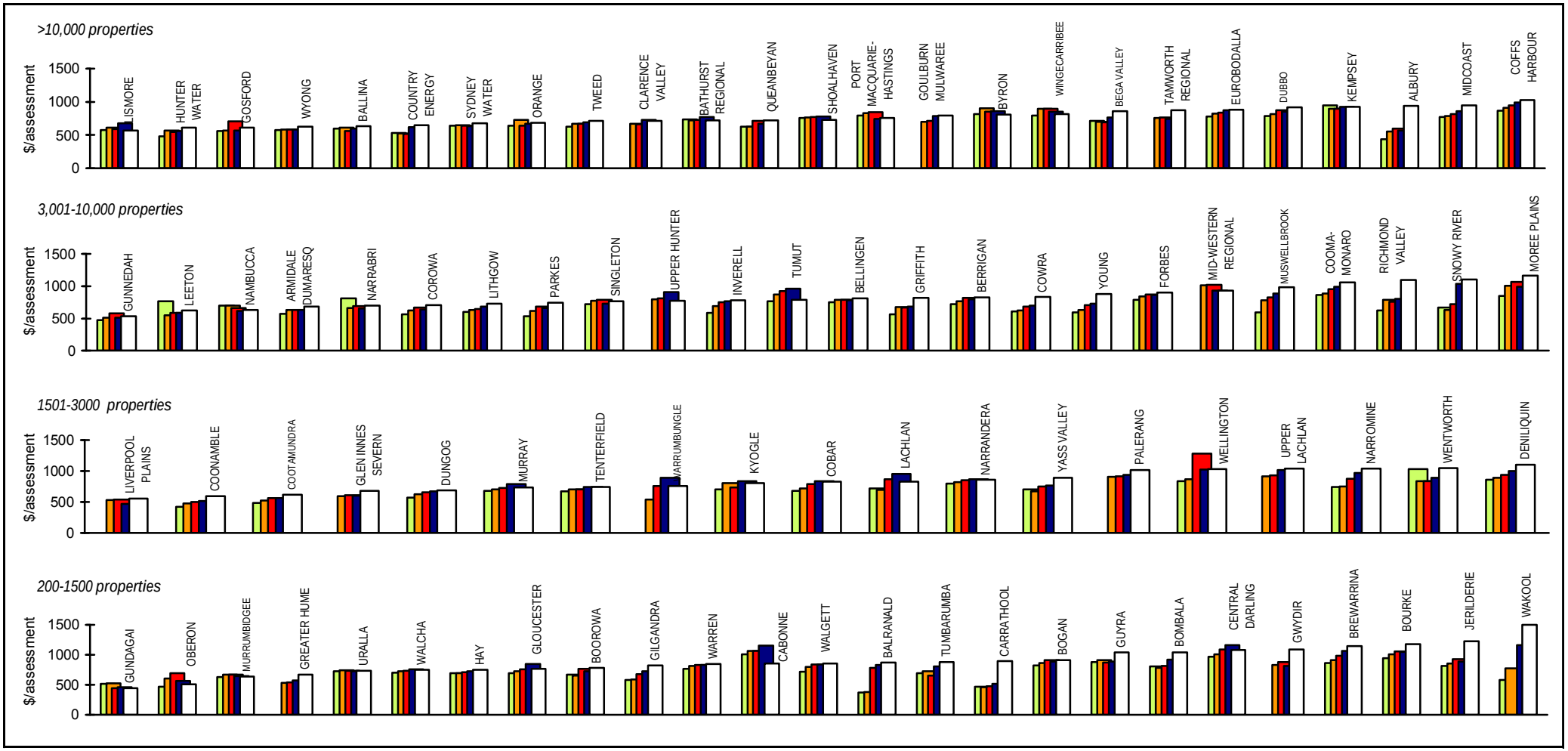
7.4 CONTENTS OF TABLES 5 TO 18

8 WATER SUPPLY AND SEWERAGE FIGURES

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

Blank Page

1 Typical Residential Bill – Water Supply and Sewerage

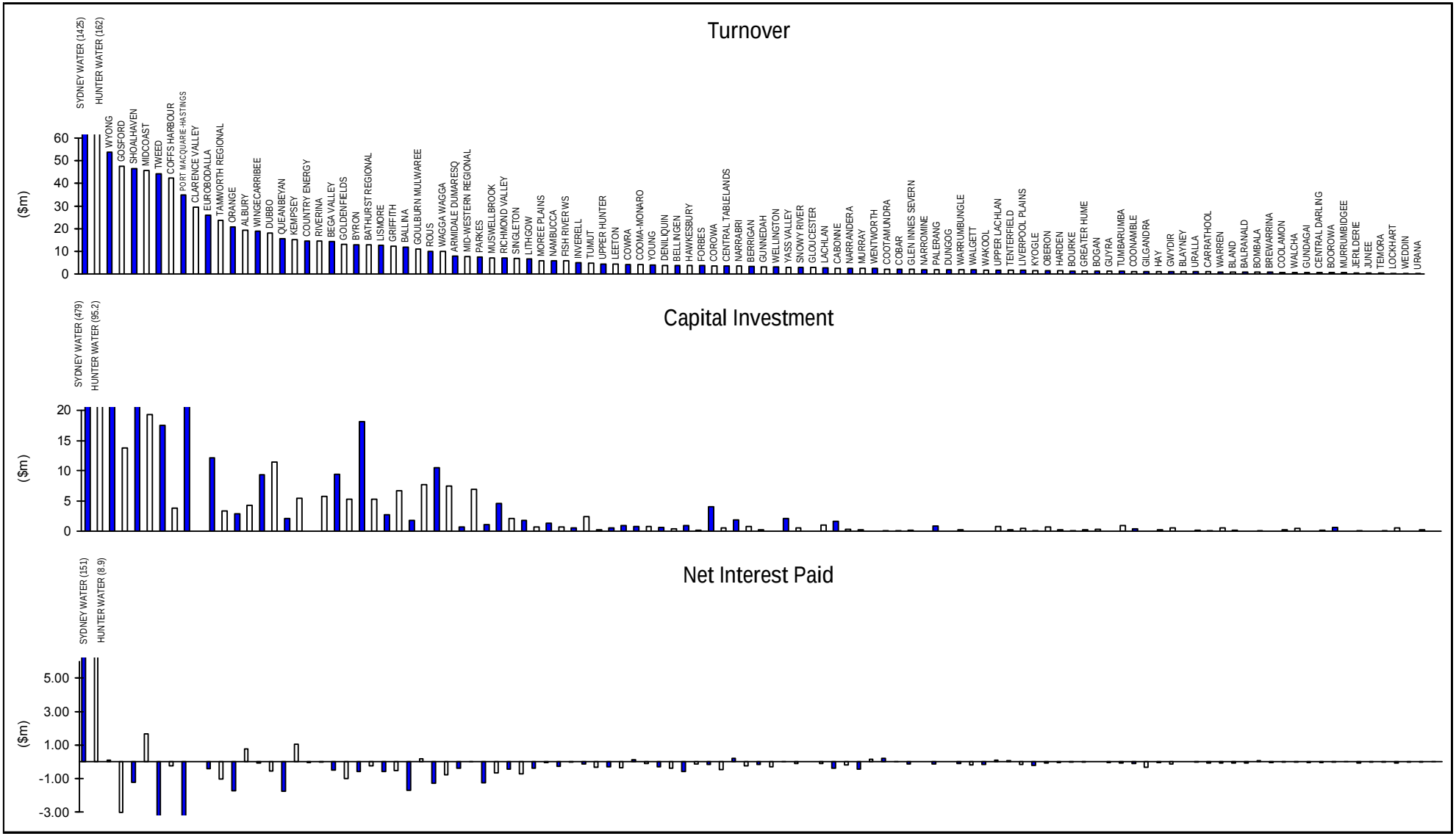


Parameter: (2005/06 Average Residential Water Consumption x 2005/06 Water Usage Charge) + 2005/06 Water and Sewerage Access Charges

Notes:

1. This figure shows ranked values of the 2005/06 typical residential water bill for water and sewerage 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 2005/06 typical residential water bill for water and sewerage supply for the 25 LWUs shown ranges from $535 to $1160. Results for the previous 4 years are also shown in Jan 2006$.
2. The 2005/06 Statewide median typical residential bill for water supply and sewerage is $700 per assessment.
3. For general notes see page 14.

2 Turnover, Capital Investment, Net Interest paid - Water Supply and Sewerage



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

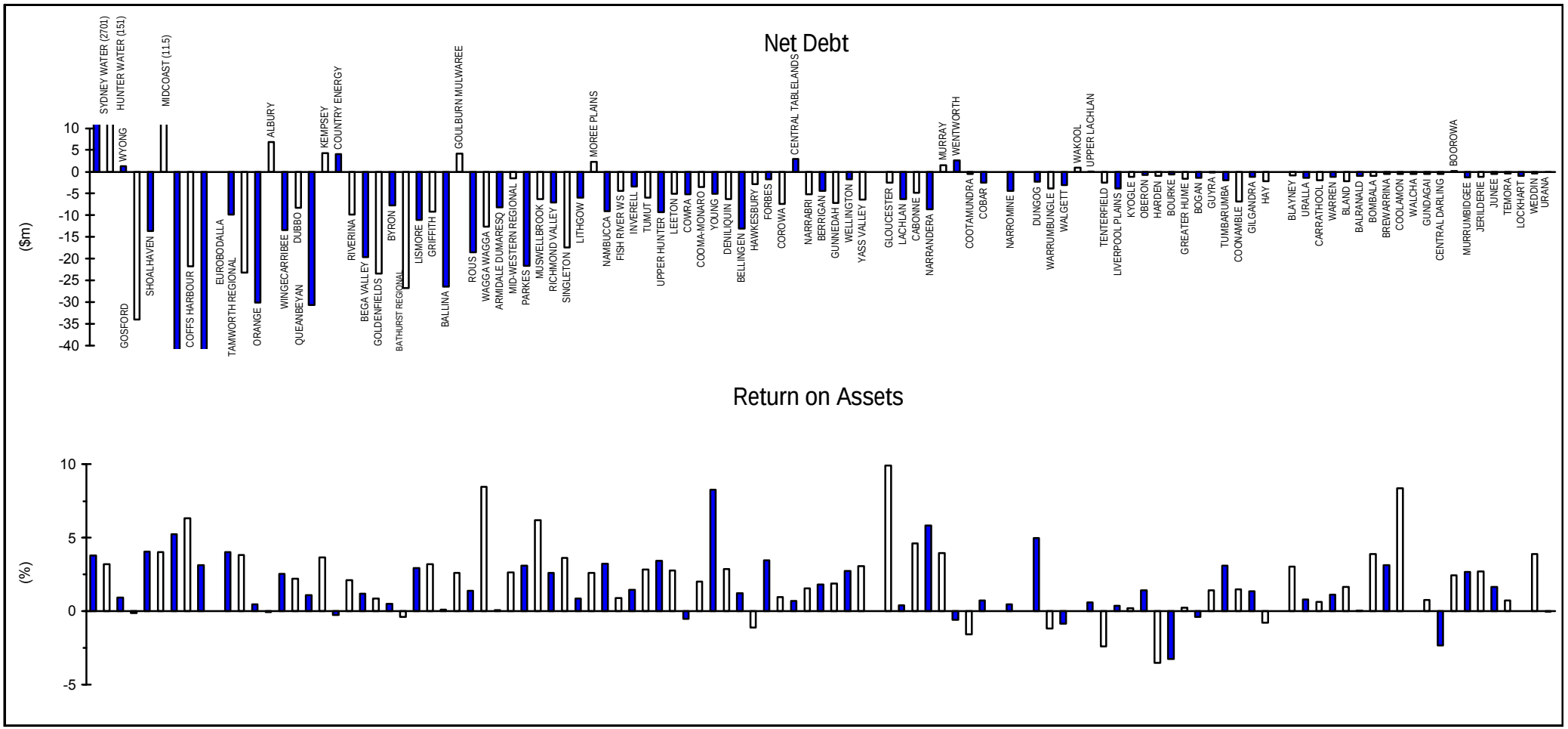
Parameter: Acquisition of Fixed Assets (W16 + S17)

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

Notes:

1. For general notes see page 14.
2 Utilities have been ranked on the basis of turnover in the top graph.

2 Net Debt, Return on Assets - Water Supply and Sewerage



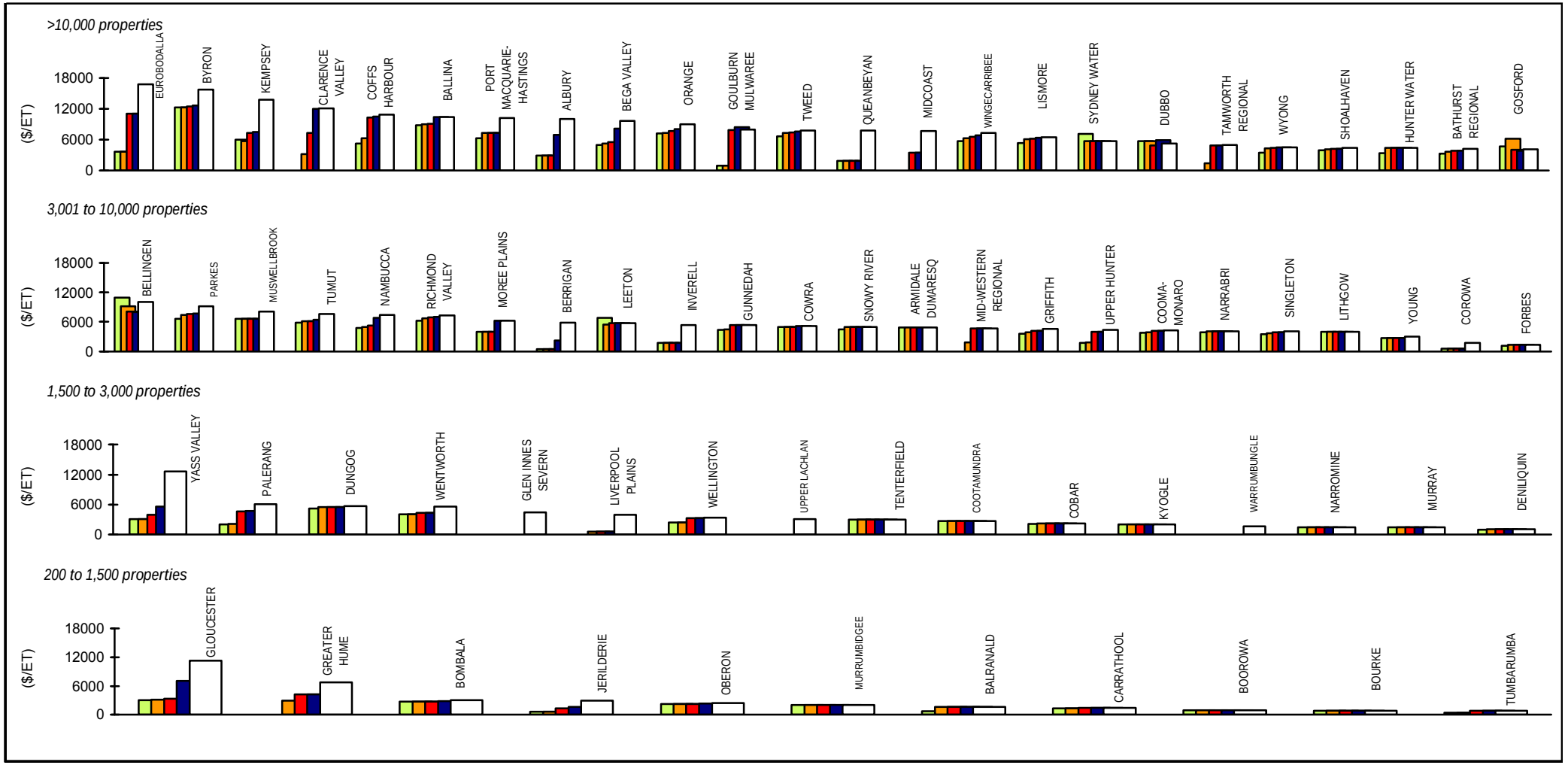
Parameter: [Borrowings (W39 + S40) + Bank Overdraft (W37 + S38)] - Cash and Investments (W30 + S31)

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

Notes:

1. For general notes see page 14.
2 Utilities have been ranked on the basis of turnover in the top graph.

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 2005/06 typical developer charge for water supply and 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 water supply and sewerage for the 24 LWUs shown ranges from $10100 to $1300.
2. The statewide median typical developer charge for water supply and sewerage Is about $4900 per Equivalent Tenement (ET).
3. For general notes see page 14.

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 Water Losses (Real Loss(Leakage) and Apparent Loss)
30 Energy Consumption per ML
31 Energy Consumption per property
32 Environmental Incidents, Management Systems, Capital Investment

ECONOMIC – *FINANCIAL*

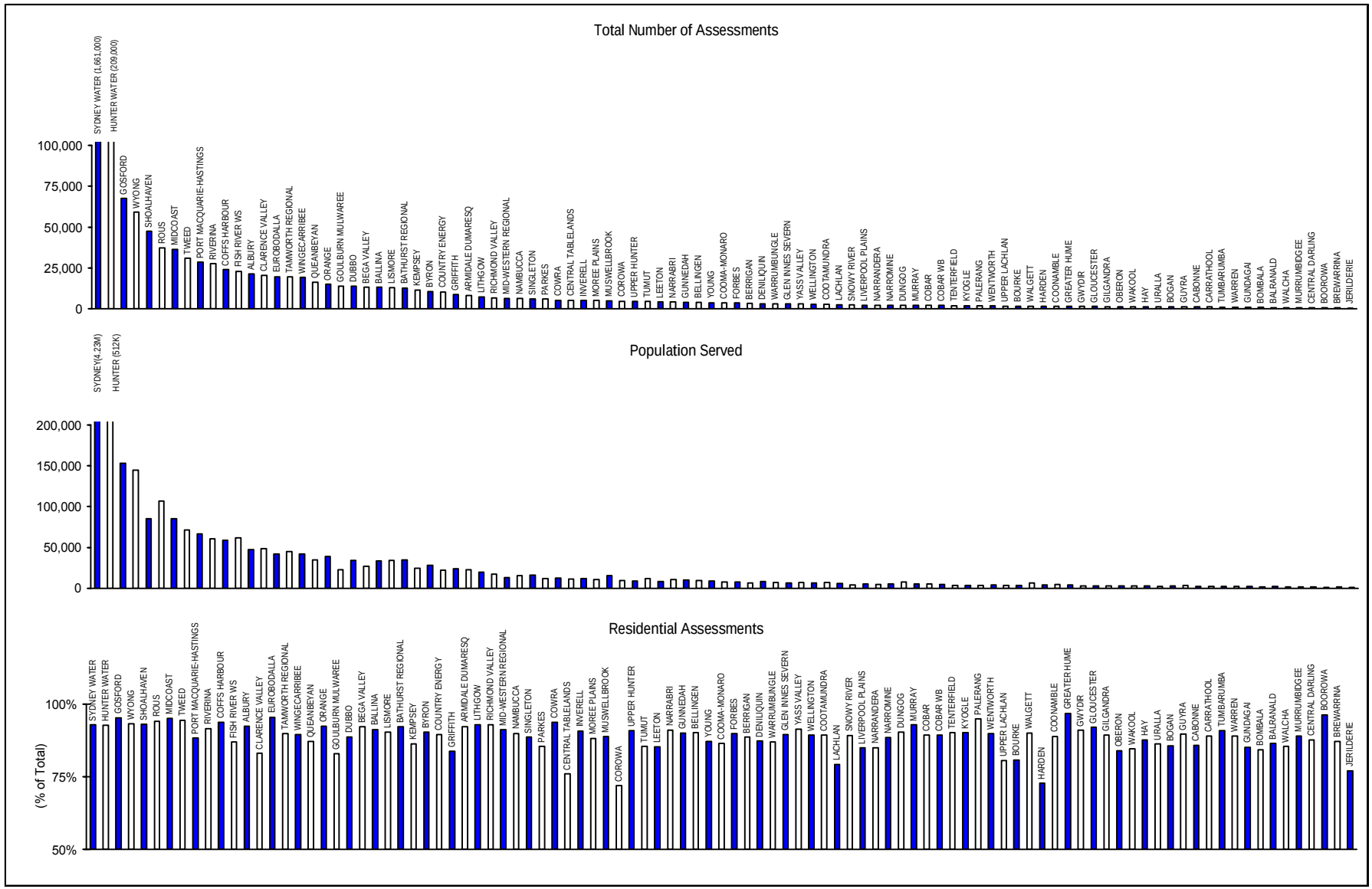
33 Revenue from Usage Charges, Access and Other
34 Economic Real Rate of Return
35 Operating Sales Margin, Return on Assets, Debt Service Ratio, Interest Cover
36 Loan Payment

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

Blank Page

4 Population, Assessments Served - Water Supply



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

Parameter: Population Served (Q1a)

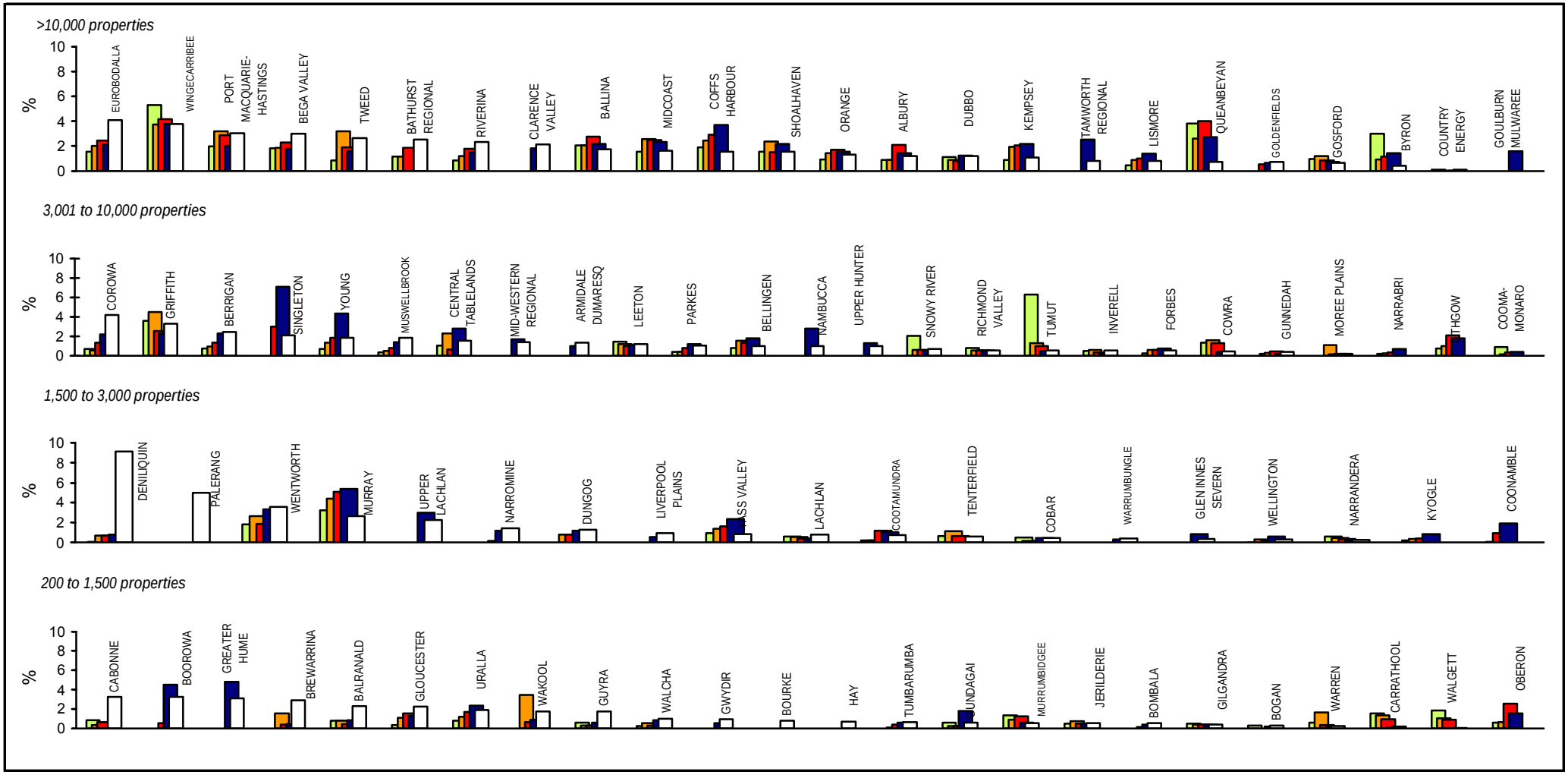
Parameter:

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

Note:

1. For general notes see page 14.

5 New Residential Dwellings Connected - Water Supply



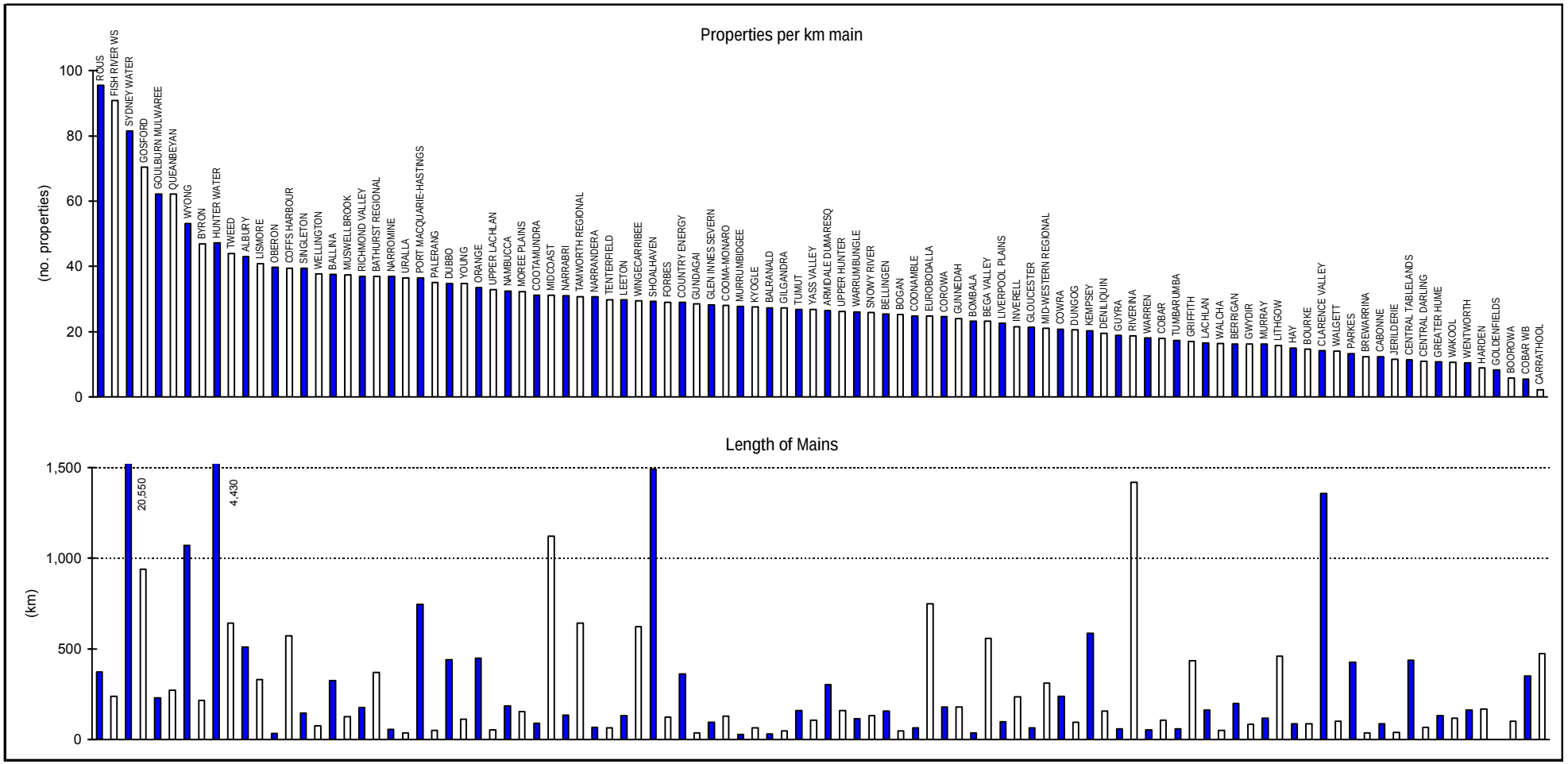
Parameter:

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

Notes:

1. This figure shows ranked values of the 2004/05 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 25 LWUs shown ranges from 0.2% to 4.2%. Results for the previous 4 years are also shown.
2. The statewide median percentage of new residential dwellings connected to water supply is 1.5% of the existing number of residential properties.
3. For general notes see page 14.

6 Properties Served per km of Main, Length of Mains - Water Supply



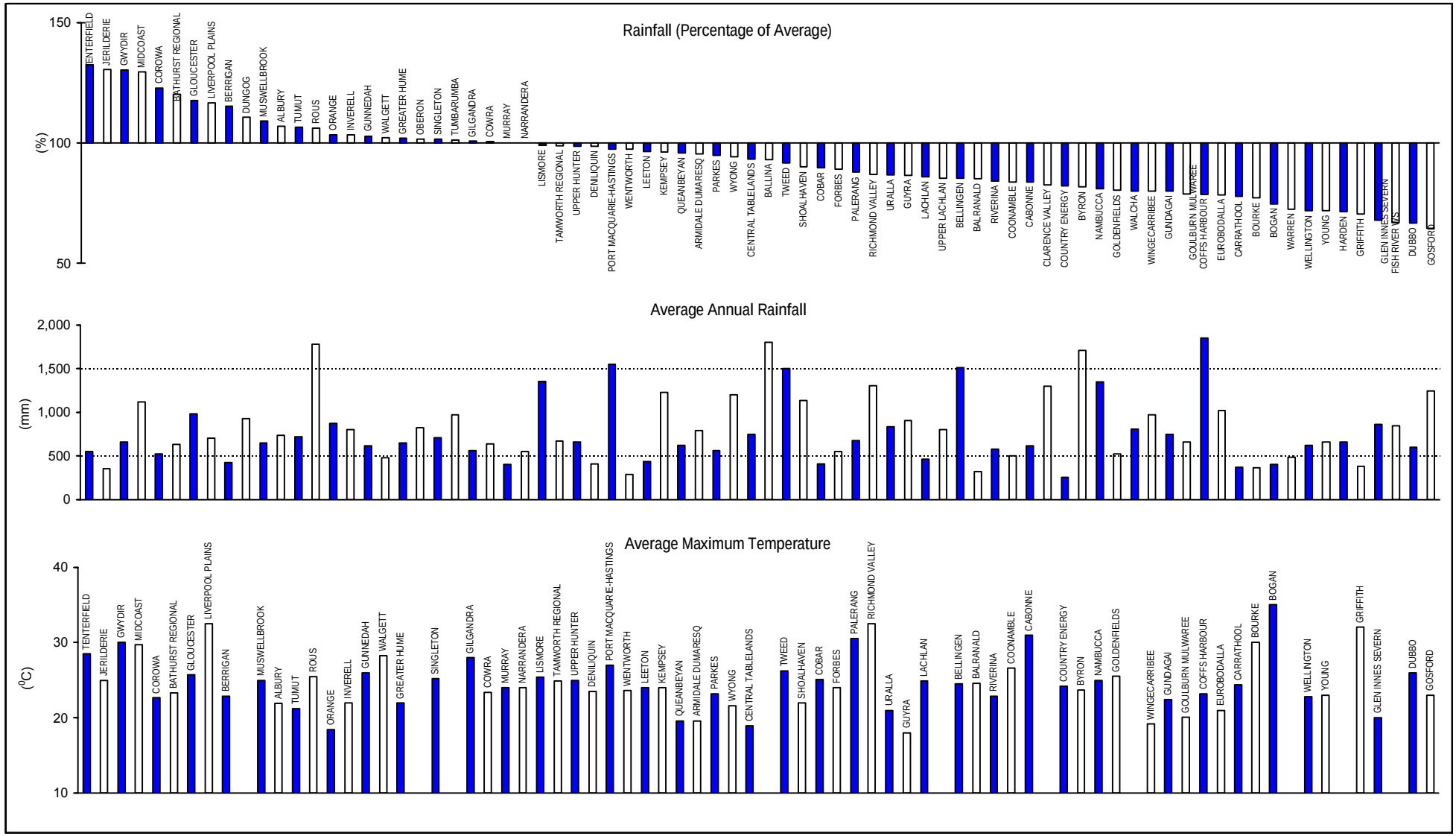
Parameter: $$\frac{\text{No. of Residential Assessments (Q4a) + No. of Non-Residential Assessments (Q4b) x No. of Connected Properties per Assessment}}{\text{Length of Trunk Mains (Q10a) + Length of Reticulation Mains (Q10b)}}$$

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 31.
3. For general notes see page 14.

7 Rainfall, Temperature - Water Supply



Parameter: 2004/05 Rainfall (Q17a) x 100
Average Annual Rainfall (Q17b)

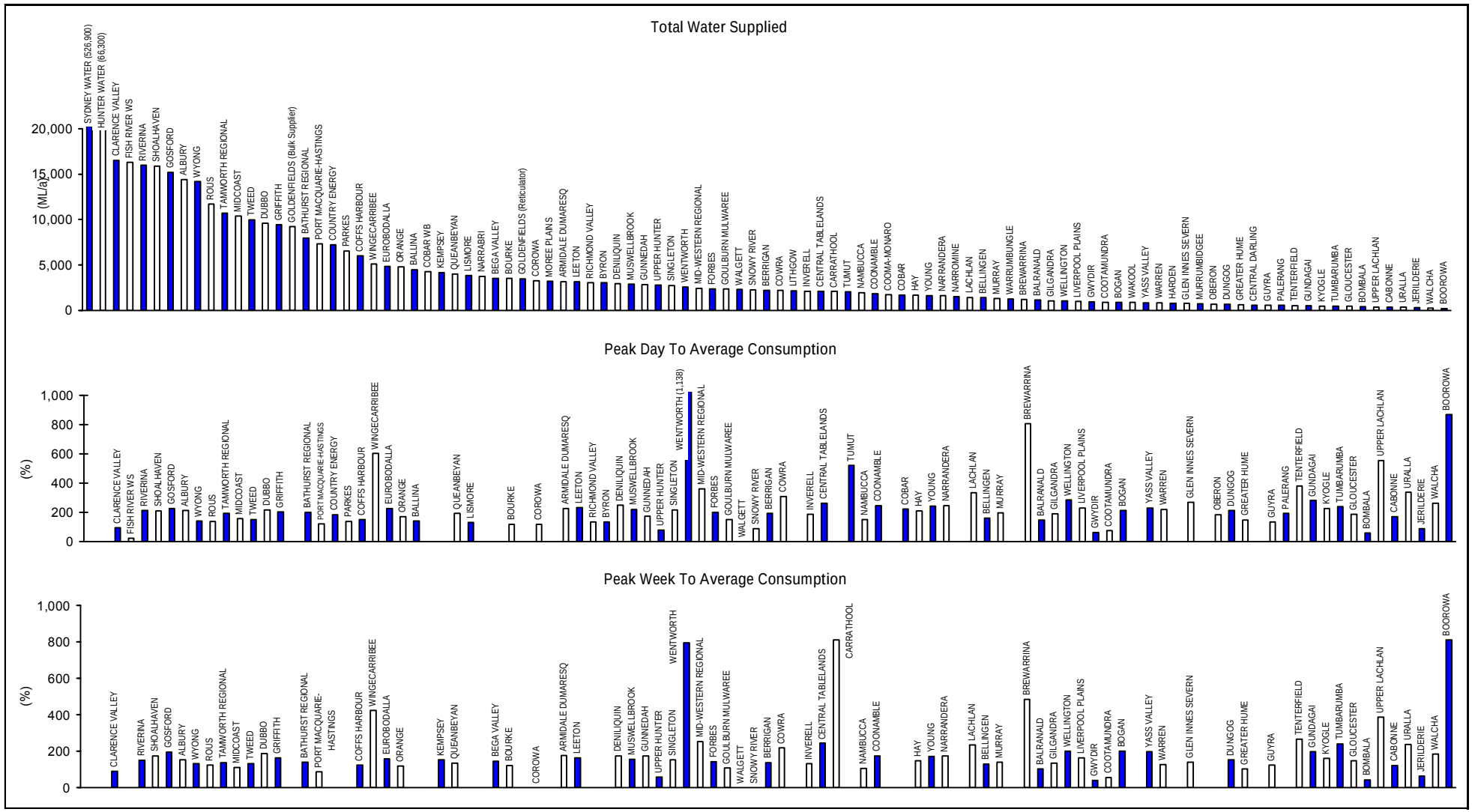
Parameter: Average Annual Rainfall (Q17b)

Parameter: 2004/05 Average Maximum Temperature (Q17c)

Note:

1. For general notes see page 14.

8 Total Water Supplied - Water Supply



Parameter: Total Potable Water Supplied (Q12i) + Non-Potable Water Supplied (Q14a) - Recycled Water (Q15f)

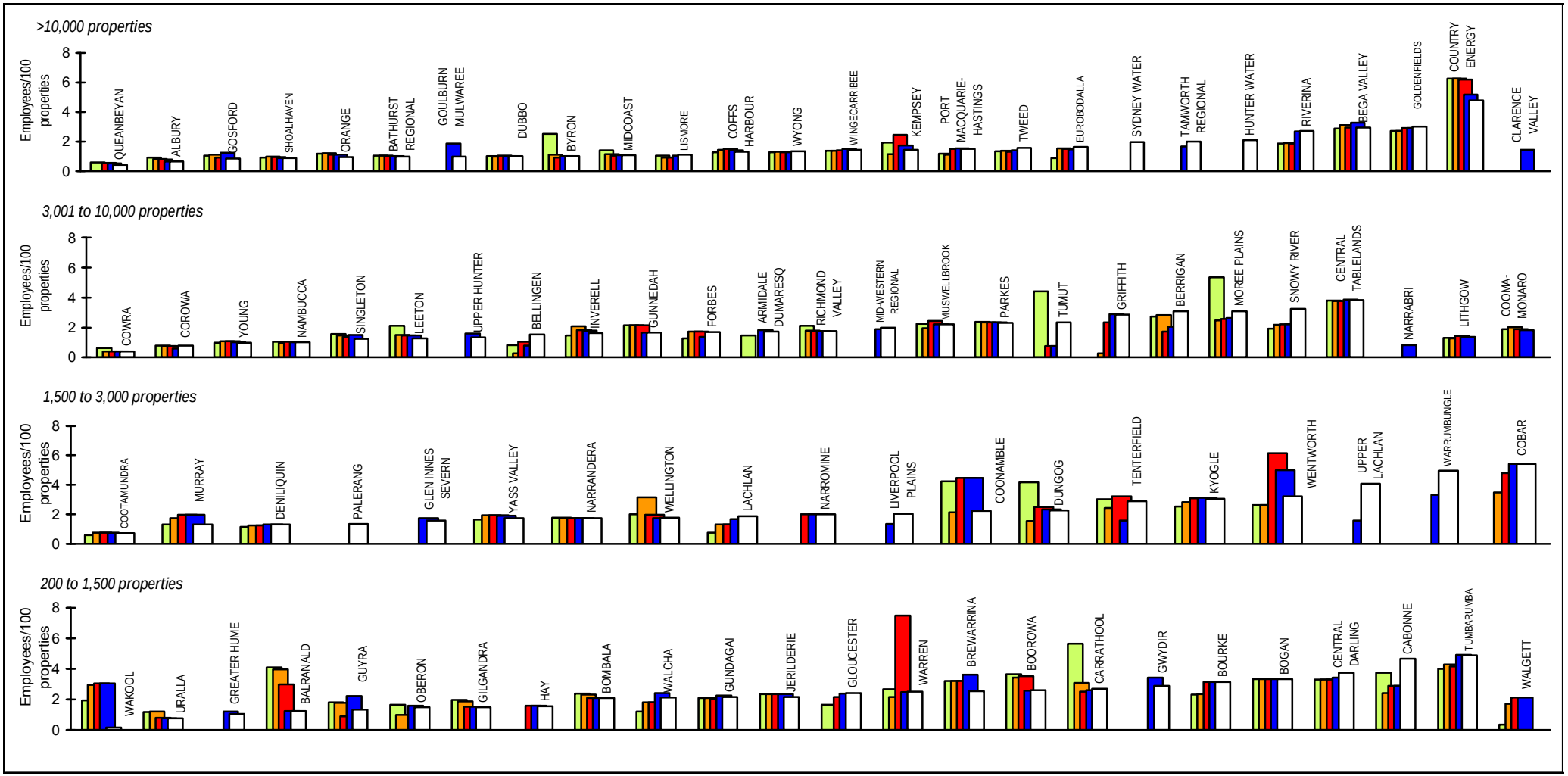
Parameter: $\frac{\text{Peak Day Consumption (Q13a) x 365 x 10}}{\text{Total Potable Water Supplied (Q12i)}}$

Parameter: $\frac{\text{Peak Week Consumption (Q13b) x 365 x 10}}{\text{Total Potable Water Supplied (Q12i)}}$

Notes:

1. The top graph shows the total water supplied. The second graph shows the percentage of peak to day 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 14.

9 Employees per 1000 properties - Water Supply

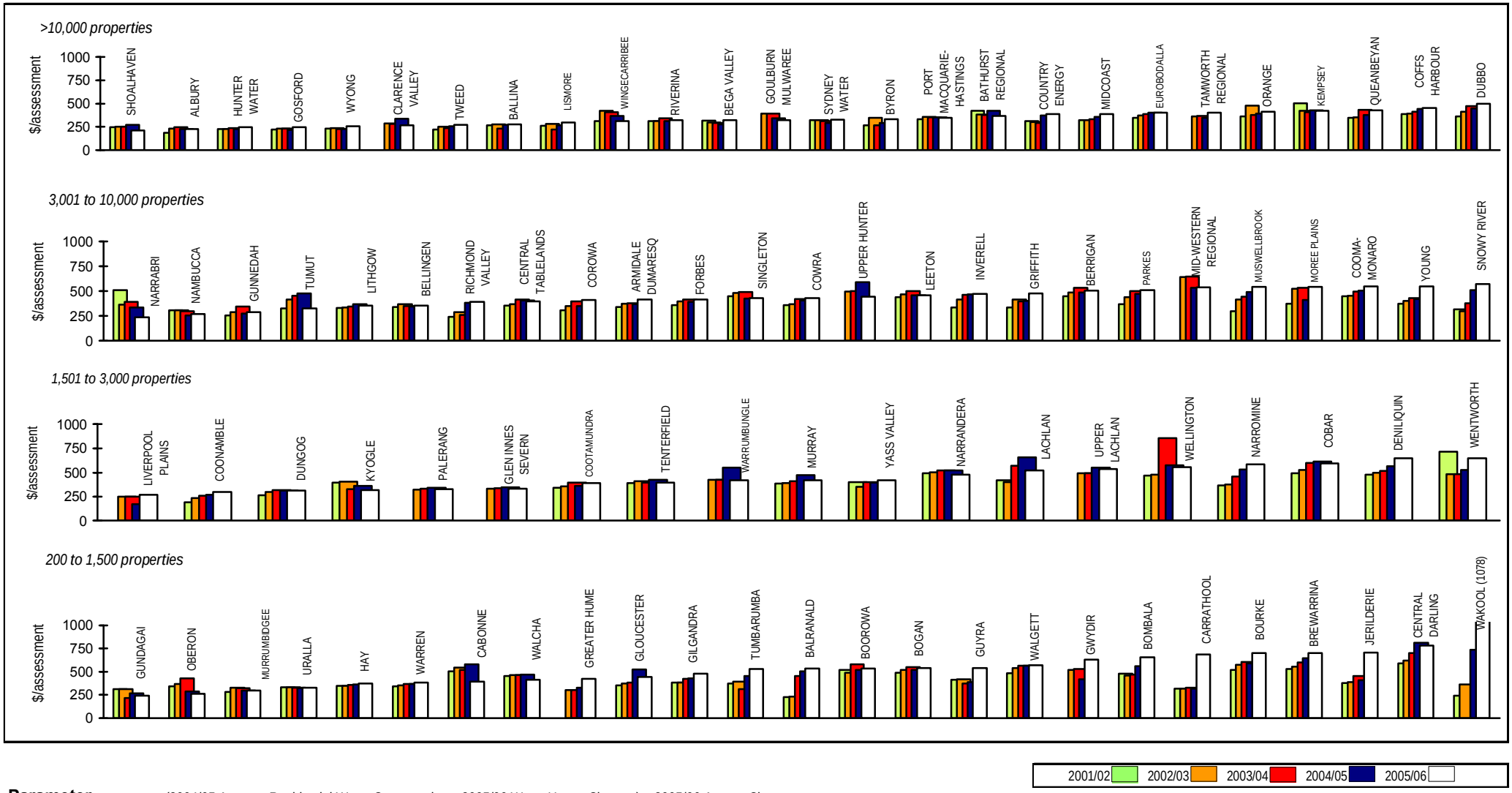


Parameter: $\frac{\text{Equivalent Full-time Employees (Q30a) x 1000}}{\text{[No. of Residential Assessments (Q4a) + No. of Non-Residential Assessments (Q4b) x No. of Connected Properties per Assessment}}$

Notes:

1. This figure shows ranked values of the 2004/05 number of 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 22 LWUs shown ranges from 0.4 to 3.8. The 3 utilities on the right did not report this indicator for 2004/05.
2. The statewide median number of water supply employees is 1.3 per 1000 connected properties.
3. For general notes see page 14.

10 Typical Residential Bill – Water Supply

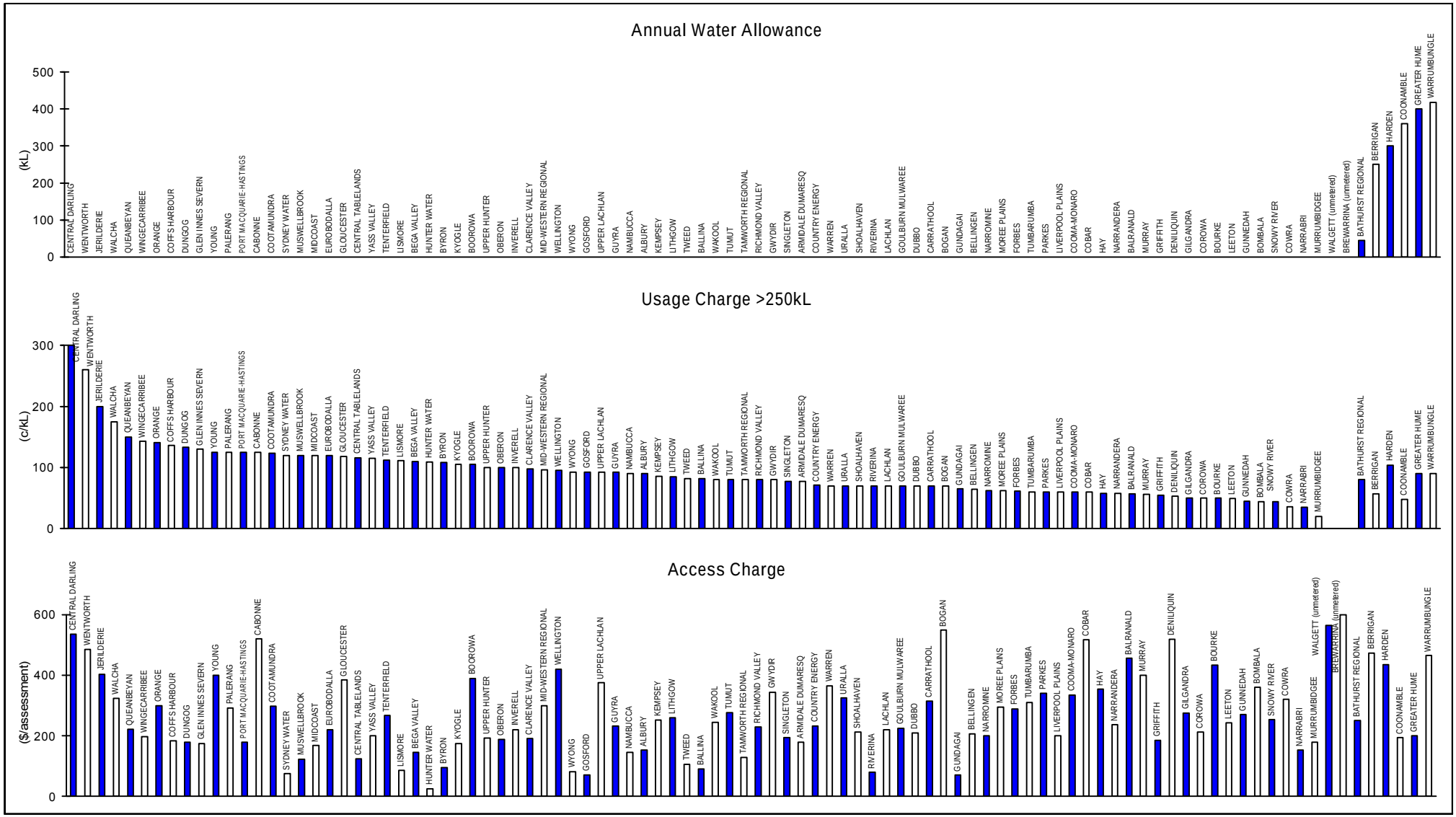


Parameter: (2004/05 Average Residential Water Consumption x 2005/06 Water Usage Charges) + 2005/06 Access Charge

Notes:

1. This figure shows ranked values of the 2005/06 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 2005/06 for the 25 LWUs shown ranges from $240 to $570 per assessment. Results for the previous 4 years are also shown in Jan 2006$.
2. The 2005/06 Statewide median typical residential bill for water supply is $330 per assessment.
3. For general notes see page 14.

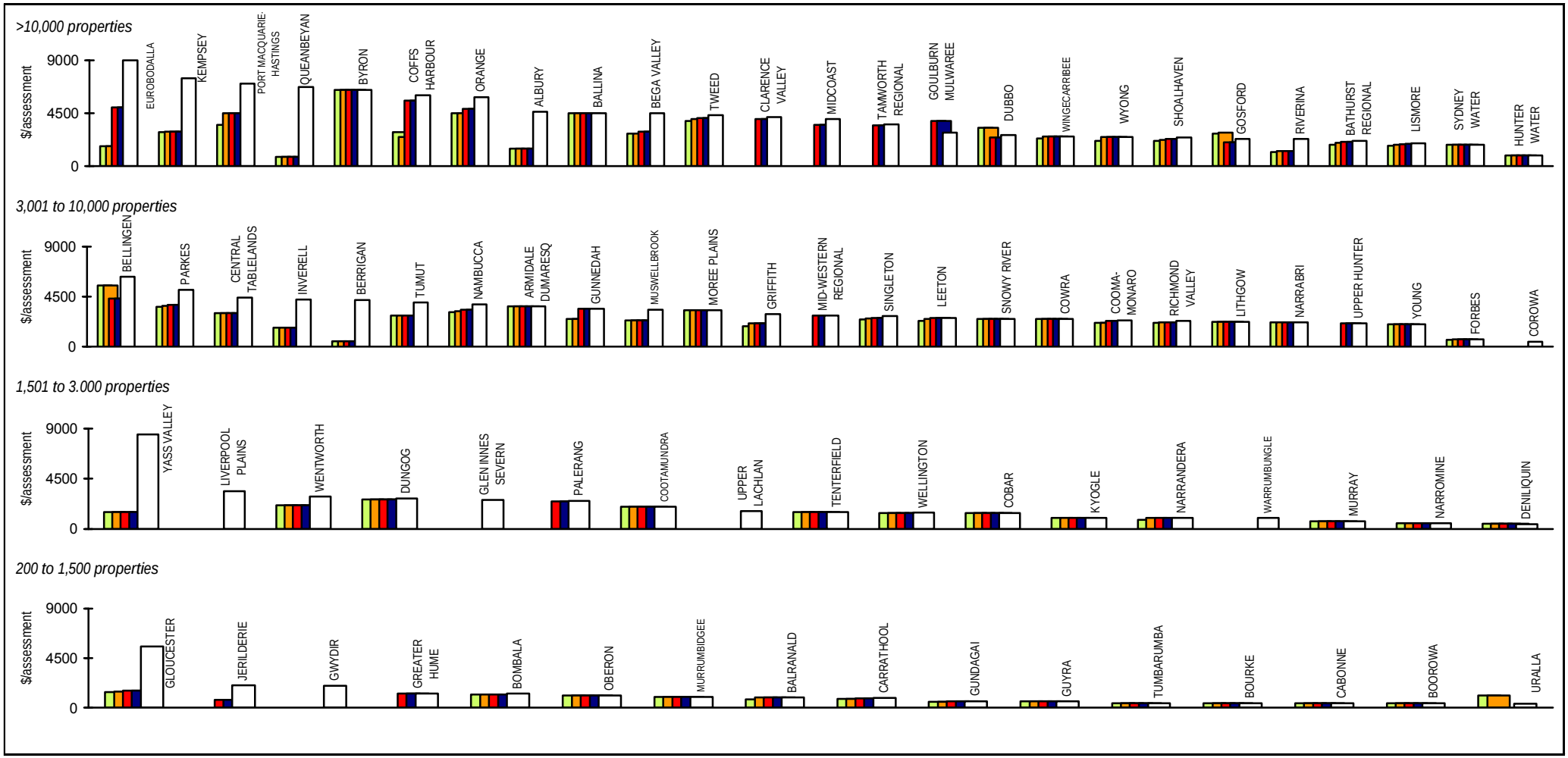
11 Residential Water Allowance, Usage Charge and Access Charge - Water Supply



Notes:

1. The top graph shows that 87 Local Water Utilities (LWUs) had a two-part tariff or an inclining block tariff with no water allowance. 6 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. Further information on water supply tariff structures is shown in Tables 6, 6A, 6B and 6C.
3. The statewide median water usage charge was 92 c/kL. 20% of LWUs had a usage charge greater than 116 c/kL. 80 % of LWUs had a usage charge greater than 70 c/kL.
4. The residential water access charge for the LWUs with a water allowance is the minimum charge or rate.
5. All but 2 LWUs had a residential access charge independent of land value.
6. For general notes see page 14.

12 Typical Developer Charge – Water Supply

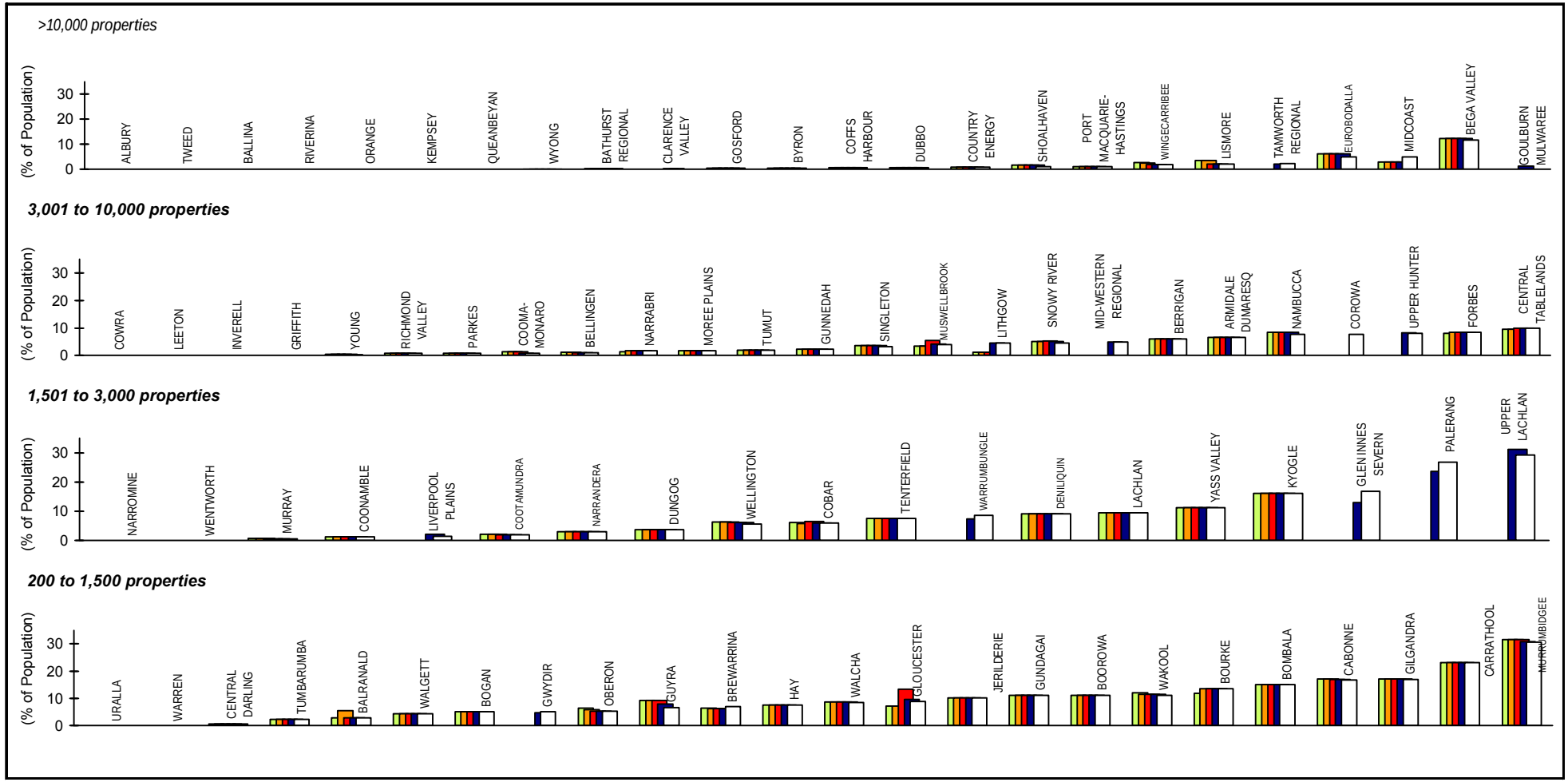


Parameter: Typical Water Supply Developer Charge (Q36)

Notes:

1. This figure shows ranked values of the 2005/06 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 ranges from $6300 to $440 Results for the previous 4 years are also shown in Jan 2006$.
2. The Statewide median typical developer charge for water supply is $2510 per equivalent tenement (ET).
3. 81 LWUs levied water supply developer charges.
4. For general notes see page 14.

13 Urban Population without Water Supply - Water Supply



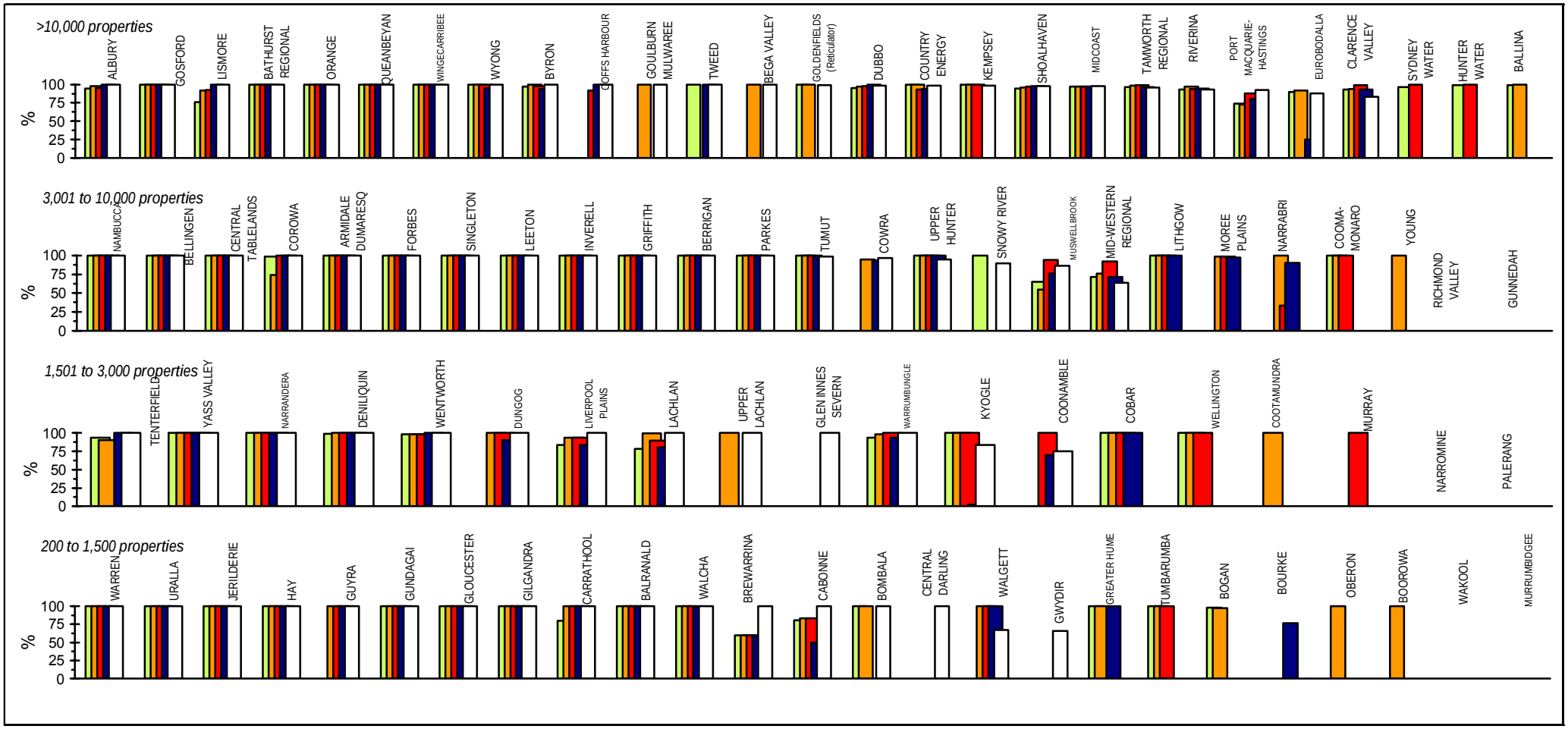
Parameter:

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

Notes:

1. This figure shows ranked values of the 2004/05 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 25 LWUs shown ranges from 0 to 10%. Results for the previous 4 years are also shown.
2. The statewide median urban population without a reticulated public water supply was 0.7%.
3. 29% of LWUs had an urban population of at least 500 without a reticulated water supply. 9% of LWUs had a population of at least 1000 without a reticulated water supply.
4. The percentage of urban population without a reticulated water supply for the median LWU was 5%.
5. 82% of LWUs had over 90% of their urban population served by a reticulated public water supply. Overall, 1.8 million people in non-metropolitan NSW (97% coverage) received a reticulated public water supply service.
6. For general notes see page 14.

14 Physical Water Quality Compliance - Water Supply

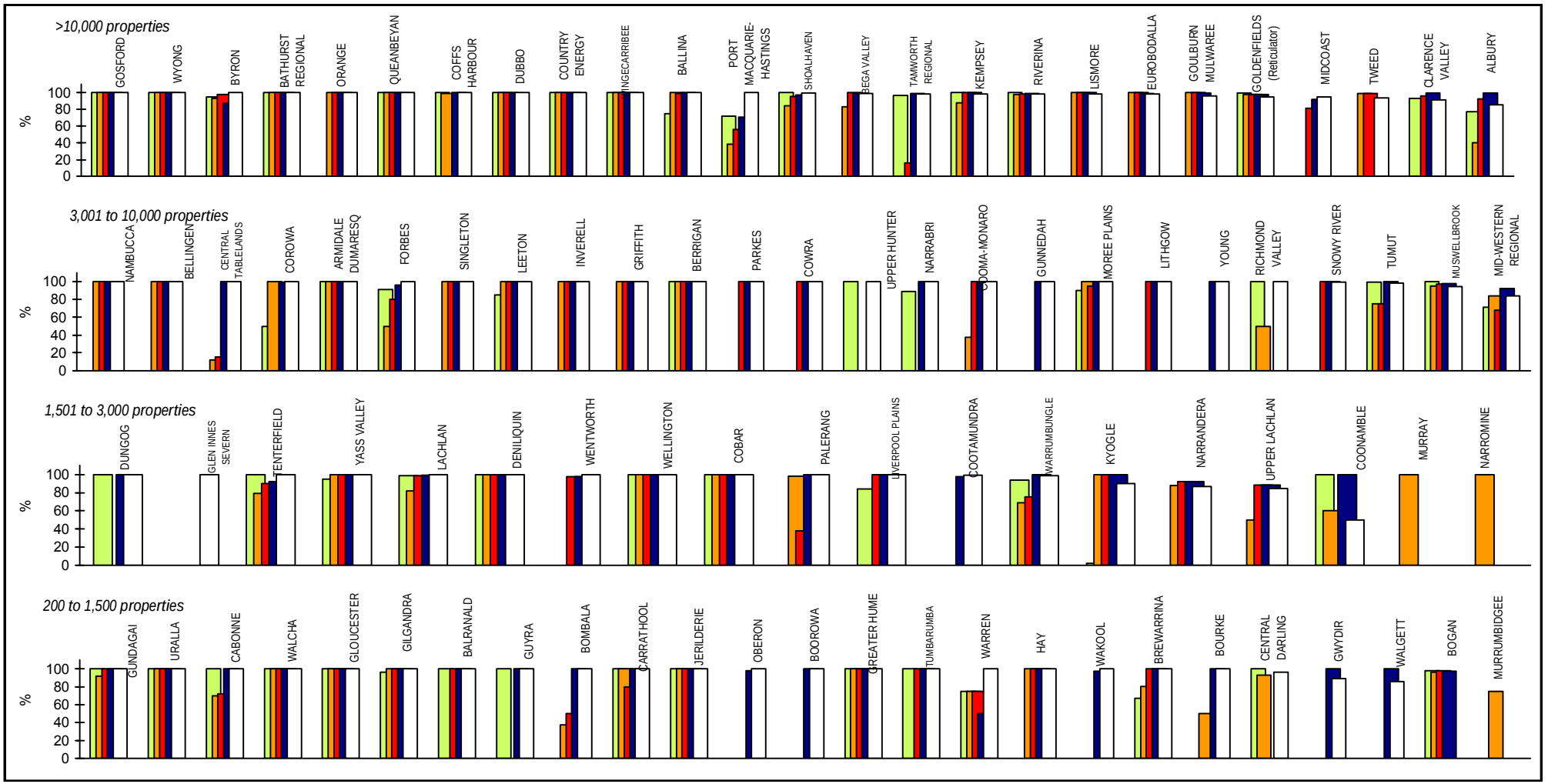


Parameter: Percentage of distribution system water samples complying with physical criteria of the 1996 NHMRC/ARMCANZ Australian Drinking Wqter Guidelines

Notes:

1. This figure shows ranked values of the 2004/05 distribution system compliance with the 1996 NHRMC/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), the physical water quality compliance for the 25 LWUs shown ranges from 100% to 63%. The 7 LWUs on the right did not report compliance for 2004/05. Results for the previous 4 years are also shown.
2. Results for 2000/01 to 2003/04 are also on the basis of the 1996 Guidelines. 97% of all physicals samples tested in 2004/05 achieved 100% compliance with these guidelines. 73 of LWUs complied with the guidelines in 2004/05.
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 14.

15 Chemical Water Quality Compliance - Water Supply

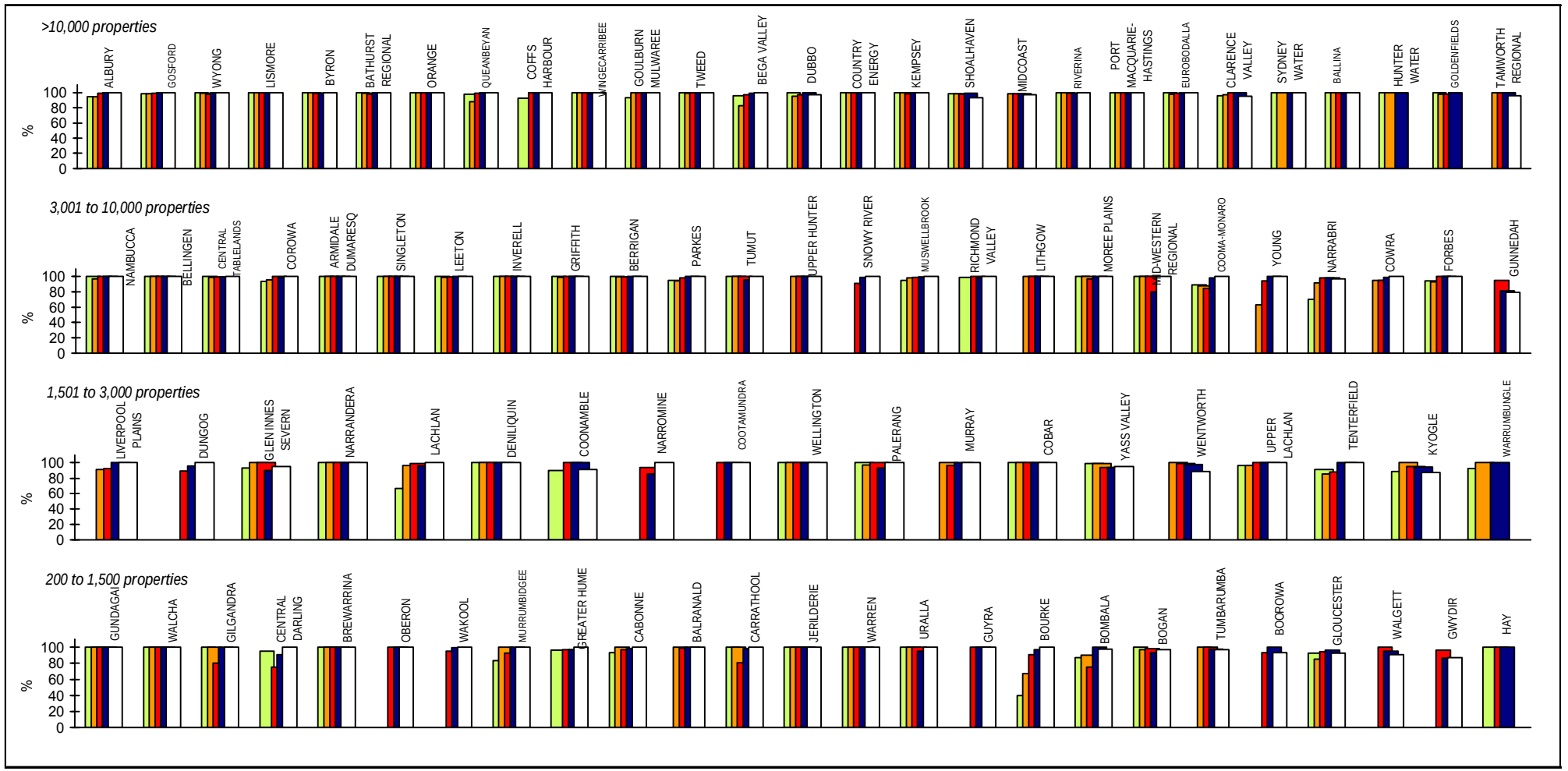


Parameter: Percentage of distribution system water samples complying with chemical criteria of the 1996 NHMRC/ARMCANZ Australian Drinking Water Guidelines

Notes:

1. This figure shows ranked values of the 2004/05 distribution system compliance with the 1996 NHRMC/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 25 LWUs shown ranges from 100% to 84%. Results for the previous 4 years are also shown.
2. 96% of all chemical samples tested in 2004/05 achieved 100% compliance with these guidelines. 86% of the LWUs complied with the guidelines in 2004/05.
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 99%.
5. For general notes see page 14.

16 E.Coli Water Quality Compliance - Water Supply

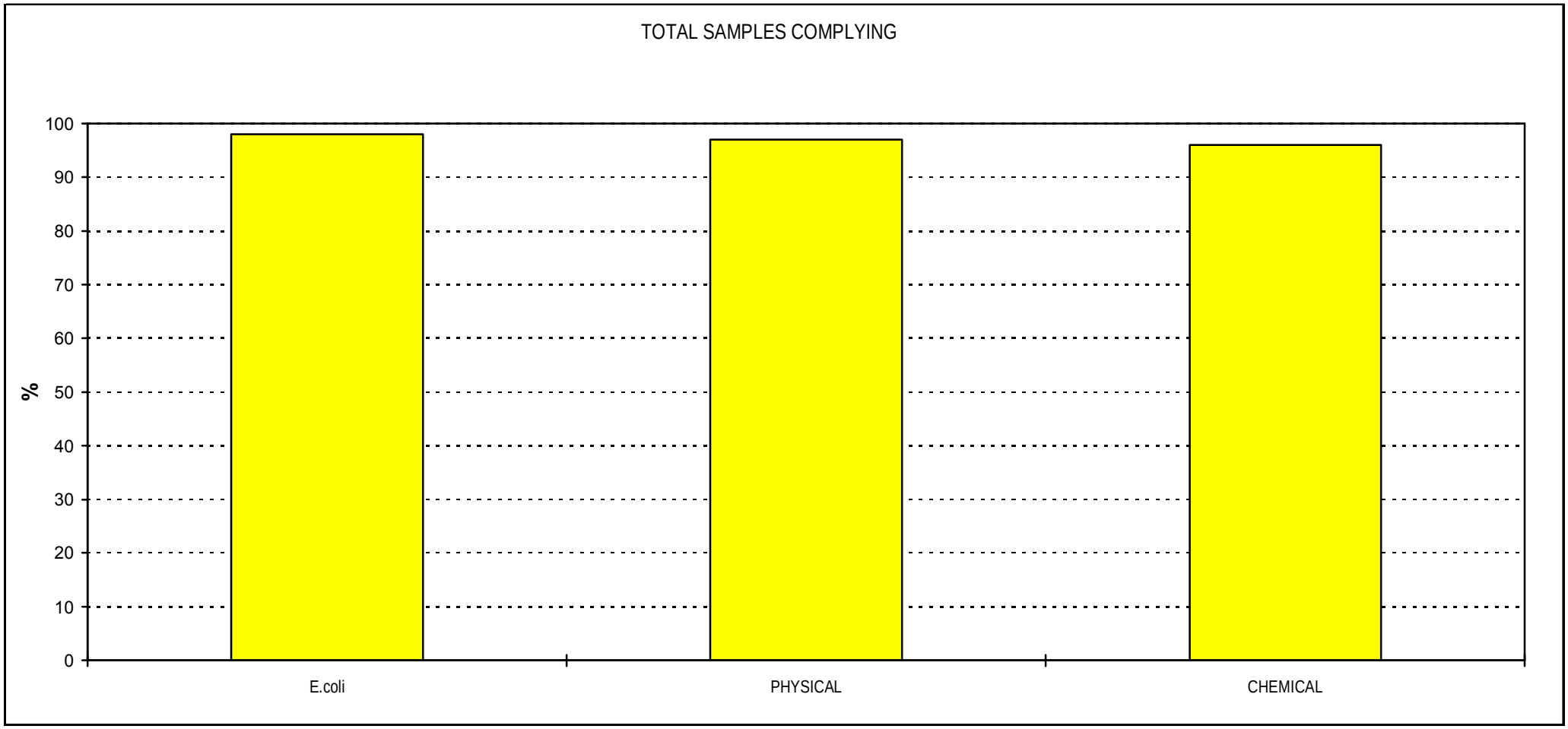


Parameter: Percentage of distribution system water samples complying with E. coli criteria of the 1996 NHMRC/ARMCANZ Australian Drinking Wqter Guidelines

Notes:

1. This figure shows ranked values of the 2004/05 distribution system compliance with the 1996 NHRMC/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 25 LWUs shown ranges from 100% to 79%. Results for the previous 4 years are also shown.
2. Microbiological compliance covers both E. coli and total coliforms. The health-related parameter is E. coli - 98% of all samples tested in 2004/05 contained no E. coli. 78% of the LWUs complied with the 1996 Guidelines for E. coli in 2004/05
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 microbiological water quality compliance is 100%.
5. For general notes see page 14.

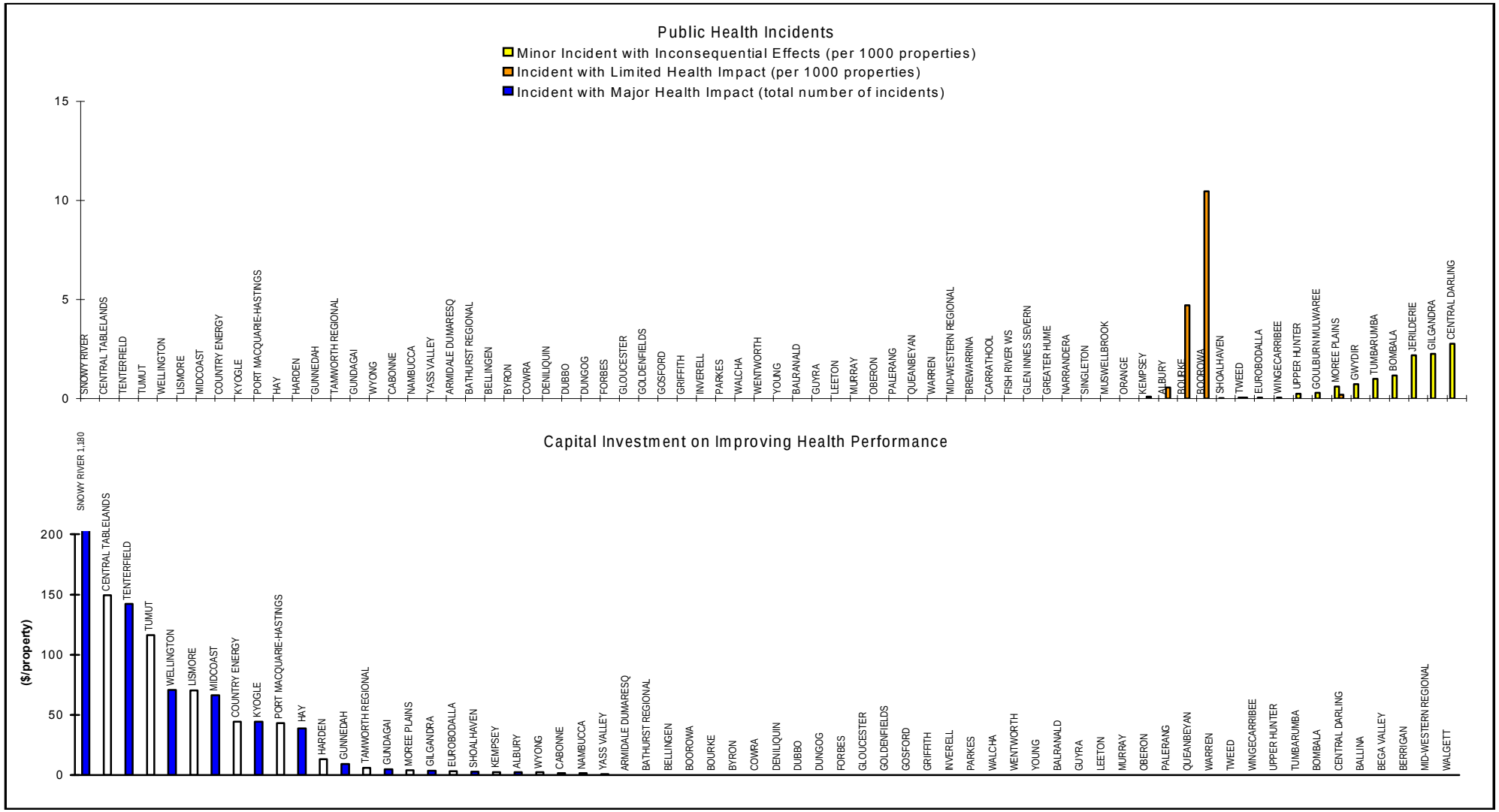
17 Compliance with 1996 Australian Drinking Water Guidelines - Water Supply



Notes:

1. E.coli Water Quality Guidelines (health related) - 98% of the 29300 samples tested for non-metropolitan NSW contained no E.coli. 78% of Local Water Utilities (LWUs) complied with the 1996 NHMRC/ARMCANZ Australian Drinking Water Guidelines for E.coli.
2. Physical Water Quality Guidelines (health related) - 97% of the 33,100 samples tested for non-metropolitan NSW achieved 100% physical compliance. 73% of Local Water Utilities (LWUs) complied with the 1996 NHMRC/ARMCANZ Australian Drinking Water Guidelines for physical water quality.
3. Chemical Water Quality Guidelines (health related) - 96% of the 34,900 samples tested for non-metropolitan NSW achieved 100% chemical compliance. 86% of Local Water Utilities (LWUs) complied with the 1996 NHMRC/ARMCANZ Australian Drinking Water Guidelines for chemical water quality.
4. 16% of LWUs did not report on physical water quality compliance and 4% did not report on chemical compliance. All LWUs, including those responsible for reticulation, should carry out the necessary water quality sampling and report thereon in future.
5. For general notes see page 14.

18 Public Health Incidents, Capital Investment - Water Supply



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

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

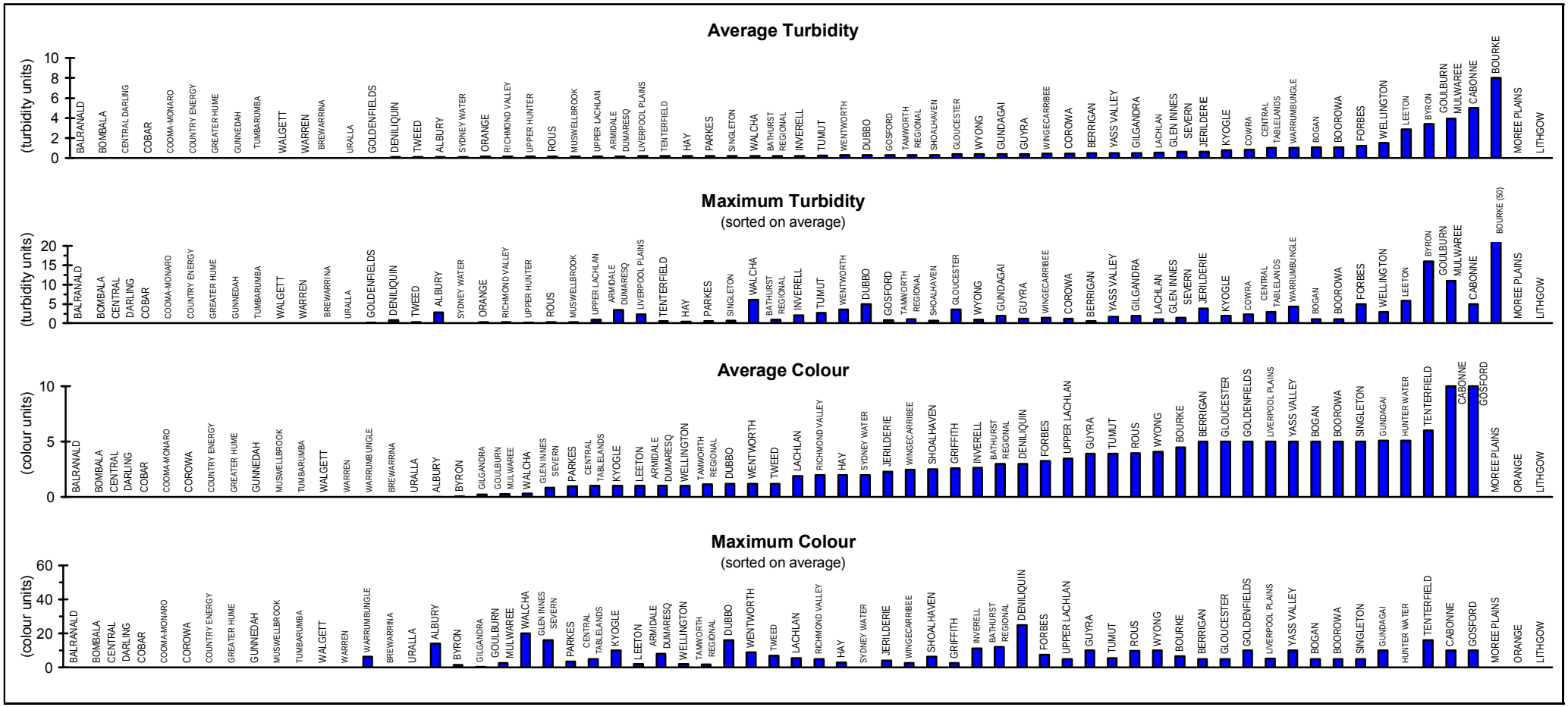
Parameter: $\frac{\text{Total No. of Major Incidents with Major Health Impacts (TLB Q5c)}}{\text{[No. of Residential Assessments (Q4a) + No. of Non-Residential Assessments (Q4b)] x No. of Connected Properties per Assessment}}$

Parameter: $\frac{\text{Capital Expenditure on Improving Health Performance ($) x (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 14.

19 Turbidity and Colour for Filtered Supplies - Water Supply

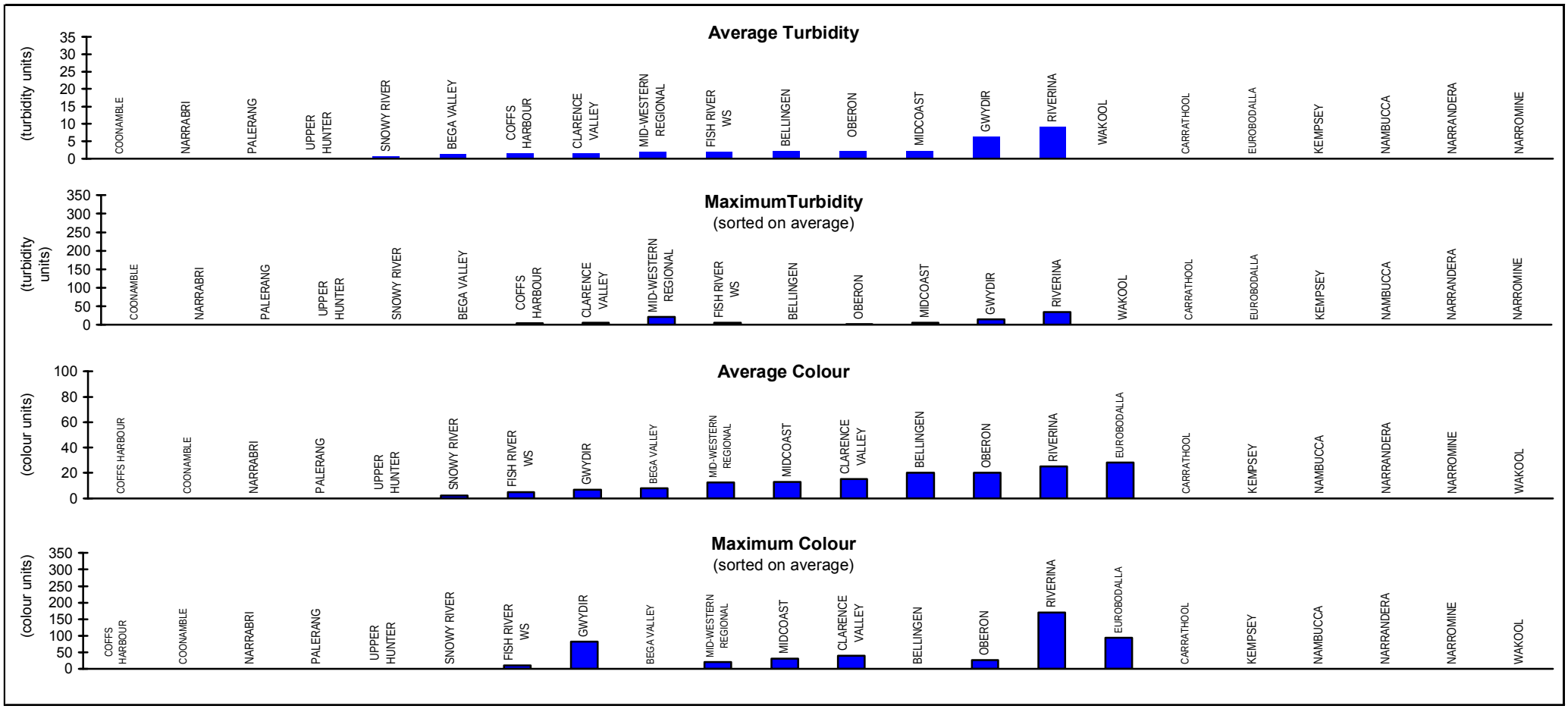


Parameter: Treated Water Average Turbidity (Q40d), Maximum Turbidity (Q40c), Treated Water Average Colour (Q39d), Maximum Colour (Q39c)

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. 92% of the 64 reporting LWUs had average turbidity not exceeding 2 turbidity units. 83% of these LWUs had average turbidity not exceeding 1 turbidity unit.
3. 97% of the 63 reporting LWUs had average colour not exceeding 8 colour units. 79% of these LWUs had average colour exceeding 5 colour units.
4. 3% of LWUs were unable to report on these items. All LWUs should carry out the necessary sampling and report thereon in the future.
5. For general notes see page 14.

20 Turbidity and Colour for Unfiltered Supplies - Water Supply

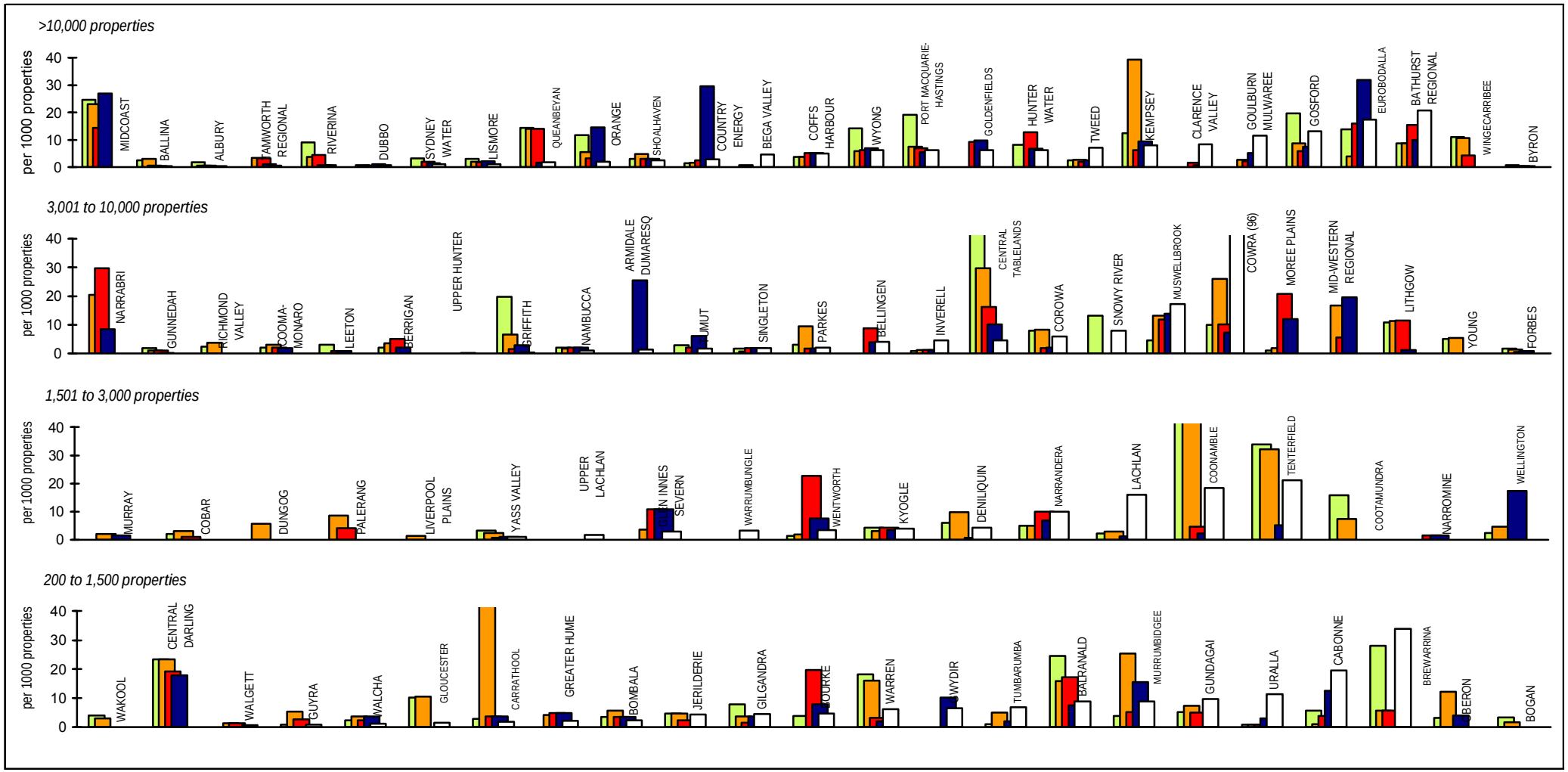


Parameter: Raw Water Average Turbidity (Q40b), Maximum Turbidity (Q40a), Treated Water Average Colour (Q39b), Maximum Colour (Q39a)

Notes:

1. Only unfiltered reporting supplies have been considered
2. 60% of the 15 reporting LWUs had average turbidity not exceeding 2 turbidity units. 56% of these LWUs had average turbidity not exceeding 1 turbidity unit.
3. 69 of reporting LWUs had average colour not exceeding 15 colour units. 55% of these LWUs had average colour not exceeding 5 colour units.
4. For general notes see page 14.

21 Water Quality Complaints - Water Supply



Parameter:

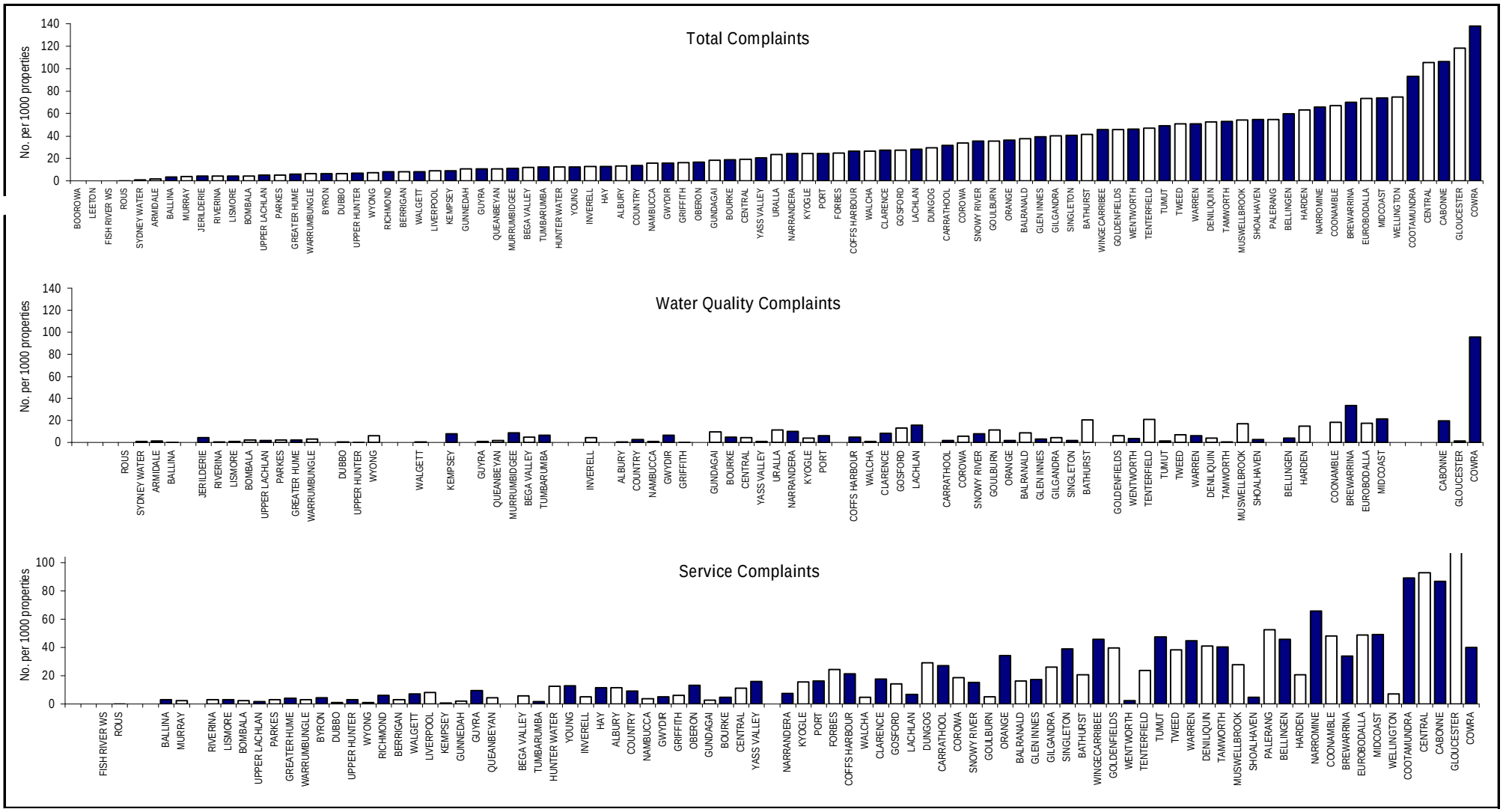
$$\frac{\text{No. of Water Quality Complaints (46a)} \times 1000}{[\text{No. of Residential Assessments (Q4a)} + \text{No. of Non-Residential Assessments (Q4b)}] \times \text{No. of Connected Properties per Assessment}}$$

Notes:

1. This figure shows ranked values of the 2004/05 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 25 LWUs shown ranges from nil to 96 per 1000 connected properties. The five LWUs on the right did not report this indicator for 2004/05. Results for the previous 4 years are also shown.
2. The statewide median number of water quality complaints is 5 per 1000 properties.
3. For general notes see page 14.

Blank Page

22 Complaints (per 1000 properties) - Water Supply



Parameter:
$$\frac{\text{Total No. of Complaints [(Q42a)+(Q19a)+(Q20)+(Q21)+(Q22a)] x 1000}}{\text{[No. of Residential Assessments (Q4a) + No. of Non-Residential Assessments (Q4b)] x No. of Connected Properties per Assessment}}$$

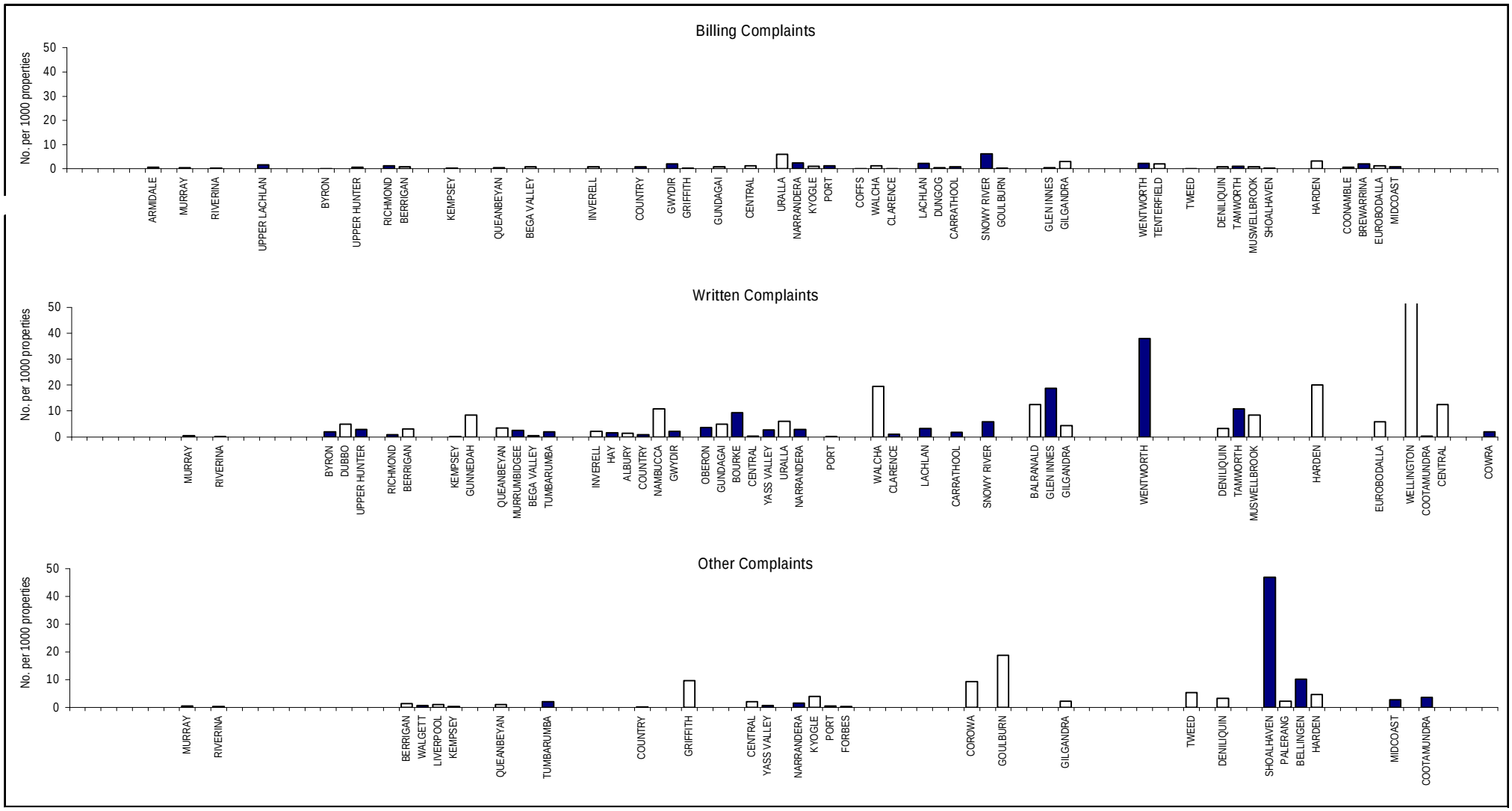
Parameter:
$$\frac{\text{No. of Water Quality Complaints (Q42a) x 1000}}{\text{[No. of Residential Assessments (Q4a) + No. of Non-Residential Assessments (Q4b)] x No. of Connected Properties per Assessment}}$$

Parameter:
$$\frac{\text{No. of Water Service Complaints (Q19a) x 1000}}{\text{[No. of Residential Assessments (Q4a) + No. of Non-Residential Assessments (Q4b)] x No. of Connected Properties per Assessment}}$$

Note:

1. For general notes see page 14.

22 Complaints (per 1000 properties) - Water Supply



Parameter: $\frac{\text{No. of Billing Complaints (Q20)+ x 1000}}{\text{[No. of Residential Assessments (Q4a) + No. of Non-Residential Assessments (Q4b)] x No. of Connected Properties per Assessment}}$

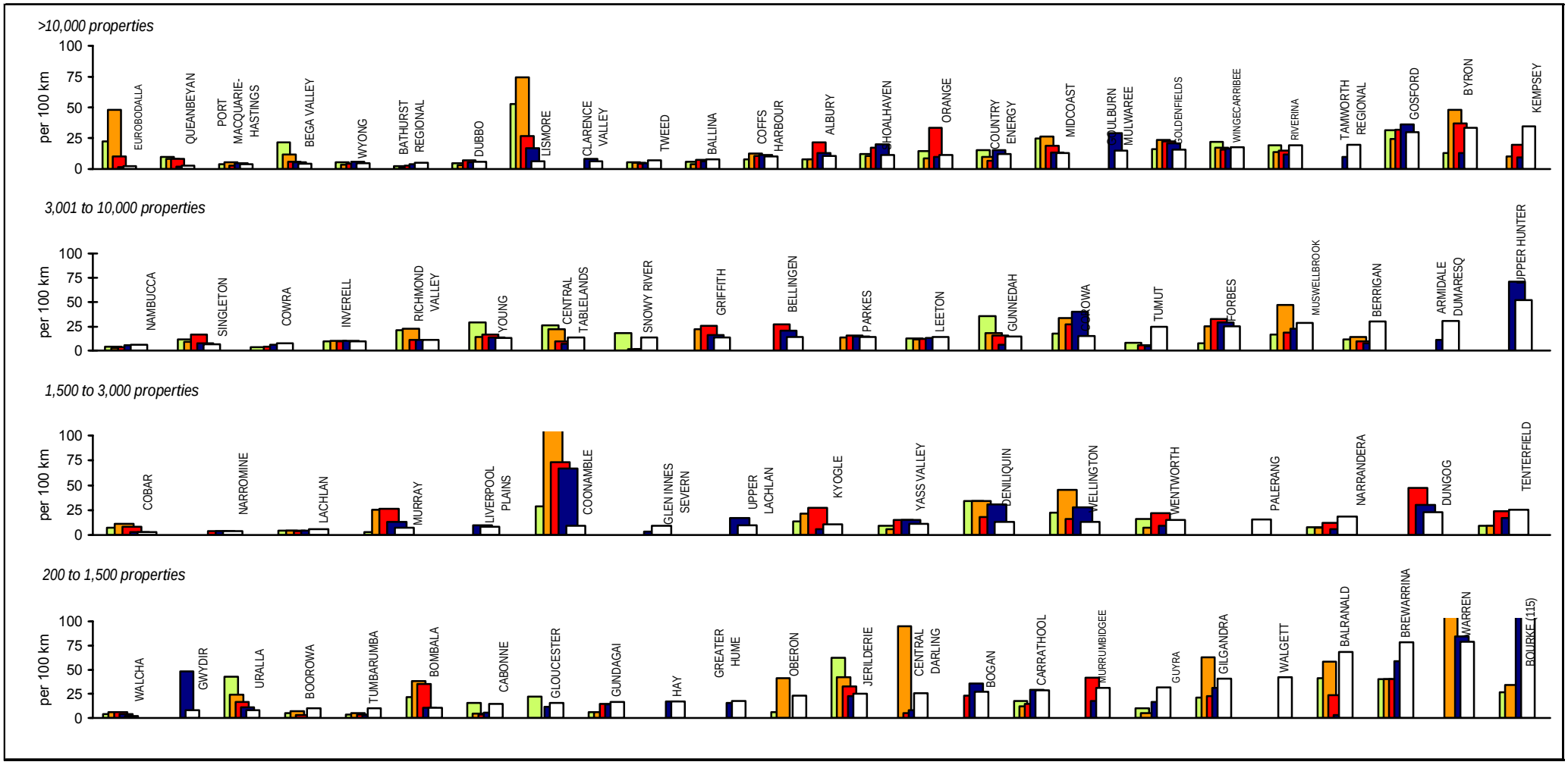
Parameter: $\frac{\text{No. of Written Complaints (Q22a) x 1000}}{\text{[No. of Residential Assessments (Q4a) + No. of Non-Residential Assessments (Q4b)] x No. of Connected Properties per Assessment}}$

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

Note:

1. For general notes see page 14.

23 Number of Water Main Breaks - Water Supply



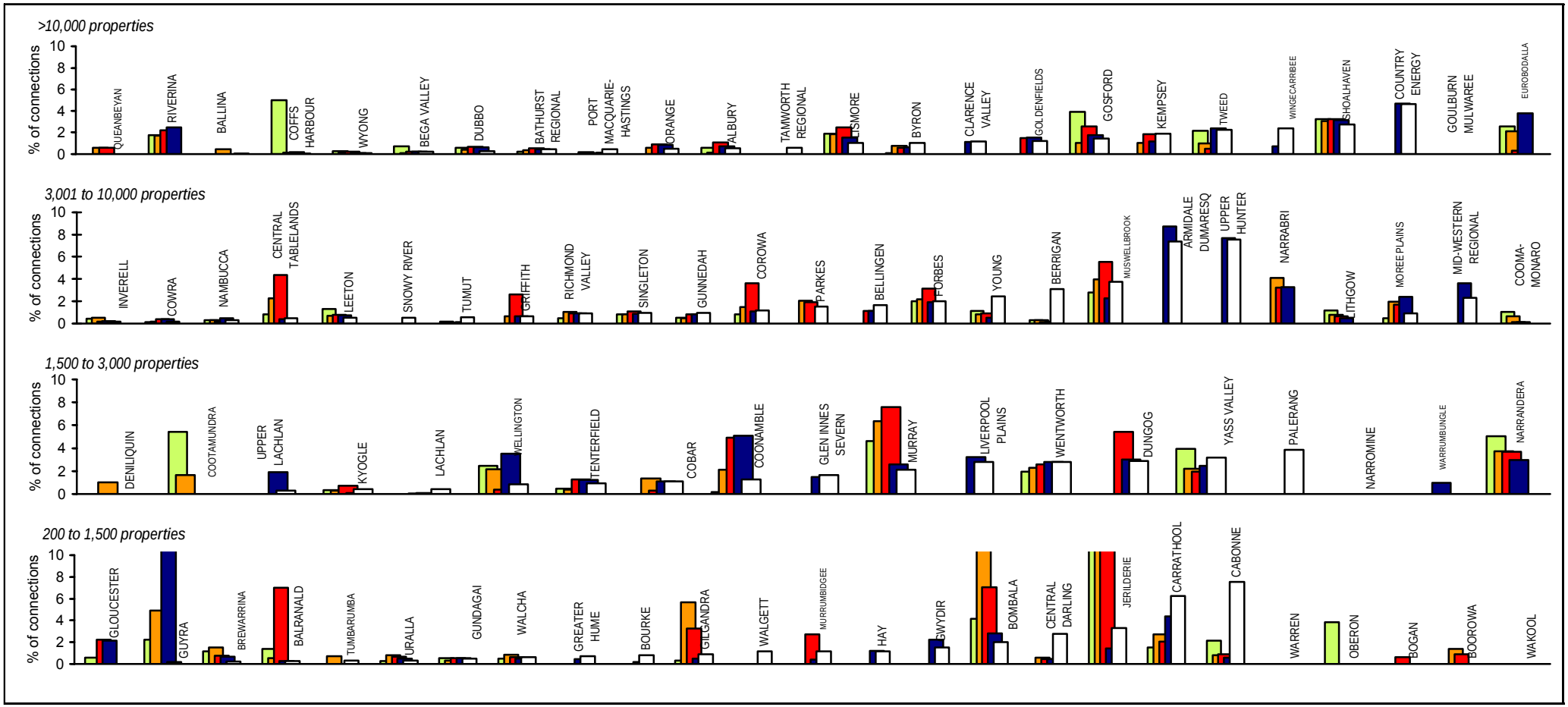
Parameter:

$$\frac{\text{No. of Pipeline Breaks (Q26a) x 100}}{\text{Length of Distribution and Trunk Mains (Q10c)}}$$

Notes:

1. This figure shows ranked values of the 2004/05water supply main breaks 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 main breaks for the 25 LWUs shown ranges from 6 to 52 per 100km of water mains. 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 14.

24 Service Connection Failures - Water Supply

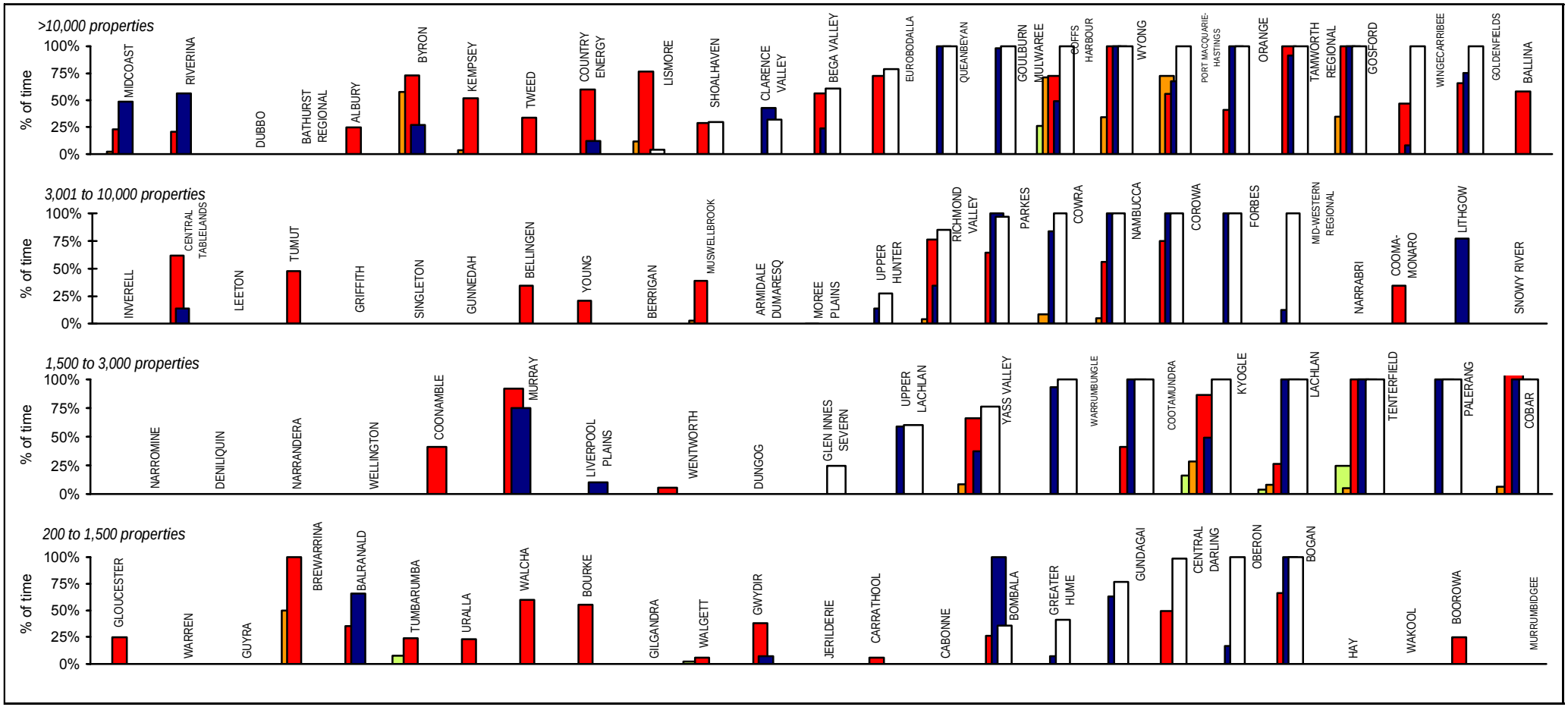


Parameter: $\frac{\text{No. of Service Connection Failures (Q28b) x 100}}{\text{[No. of Residential Assessments (Q4a) + No. of Non-Residential Assessments (Q4b)] x No. of Connected Properties per Assessment}}$

Notes:

1. This figure shows ranked values of the 2004/05 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 25 LWUs shown ranges from 0.2 to 8 %. Results for the previous 4 years are also shown.
2. For general notes see page 14.

25 Drought Water Restrictions - Water Supply

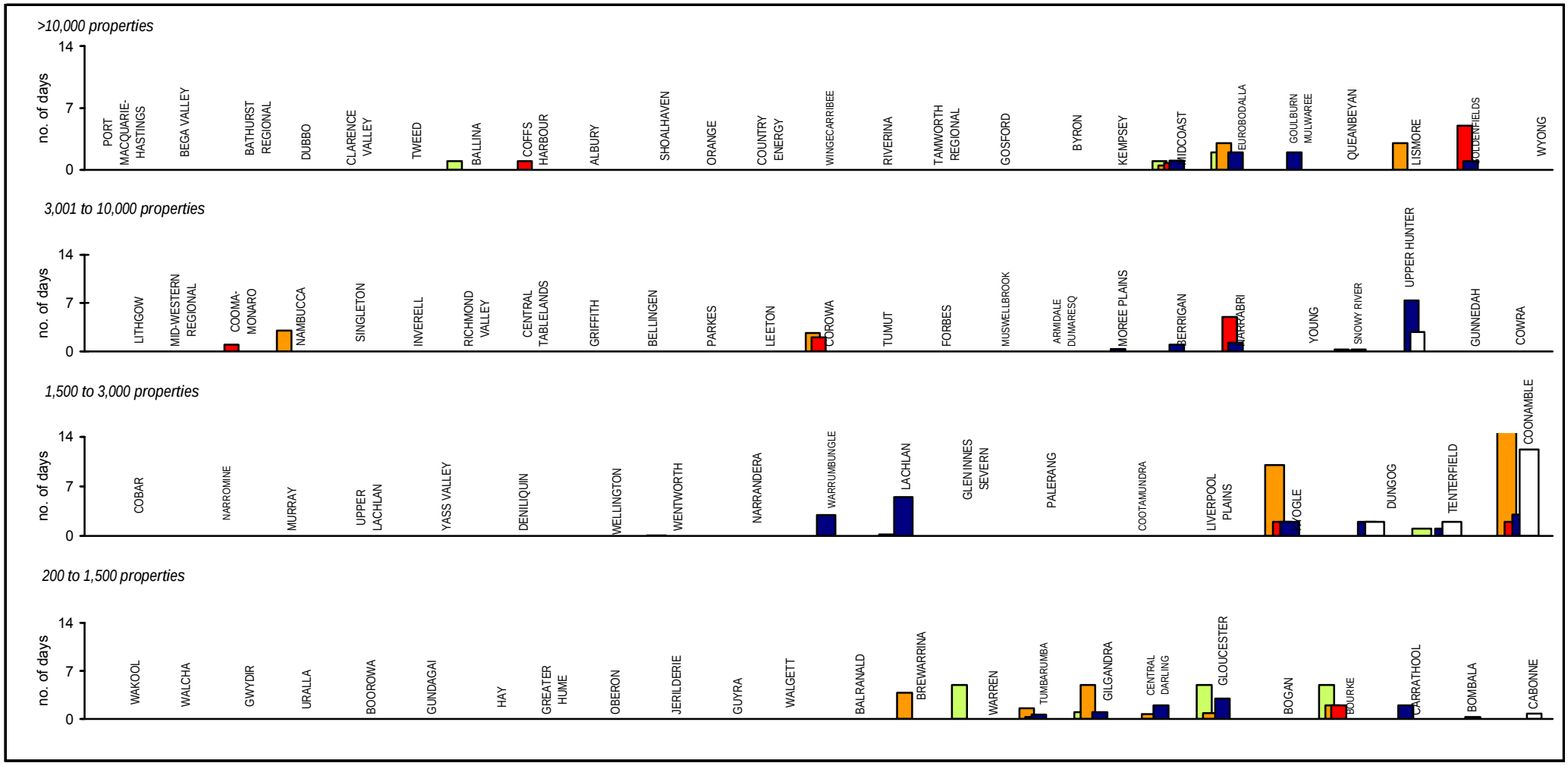


Parameter: $\frac{\text{No. of Days of Water Restrictions Due to Drought (Q27)} \times 100}{\text{365 Days}}$

Notes:

1. This figure shows ranked values of the 2004/05 water restrictions due to drought 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), 8 of the 21 reporting LWUs reported restrictions ranging from 27% of the time to 100% of the time. 12 LWUs reported no restrictions. The 4 LWUs on the right did not report on this indicator. Results for the previous 4 years are also shown.
2. For general notes see page 14.

26 Chlorination System Malfunction - Water Supply

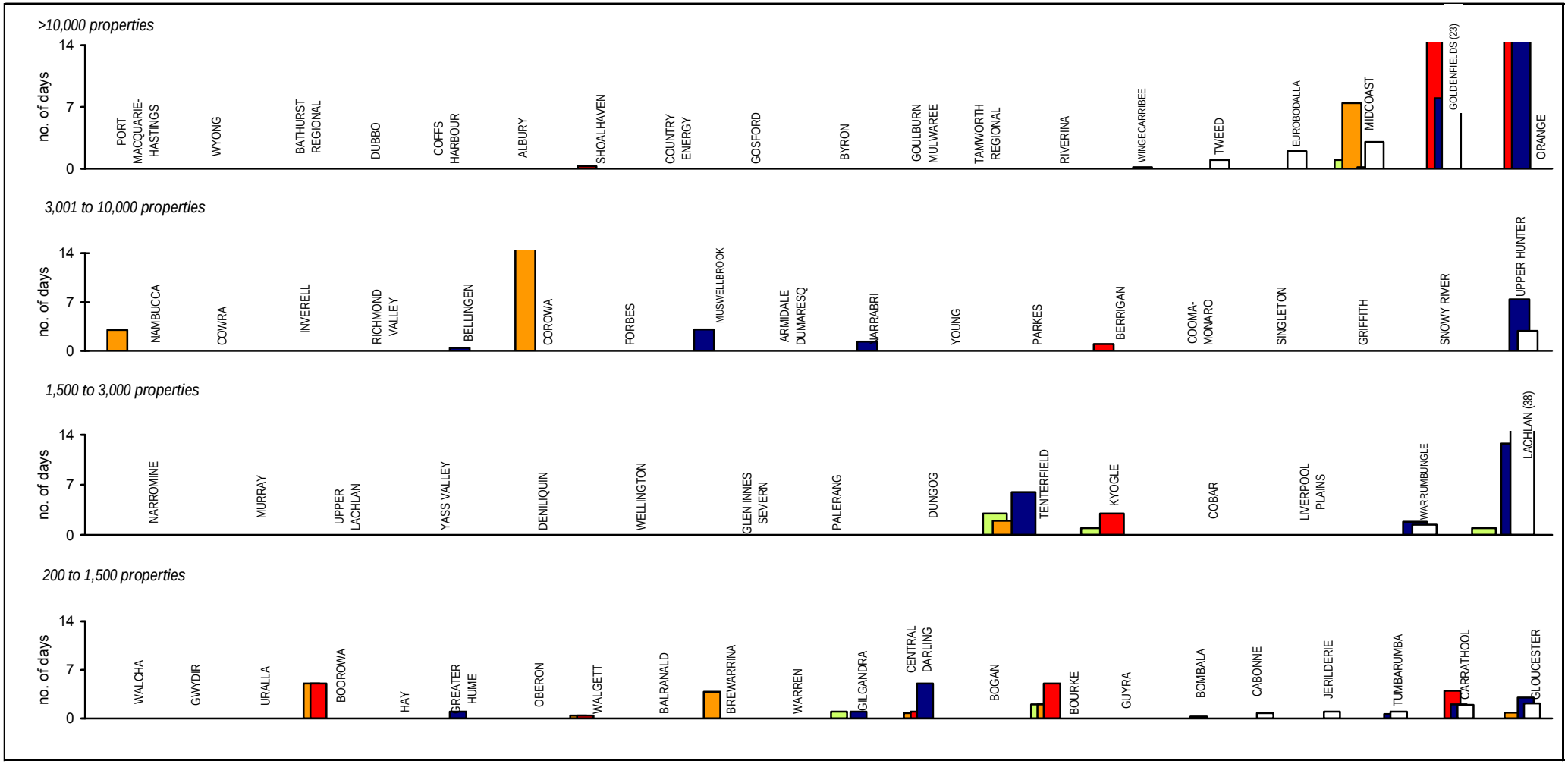


Parameter: Number of Days Chlorination System failed to Operate (Q44)

Notes:

1. The figure shows the 2004/05 ranked number of days the chlorination system for potable water 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 25 LWUs shown ranges from nil to 3 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 14.

27 Treatment Works Malfunction - Water Supply

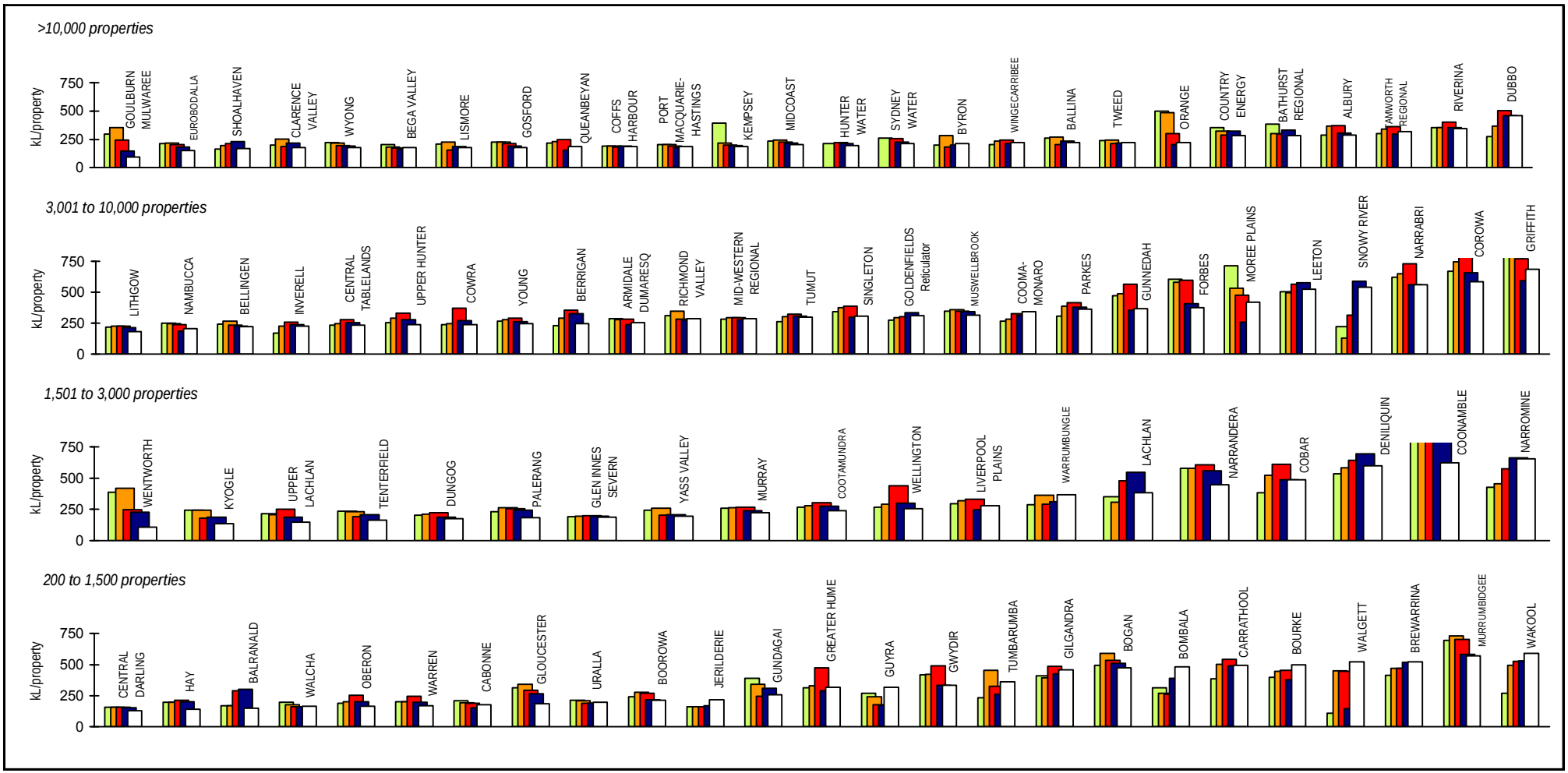


Parameter: Number of Days of major Malfunction of Treatment Processes (Q45)

Notes:

1. The figure shows the 2004/05 ranked 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), the number of days of treatment works malfunction for the 25 LWUs shown ranges from nil to 24 days. Results for the previous 4 years
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 14.

28 Average Annual Residential Consumption - Water Supply



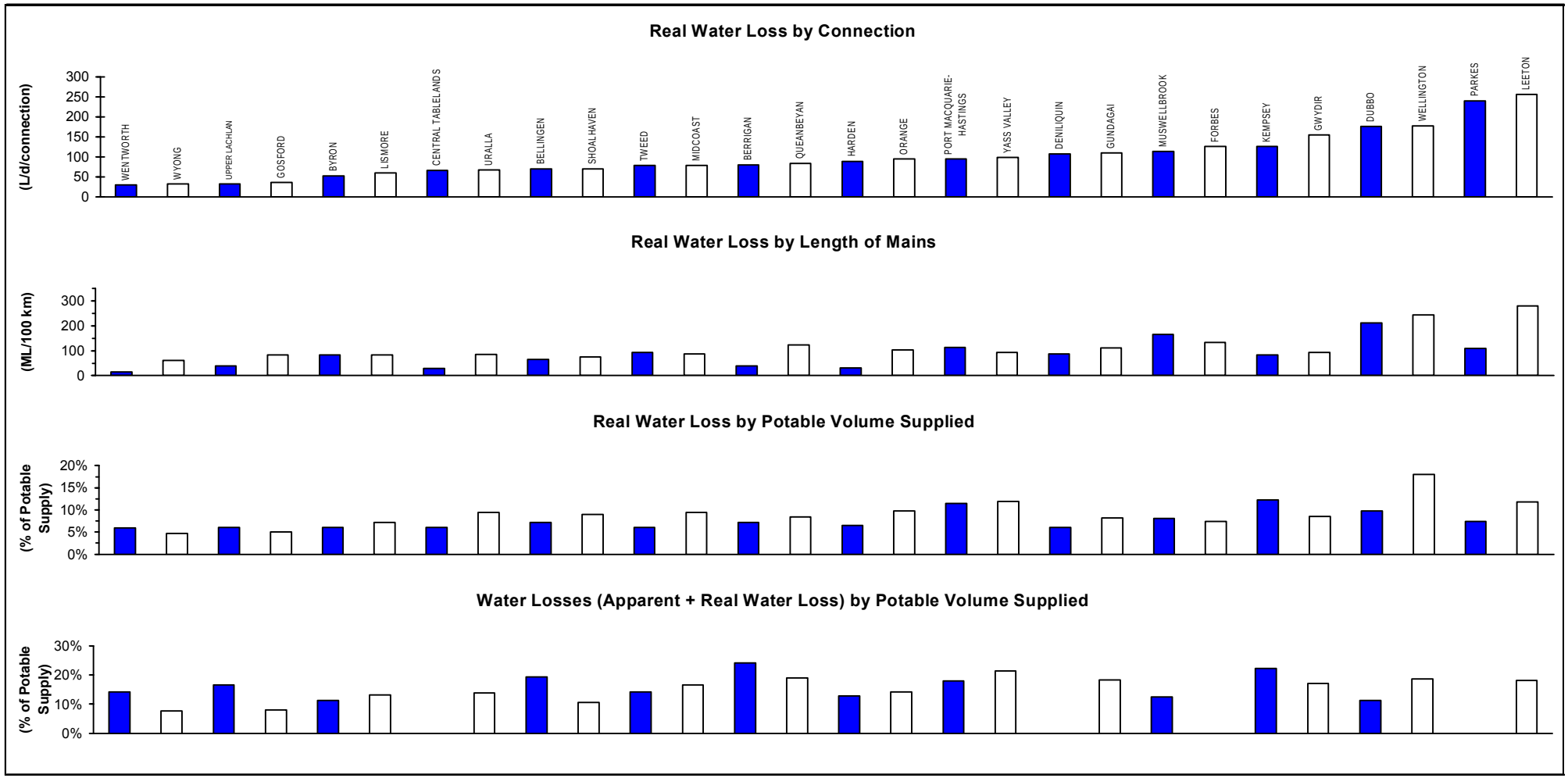
Parameter:

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

Notes:

1. This figure shows ranked values of the 2004/05 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 2004/05 annual residential water consumption for the 25 LWUs shown ranges from 180 to 685 kL/a per connected property. Results for the previous 4 years are also shown.
2. The statewide median annual residential water consumption is 200 kL/a per connected property.
3. 11 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). Refer to Note 10 on page 15 for further information.
4. 45% of LWUs needed to apply water restrictions in 2004/05.
5. For general notes see page 14.

29 Water Losses (Real Loss (Leakage) and Apparent Loss) - 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: $\frac{\text{Real Water Losses (Q12k) x 100}}{\text{Length of Mains (Q10c)}}$

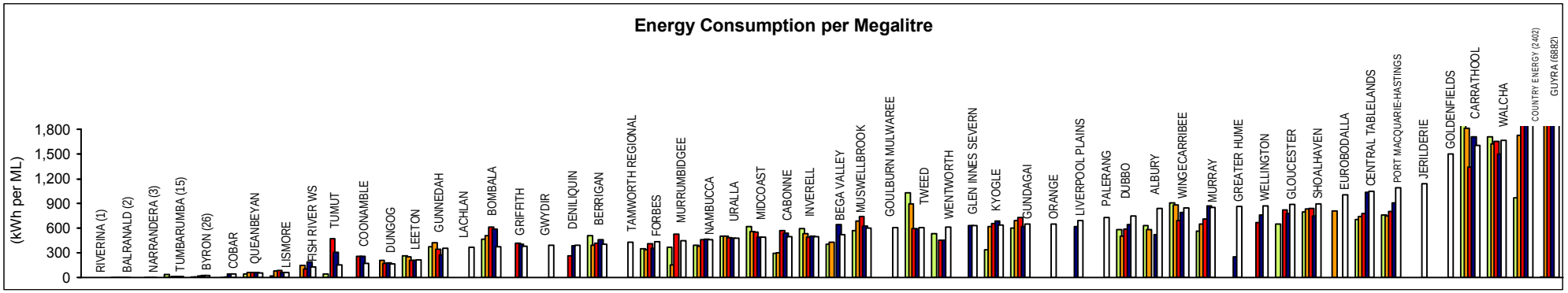
Parameter: $\frac{\text{Real Water Losses (Q12k) x 100}}{\text{Total Potable Water Supplied (Q12i)}}$

Parameter: $\frac{\text{Apparent \& Real Water Losses (Q12b) x 100}}{\text{Total Potable Water Supplied (Q12i)}}$

Note:

1. For general notes see page 14.
2. Refer to Note 12 of General Notes on page 15 for water losses.

30 Energy Consumption per ML - Water Supply



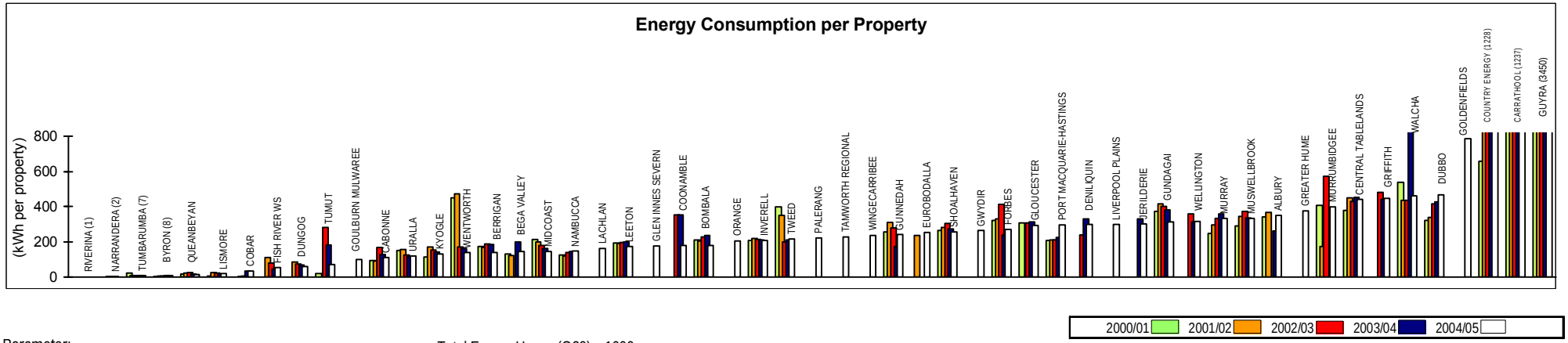
Parameter:

$$\frac{\text{Total Energy Usage (Q29a) x 1000}}{\text{Total Potable Water Consumption ((Q12i)}}$$

Notes:

1. This figure shows ranked values of the 2004/05 total energy consumption per ML. The energy consumption per ML for the 55 Local Water Utilitites (LWUs) shown range from about 2 to 900kWh per connected property. Results for the previous 4 years are also shown.
2. For general notes see page 14.

31 Energy Consumption per Property - Water Supply



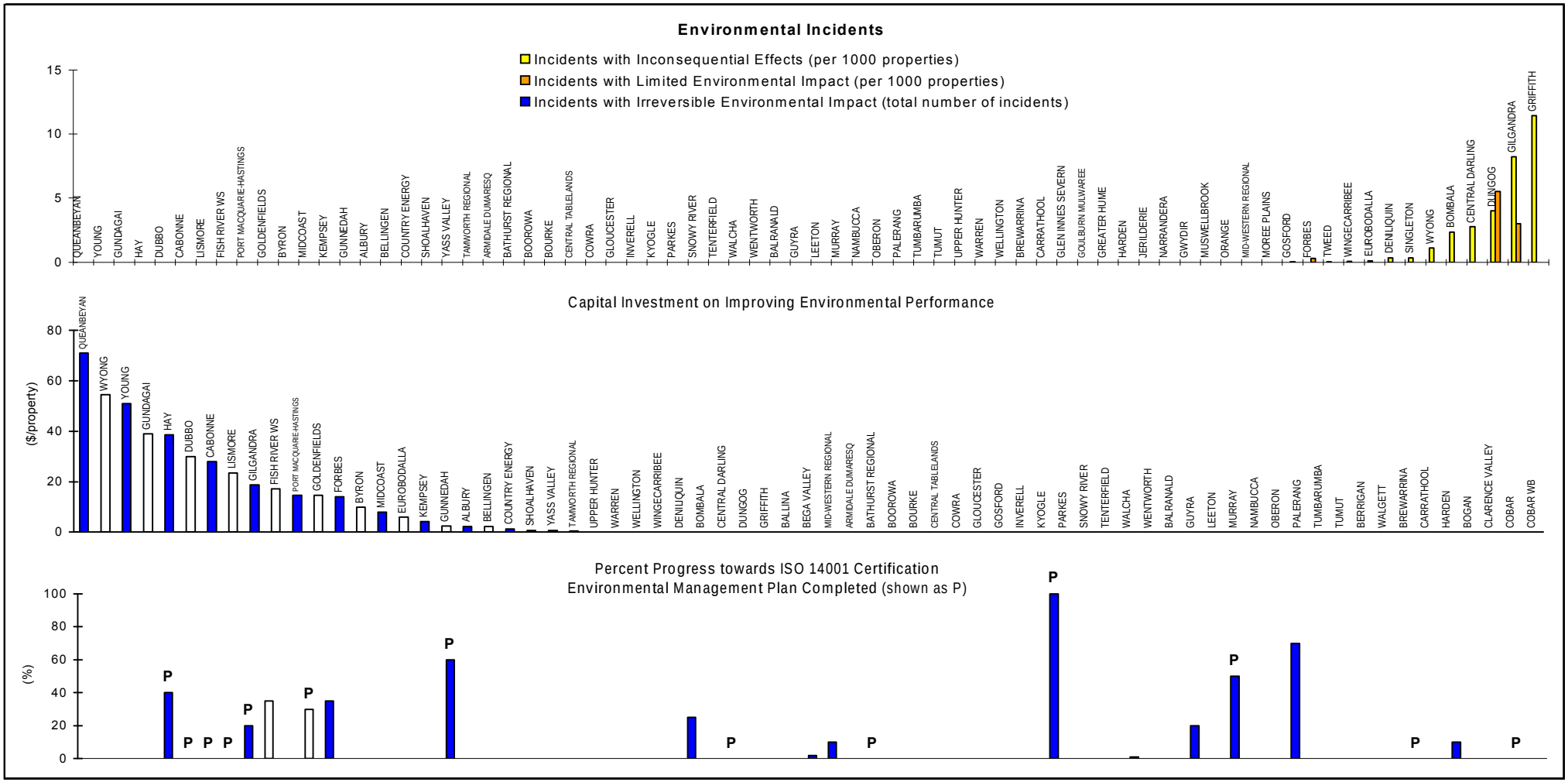
Parameter:

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

Notes:

1. This figure shows ranked values of the 2004/05 total energy consumption per connected property. The energy usage per connected property for the 54 Local Water Utilitites (LWUs) shown range from about 1 to 3450kWh per connected property. Results for the previous 4 years are also shown.
2. For general notes see page 14.

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



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

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

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

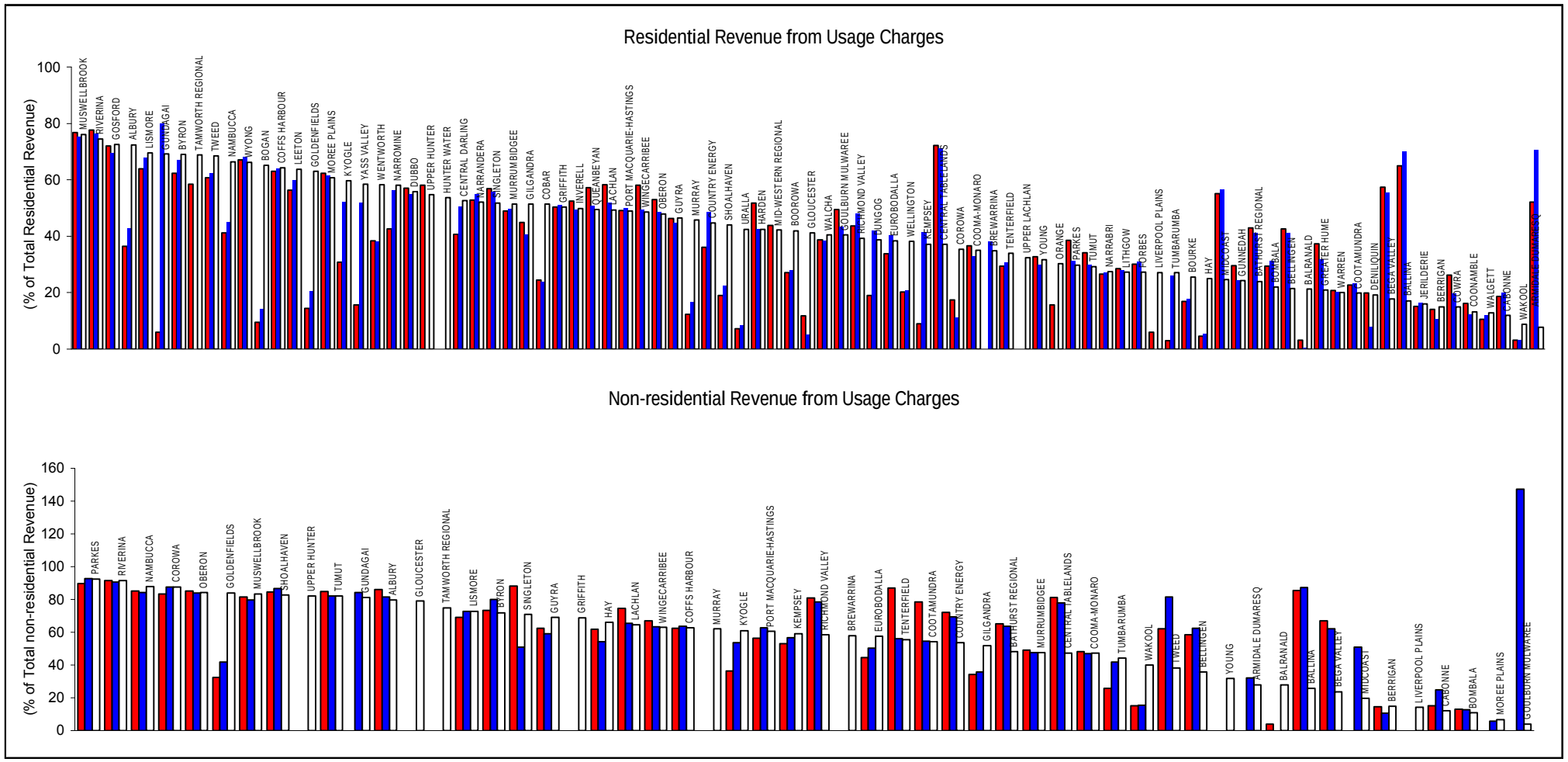
Parameter:
$$\frac{\text{Capital Expenditure on Improving Environmental Performance ($) (TBL Q3a)}}{\text{[No. of Residential Assessments (Q4a) + No. of Non-Residential Assessments (Q4b) x No. of Connected Properties per Assessment}}$$

Parameter: Percent Progress Toward ISO 14001 Certification (Q2c)

Note:

1. For general notes see page 14.

33 Revenue from Usage - Water Supply



Parameter:

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

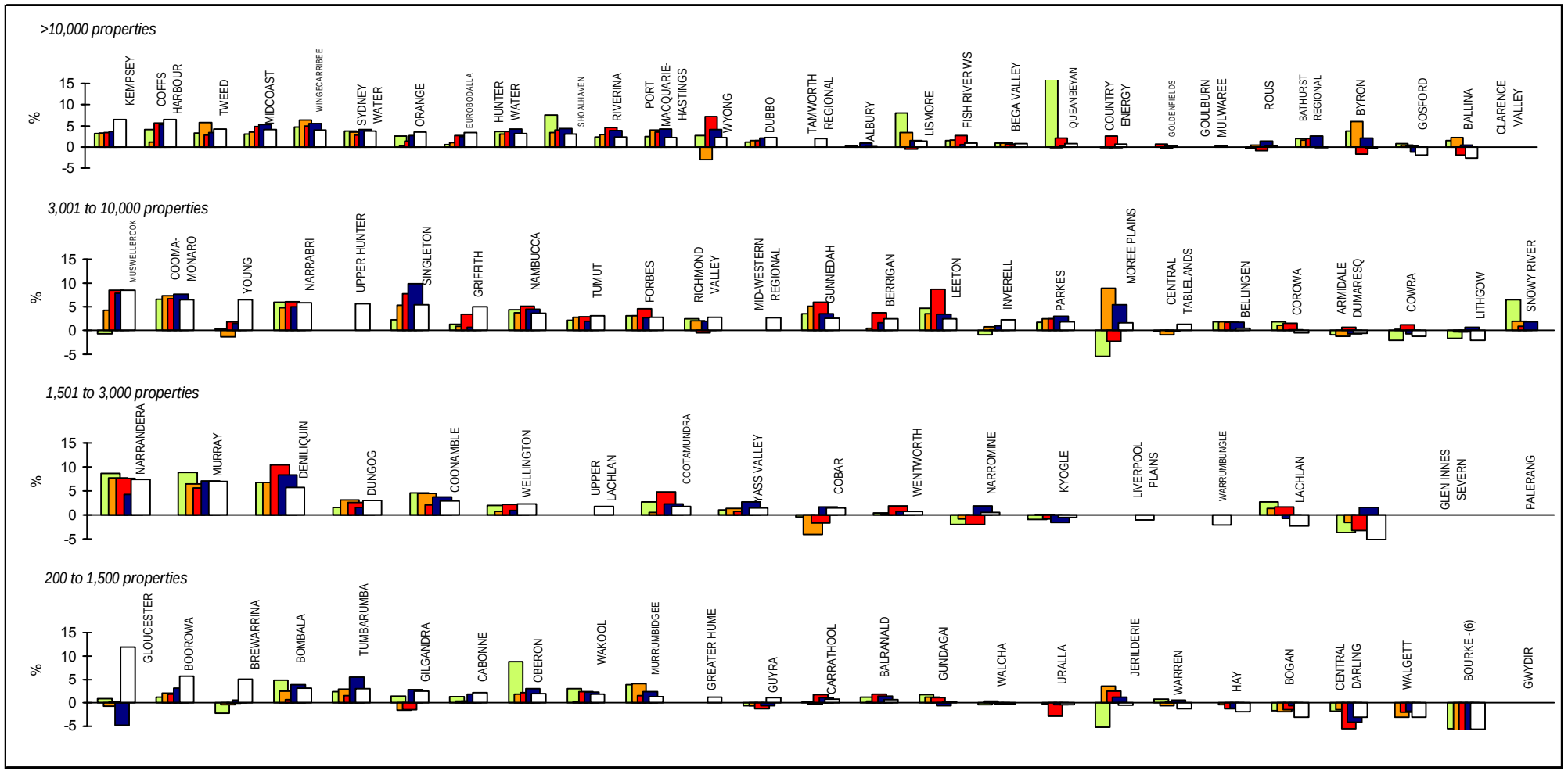
Parameter:

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

Notes:

1. Many LWUs did not separately report their revenue from 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 future.
2. The statewide median residential revenue from water usage charges was 49%.
3. For general notes see page 14.

34 Economic Real Rate of Return - Water Supply



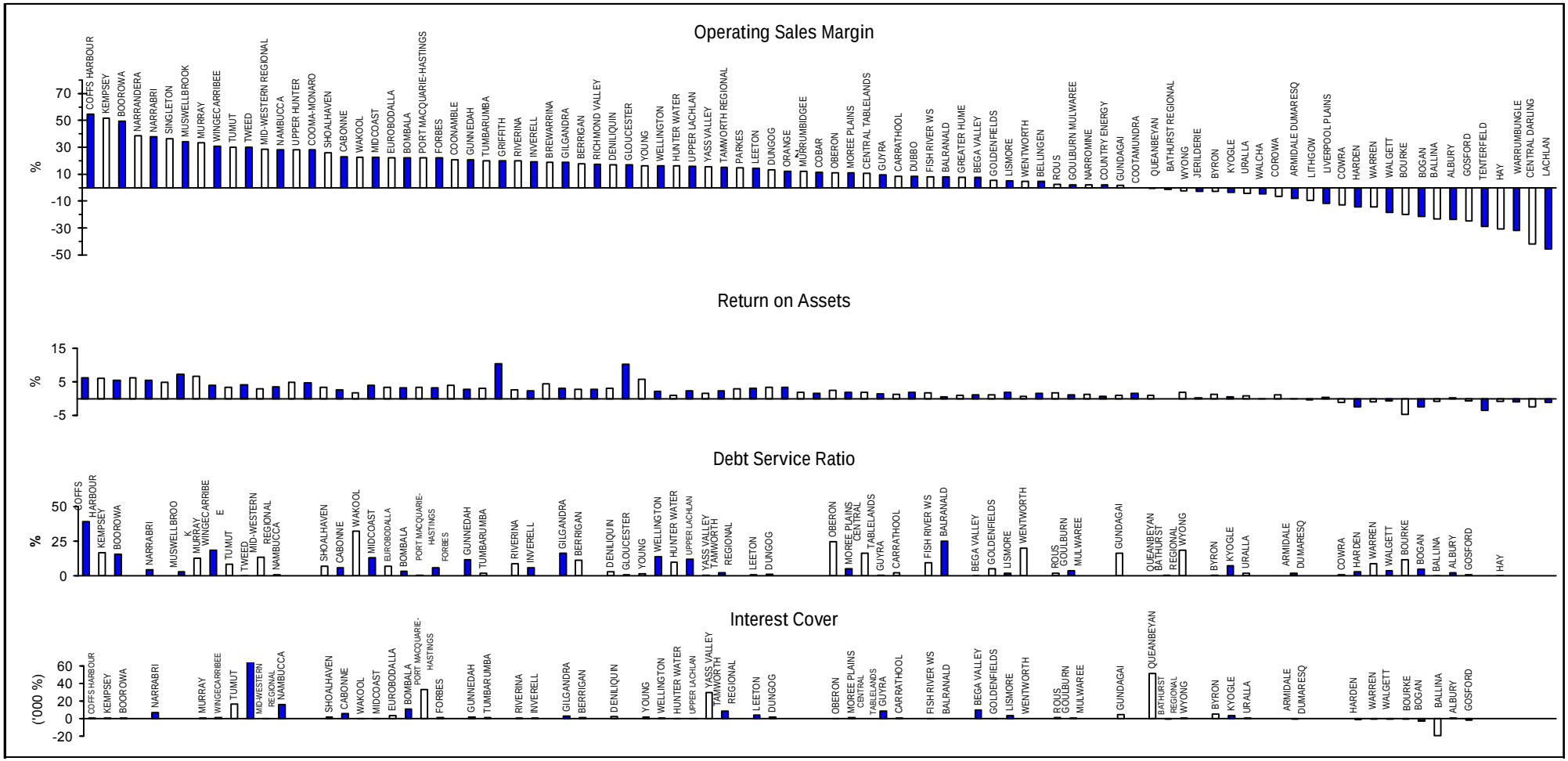
Parameter:

$$\frac{\text{[Operating Result (W15) + Interest Expense (W4a) - Interest Income (W9) - Grants for Acquisition of Assets (W11a)] x 100}}{\text{Written Down Replacement Cost of System Assets, Plant \& Equipment (W33)}}$$

Notes:

1. This figure shows ranked values of the 2004/05 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 2004/05 water supply real rate of return for the 25 LWUs shown ranges from 8% to -2%. Results for the previous 4 years are also shown.
2. The statewide median water supply ERRR is 2.3%.
3. The ERRR was not reported for Sydney and Hunter Water Corporations from 2001/02 to 2004/05. 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 14.

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



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

Parameter: [Operating Result (W15) + Interest Expenses (W4a) - Grants for Capital Works (W11a)] x 100
Written Down Replacement Cost of System Assets, Plant and Equipment (W33)

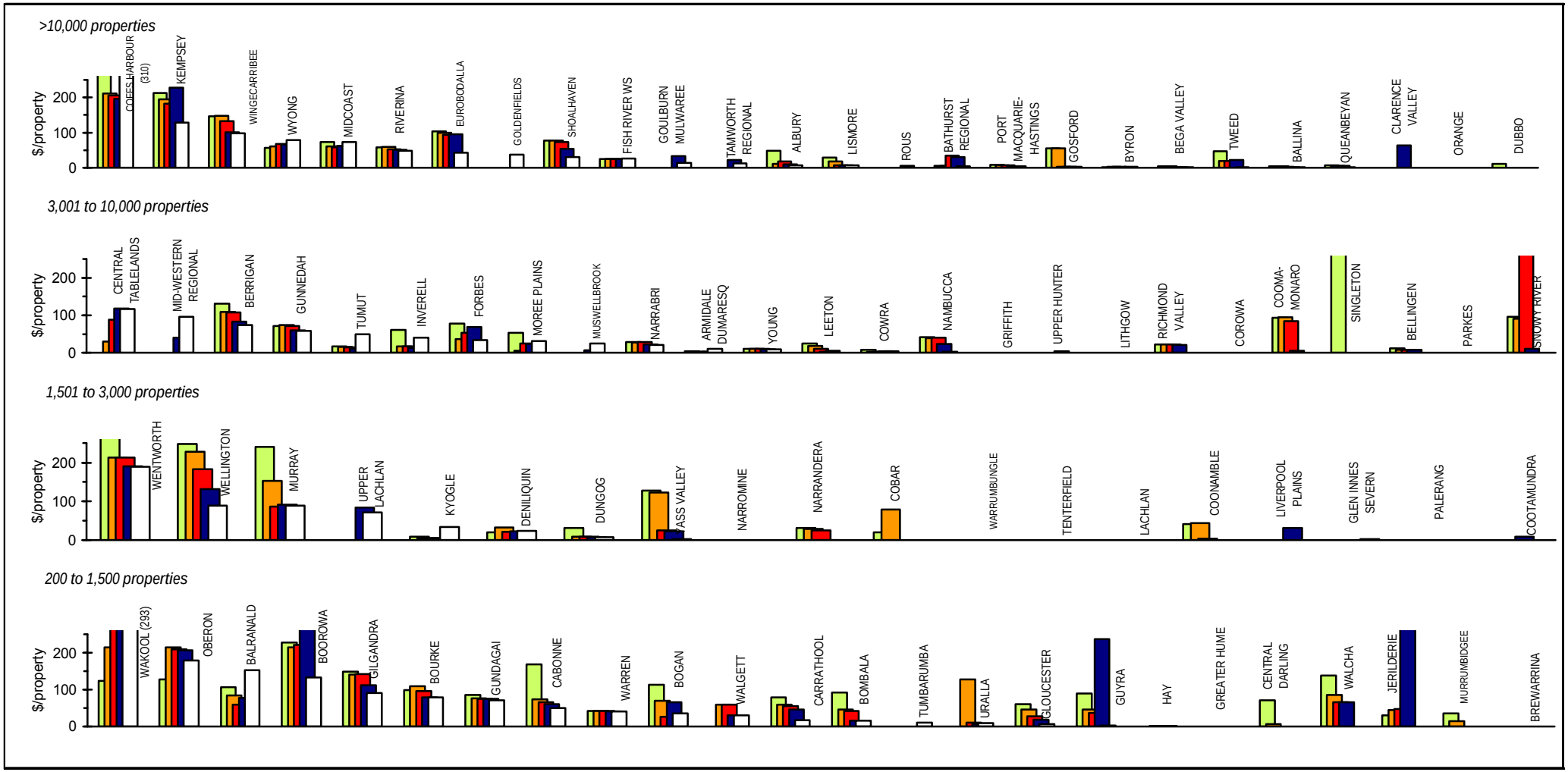
Parameter: [Internal Expenses (W4a) + Payment of Debt (W17)] x 100
Total Revenue (W13) - Grants for Capital Works (W11a) - Developer Provided Assets (W12b)

Parameter: [Operating Result (W15) + Interest Expenses (W4a) - Grants for Capital Works (W11a)] x 100
Interest Expenses (W4a)

Note:

1. For general notes see page 14.

36 Loan Payment - Water Supply



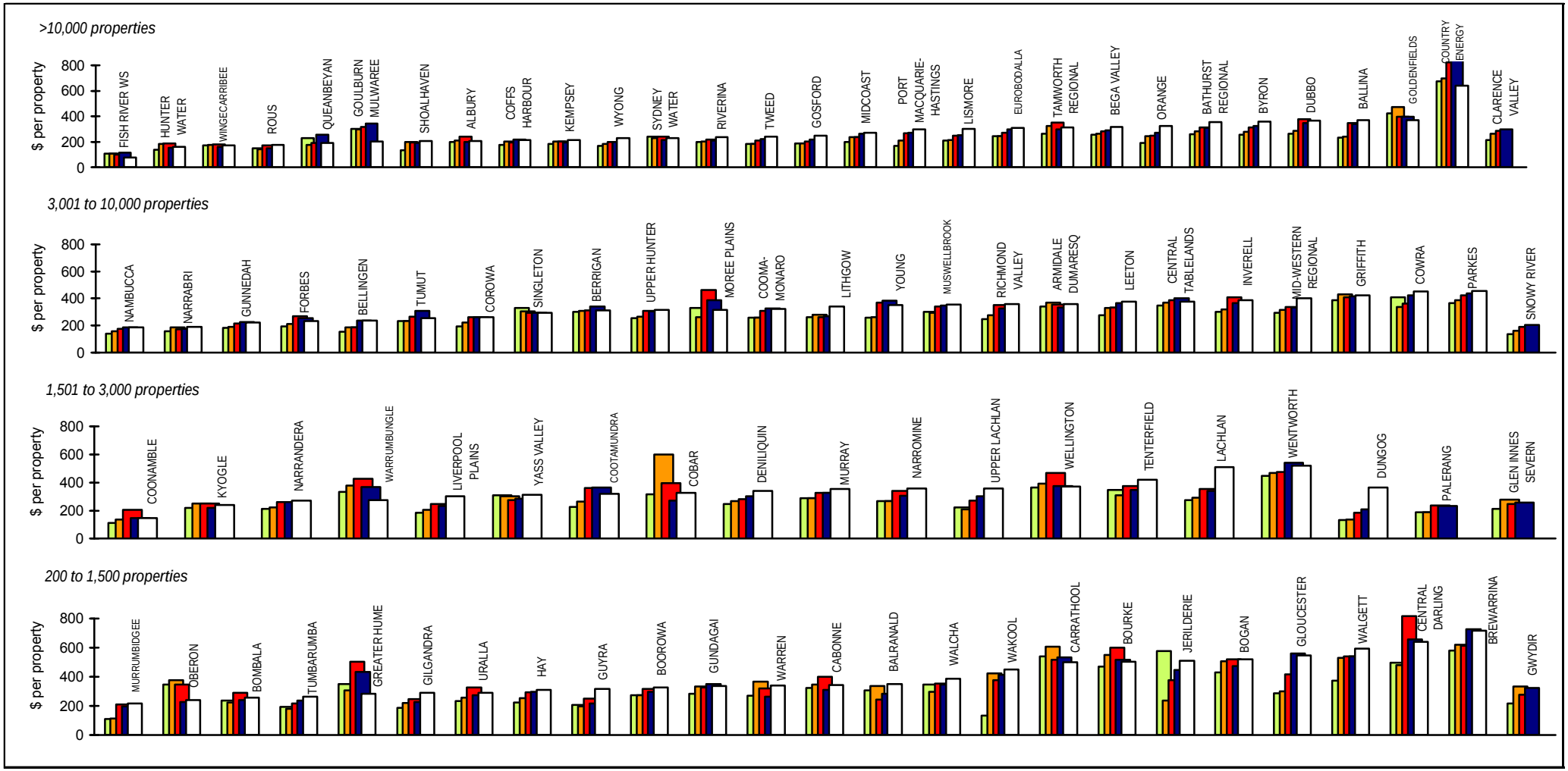
Parameter: Payment of Debt (W17) + Interest Expenses (W4a)

[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 2004/05 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 2004/05 water supply loan payments for the 25 LWUs shown ranges from $117 to $0 per connected property. Results for the previous 4 years are also shown in Jan 2005$.
2. The statewide median water supply loan payment is $31 per connected property.
3. For general notes see page 14.

37 Operating Cost (OMA) per property - Water Supply



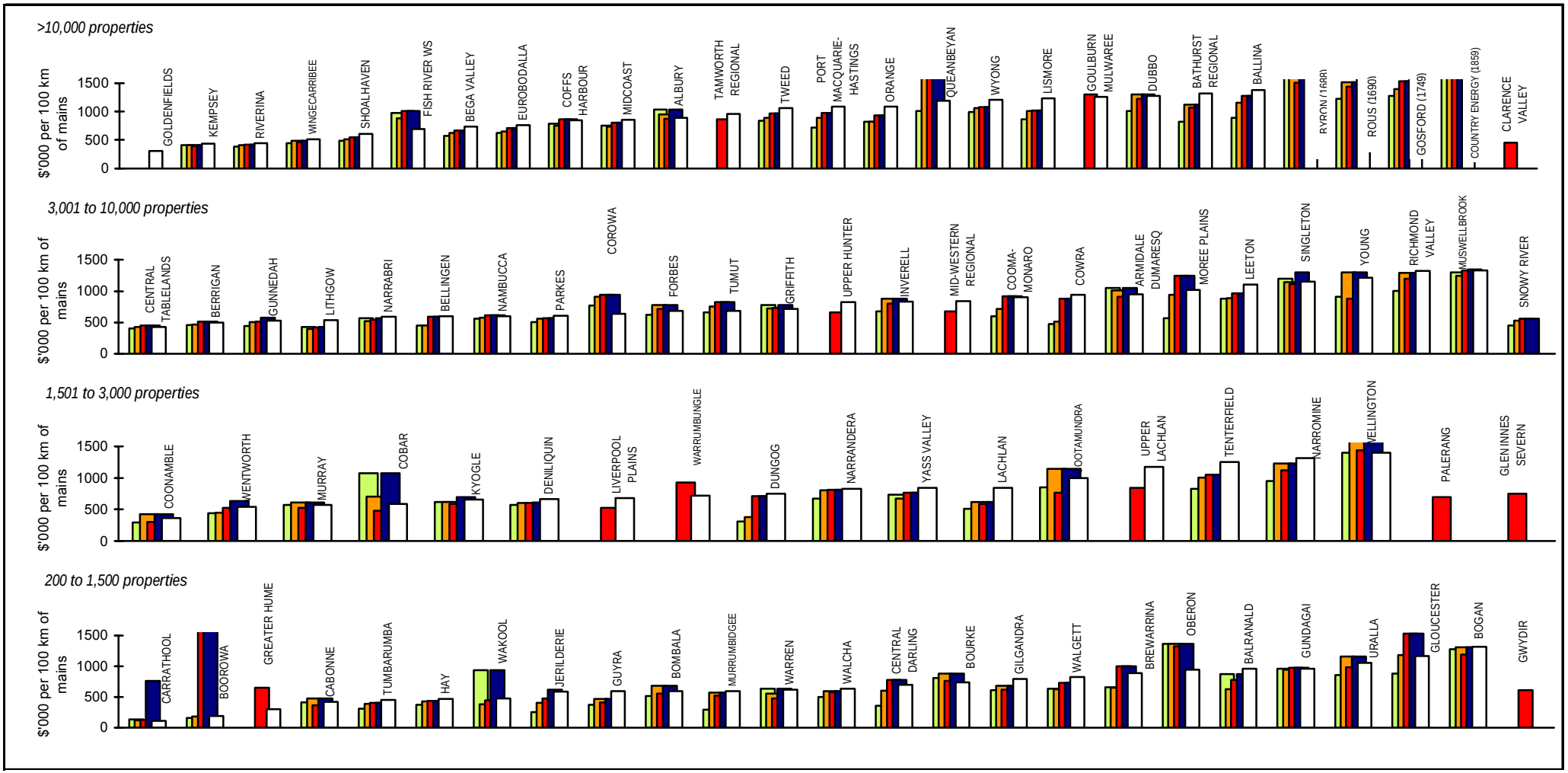
Parameter:

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

Notes:

1. This figure shows ranked values of the 2004/05 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 2004/05 water supply operating costs for the 25 LWUs shown ranges from $185 to $455 per connected property. Results for the previous 4 years are also shown in Jan 2005$.
2. The statewide median operating cost per connected property is $260.
3. For general notes see page 14.

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



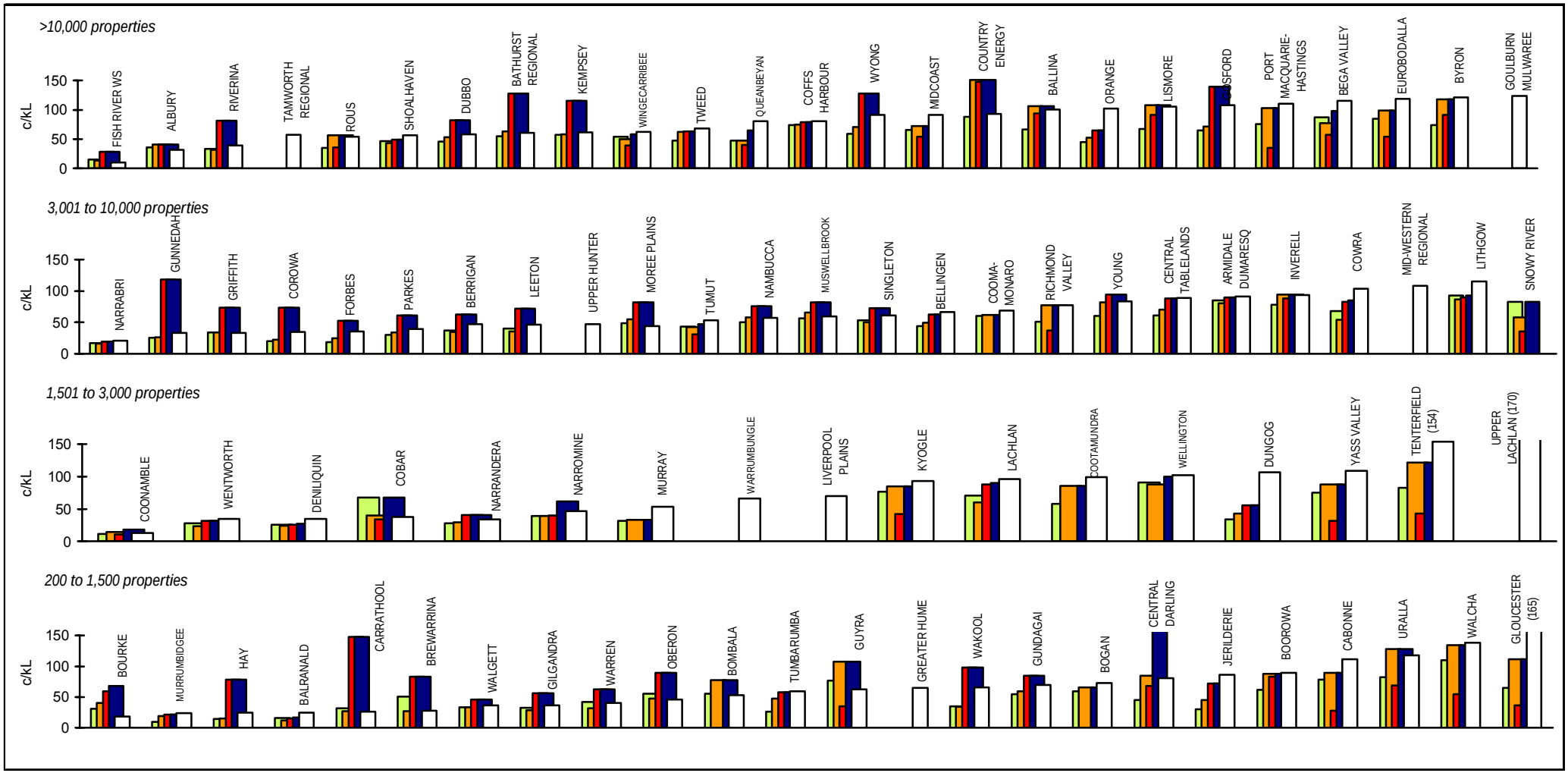
Parameter:

$$\frac{\text{Water Main Operation Expenses (W2c) + Water Main Maintenance Costs (W2d)}}{\text{Length of Distribution Trunk Mains (Q10c) x 100}}$$

Notes:

1. This figure shows ranked values of the 2004/05 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 2004/05 operating costs for the 25 LWUs shown ranges from $425,000 to $1,330,000 per 100km of main. Results for the previous 4 years are also shown in Jan 2005$.
2. The statewide median operating cost is $960,000.
3. For general notes see page 14.

39 Operating Cost (OMA) per kL - Water Supply



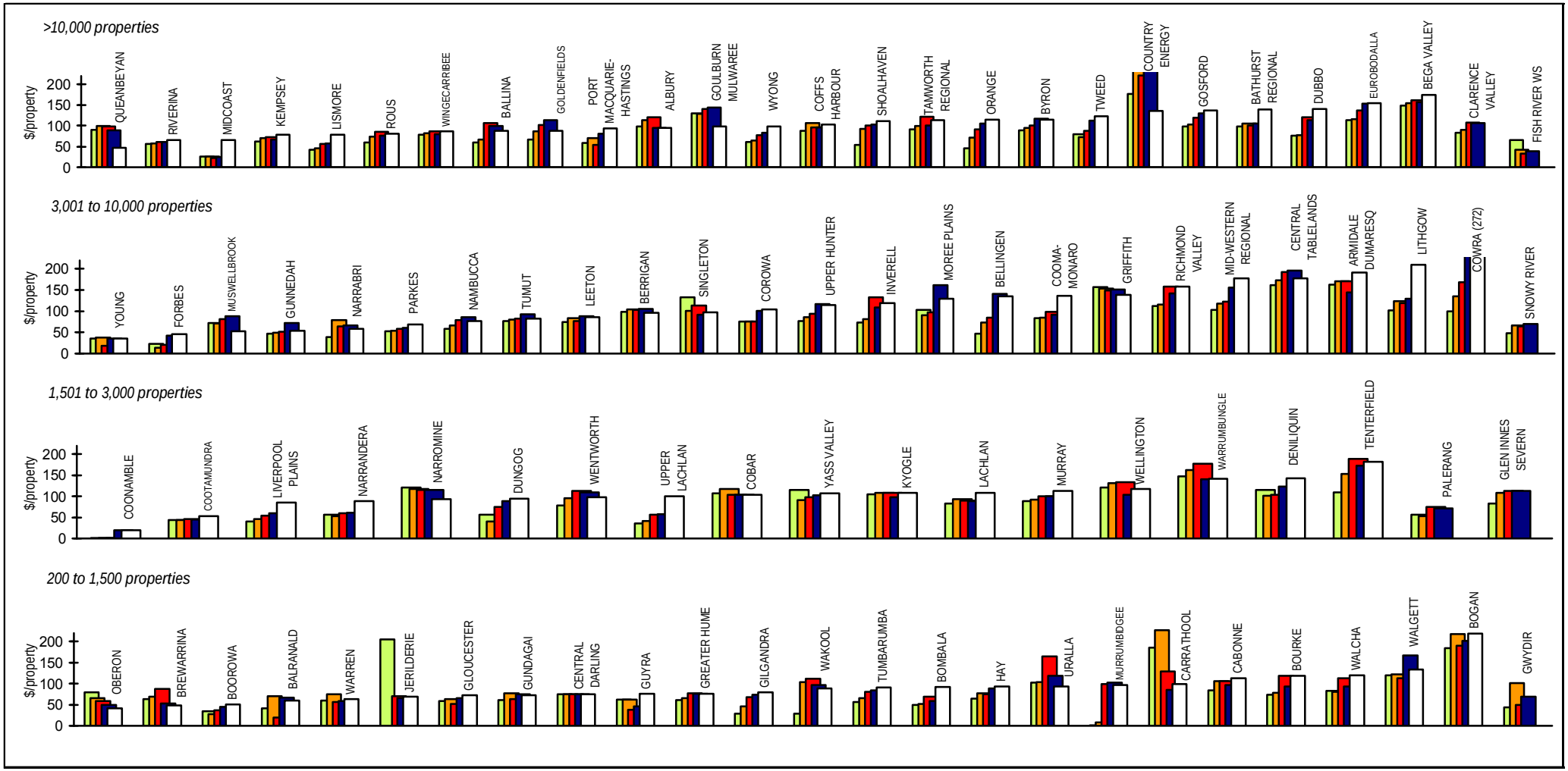
Parameter:

$$\frac{\text{Management Expenses (W1) + Total Operations Expenses (W2) - Purchase of Water (W2o)}}{\text{Total Potable Water Supplied (Q12)}}$$

Notes:

1. This figure shows ranked values of the 2004/05 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 2004/05 operating costs per kL for the 25 LWUs shown ranges from 21 to 116 c/kL. Results for the previous 4 years are also shown in Jan 2005$.
2. The statewide median operating cost is 81c/kL.
3. For general notes see page 14.

40 Management Cost Per property ($/property) - Water Supply



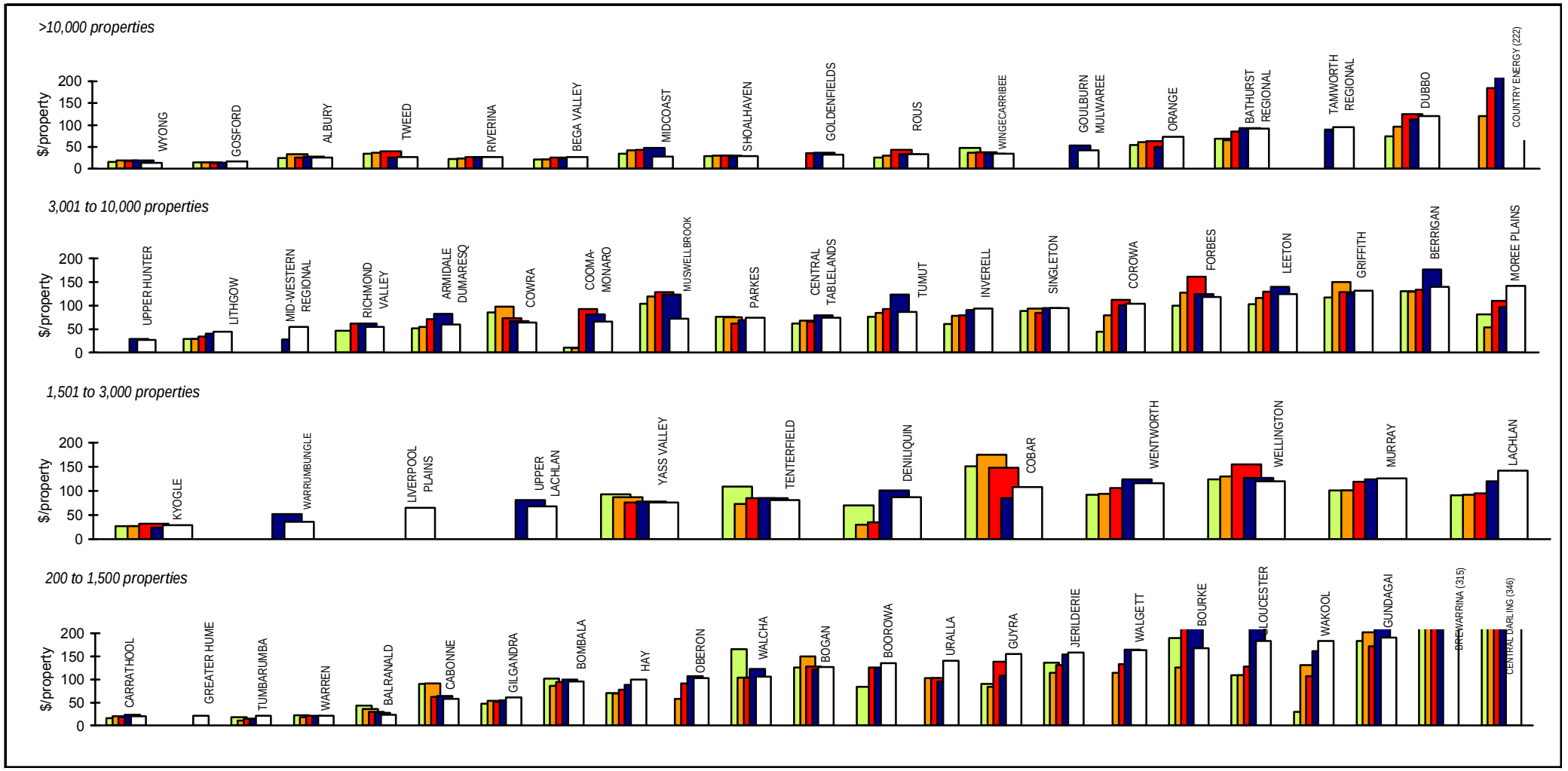
Parameter:

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

Notes:

1. This figure shows ranked values of the 2004/05 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 2004/05 management costs per property for the 25 LWUs shown ranges from $35 to $270. Results for the previous 4 years are also shown in Jan 2005$.
2. The statewide median management cost is $100 per connected property.
3. For general notes see page 14.

41 Treatment Cost per property - Water Supply



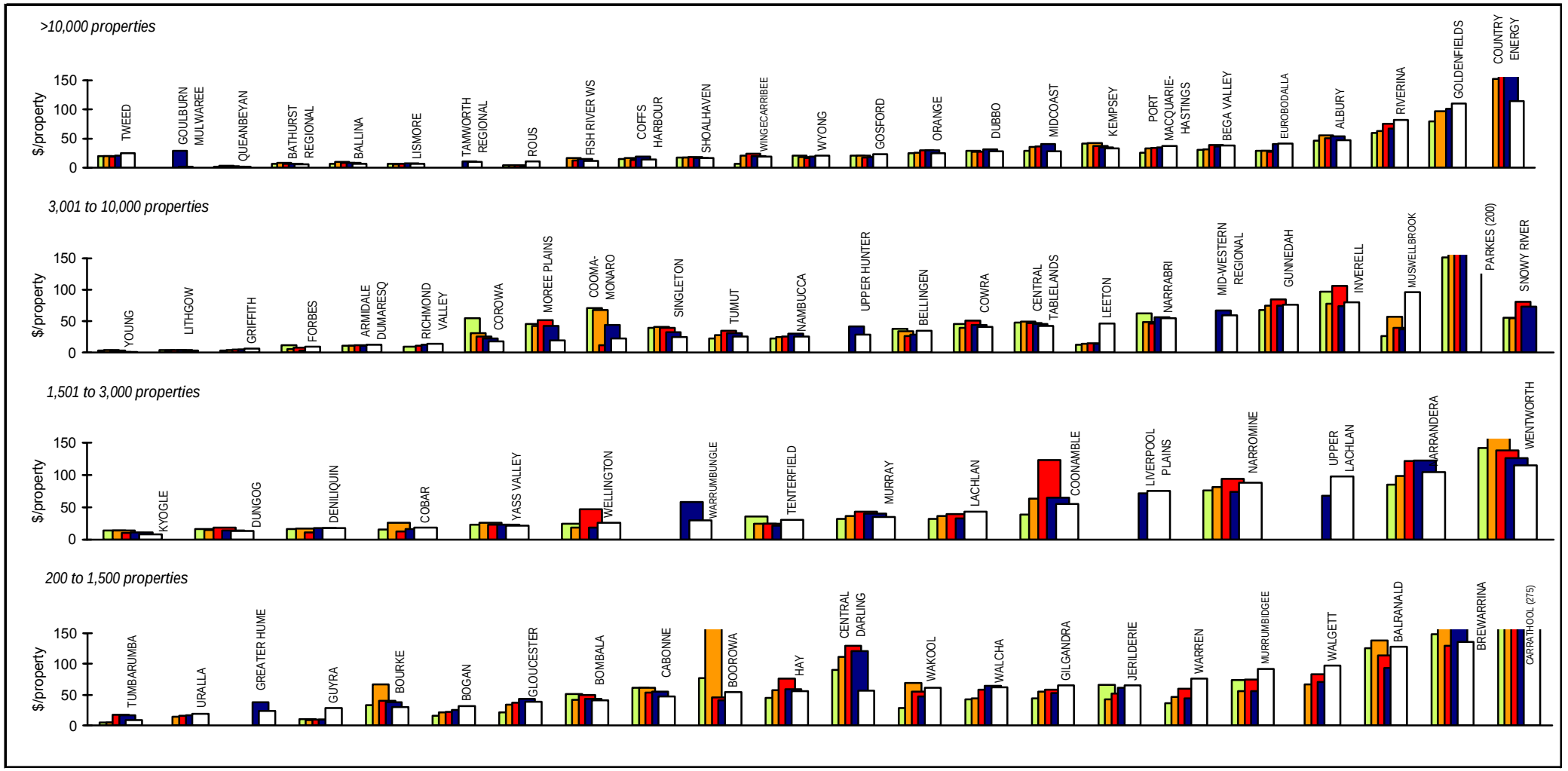
Parameter: Treatment Operation Expenses (W2j) + Treatment Chemical Cost (W2k) + Treatment Maintenance Expenses (W2l)

[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 2004/05 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 2004/05 treatment costs for the 19 LWUs shown ranges from $30 to $140 per connected property. Results for the previous 4 years are also shown in
2. Only LWUs with a water treatment works involving at least filtration and disinfection for over 50% of their supply have been recorded.
3. The statewide median operating cost is $27 per connected property.
4. For general notes see page 14.

42 Pumping Cost per property - Water Supply



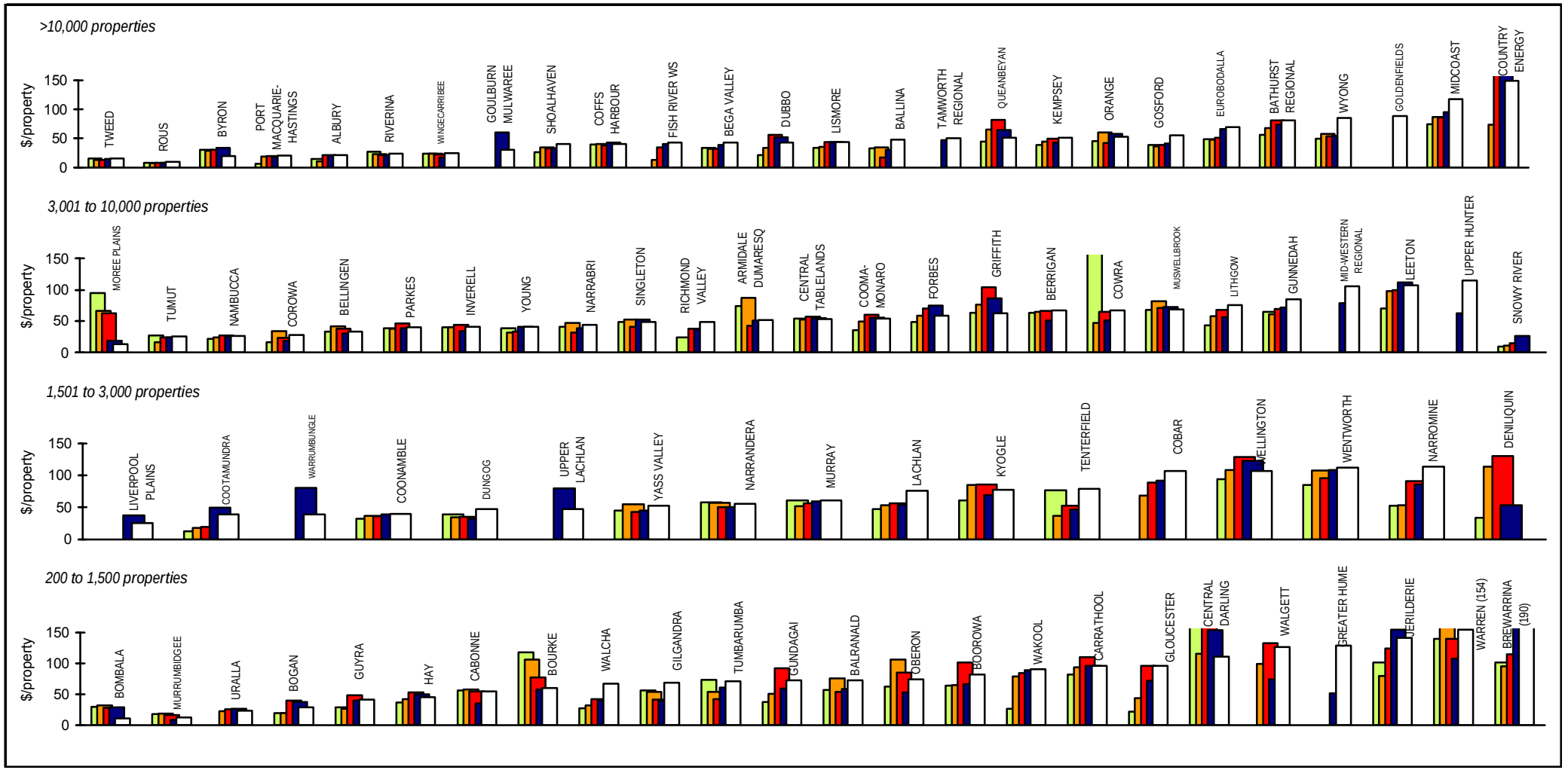
Parameter: Pumping Station Operation Expenses (W2g) + Pumping Station Energy Cost (W2h) + Pumping Station Maintenance Costs (W2i)

[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 2004/05 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 2004/05 water pumping costs for the 23 LWUs shown ranges from $1 to $200 per connected property. Results for the previous 4 years are also shown in Jan 2005$.
2. The statewide median water pumping cost (including energy costs) is $23 per connected property.
3. For general notes see page 14.

43 Water Main Cost per property - Water Supply



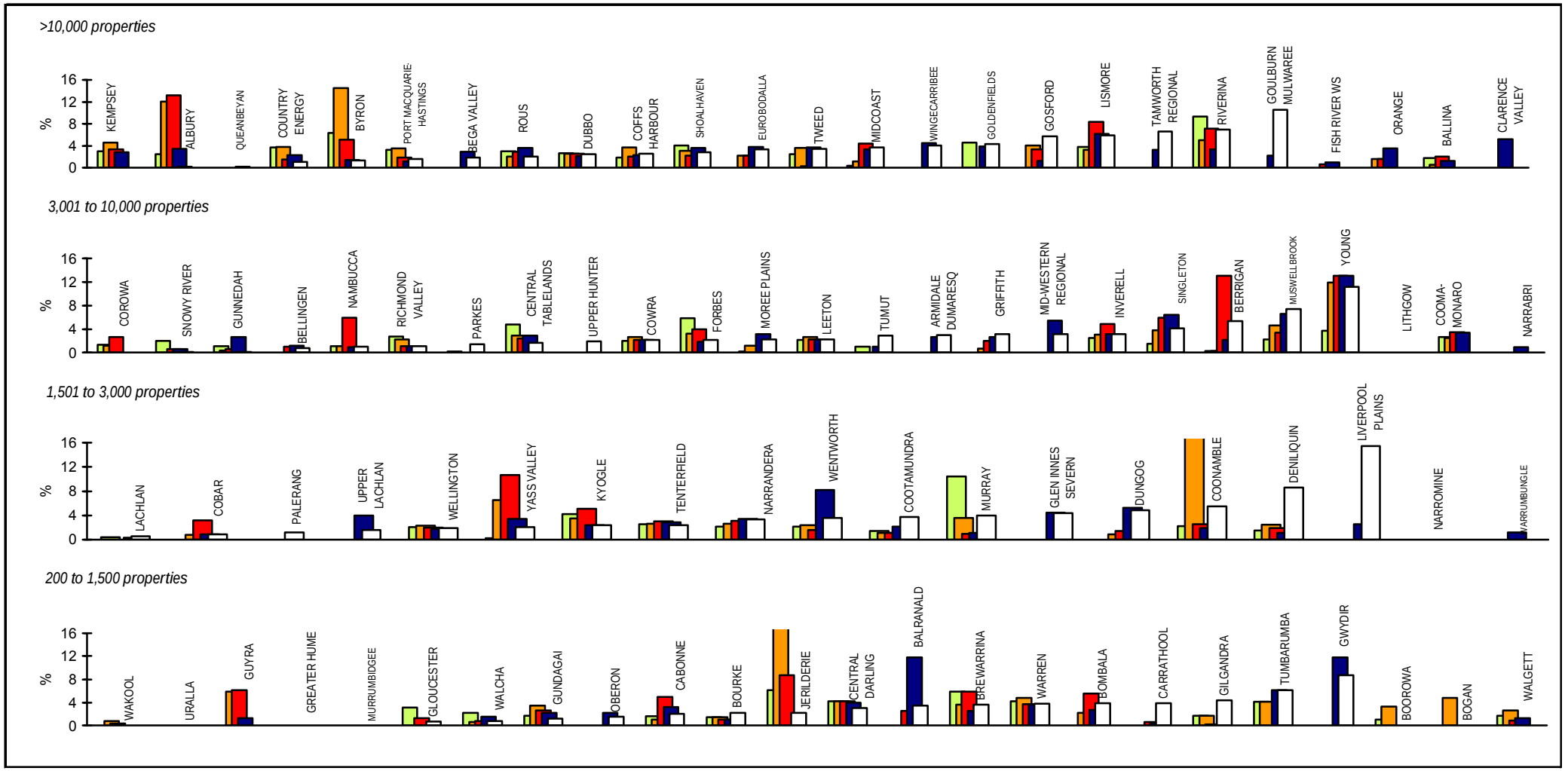
Parameter: Water Main Operation Expenses (W2c) + Water Main Maintenance Costs (W2d)

[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 2004/05 water main operating 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 2004/05 water main costs for the 24 LWUs shown ranges from $13 to $115 / property. Results for the previous 4 years are also shown in
2. The statewide median water main cost is $49 / property.
3. For general notes see page 14.

44 Total Days Lost - Water Supply



Parameter:

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

Notes:

1. This figure shows ranked values of the 2004/05 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 2004/05 total days lost for the 25 LWUs shown ranges from nil to 11%. Results for the previous 4 years are also shown. The utilities on the right did not report this indicator for 2004/05.
2. The statewide median days lost is 3.2%.
3. For general notes see page 14.

10 SEWERAGE FIGURES

This section contains the following Figures for sewerage:

UTILITY CHARACTERISTICS

45 Population, Assessments Served
46 New Residential Dwellings Connected
47 Properties Served per km of Main, Length of Mains
48 Employees
49 Trade Waste

SOCIAL – *CHARGES/BILLS*

50 Typical Residential Bill – Sewerage
51 Typical Developer Charge for Sewerage

SOCIAL – *HEALTH*

52 Urban Population without Sewerage
53 Public Health Incidents, Management Systems, Capital Investment

SOCIAL – *LEVELS OF SERVICE*

54 Odour Complaints
55 Total Complaints, Odour Complaints, Service Complaints, Billing Complaints, Other Complaints
56 Treatment Works Malfunction

ENVIRONMENTAL

57 Compliance with BOD in Licence
58 Compliance with SS in Licence
59 Compliance with total N in Licence
60 Compliance with total P in Licence
61 Compliance with DEC Licence
62 Sewer Main Chokes and Collapses
63 Total Chokes
64 Sewer Overflows to the Environment
65 Recycled Water
66 Recycled Water (% of Effluent Recycled)
67 Energy Consumption per ML
68 Energy Consumption per property
69 Environmental Incidents, Management Systems, Capital Investment

ECONOMIC – *FINANCIAL*

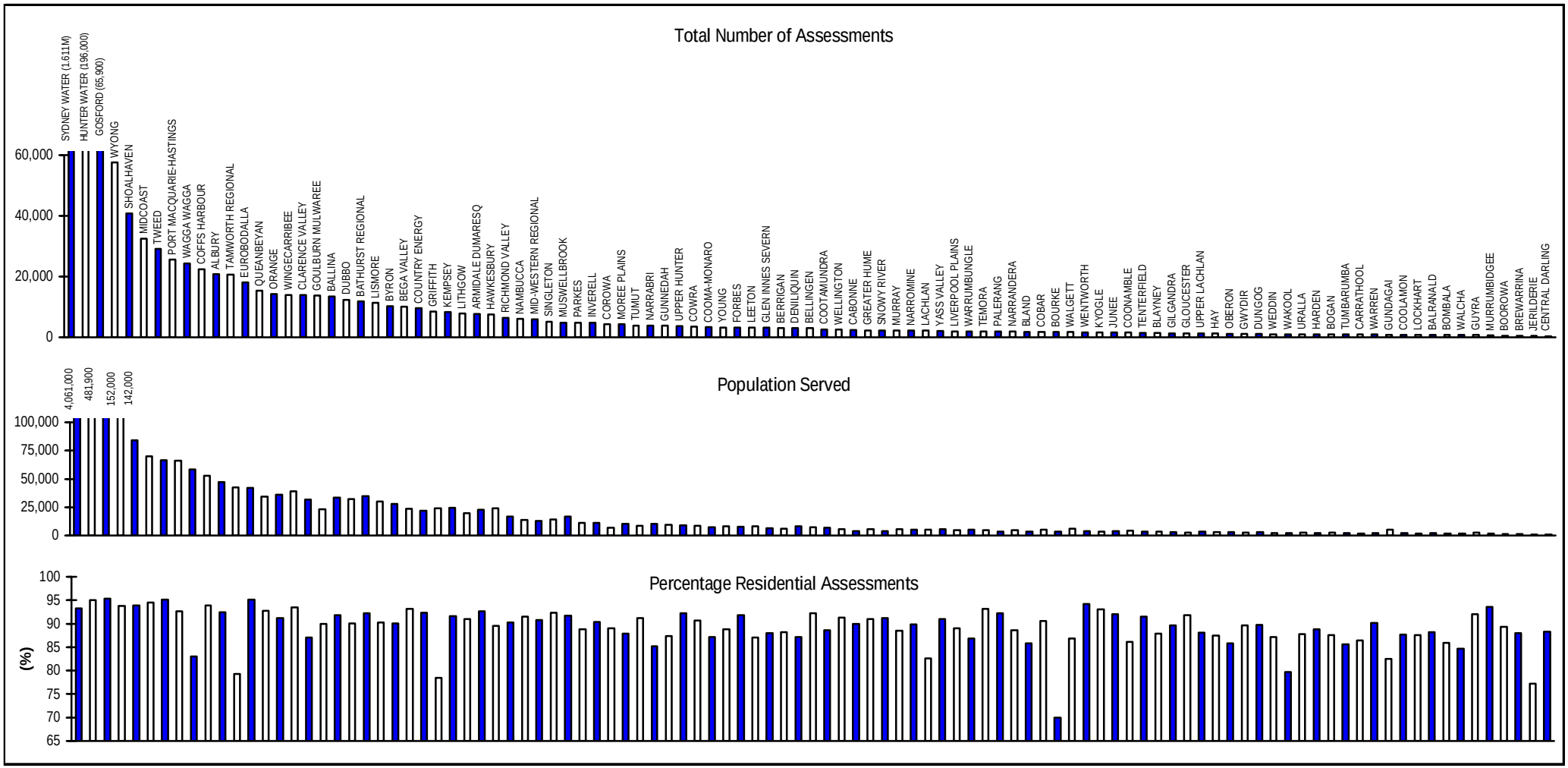
70 Revenue from Access Charges, Trade Waste Charges and Other
71 Economic Real Rate of Return
72 Operating Sales Margin, Return on Assets, Debt Service Ratio, Interest Cover
73 Loan Payment

ECONOMIC – *EFFICIENCY*

74 Operating Cost (OMA) per property
75 Operating Cost (OMA) per 100 km of main
76 Operating Cost (OMA) per kL
77 Management Cost per property
78 Treatment Cost
79 Pumping Cost
80 Sewer Main Cost
81 Total Days Lost

Blank Page

45 Population, Assessment Served - Sewerage



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

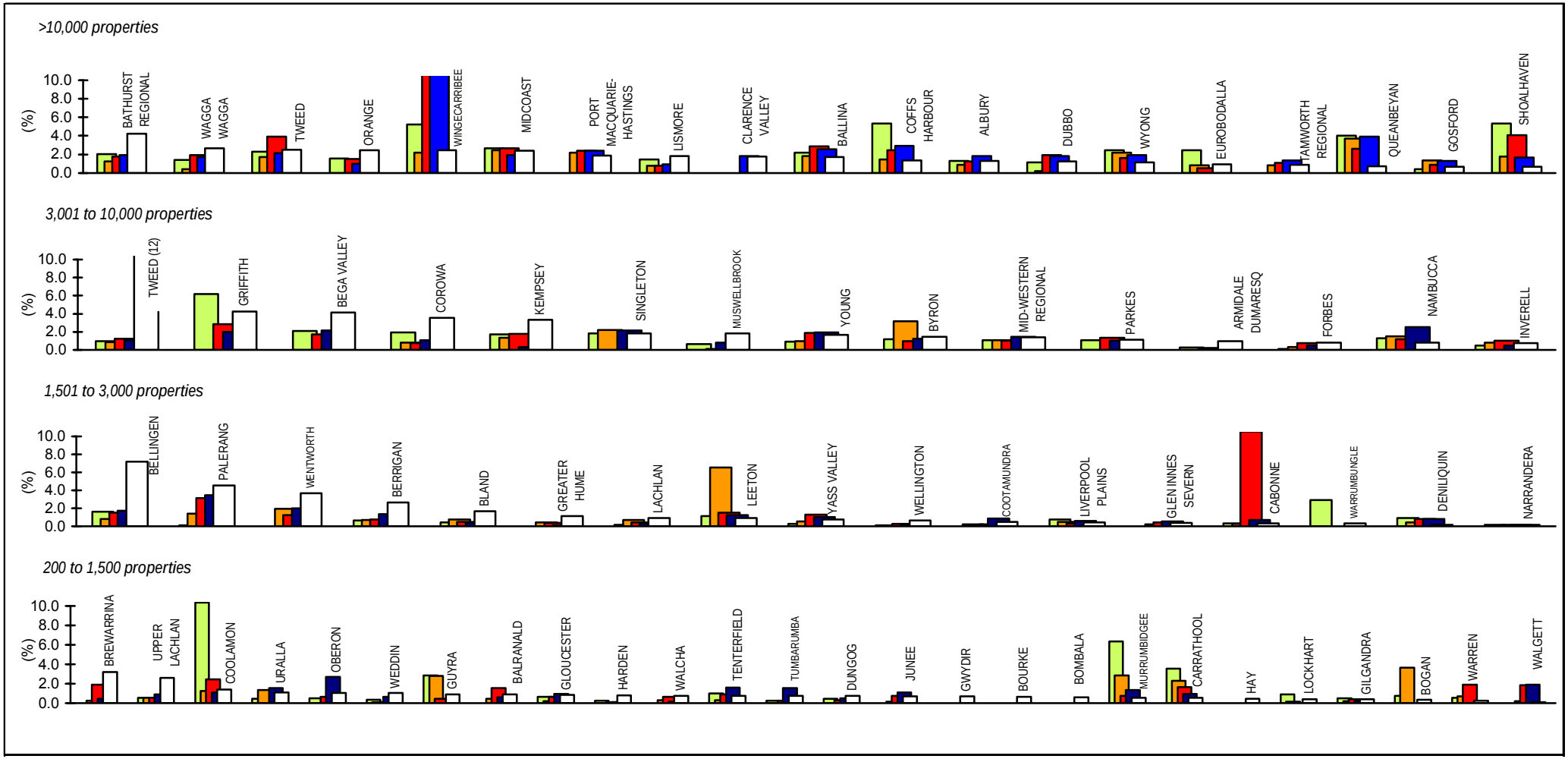
Parameter: Population Served (Q1a)

Parameter: $\frac{\text{No. of Residential Assessments (Q4a)} \times 100}{\text{No. of Residential Assessments (Q4a) + No. of Non-Residential Assessments}}$

Note:

1. For general notes see page 14.

46 New Residential Dwellings Connected - Sewerage



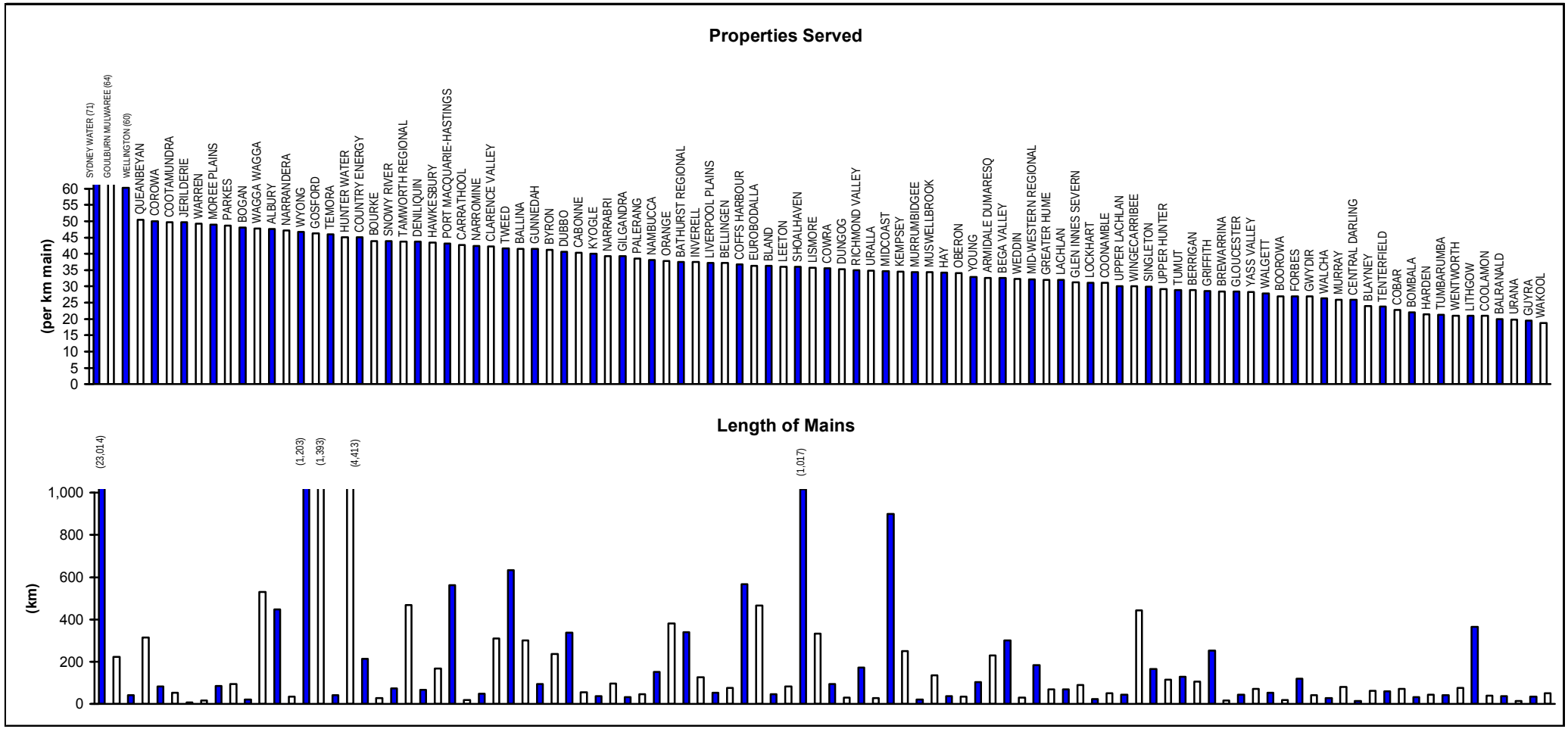
Parameter:

$$\frac{\text{No. of New Residential Dwellings Connected in Year (Q5)} \times 100}{\text{[No. of Residential Assessments (Q4a) + No. of Non-Residential Assessments (Q4b)} \times \text{No. of Connected Properties per Assessment}}$$

Notes:

1. This figure shows ranked values of the 2004/05 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 2004/05 total number of new residential dwellings connected for the 15 LWUs shown ranges from about 12% to 1%. Results for the previous 4 years are also shown.
2. The 2004/05 Statewide median new residential dwellngs connected to sewerage is 1.2 % of the existing number of connected residential properties.
3. For general notes see page 14.

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

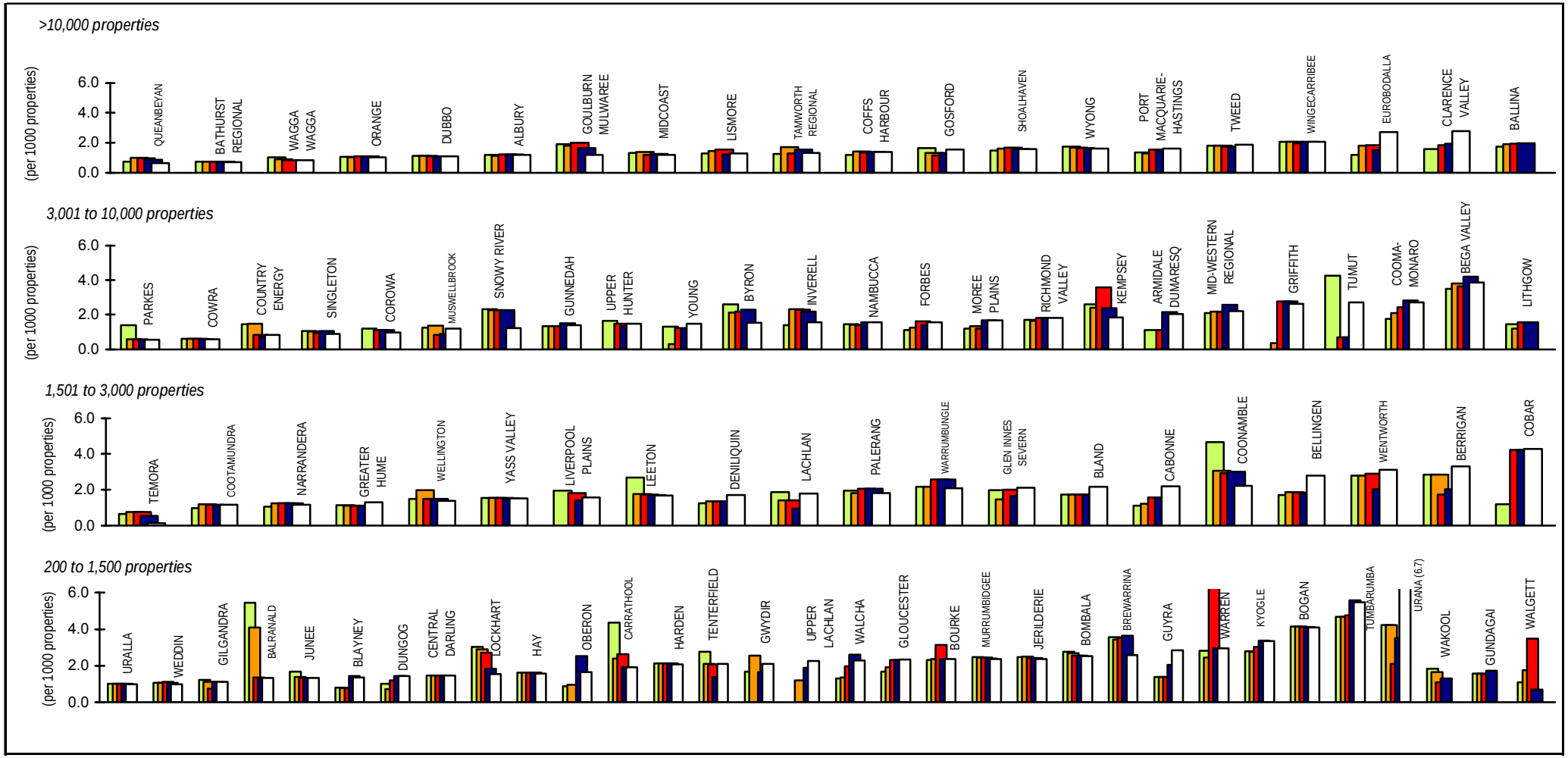


Parameter: [No. of Residential Assessments (Q4a) + No. of Non-Residential Assessments (Q4b) x No. of Connected Properties per Assessment] / [Length of Reticulation/Gravity Mains (Q10a) + Length of Rising Mains (Q10b)]

Note:

1. For general notes see page 14.

48 Employees - Sewerage



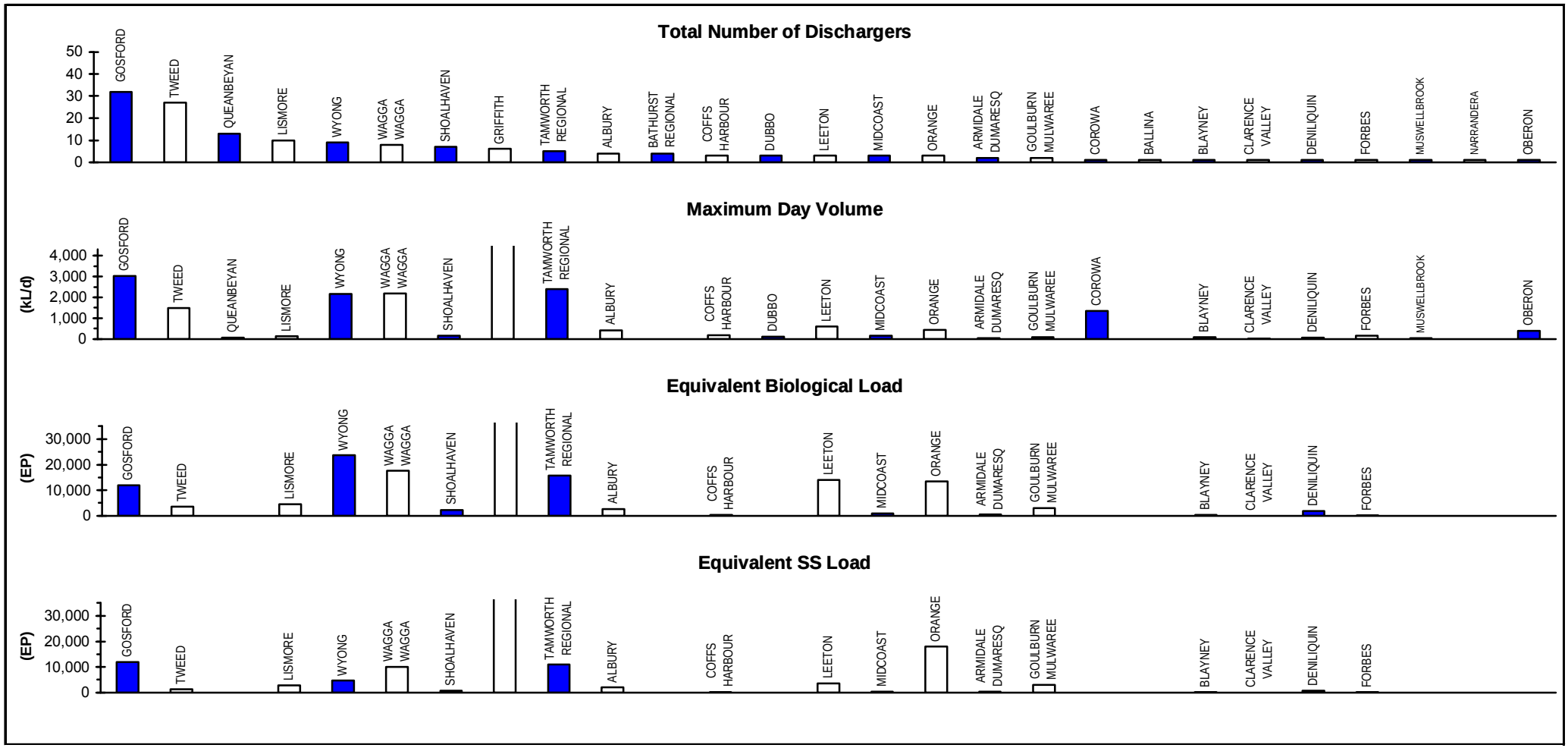
Parameter:

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

Notes:

1. This figure shows ranked values of the 2004/05 sewerage employees 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 2004/05 sewerage employees for the 23 LWUs shown ranges from about 1% to 4%. Results for the previous 4 years are also shown.The 4 Utilities on the right did not report this indicator for 2004/05.
2. The 2004/05 Statewide median number of sewerage employees is 1.5 per 1000 connected properties.
3. For general notes see page 14.

49 Trade Waste - Sewerage

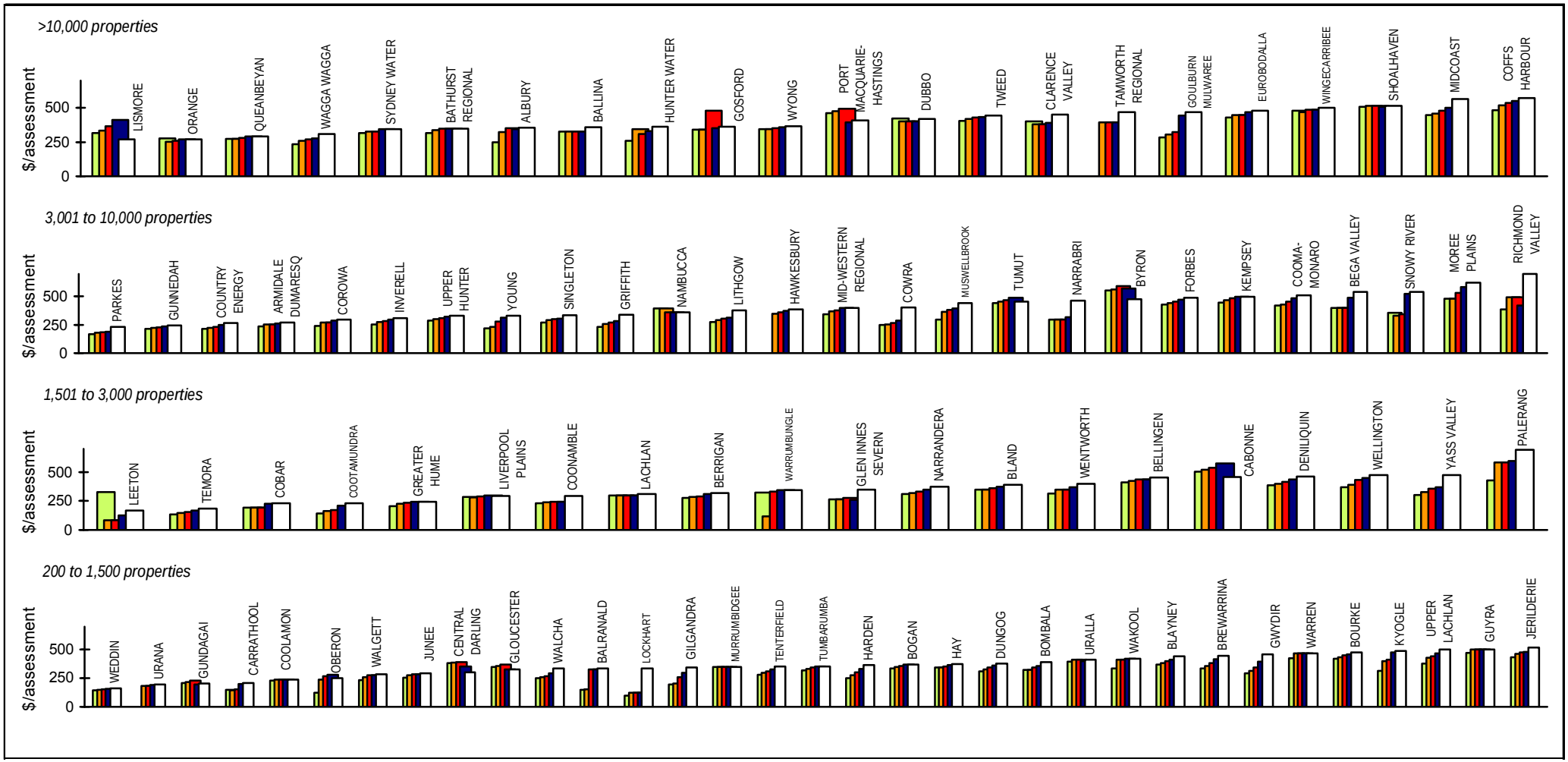


Parameter: Number of Large Dischargers (Q12a)
Parameter: Maximum Day Volume (Q12Ba)
Parameter: Equivalent Biological Load (Q12Bb)
Parameter: Equivalent Suspended Solids Load (Q12Bc)

Notes:

1. A total of 27 Local Water Utilities (LWUs) have 160 large trade waste dischargers (>20kL/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. Sewerage and trade waste pricing software to assist LWUs is available free of charge from DEUS.
3. For general notes see page 14.

50 Typical Residential Bill – Sewerage

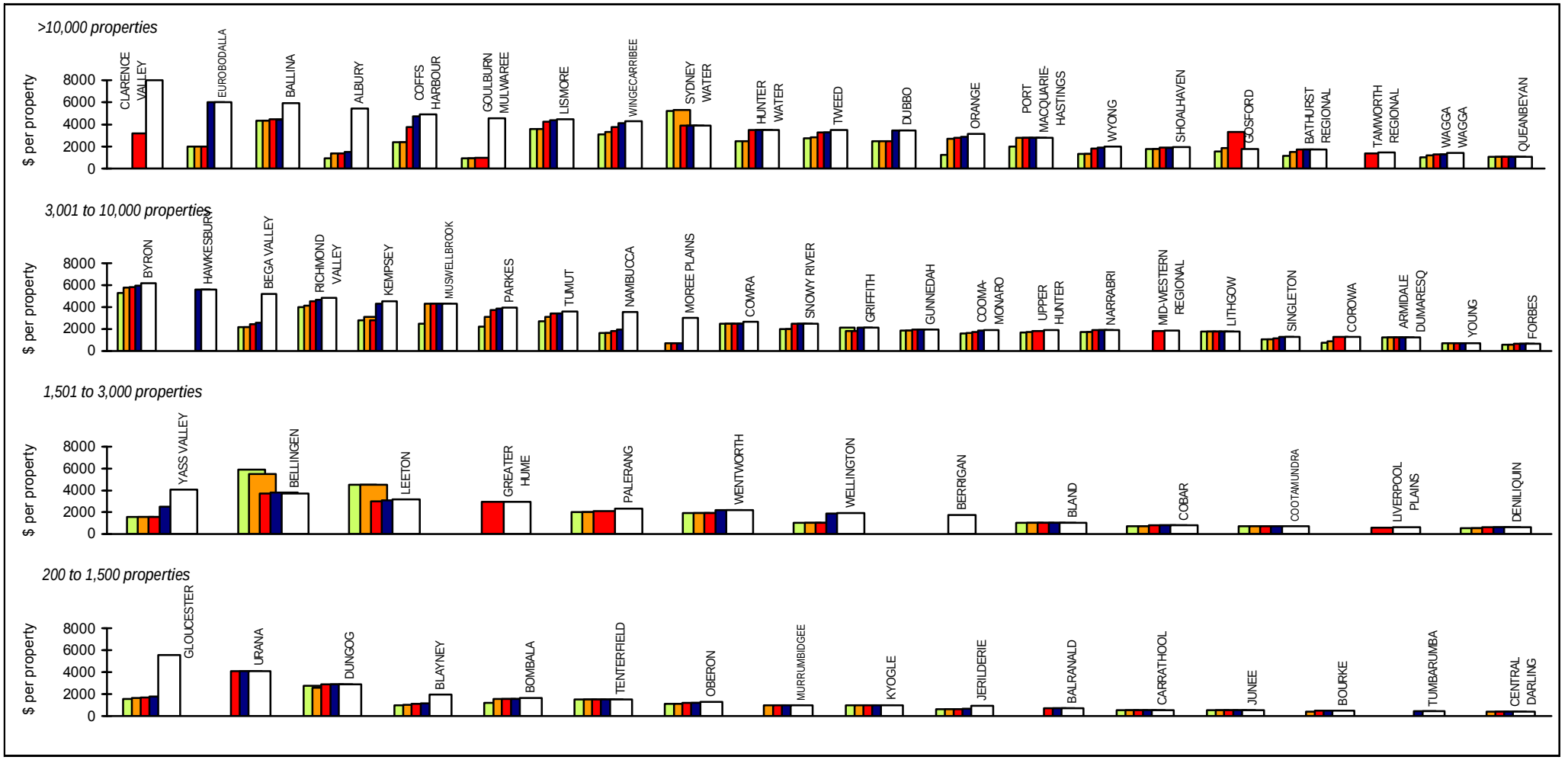


Parameter: Residential Access Charge

Notes:

1. This figure shows ranked values of the 2005/06 typical 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 2005/06 typical residential bill for sewerage for the 26 LWUs shown ranges from about $230 to $700. Results for the previous 4 years are also shown in Jan 2006$.
2. The 2005/06 Statewide median typical residential bill for sewerage supply is $370 per assessment.
3. For general notes see page 14.

51 Typical Developer Charge - Sewerage

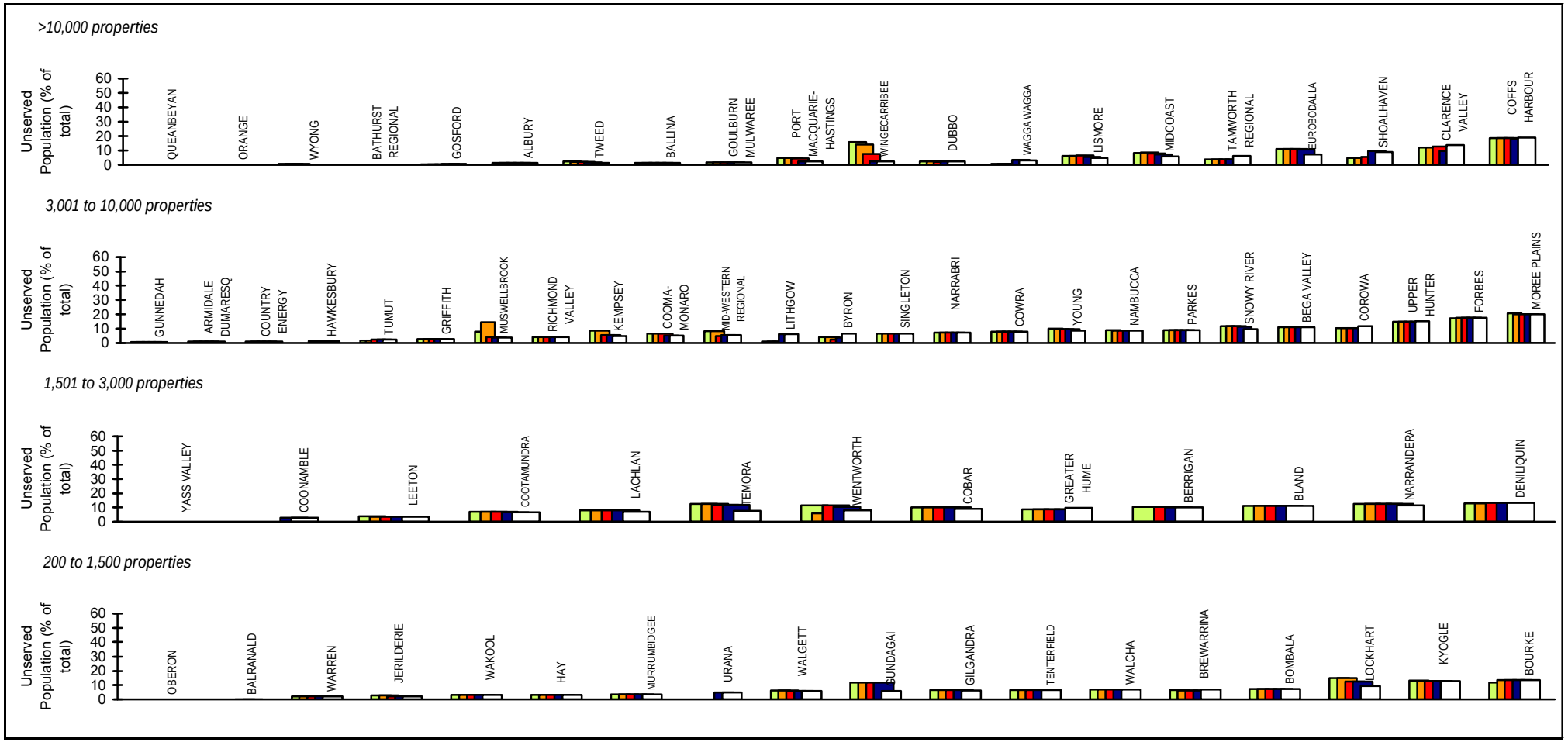


Parameter: Typical Sewerage Developer Charge (Q36)

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 24 LWUs shown ranges from from $6170 to $650 per equivalent tenement (ET). Results for the previous 4 years are also shown in Jan 2006$.
2. The 2004/05 Statewide median typical sewerage developer charge was about $2300 per ET.
3. 71 LWUs levied sewerage developer charges.
4. For general notes see page 14.

52 Urban Population without Sewerage - Sewerage



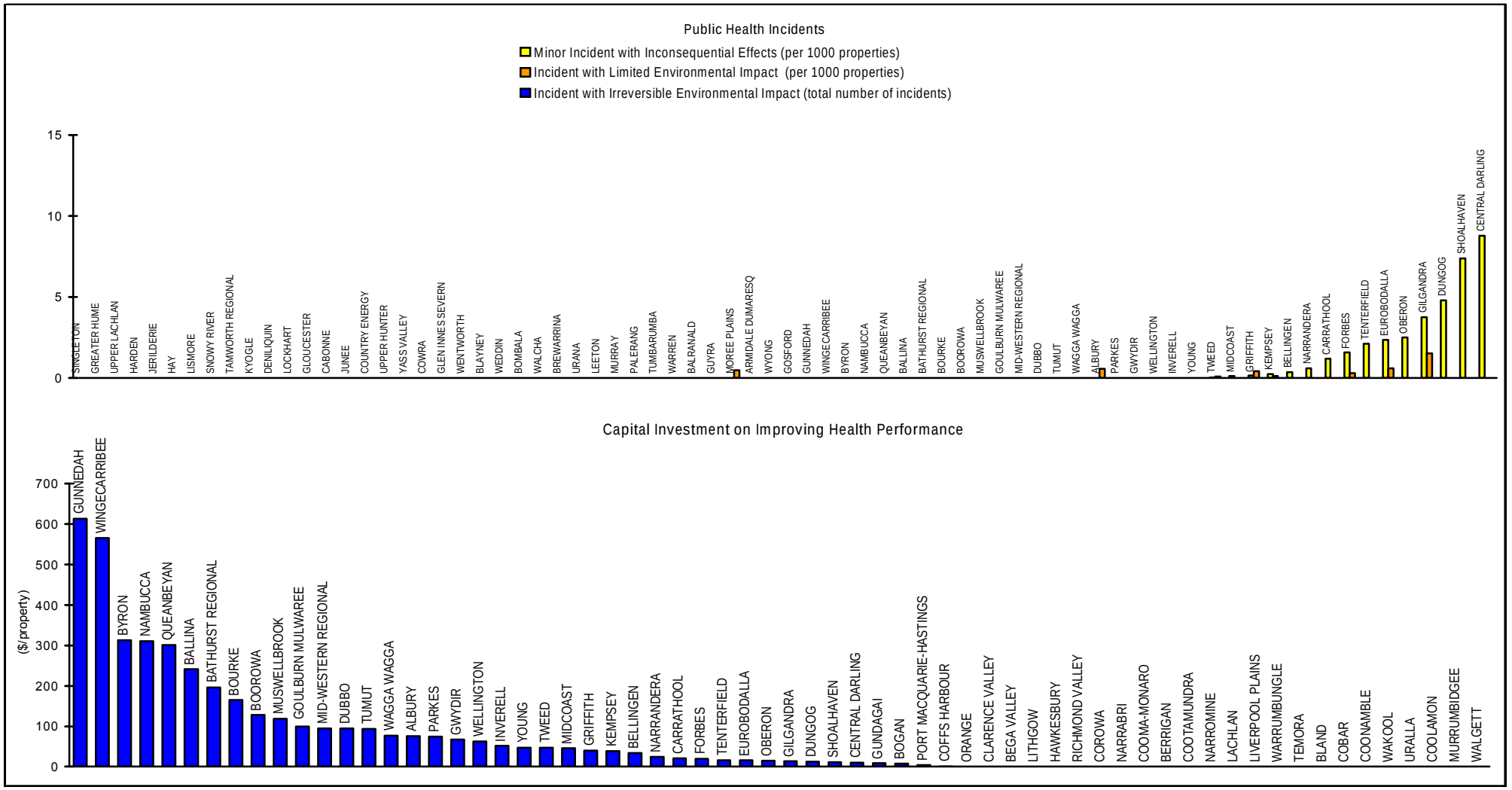
Parameter:

$$\frac{\text{Unserved Urban Population (Q6b)}}{\text{Population Served (Q1a) + Unserved Urban Population (Q5b)}}$$

Notes:

1. This figure shows 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 – 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 25 LWUs shown ranges from from 0.7 to 18 %. Results for the previous 4 years are also shown.
2. The 2004/05 Statewide median urban population without a reticulated sewerage service was 3.3 .
3. 49% of LWUs had an urban population of at least 500 without a reticulated sewerage service and 25% 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 3.3%.
5. 93% of LWUs provided a reticulated sewerage service to over 80% of their urban population. Overall, 94.3% of the urban population in non-metropolitan NSW (ie. 1.68 million people) received a reticulated sewerage service.
6. For general notes see page 14.

53 Public Health Incidents, Capital Investment - Sewerage



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

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

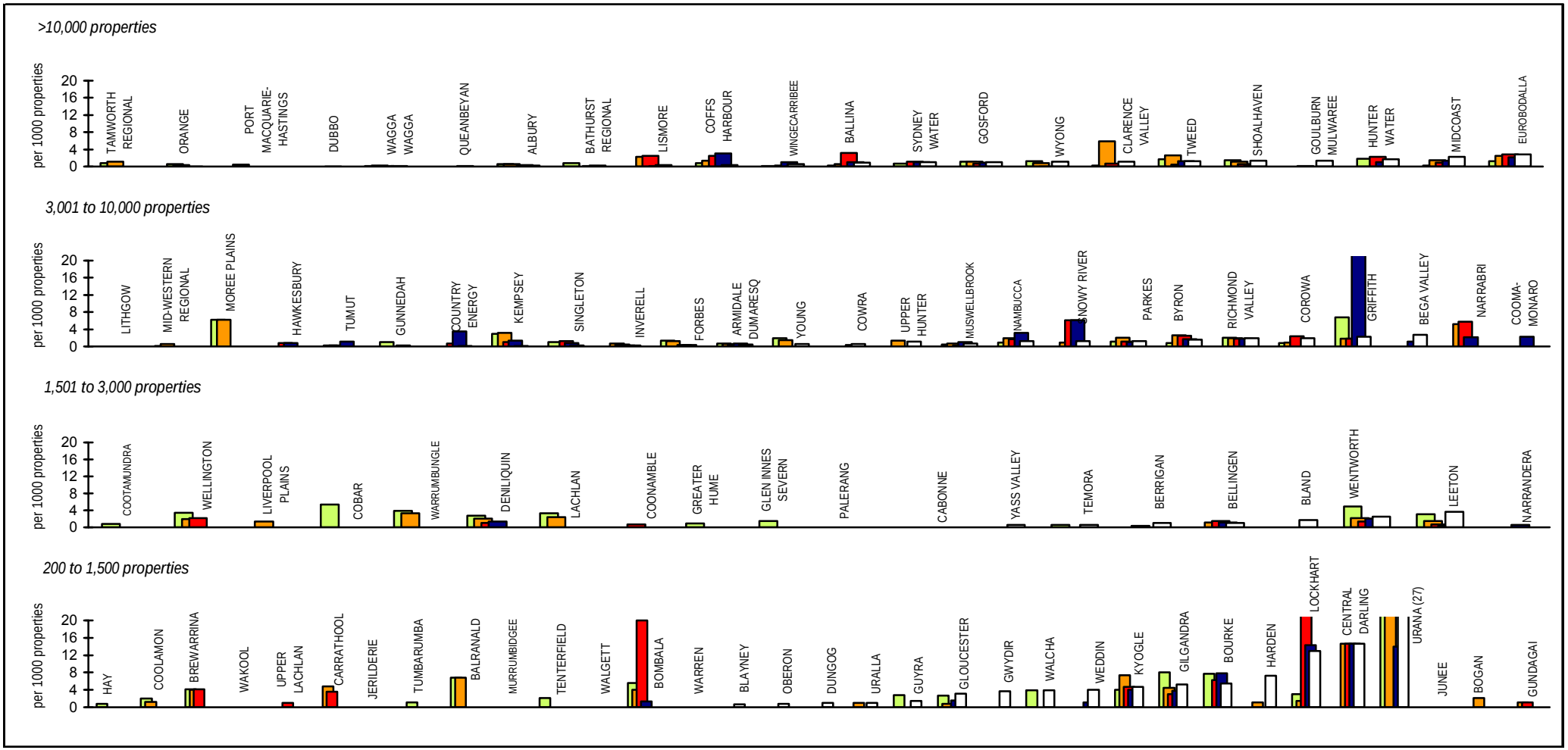
Parameter: $\frac{\text{Total No. of Major Incidents with Major Health Impacts (TLB Q5c)}}{\text{[No. of Residential Assessments (Q4a) + No. of Non-Residential Assessments (Q4b)] x No. of Connected Properties per Assessment}}$

Parameter: $\frac{\text{Capital Expenditure on Improving Health Performance (S) x (TLB Q5c)}}{\text{[No. of Residential Assessments (Q4a) + No. of Non-Residential Assessments (Q4b)] x No. of Connected Properties per Assessment}}$

Note:

1. For general notes see page 14.

54 Odour Complaints - Sewerage



Parameter:

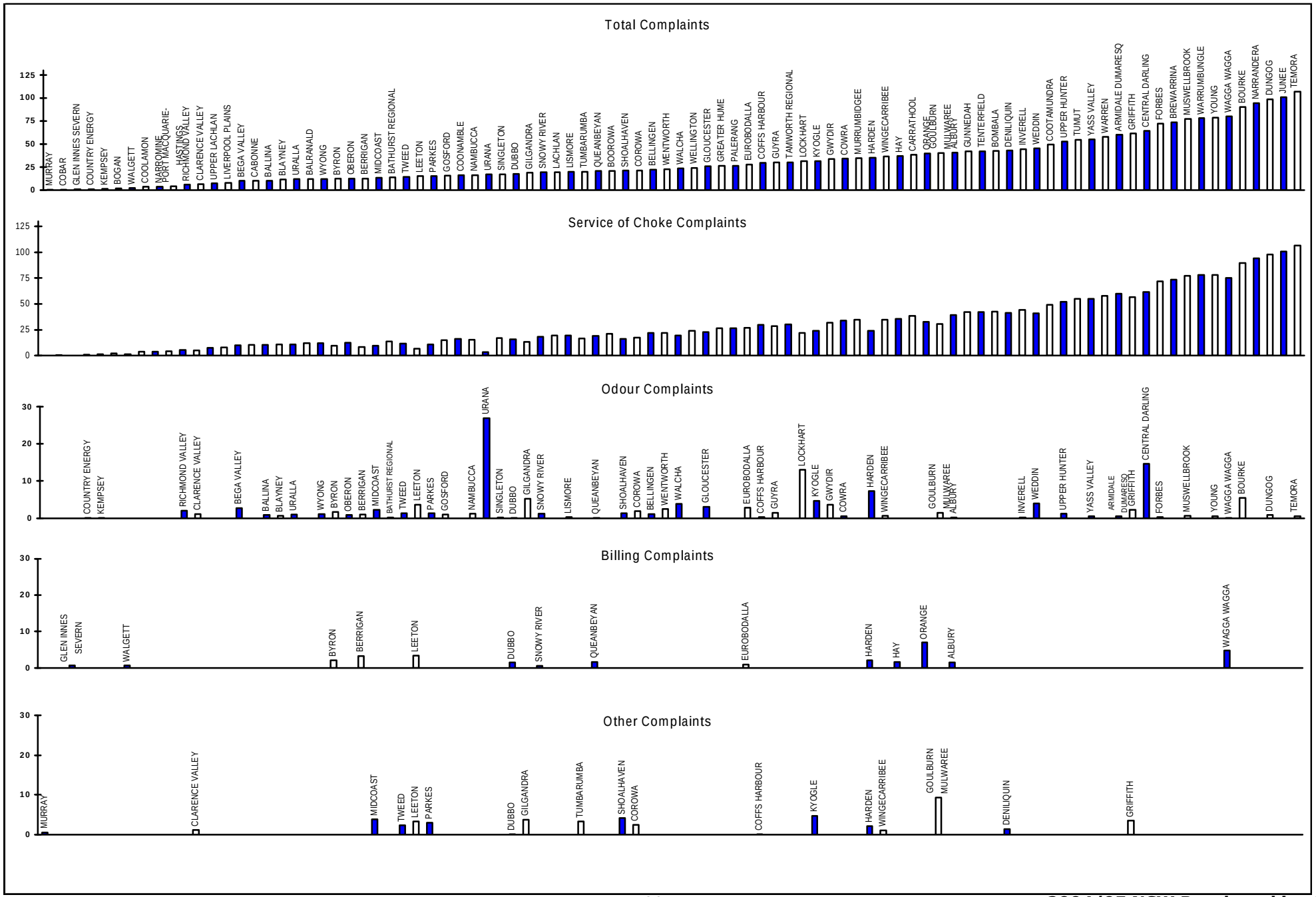
$$\frac{\text{[No. of Odour Complaints from Treatment Works (Q54a) + No. of Odour Complaints from Pumping Stations (Q54b) x 1000}}{\text{[No. of Residential Assessments (Q4a) + No. of Non-Residential Assessments (Q4b)] x No. of Connected Properties per Assessment}}$$

Notes:

1. This figure shows ranked values of the 2004/05 number of sewage odour complaints 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 26 LWUs shown ranges from from 0 to 2.7 complaints per thousand connected properties. The two LWUs on the right did not report this indicator for 2004/05. Results for the previous 4 years are also shown.
2. The 2004/05 Statewide median number of odour complaints is 1 per 1000 properties.
3. For general notes see page 14.

BLANK PAGE

55 Complaints (per 1000 properties) - Sewerage



55 Complaints (per 1000 properties) - Sewerage

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

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

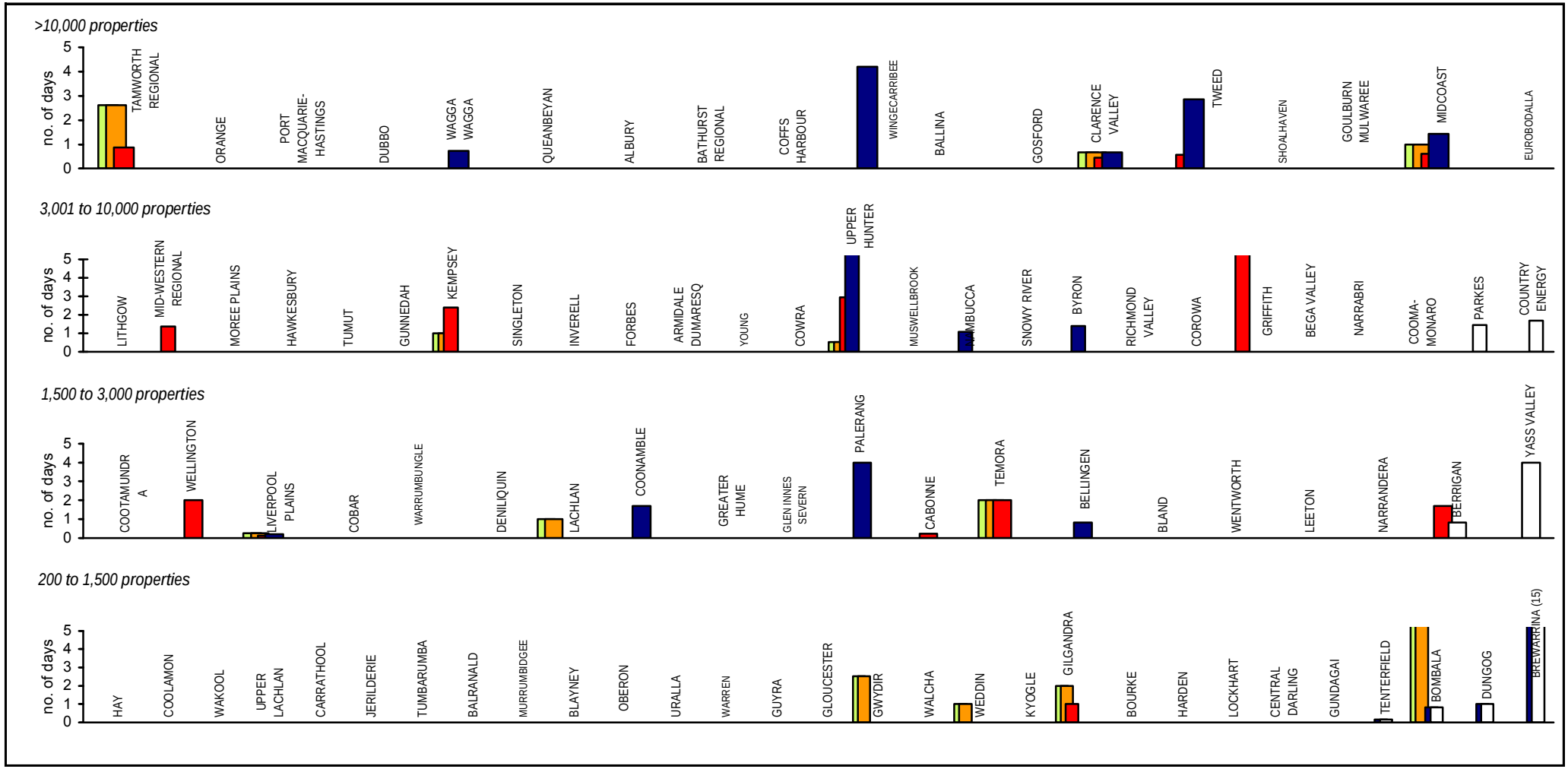
Parameter: $\frac{\text{No of Billings Complaints Reported}}{\text{[No. of Residential Assessments (Q4a) + No. of Non-Residential Assessments (Q4b)] x No. of Connected Properties per Assessment}}$

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 14.

56 Treatment Works Malfunction - Sewerage

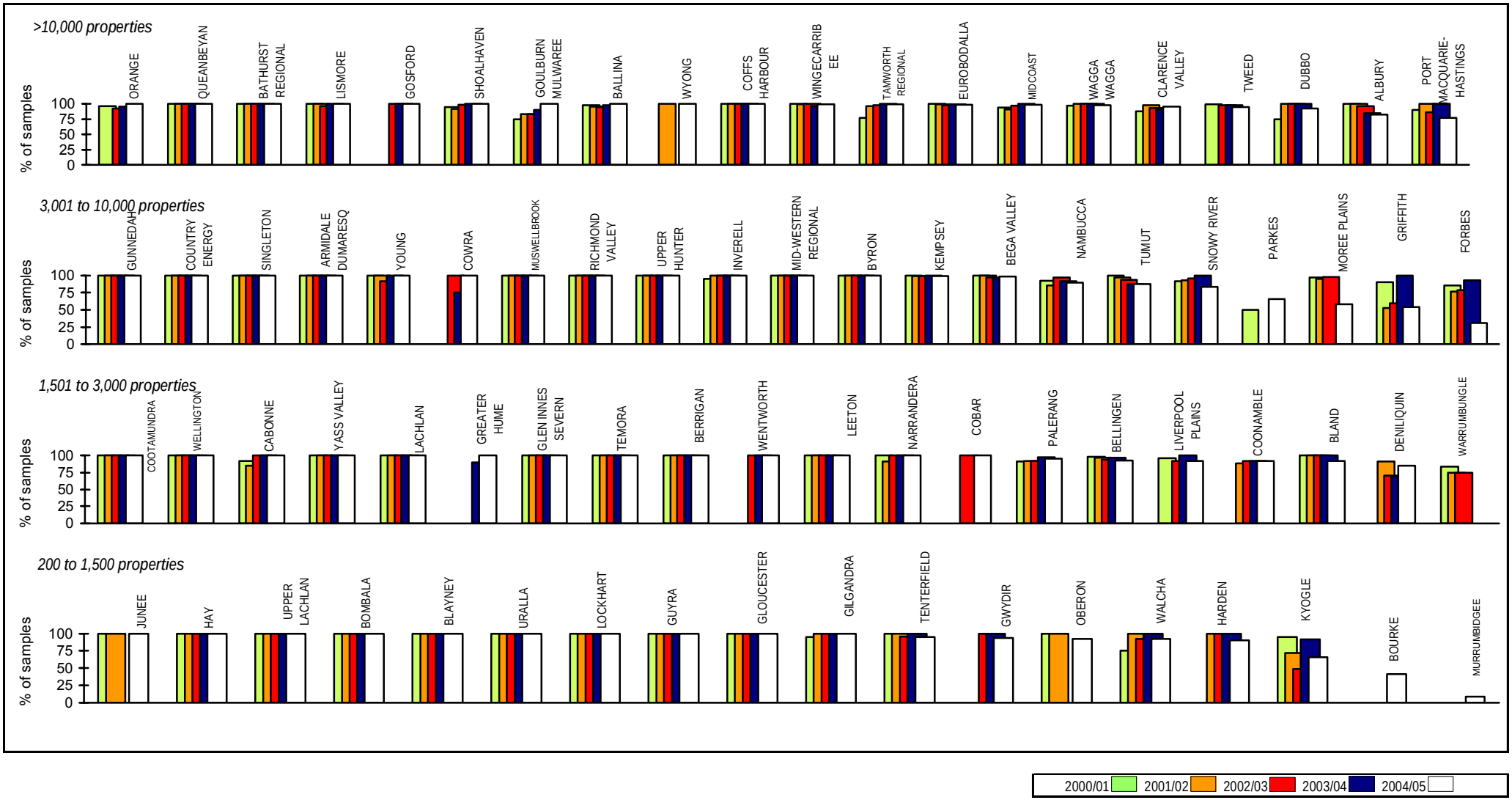


Parameter: Number of Days of major Malfunction of Treatment Processes (Q53)

Notes:

1. The figure shows the 2004/05 ranked 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), the number of days of malfunction for the 24 LWUs shown ranges from nil to 1.7 days.
2. For LWUs with more than one treatment works, the weighted average (based on capacity) of days was used.
3. For general notes see page 14.

57 Compliance with BOD in Licence - Sewerage

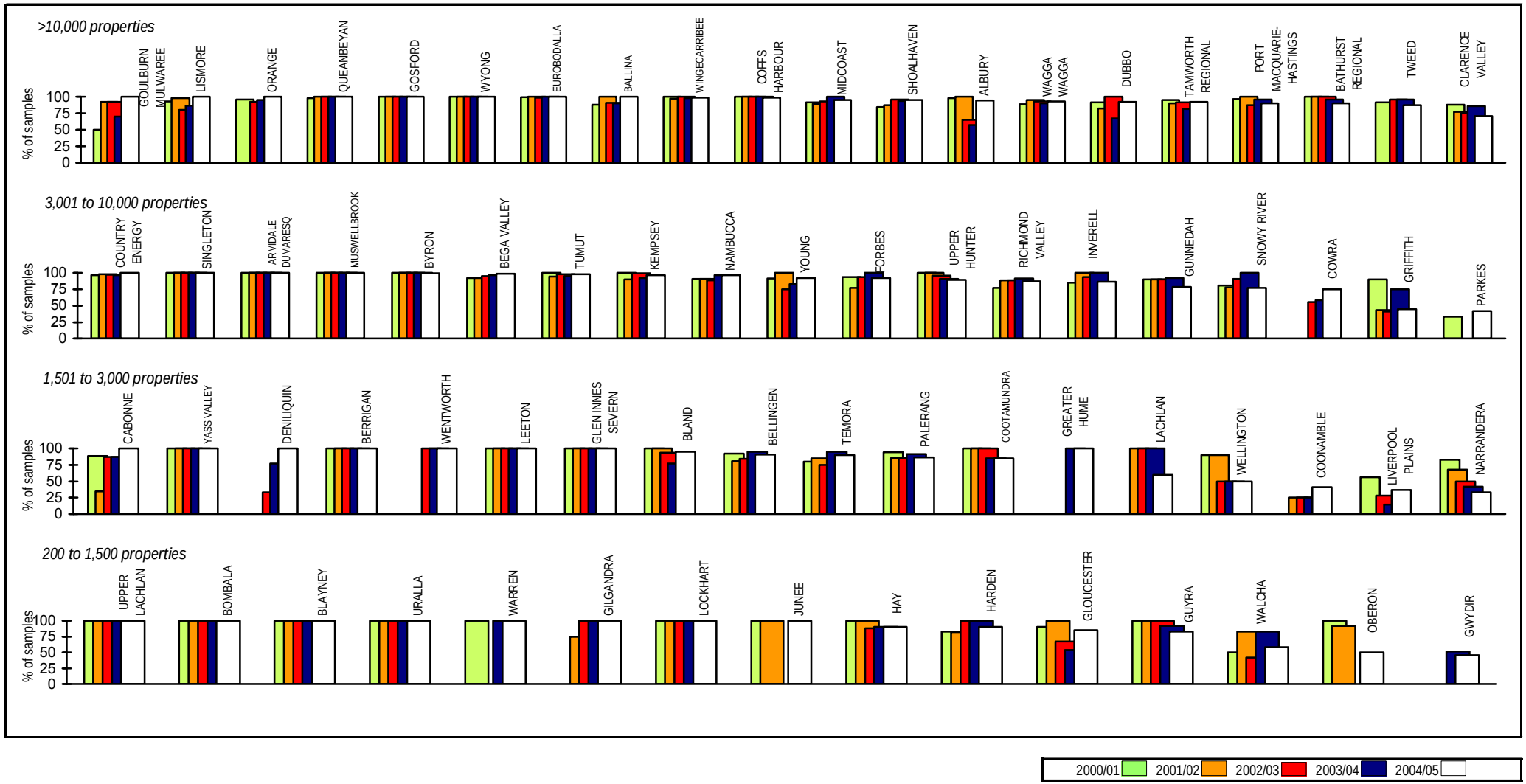


Parameter: Percentage of samples complying with 90 percentile Department of Environment and Conservation (DEC) licence limits for Biochemical Oxygen Demand (BOD) (Q50a)

Note:

1. For general notes see page 14.

58 Compliance with SS in Licence - Sewerage

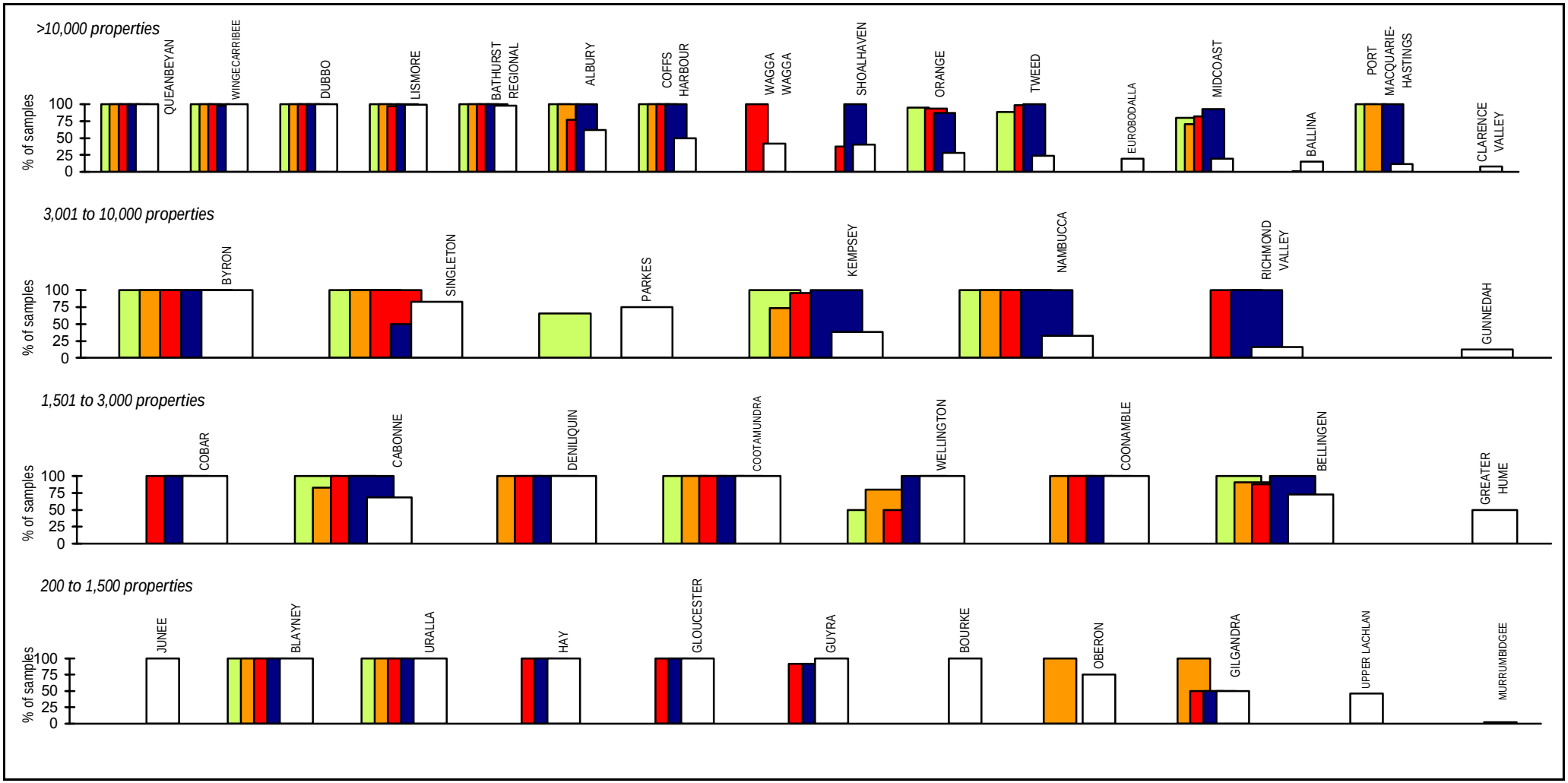


Parameter: Percentage of samples complying with 90 percentile Department of Environment and Conservation (DEC) licence limits for Suspended Solids (SS) (Q50b)

Note:

1. For general notes see page 14.

59 Compliance with N in Licence - Sewerage

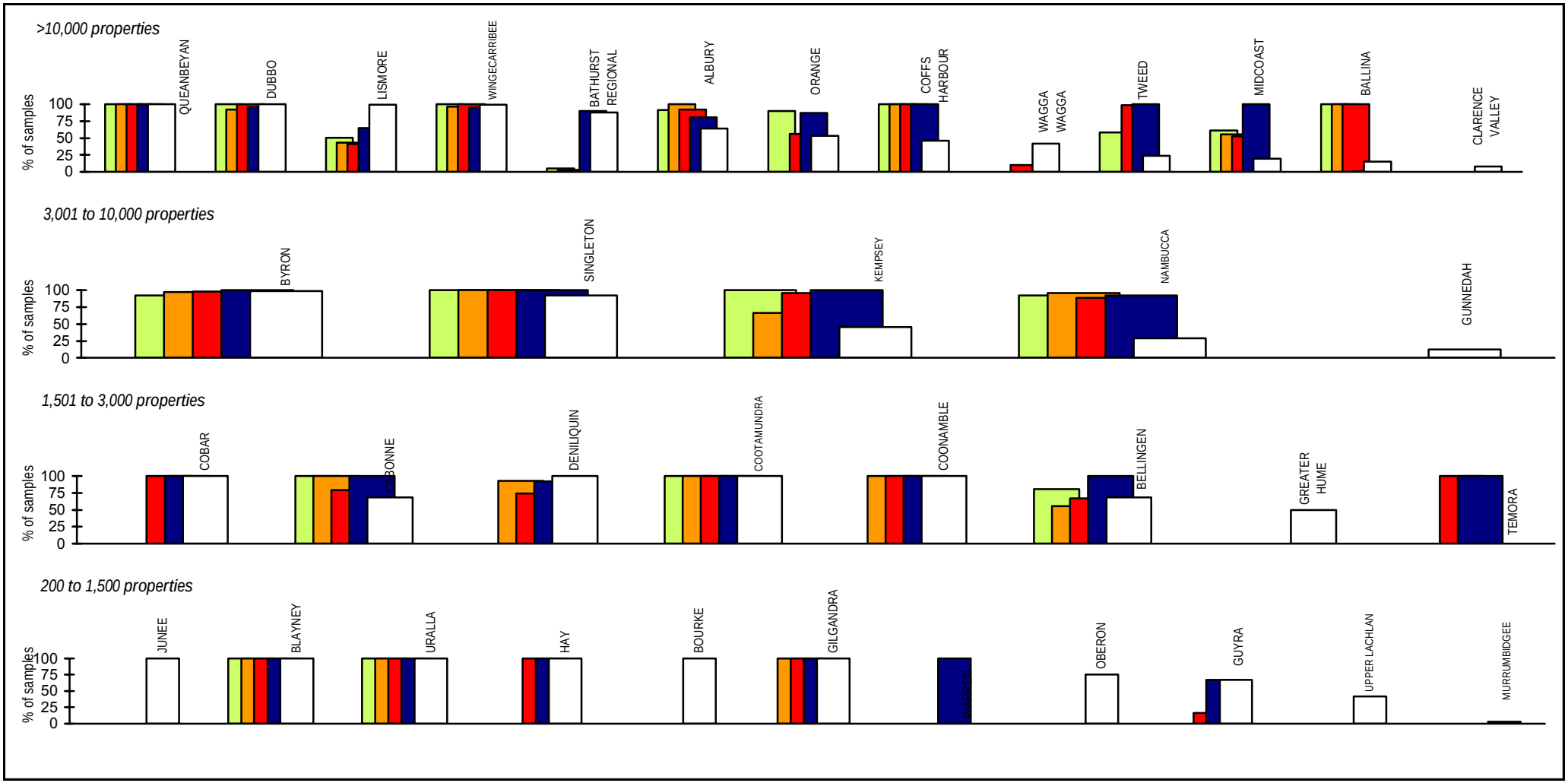


Parameter: Percentage of samples complying with 90 percentile Department of Environment and Conservation (DEC) licence limits for Total Nitrogen (Q50c)

Note:

1. For general notes see page 14.

60 Compliance with P in Licence - Sewerage

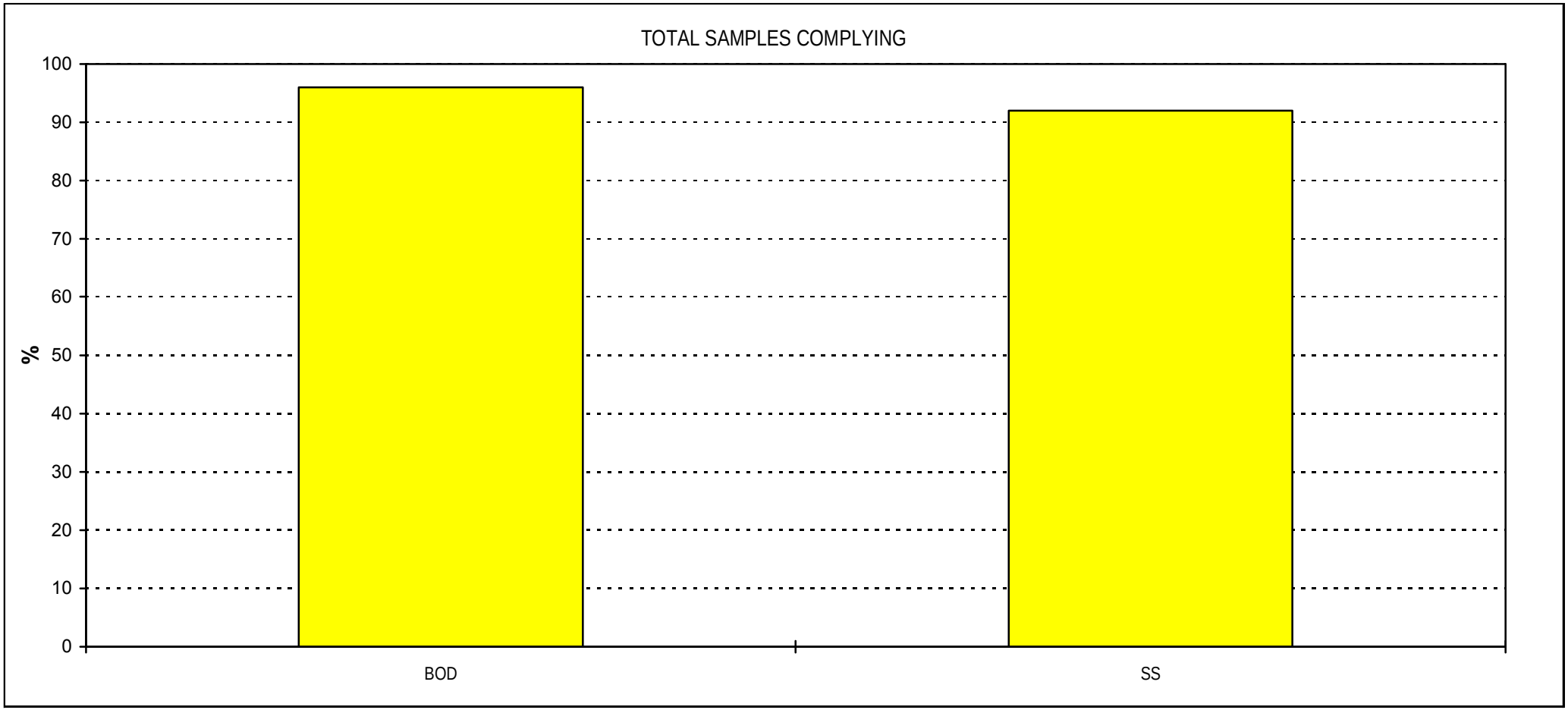


Parameter: Percentage of samples complying with 90 percentile Department of Environment and Conservation (DEC) licence limits for Total Phosphorus (Q50c)

Note:

1. For general notes see page 14.

61 Compliance with DEC Licence - Sewerage

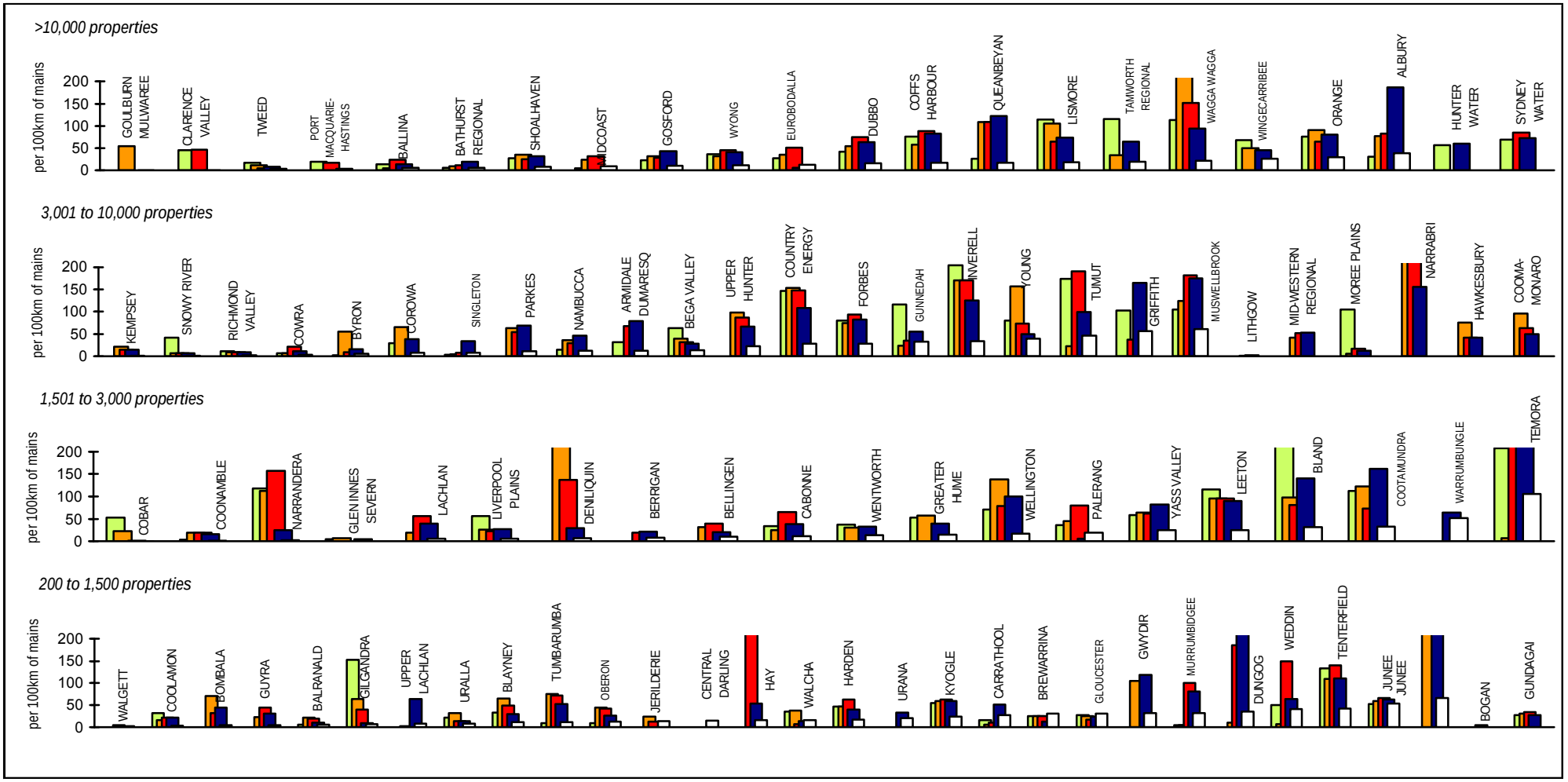


Notes:

1. BOD - 95% of the 4,500 sampling days for NSW Local Water Utilities (LWUs) achieved 100% compliance with the 90 percentile limit of their DEC licence in regard to BOD. 59% of LWUs complied with the 90 percentile limit of their BOD licence.
2. SS - 91% of the 4,600 sampling days for NSW LWUs achieved 100% compliance with the 90 percentile limit of their DEC licence in regard to SS. 36% of LWUs complied with the 90 percentile limit of their SS licence.
3. For LWUs with more than one 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 pond. For new installations and major augmentation, 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:
   - 15 days for <4,000 EP
   - 30 days for about 15,000 EP
   - 60 days for >25,000 EP

6 For general notes see page 14.

62 Sewer Main Chokes and Collapses - Sewerage



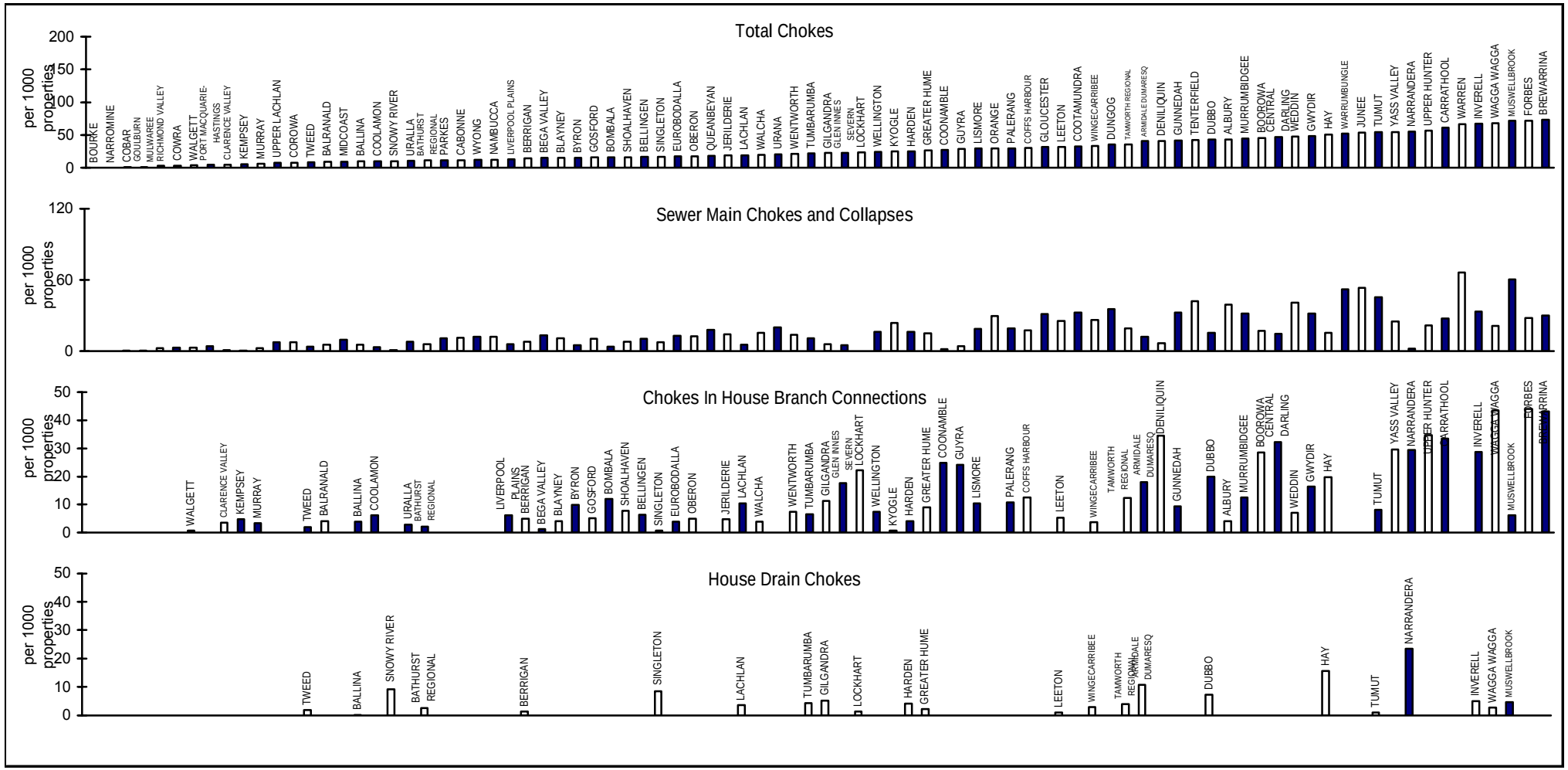
Parameter:

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

Notes:

1. This figure shows ranked values of the 2004/05 sewer main chokes and collapses 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 2004/05 sewer main chokes and collapses for the 20 LWUs shown ranges from 1 to 61 chokes per 100 km of sewer mains. The 6 LWUs on the right did not report this indicator for 2004/05. Results for the previous 4 years are also shown.
2. The statewide median sewer main chokes and collapses is 49 per 100 km of sewer mains.
3. 12% of LWUs were unable to report on this item and those LWUs should institute a system to record and report such occurrences.
4. For general notes see page 14.

63 Total Chokes (per 1000 properties) - Sewerage



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

Parameter: No. of Confirmed Sewer Chokes (Q21) x 1000
[No. of Residential Assessments (Q4a) + No. of Non-Residential Assessments (Q4b) x No. of Connected Properties per Assessment

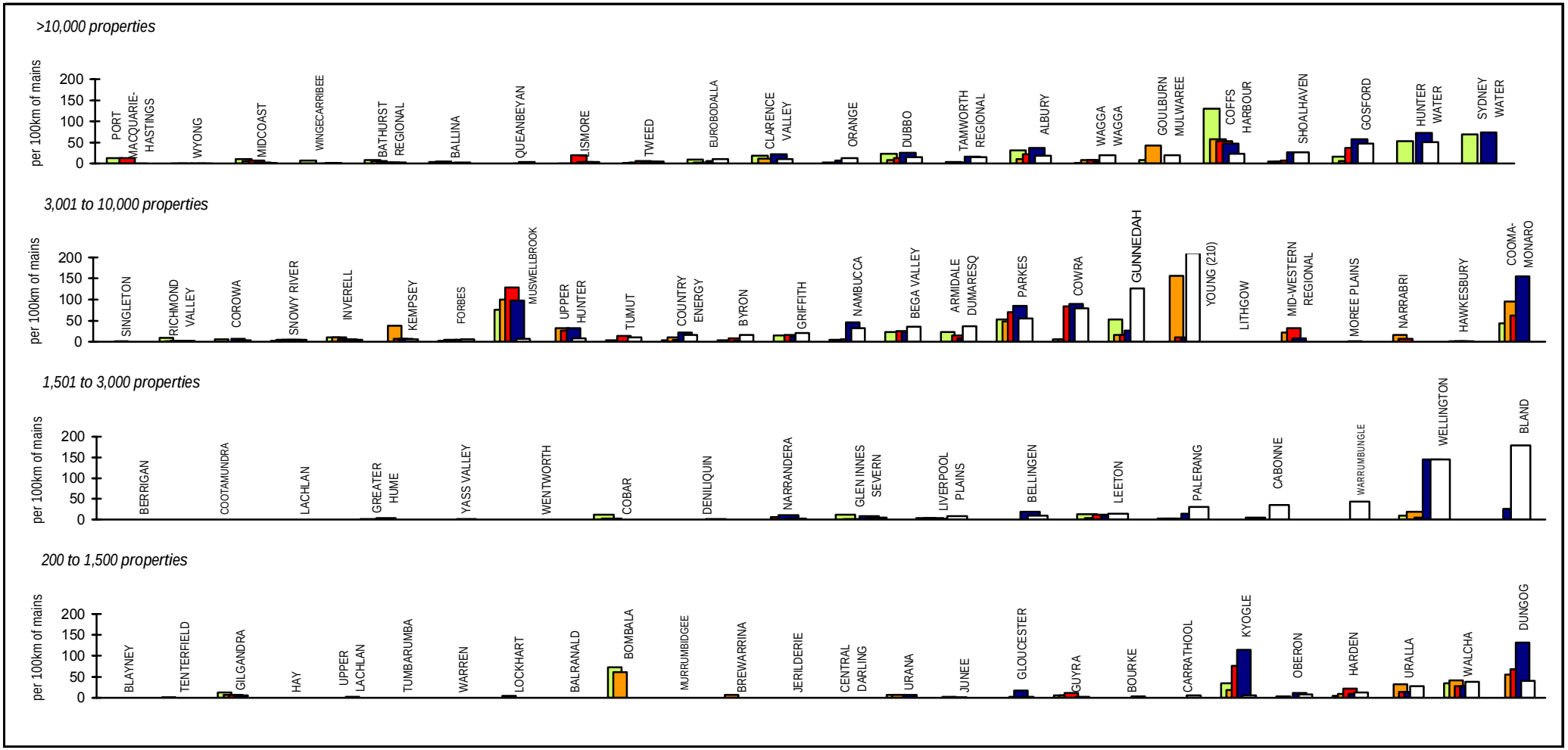
Parameter: No. of Chokes in House Branch Connections (Q23) x 1000
[No. of Residential Assessments (Q4a) + No. of Non-Residential Assessments (Q4b) x No. of Connected Properties per Assessment

Parameter: No. of Chokes in House Drains (Q24) x 1000
[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 14.

64 Sewer Overflows to the Environment - Sewerage



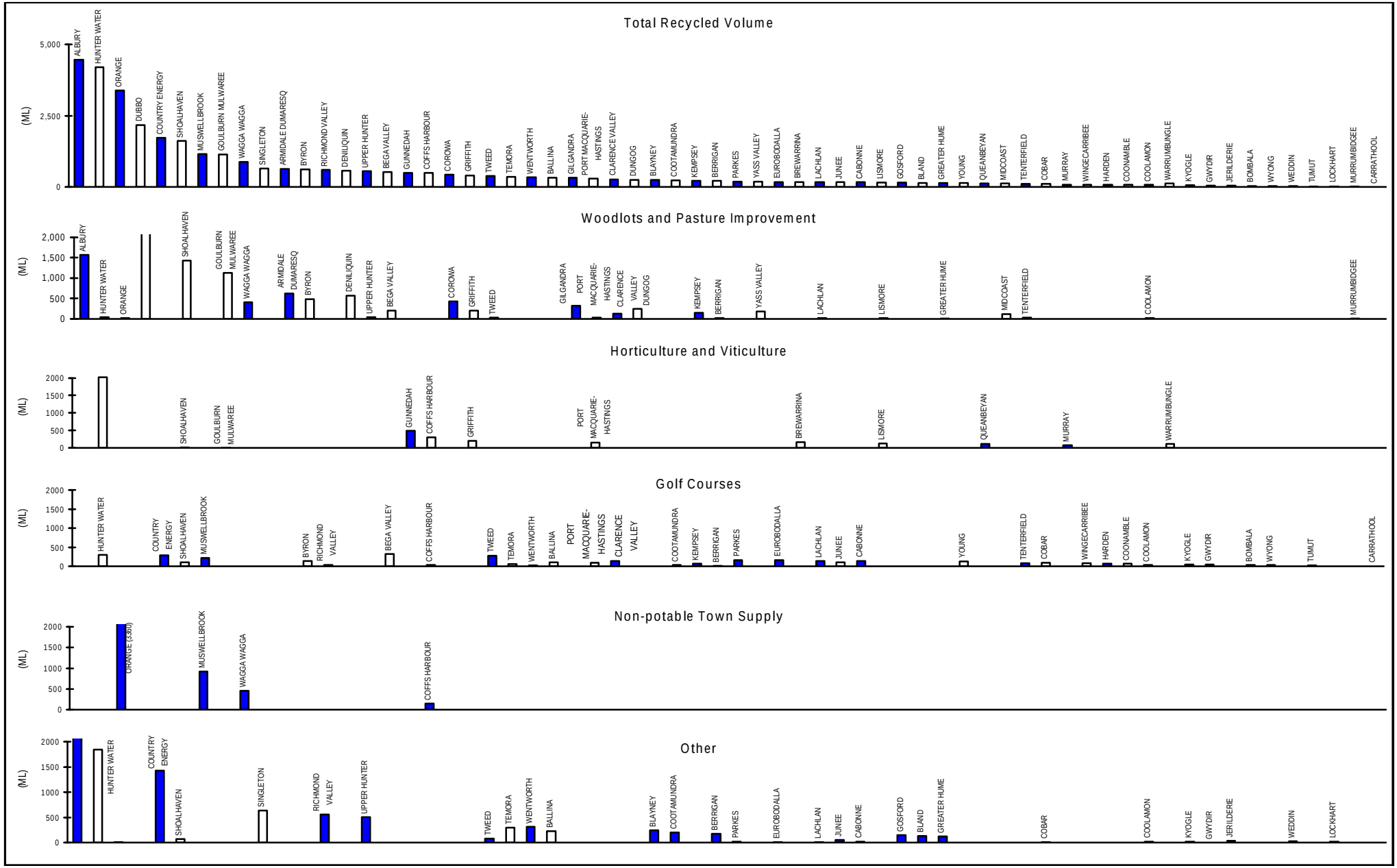
Parameter:

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

Notes:

1. This figure shows ranked values of the 2004/05 sewer overflows to the environment 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 2004/05 sewer overflows to the environment for the 20 LWUs shown ranges from nil to 210 overflows per 100 km of sewer mains. The 6 utililties on the right did not report this indicator for 2004/05. Results for the previous 4 years are also shown.
2. The statewide median sewer overflows to the environment is 11 per 100 km of sewer mains.
3. 24% of reporting LWUs reported no sewer overflows.
4. For general notes see page 14.

65 Recycled Water - Sewerage

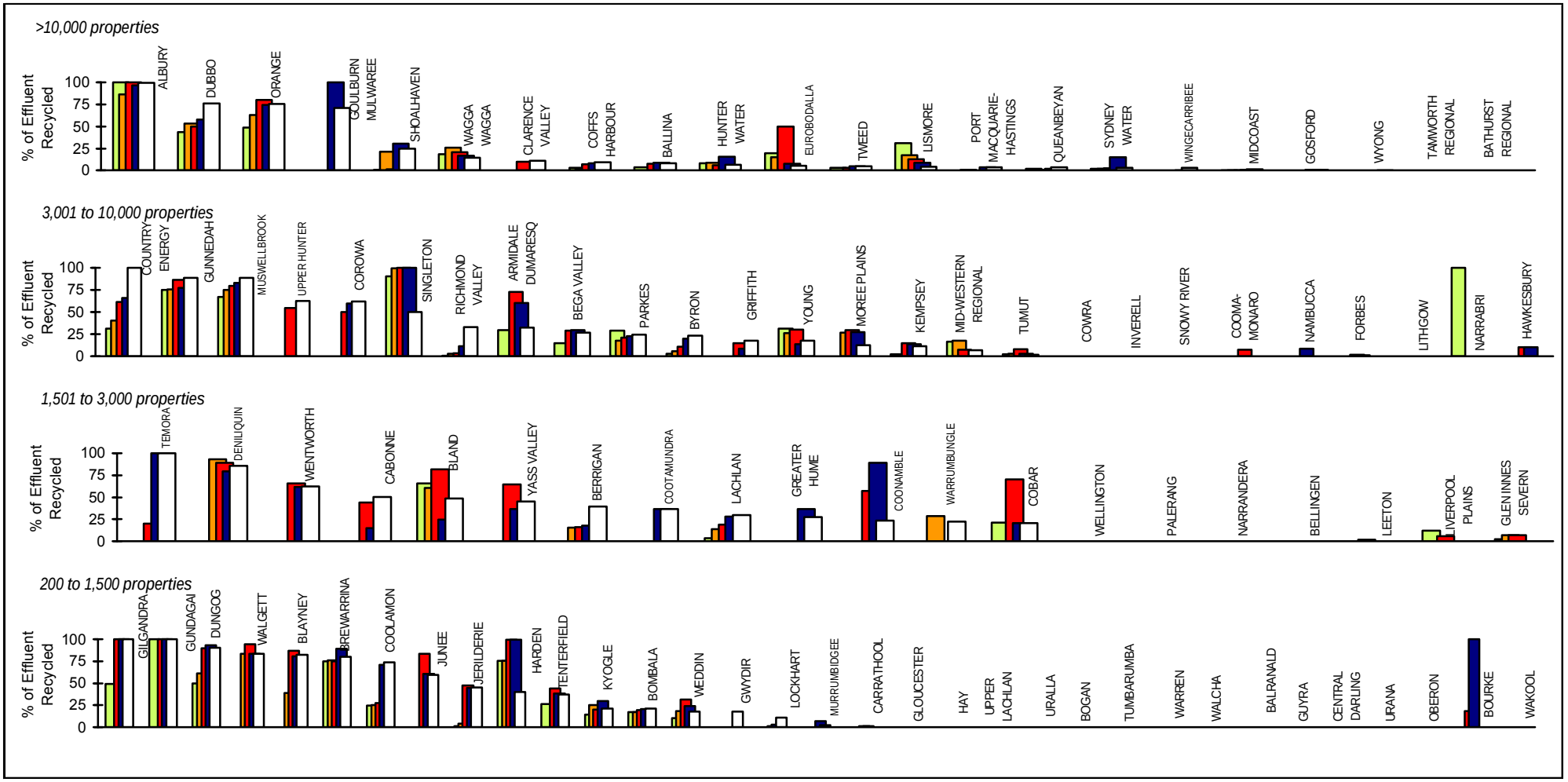


Notes:

1. The total volume of recycled water for non-metropolitan NSW was 29000 ML, which was 18 % of the total volume of sewage collected. Re-use was carried out by 65% of LWUs. 22% of LWUs recycled over 50% of their effluent.

2. For general notes see page 14.

66 Recycled Water (% of Effluent Recycled) - Sewerage



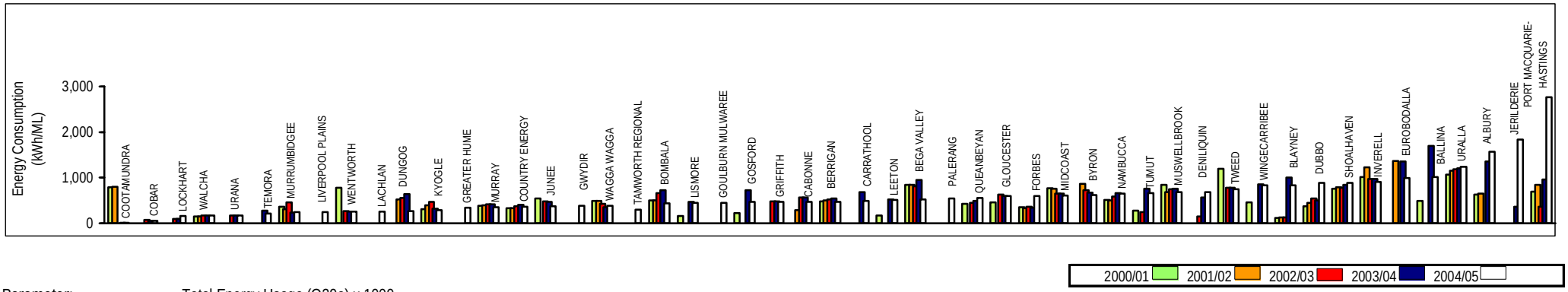
Parameter:

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

Notes:

1. This figure shows ranked values of the 2004/05 recycled water (% of sewage effluent recycled) 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 2004/05 recycled water (% of sewage effluent recycled) for the 16 LWUs shown ranges from 100% to 18%. The 3 LWUs on the right did not report this indicator for 2004/05. Results for the previous 4 years are also shown.
2. The statewide median reuse of recycled water is 9%.
3. Reuse of recycled water was carried out by 65% of LWUs. Statewide 18% of the total volume of sewage collected was recycled.
4. For general notes see page 14.

67 Energy Consumption per ML - Sewerage



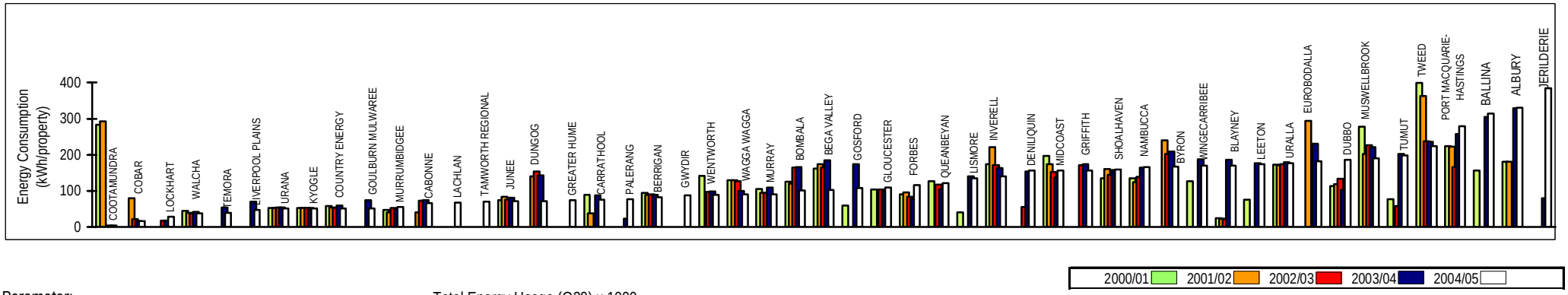
Parameter:

$$\frac{\text{Total Energy Usage (Q29a) x 1000}}{\text{Total Potable Water Consumption ((Q12i)}}$$

Notes:

1. This figure shows ranked values of the 2004/05 total energy consumption per ML. The energy consumption per ML for the 51 Local Water Utilitites (LWUs) shown range from about 15 to 1230kWh per connected property.
2. For general notes see page 14.

68 Energy Consumption per Property - Sewerage



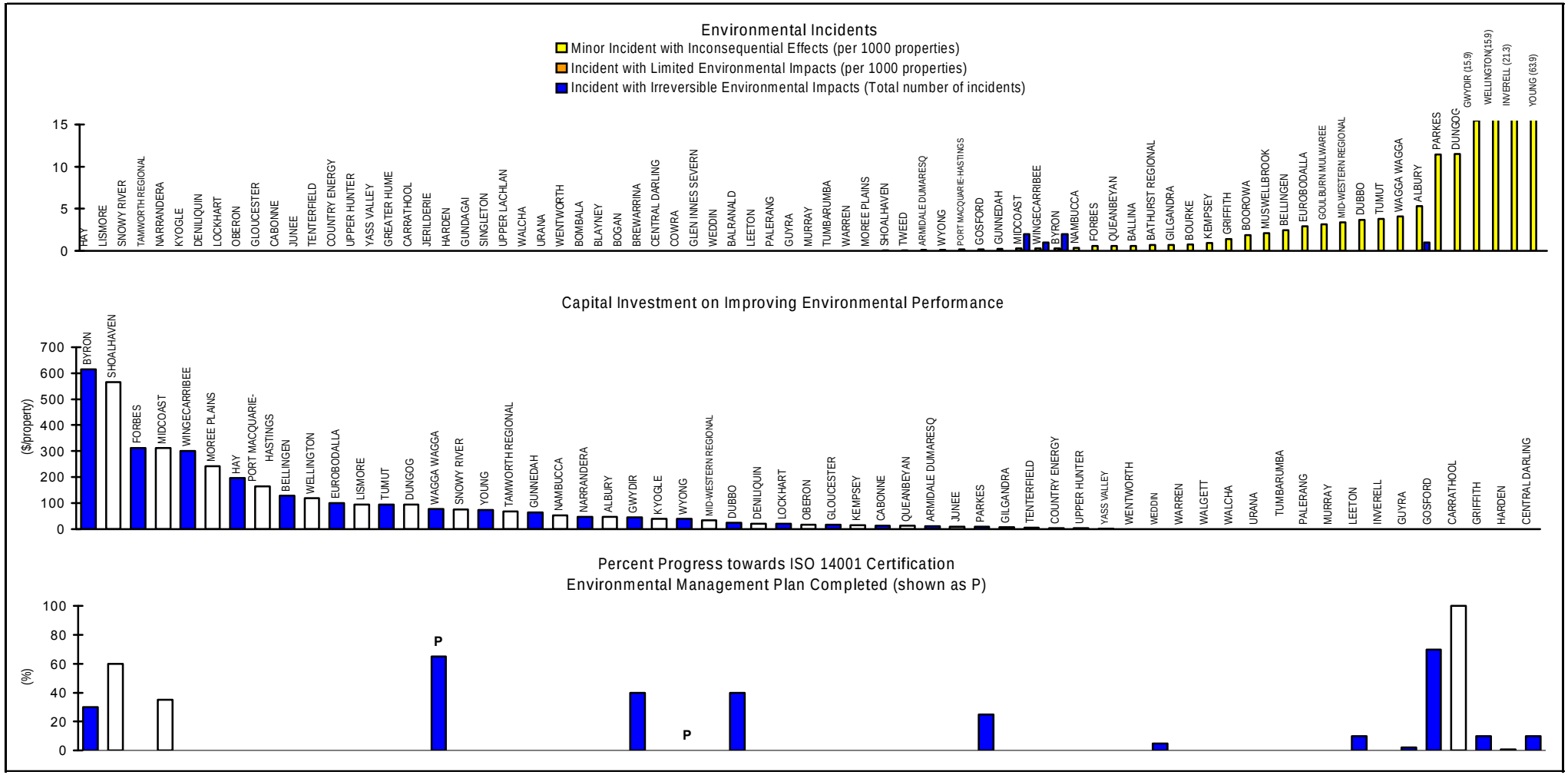
Parameter:

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

Notes:

1. This figure shows ranked values of the 2004/05 total energy consumption per connected property. The energy usage per connected property for the 51 Local Water Utilitites (LWUs) shown range from about 4 to 280kWh per connected property.
2. For general notes see page 14.

69 Environmental Incidents, Management Systems, Capital Investment - Sewerage



Parameter: Total Number of Minor Incidents with Inconsequential Effects (TBL Q1a) / [No. of Residential Assessments (Q4a) + No. of Non-Residential Assessments (Q4b) x No. of Connected Properties per Assessment

Parameter: Total Number of Incidents with Limited Enviromental Impacts (TBL Q1b) / [No. of Residential Assessments (Q4a) + No. of Non-Residential Assessments (Q4b) x No. of Connected Properties per Assessment

Parameter: Total Number of Incidents with Irreversible Enviromental Impacts (TBL Q1d) / [No. of Residential Assessments (Q4a) + No. of Non-Residential Assessments (Q4b) x No. of Connected Properties per Assessment

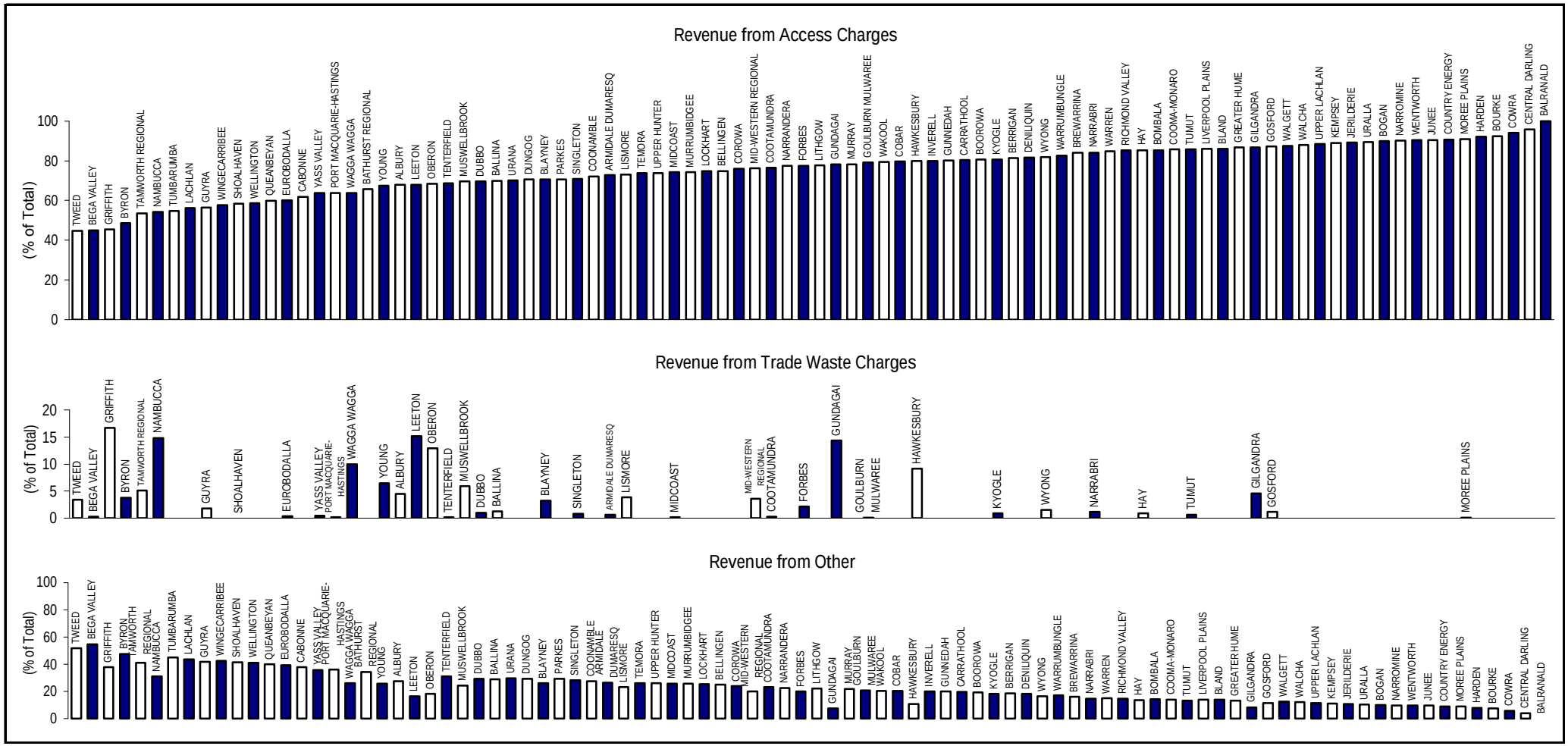
Parameter: Capital Expenditure on Improving Environmental Performance ($) (TBL Q3a) / [No. of Residential Assessments (Q4a) + No. of Non-Residential Assessments (Q4b) x No. of Connected Properties per Assessment

Parameter: Percent Progress Toward ISO 14001 Certification (Q2c)

Note:

1. For general notes see page 14.

70 Revenue from Access Charges, Trade Waste Charges - Sewerage



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

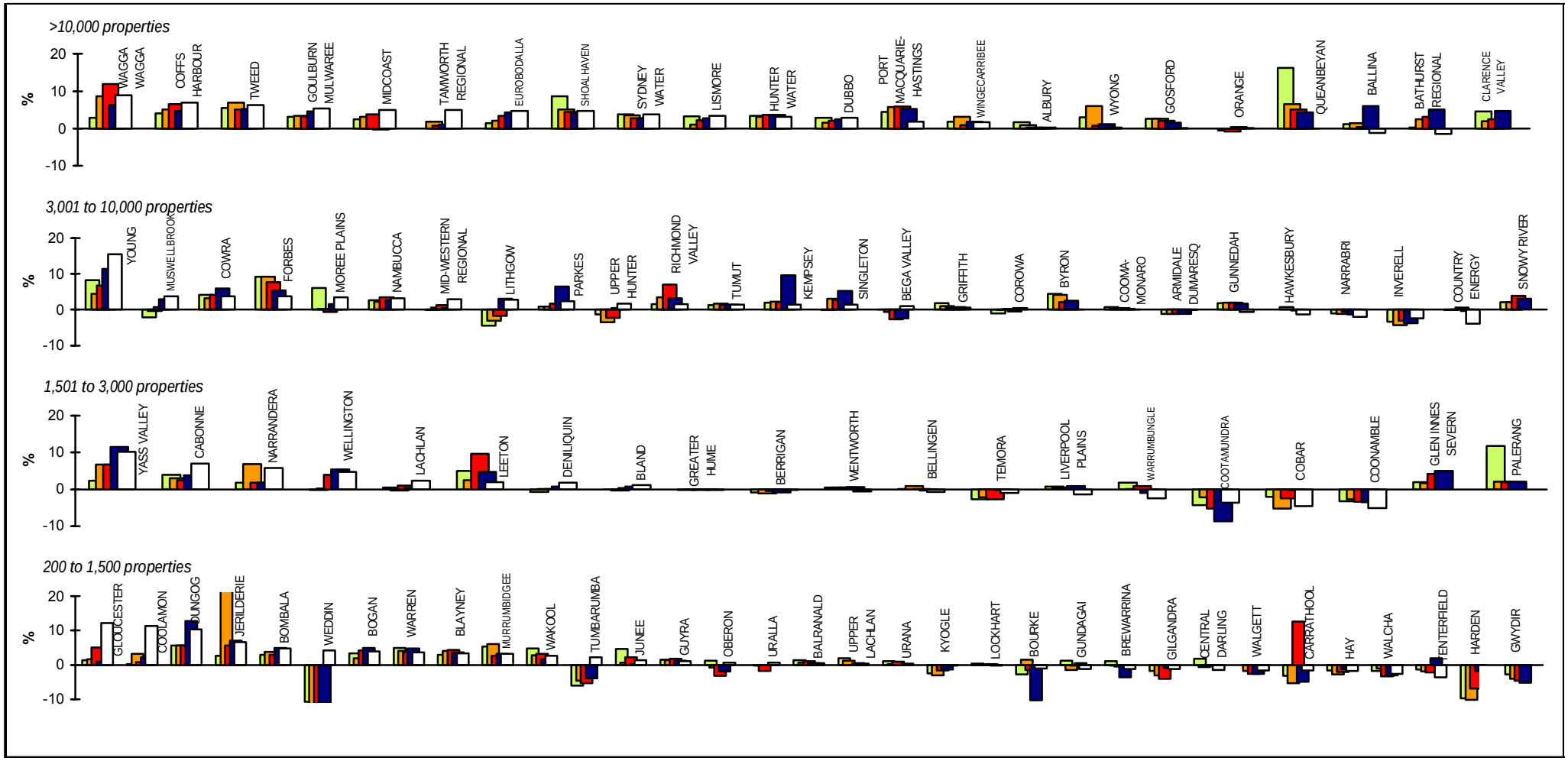
Parameter: $\frac{\text{Trade Waste Charges (S8) x 100}}{\text{Total Revenue (S14)}}$

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

Note:

1. For general notes see page 14.

71 Economic Real Rate of Return - Sewerage



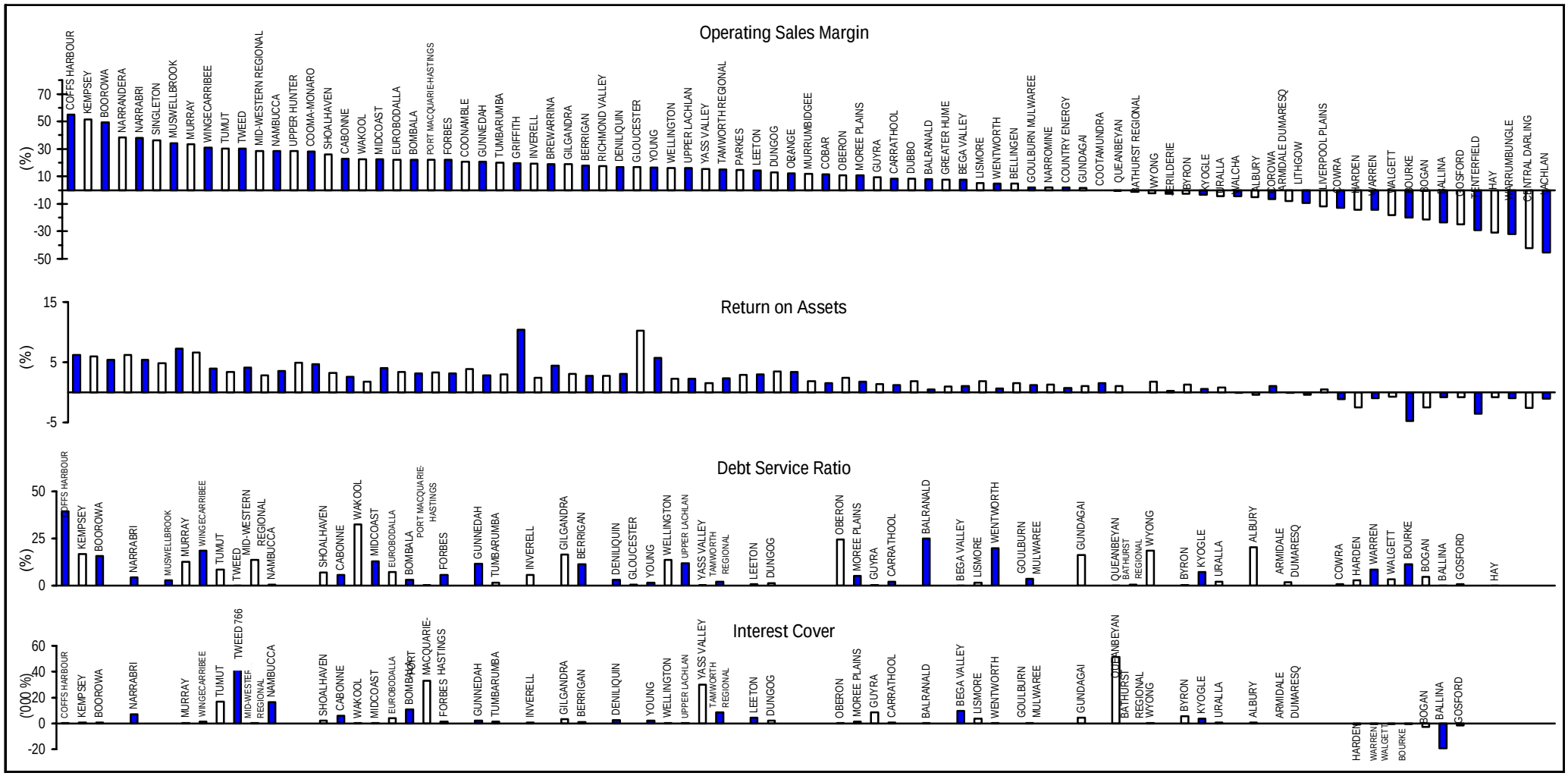
Parameter:

$$\frac{\text{[Operating Result (S16) + Interest Expense (S4a) - Interest Income (S10) - Grants for Acquisition of Assets (S12a)] x 100}}{\text{Written Down Replacement Cost of System Assets, Plant \& Equipment (S34)}}$$

Notes:

1. This figure shows ranked values of the 2004/05 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 2004/05 sewerage real rate of return for the 26 LWUs shown ranges from 15% to -4%. Results for the
2. The statewide median sewerage ERRR is 1.8%.
3. The ERRR was not reported for Sydney and Hunter Water Corporations from 2001/02 to 2004/05. 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 14.

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



Parameter: [Total Revenue (S14) - Grants for Acquisition of Assets (S12a) - Developer Provided Assets (S13b) - Total Expense (S5) + Interest Expenses (S4a) - Interest Income (S10)] x 100
Total Revenue (W14) - Grants for Acquistion of Assets (S12a) - Developer Provided Assets (S13b) - Interest Income (S10)

Parameter: [Total Revenue (S14) - Grants for Acquisition of Assets (S12a) - Total Expense (S5) + Interest Expenses (S4a)] x 100
Written Down Replacement Cost of System Assets, Plant and Equipment (S34)

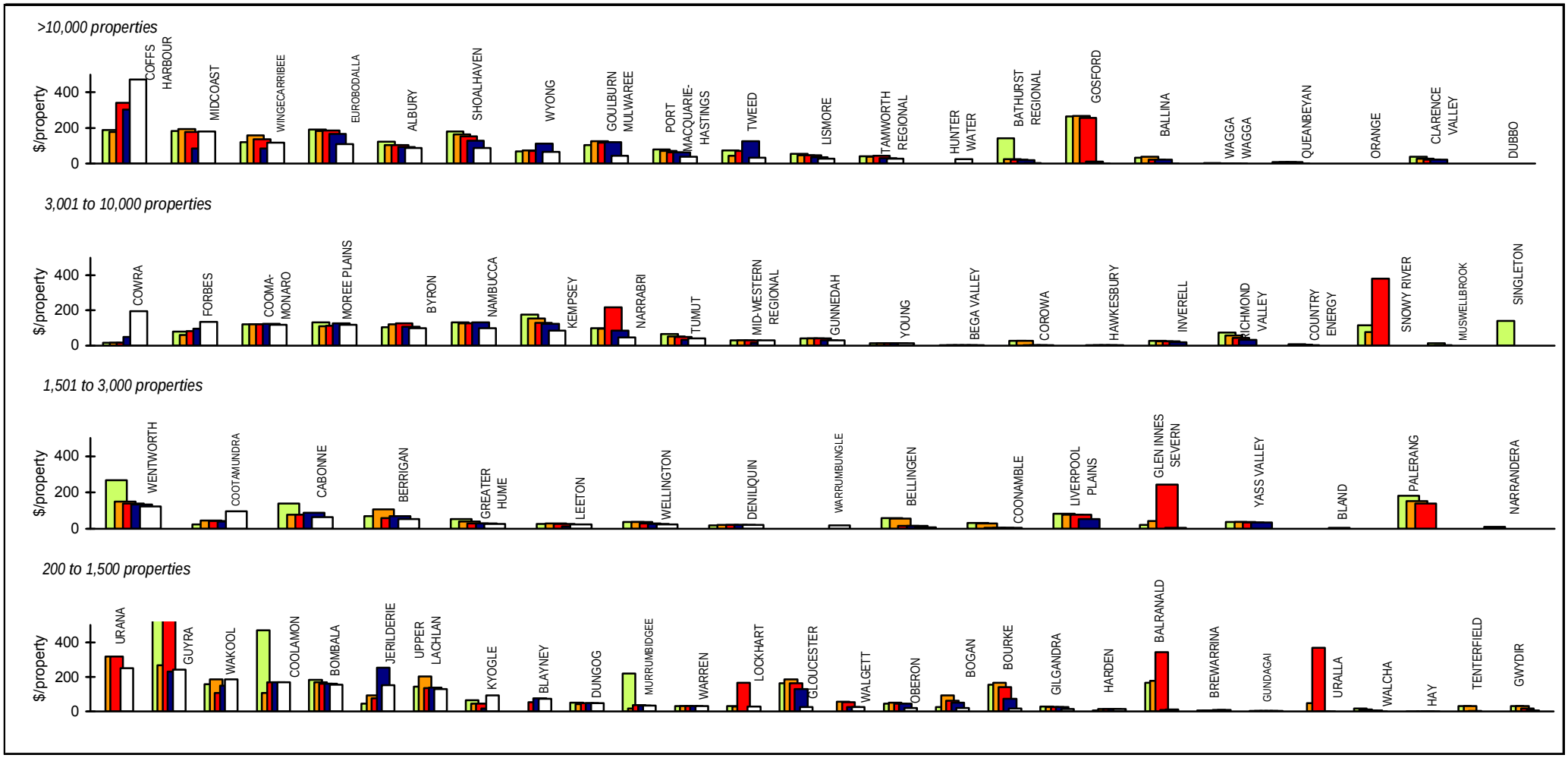
Parameter: [Payment of Debt (S18) + Interest Expense (S4a)] x 100
Total Revenue (S14) - Grants for Capital Works (S12a) - Developer Provided Assets (S13b)

Parameter: [Total Revenue (S14) - Grants for Capital Works (S12a) - Total Expenses (S5) + Interest Expense (S4a)] x 100
Interest Expenses (S4a)

Note:

1. For general notes see page 14.

73 Loan Payment - Sewerage



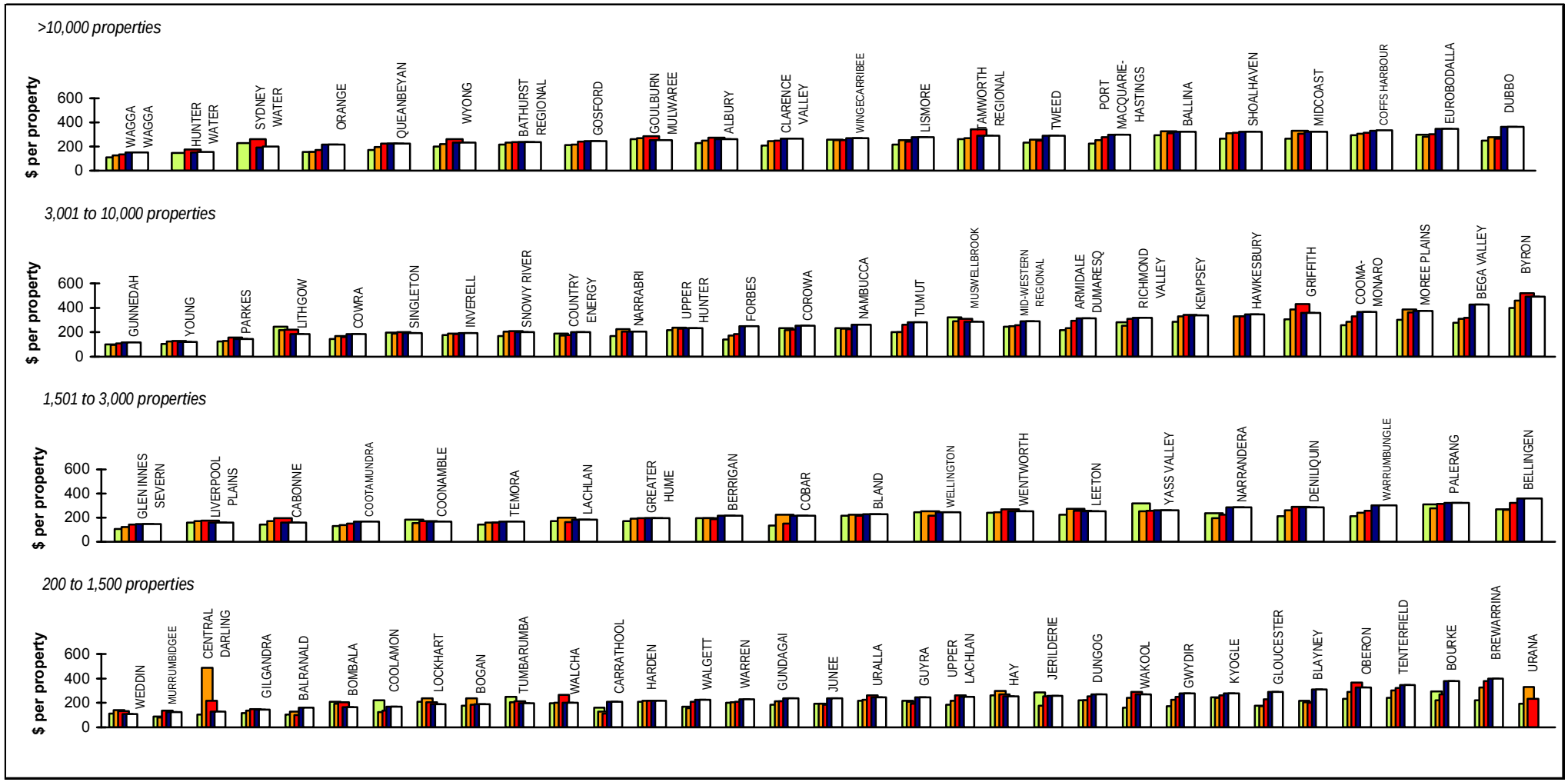
Parameter: Payment of Debt (S17) + Interest Expenses (S4a)

[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 2004/05 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 2004/05 sewerage loan payments for the 25 LWUs shown ranges from $196 to $0 per connected property. Results for the previous 4 years are also shown in Jan 2005$.
2. The statewide median sewerage loan payment is $29 per connected property.
3. For general notes see page 14.

74 Operating Cost (OMA) per property - Sewerage

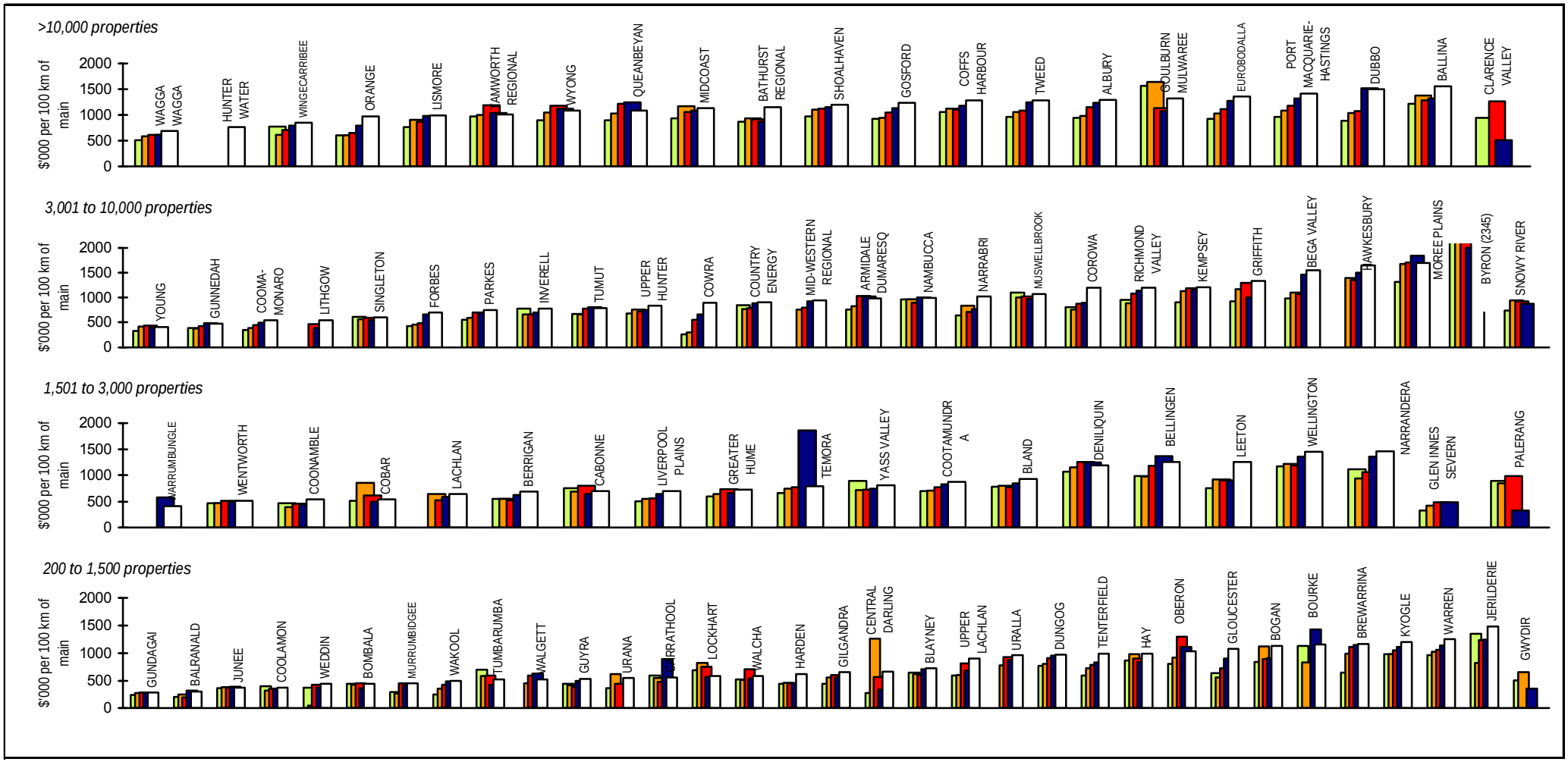


Parameter: $\frac{\text{Management Expenses (S1) + Total Operations Expenses (S2) - Purchase of Water + Bulk Supplier's OMA}}{\text{[No. of Residential Assessments (Q4a) + No. of Non-Residential Assessments (Q4b)] x No. of Connected Properties per Assessment}}$

Notes:

1. This figure shows ranked values of the 2004/05 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 25 LWUs shown ranges from $117 to $490 per connected property. Results for the previous 4 years are also shown in Jan 2005$.
2. The statewide median operating cost per connected property is $270.
3. For general notes see page 14.

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



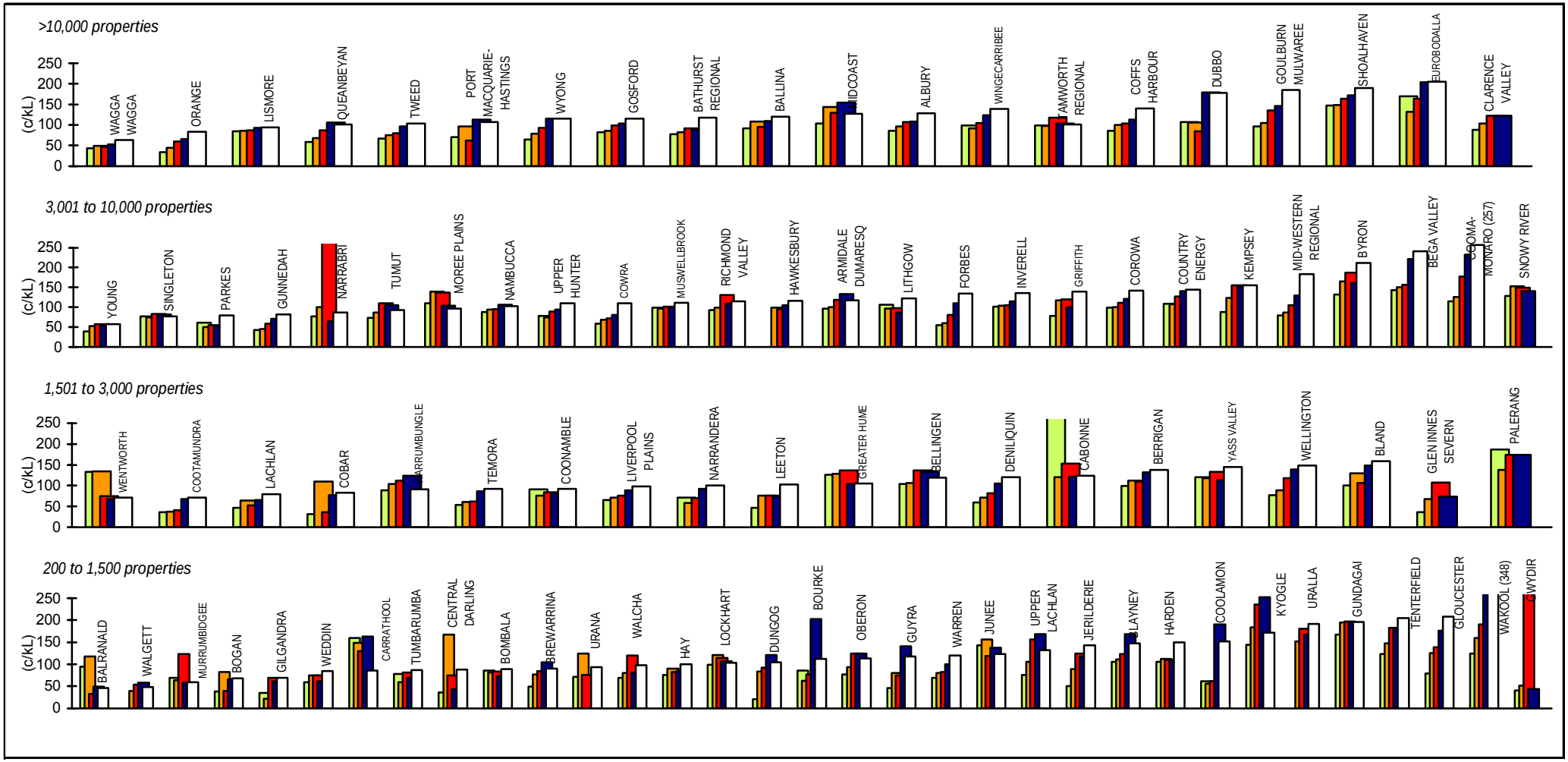
Parameter:

$$\frac{\text{Management Expenses (S1) + Total Operations and Maintenance Expenses (S2)}}{\text{[Length of Reticulation Mains (Q10a) + Length of Rising Mains (10b)]} \times 10}$$

Notes:

1. This figure shows ranked values of the 2004/05 sewerage 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 sewerage operating costs for the 26 LWUs shown ranges from $0.41M to $2.35M per 100 km of sewer main. Results for the previous 4 years are also shown in Jan 2005$.
2. The statewide median operating cost is $1.16M per 100 km of sewer main.
3. For general notes see page 14.

76 Operating Cost (OMA) per kL - Sewerage



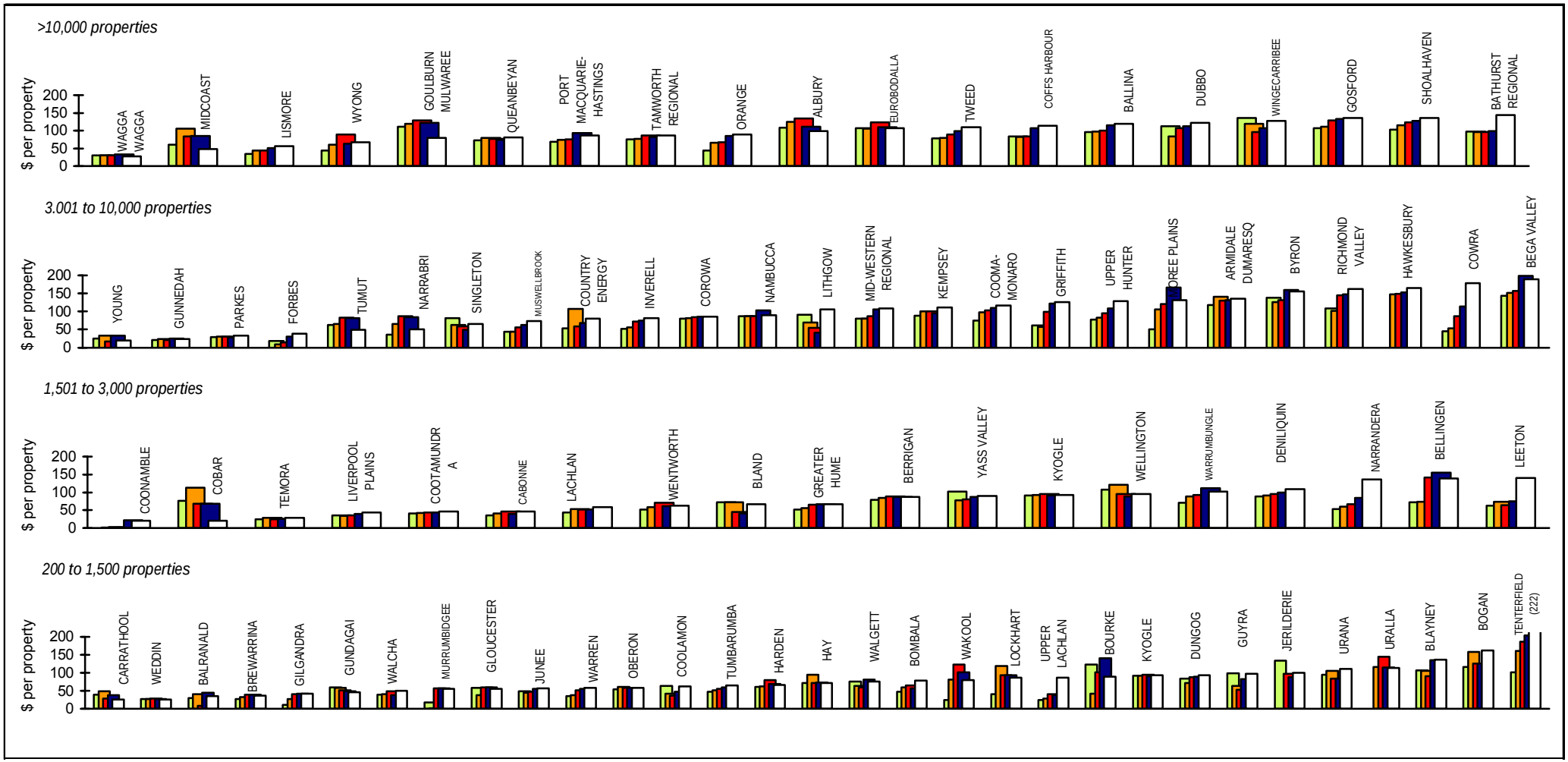
Parameter:

$$\frac{\text{Management Expenses (S1) + Total Operations and Maintenance Expenses (S2)}}{\text{Volume of Sewerage Receiving Secondary Treatment (Q41c) x 10}}$$

Notes:

1. This figure shows ranked values of the 2004/05 sewerage 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 sewerage operating costs for the 26 LWUs shown ranges from 58c/kL to 257c/kL. Results for the previous 4 years are also shown in Jan 2005$.
2. The statewide median operating cost is 115c/kL.
3. For general notes see page 14.

77 Management Cost per Property - Sewerage



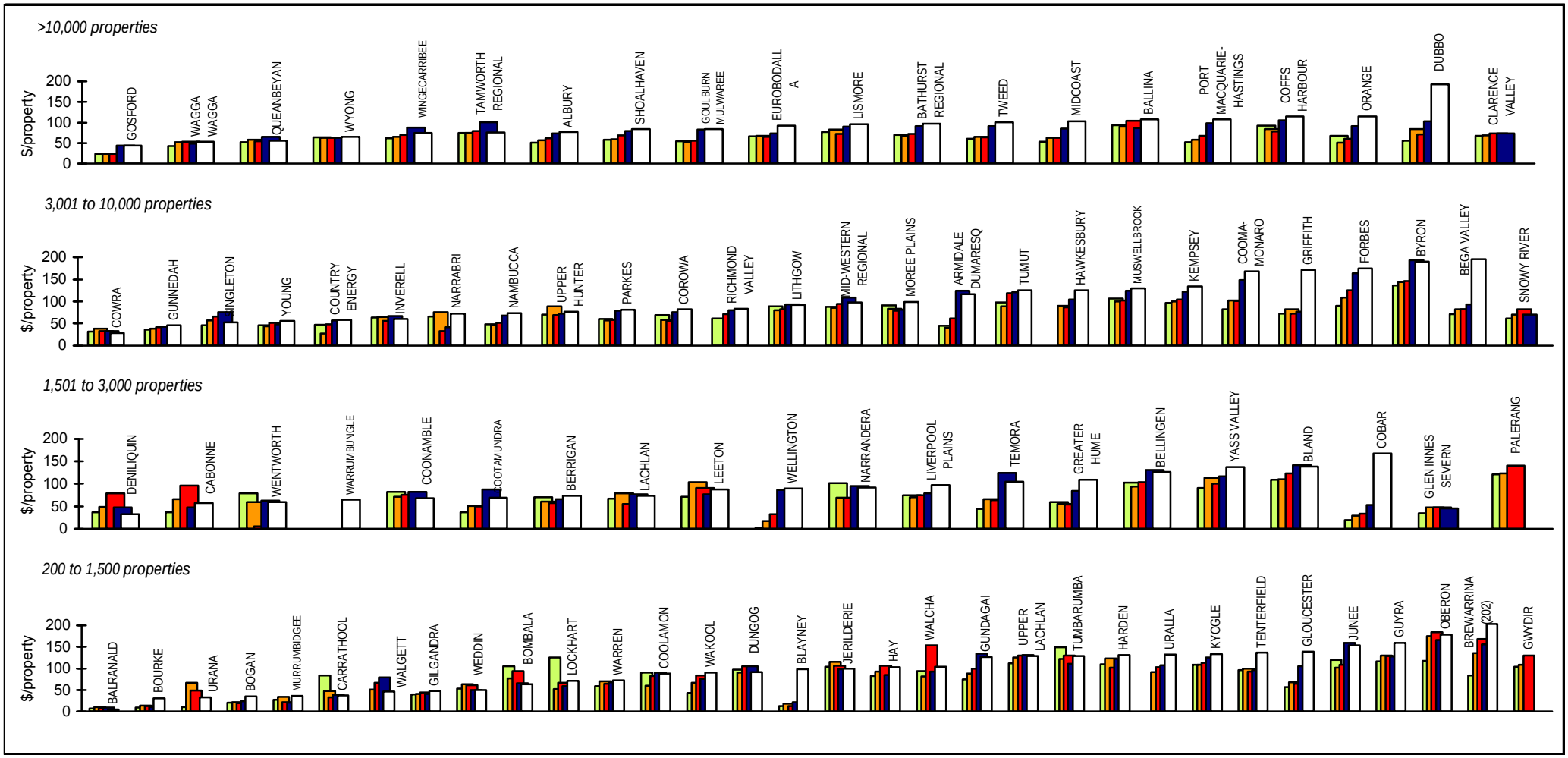
Parameter:

$$\frac{\text{Administration Cost (S1a) + Engineering Cost (S1b)}}{\text{[No. of Residential Assessments (Q4a) + No. of Non-Residential Assessments (Q4b)] x No. of Connected Properties per Assessment}}$$

Notes:

1. This figure shows ranked values of the 2004/05 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 2004/05 management costs for the 25 LWUs shown ranges from $20 to $190. Results for the previous 4 years are also shown in Jan 2005$.
2. The statewide median management cost is $100 per connected property.
3. For general notes see page 14.

78 Treatment Cost - Sewerage



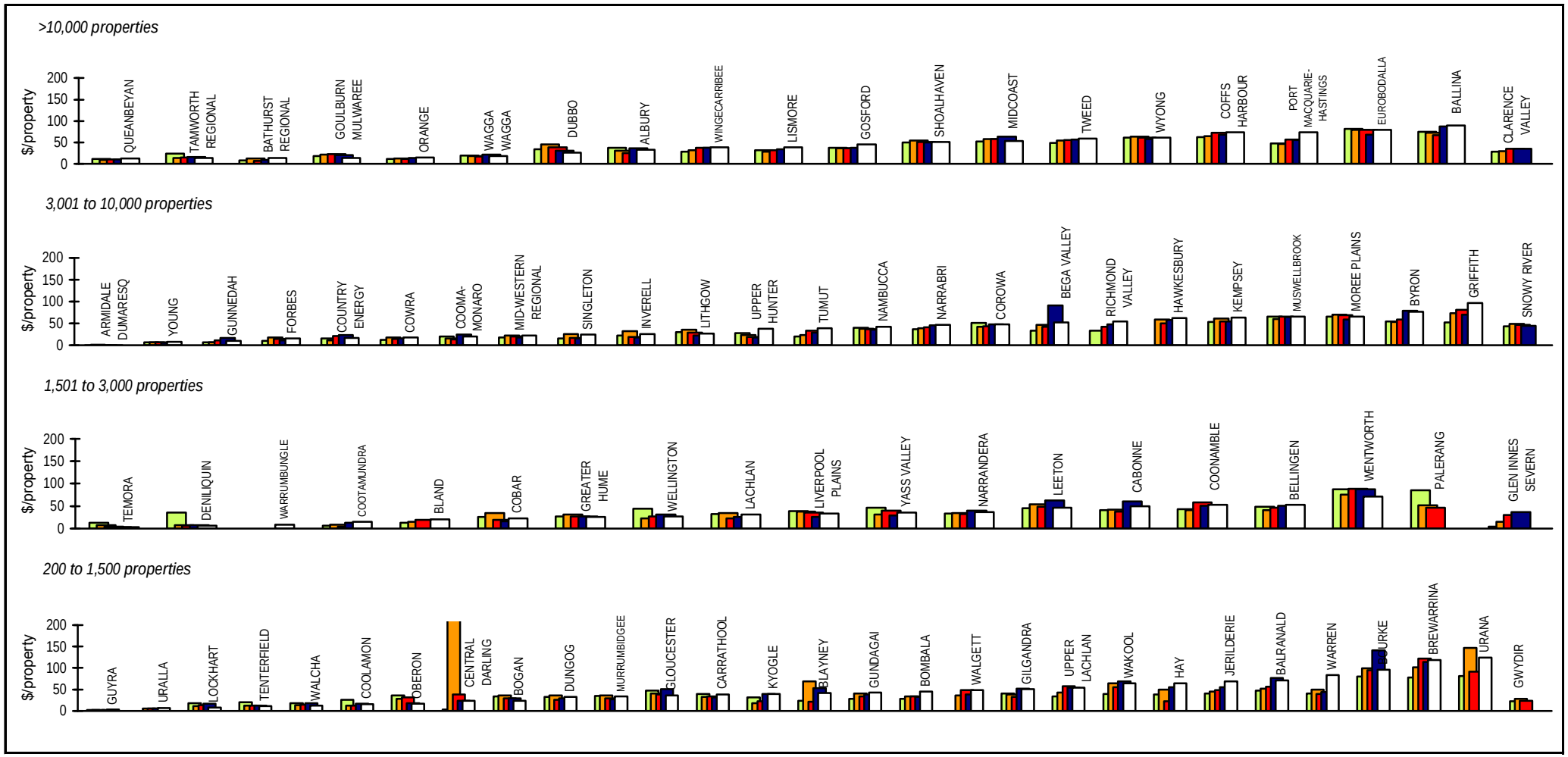
Parameter: Treatment Operation Expenses (S2f) + Treatment Chemical Cost (S2g) + Energy Cost (S2h)+ Treatment Maintenance Expenses (S2k)

[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 2004/05 sewerage 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 2004/05 sewerage treatment cost for the 26 LWUs shown ranges from $30 to $200 per connected property. Results for the previous 4 years are also shown in Jan 2005$.
2. The statewide median operating cost is $84 per connected property.
3. For general notes see page 14.

79 Pumping Cost - Sewerage



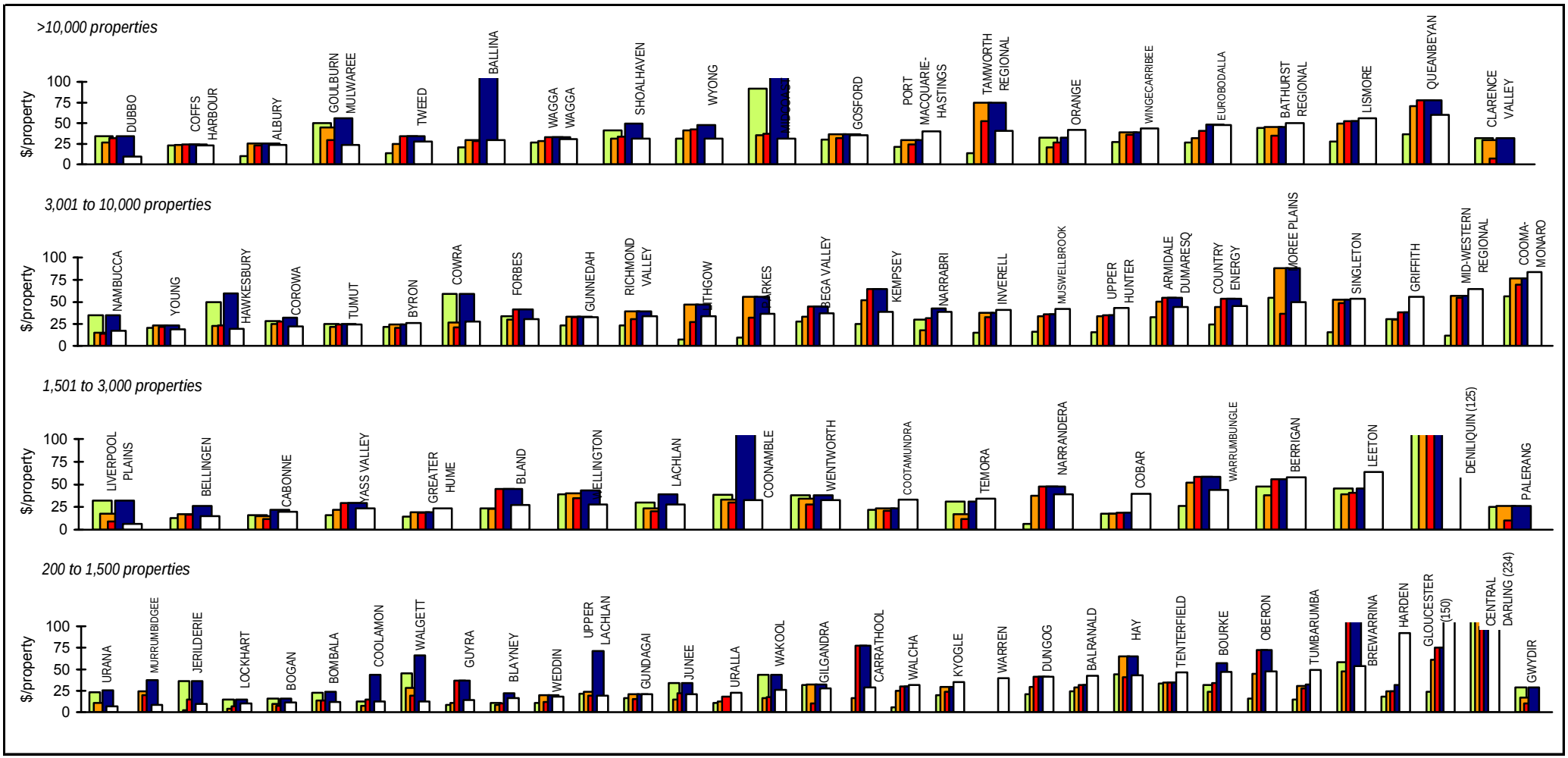
Parameter: Pumping Station Operation Expenses (S2c) + Energy Cost (S2d) + Treatment Cost (S2e)

[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 2004/05 sewerage 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 2004/05 sewerage pumping cost for the 25 LWUs shown ranges from $1 to $97 per connected property. Results for the previous 4 years are also shown in Jan 2005
2. The statewide median operating cost is $45 per connected property.
3. For general notes see page 14.

80 Sewer Main Cost - Sewerage



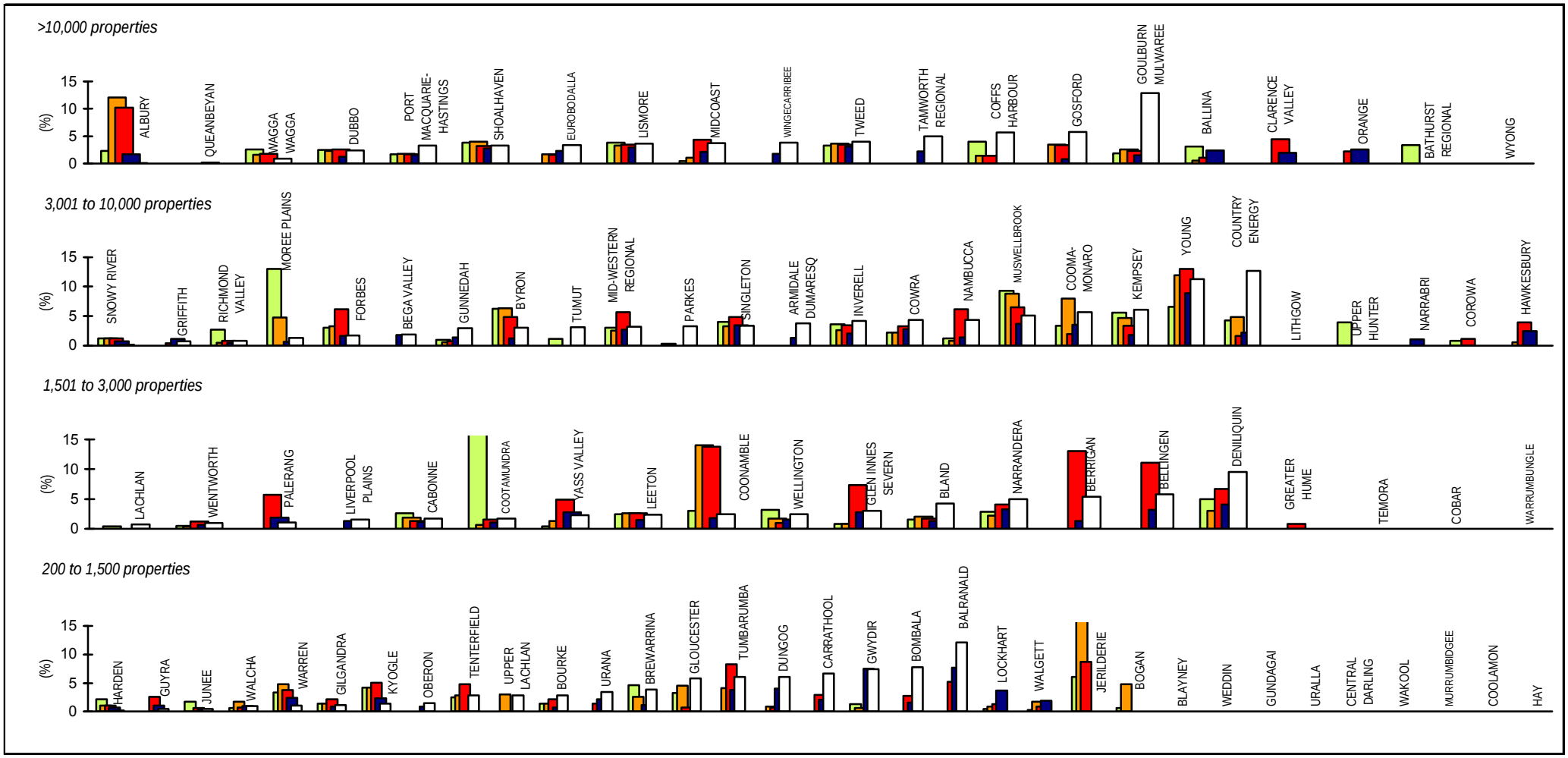
Parameter: Serwer Main Operation Cost (S2a) + Sewer Main Maintenance Cost (S2b)

[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 2004/05 sewer 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 2004/05 sewer main cost for the 26 LWUs shown ranges from $17 to $84 per connected property. Results for the previous 4 years are also shown in Jan 2005
2. The statewide median operating cost is $31 per connected property.
3. For general notes see page 14.

81 Total Days Lost - Sewerage



Parameter: $\frac{\text{Total Number of Days Lost in Year (Q30a) x 100}}{\text{[No. of Residential Assessments (Q4a) + No. of Non-Residential Assessments (Q4b) x No. of Connected Properties per Assessment}}$

Notes:

1. This figure shows ranked values of the 2004/05 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 2004/05 percentage of days lost for the 21 LWUs shown ranges from nil to 13%. The 5 utilities on the right did not report this indicator for 2004/05. Results for the previous 4 years are also shown.
2. The statewide median percentage days lost is 3.5%.
3. For general notes see page 14.

11 TABLES

SUMMARY TABLES
This section contains the following Summary Tables:

Table 1 2004/05 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 2004/05 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 Best-Practice Management Compliance

Table 4 Trends in Statewide Performance Indicators – 1991 to 2004/05

Shows trends in water supply and sewerage key performance indicators over the last 14 years

Table 5 2004/05 NSW Water Utility Performance Summary

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

Table 1 : 2004/05 NSW Water Supply Performance Indicators

UTILITY CHARACTERISTICS	20%	Median (50%)	80%
Residential Assessments (% of total)	88	91	94
New Residential Dwellings Connected to Water Supply (%)	2.6	1.5	0.7
Properties Served per km of Main	63	32	23
Rainfall (% of average annual rainfall)	100	93	80
Total Water Supplied (at Master Meters - ML)	16000	8000	2900
Peak Week to Average Consumption (%)	120	145	185
Renewals Expenditure (% of current replacement cost of system assets)	0.0	0.1	0.1
Employees (employees per 1000 properties)	0.8	1.3	2
SOCIAL - *Charges/Bills*			
Residential Water Usage Charge (2005/06) (c/kL)	112	92	70
Residential Access Charge (2005/06) ($/assessment)	90	101	220
Typical Residential Bill (2005/06) ($/assessment)	250	330	430
Typical Developer Charge (2005/06) ($/equivalent tenement)	4600	2600	2200
Average Residential Bill (2004/05) ($/per connected property)	215	330	390
Bill for Residential Customer using 250 kL/a ($/assessment)	310	405	495
SOCIAL - *Health*			
Urban Population without Reticulated Public Water Supply (%)	0	0.9	4.6
Physical and Chemical Water Quality Compliance (%)	100	100	95
Microbiological Water Quality Compliance (%)	100	100	97
Category 1 Public Health Incidents - Minor (per 1000 properties)	0.0	0.0	0.0
Category 2 Public Health Incidents - Limited Effects (per 1000 properties)	0.0	0.0	0.0
Category 3 Public Health Incidents - Major (per 1000 properties)	0.0	0.0	0.0
Capital Expenditure on Improving Public Health ($/property)	71	4	3
SOCIAL - *Levels of Service*			
Water Quality Complaints (per 1000 properties)	1	5	9.5
Service Complaints (per 1000 properties)	3	13	31
Customer Interruption Frequency (per 1000 properties)	3	58	99
Average Duration of Interruption (hr)	2	2	3
Average Customer Outage Time (min)	1	5	26
Number of Main Breaks (per 100 km of main)	5	11	17
Drought Water Restrictions (% of time)	0	60	100
Total Days Lost (%)	1.6	3.2	5.5
ENVIRONMENTAL			
Average Annual Residential Consumption (kL/property)	180	200	290
Water Losses (including leakage %)	8	11	17
Energy Consumption (kWh/ML)	50	500	740
Renewable Energy Consumption (kWh/property)	309	0	0
Category 1 Environmental Incidents - Minor (per 1000 properties)	0.0	0.3	1.1
Category 2 Environmental Incidents - Limited Effects (per 1000 properties)	0.0	0.0	0.0
Category 3 Environmental Incidents - Major (per 1000 properties)	0.0	0.0	0.0
Capital Expenditure on Improving Environmental Performance ($/property)	70	0	0
ECONOMIC - *Financial*			
Residential Revenue from Usage Charges (% of total)	69	50	30
Non-residential Revenue from Usage Charges (% of total)	83	63	36
Economic Real Rate of Return (%)	4.2	2.3	-1.9
Return on Assets (%)	4.0	2.4	0.4
Debt to Equity (%)	9	2	0
Interest Cover (%)	8600	650	340
Loan Payment ($/property)	80	31	0
ECONOMIC - *Efficiency*			
Operating Cost (OMA) per 100 km of Main ($'000)	600	950	1260
Operating Cost (OMA) per property ($/property)	210	270	360
Operating Cost (OMA) per kL (c/kL)	58	81	106
Management Cost ($/property)	80	100	140
Treatment Cost ($/property)	14	26	74
Pumping Cost ($/property)	14	23	41
Energy Cost ($/property)	8	18	28
Water Main Cost ($/property)	25	49	85

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.
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 in Appendix C.

Table 2 : 2004/05 NSW Sewerage Performance Indicators

UTILITY CHARACTERISTICS	20%	Median (50%)	80%
Residential Assessments (% of total)	89	92	94
New Residential Dwellings Connected to Sewerage (%)	2.4	1.3	0.7
Properties Served per km of Main	48	42	35
Volume of Sewage Collected (ML)	11400	4500	1400
Renewals Expenditure (% of current replacement cost of system assets)	1	0.4	0.3
Employees (per 1000 properties)	1.2	1.5	1.8
Employees Undergoing 2 or more days of Training (%)	10	6.3	2.6
SOCIAL - ***Charges/Bills***			
Residential Access Charge 2005/06 ($/assessment)	325	370	480
Typical Residential Bill 2005/06 ($/assessment)	325	370	490
Typical Developer Charge 2005/06 ($/equivalent tenement)	5000	2300	1800
Average Residential Bill 2004/05 ($/connected property)	285	335	465
SOCIAL - ***Health***			
Urban Properties without Reticulated Sewerage Service (%)	0.8	3.3	9.1
Category 1 Public Health Incidents - Minor (per 1000 properties)	0.0	0.2	4.8
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)	0.0	0.0	0.0
Capital Investment on Improving Public Health ($/property)	124	27	1
SOCIAL - ***Levels of Service***			
Odour Complaints (per 1000 properties)	0.2	1.0	1.3
Service or Choke Complaints (per 1000 properties)	10	16	35
Customer Interruption Frequency (per 1000 properties)	3	15	24
Average Duration of Interruptions (hr)	1	2	3
Average Customer Outage Time (min)	0.4	1.4	3.6
Total Days Lost	1.7	3.5	5.8
ENVIRONMENTAL			
Volume of Sewage Treated per property (kL/a)	195	230	270
Reclaimed Water (% of effluent reclaimed)	39	11	1
Biosolids Reuse (%)	100	100	100
Energy Consumption (kWh/ML)	450	600	900
Renewable Energy Consumption (kWh/property)	49	8.1	8.1
90 Percentile Licence Limits for Effluent Discharge: **BOD 35 mg/L; SS 40 mg/L; Total N 25 mg/L; Total P 5 mg/L**			
Compliance with BOD in Licence (%)	100	100	98
Compliance with SS in Licence (%)	100	97	87
Sewer Main Chokes and Collapses (per 100 km of main)	21	49	81
Sewer Overflows to the Environment (per 100 km of main)	1	11	23
Category 1 Environmental Incidents - Minor (per 1000 properties)	0.1	0.3	2.5
Category 2 Environmental Incidents - Limited Effects (per 1000 properties)	0	0.1	0.2
Category 3 Environmental Incidents - Major (per 1000 properties)	0	0.1	0.2
Capital Investment on Improving Environmental Performance ($/property)	313	76	38.8
ECONOMIC - ***Financial***			
Revenue from Access Charges (% of total)	84	70	58
Revenue from Trade Waste Charges (% of total)	5	1	0
Revenue from Other (% of total)	42	27	17
Economic Real Rate of Return (%)	5.0	1.8	0.2
Return on Assets (%)	5.3	2.2	0.2
Debt to Equity (%)	13	5	1
Interest Cover (%)	3600	1200	150
Loan Payment ($/property)	115	40	5
ECONOMIC - ***Efficiency***			
Operating Cost (OMA) per 100 km of Main ($'000)	900	1160	1300
Operating Cost (OMA) per property ($/property)	230	270	330
Operating Cost (OMA) per kL (c/kL)	101	115	143
Management Cost ($/property)	70	100	140
Treatment Cost ($/property)	56	84	107
Pumping Cost ($/property)	17	45	59
Energy Cost ($/property)	12	17	24
Sewer Main Cost ($/property)	28	31	43

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.

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 in Appendix C.

Blank Page

Table 3 - 2004/05 Best-Practice Management Compliance

	WATER UTILITY (sorted on connected properties)	WATER SUPPLY & SEWERAGE TURNOVER ($M)	WATER SUPPLY: OUTCOMES FOR 6 BPM CRITERIA											SEWERAGE: OUTCOMES FOR 4 BPM CRITERIA										
			(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 15 September each year (Yes/No)	(4) Sound Water Conservation implemented (Yes/No)	(5) Sound Drought Management implemented (Yes/No)	(6) Integrated Water Cycle Management Strategy Commenced (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 (Yes/No)	(3) Complete performance Reporting Form by 15 September each year (Yes/No)	(4) Integrated Water Cycle Management Strategy Commenced (Yes/No)	Compliance with required Criteria[6] (Yes/No)	Proposed Dividend from Surplus $'000
	Sydney Water	1,262							Yes	Yes														
	Hunter Water	123							Yes	Yes														
	LWUs with >10,000 Properties																							
1	Gosford	47.6	*Yes*	*Yes*	*Yes*	*Yes*	*Yes*	*Yes*	*Yes*	*Yes*	*Yes*	*Yes*		*Yes*	*Yes*	*Yes*	*Yes*	*Yes*	*Yes*	*Yes*	*Yes*	*Yes*	*Yes*	*1,742*
2	Wyong	53.8	*Yes*	*Yes*	*Yes*	*Yes*	*Yes*	*Yes*	*Yes*	*Yes*	*Yes*	*Yes*		*Yes*	*Yes*	*Yes*	*Yes*	*Yes*	*Yes*	*Yes*	*Yes*	*Yes*	*Yes*	
3	Shoalhaven	46.5	*Yes*	*Yes*	*Yes*	*Yes*	*Yes*	*Yes*	*Yes*	*Yes*	*Yes*	*Yes*	*1,350*	*Yes*	*Yes*	*Yes*	*Yes*	*Yes*	*Yes*	*Yes*	*Yes*	*Yes*	*Yes*	*1,159*
4	Rous (Bulk Supplier) (NO SGE)	10.0	*Yes*	*Yes*	*Yes*		*Yes*	*Yes*	*Yes*	*Yes*				NO SGE										
5	MidCoast (Combined - Unfiltered)	45.6	*Yes*	*Yes*	*Yes*	*Yes*	*Yes**	*Yes*	*Yes*	*Yes*		*Yes*		*Yes*	*Yes*	*Yes*	*Yes*	*Yes*	*Yes**	*Yes*	*Yes*		*Yes*	
6	Tweed	44.2		*Yes*	*Yes*	*Yes*	*Yes*	*Yes*							*Yes*	*Yes*			*Yes*	*Yes*	*Yes*			
7	Port Macquarie-Hastings (Unfiltered)	34.8	*Yes*	*Yes*	*Yes*	*Yes*	*Yes*	*Yes*	*Yes*	*Yes*		*Yes*	*807*	*Yes*	*Yes*	*Yes*		*Yes*	*Yes*	*Yes*	*Yes*	*Yes*		*682*
8	Riverina (Groundwater) (NO SGE)	14.6	*Yes*	*Yes*	*Yes*		*Yes*	*Yes*	*Yes*	*Yes*				NO SGE										
9	Wagga Wagga (NO WS)	10.0	*NO WS*											*Yes*	*Yes*	*Yes*				*Yes*	*Yes*	*Yes*		
10	Coffs Harbour	42.3	*Yes*	*Yes*	*Yes*		*Yes**	*Yes*	*Yes*	*Yes*	*Yes*			*Yes*					*Yes**		*Yes*	*Yes*		
11	Albury City	19.3	*Yes*	*Yes*	*Yes*	*Yes*	*Yes*	*Yes*	*Yes*	*Yes*	*Yes*	*Yes*		*Yes*	*Yes*	*Yes*	*Yes*	*Yes*	*Yes*	*Yes*	*Yes*	*Yes*	*Yes*	
12	Fish River WS (Unfiltered, Bulk Supplier, No Sa	5.8	*Yes*	*Yes*	*Yes*			*Yes*		*Yes*				NO SGE										
13	Tamworth Regional	23.7	*Yes*	*Yes*	*Yes*	*Yes*	*Yes*	*Yes*	*Yes*	*Yes*	*Yes*	*Yes*	*527*	*Yes*	*Yes*	*Yes*		*Yes*	*Yes*	*Yes*	*Yes*	*Yes*		*559*
14	Clarence Valley	29.4		*Yes*	*Yes*	*Yes*	*Yes*	*Yes*	*Yes*	*Yes*					*Yes*	*Yes*	*Yes*		*Yes*		*Yes*			
15	Eurobodalla (Unfiltered)	25.9	*Yes*	*Yes*	*Yes*	*Yes*	*Yes*	*Yes*	*Yes*	*Yes*	*Yes*	*Yes*	*248*		*Yes*	*Yes*	*Yes*		*Yes*	*Yes*	*Yes*	*Yes*		*242*
16	Wingecarribee	18.9	*Yes*	*Yes*	*Yes*	*Yes*	*Yes*	*Yes*	*Yes*	*Yes*		*Yes*		Yes	Yes	Yes	Yes	Yes	Yes*	Yes	Yes		Yes	
17	Queanbeyan (Reticulator)	15.5	*Yes*	*Yes*	*Yes*	*Yes*	*Yes*	*Yes*	*Yes*	*Yes*		*Yes*		*Yes*	*Yes*	*Yes*	*Yes*		*Yes*	*Yes*	*Yes*			
18	Dubbo	18.1	*Yes*	*Yes*	*Yes*	*Yes*	*Yes*	*Yes*	*Yes*	*Yes*	*Yes*	*Yes*		*Yes*	*Yes*	*Yes*	*Yes*	*Yes*	*Yes*	*Yes*	*Yes*	*Yes*	*Yes*	
19	Orange	20.7	*Yes*	*Yes*	*Yes*	*Yes*	*Yes*	*Yes*	*Yes*			*Yes*		*Yes*	*Yes*	*Yes*	*Yes*	*Yes*	*Yes*	*Yes*	*Yes*		*Yes*	
20	Goulburn Mulwaree	11.0		*Yes*	*Yes*	*Yes*	*Yes*	*Yes*	*Yes*	*Yes*					Yes	Yes	Yes		Yes	Yes	Yes			
21	Bathurst Regional	12.9		*Yes*		*Yes*									*Yes*	*Yes*	*Yes*	*Yes*						
22	Lismore (Reticulator)	12.6	*Yes*	*Yes*	*Yes*	*Yes*	*Yes*	*Yes*	*Yes*	*Yes*	*Yes*	*Yes*		*Yes*	*Yes*	*Yes*		*Yes*	*Yes*	*Yes*	*Yes*	*Yes*		
23	Bega Valley (Unfiltered)	14.2	*Yes*	*Yes*	*Yes*	*Yes*	*Yes*	*Yes*		*Yes*				*Yes*	*Yes*	*Yes*	*Yes*		*Yes*		*Yes*			
24	Ballina (Reticulator)	11.9	*Yes*	*Yes*	*Yes*	*Yes*	*Yes*	*Yes*	*Yes*	*Yes*	*Yes*	*Yes*		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	350
25	Kempsey (Groundwater)	15.2		*Yes*	*Yes*		*Yes**	*Yes*			*Yes*				*Yes*	*Yes*	*Yes*		*Yes**	*Yes*	*Yes*	*Yes*		
26	Country Energy	14.6	Yes	Yes	Yes	Yes	Yese	Yes	Yes	Yes	Yes	Yes		Yes		Yes	Yes		Yese		Yes	Yes		
27	Byron (Reticulator)	12.9	*Yes*	*Yes*	*Yes*	*Yes*	*Yes**	*Yes*	*Yes*		*Yes*			*Yes*	*Yes*	*Yes*	*Yes*	*Yes*	*Yes*	*Yes*	*Yes*	*Yes*	*Yes*	
28A	Goldenfields (Reticulator) (NO SGE)	6.1					Yes*	Yes						NO SGE										
28B	Goldenfields (Bulk) (NO SGE)	6.7					Yes*	Yes						NO SGE										
	%of LWUs 'Yes' (>10,000 connected properties)		*78%*	*96%*	*93%*	*78%*	*93%*	*96%*	*78%*	*78%*	*48%*	*56%*	*15%*	*63%*	*78%*	*81%*	*67%*	*52%*	*81%*	*67%*	*81%*	*48%*	*37%*	*25%*
	LWUs with 3,001 - 10,000 Properties																							
29	Armidale Dumaresq	7.9			Yes		Yes*	Yes	Yes	Yes						Yes				Yes	Yes			
30	Griffith	12.4	*Yes*	*Yes*	*Yes*	*Yes*	*Yes*	*Yes*	*Yes*	*Yes*		*Yes*	260	*Yes*	*Yes*	*Yes*			*Yes*	*Yes*	*Yes*			
30A	Hawkesbury (NO WS)	3.8	*NO WS*													*Yes*		*Yes*	*Yes**					
31	Lithgow	6.7	*Yes*	*Yes*	*Yes*		*Yes*	*Yes*	*Yes*	*Yes*	*Yes*	*Yes*		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
32	Mid-Western Regional	7.8	*Yes*	*Yes*	*Yes*			*Yes*	*Yes*	*Yes*				*Yes*	*Yes*					*Yes*	*Yes*			
33	Richmond Valley	7.0	*Yes*	*Yes*	*Yes*	*Yes*		*Yes*						*Yes*	*Yes*	*Yes*	*Yes*		*Yes**		*Yes*			
34	Nambucca (Groundwater)	5.9	*Yes*	*Yes*	*Yes*	*Yes*	*Yes*	*Yes*	*Yes*	*Yes*	*Yes*	*Yes*		*Yes*					*Yes*	*Yes*	*Yes*	*Yes*		
35	Singleton	6.9	*Yes*	*Yes*	*Yes*	*Yes*		*Yes*						Yes	Yes	Yes		Yes		Yes	Yes			
36	Parkes	7.5	*Yes*	*Yes*	*Yes*	*Yes*	*Yes*	*Yes*	*Yes*	*Yes*	*Yes*	*Yes*		*Yes*	*Yes*	*Yes*	*Yes*	*Yes*	*Yes*	*Yes*	*Yes*	*Yes*	*Yes*	
37	Inverell	5.0	*Yes*	*Yes*	*Yes*		*Yes*	*Yes*						*Yes*		*Yes*		*Yes*	*Yes*		*Yes*			
38	Moree Plains (Groundwater)	6.0	*Yes*	*Yes*	*Yes*	*Yes*	*Yes*	*Yes*						*Yes*	*Yes*	*Yes*	*Yes*		*Yes*		*Yes*			
39	Cowra	4.3			*Yes*		*Yes**	*Yes*	*Yes*	*Yes*					Yes	Yes					Yes			
40	Central Tablelands (NO SGE)	3.6	*Yes*	*Yes*	*Yes*	*Yes*	*Yes*	*Yes*	*Yes*			*Yes*		*NO SGE*										
41	Muswellbrook	7.1		*Yes*	*Yes*	*Yes*	*Yes**	*Yes*			*Yes*				*Yes*	*Yes*	*Yes*		*Yes*	*Yes*		*Yes*		

Table 3 - 2004/05 Best-Practice Management Compliance

	WATER UTILITY (sorted on connected properties)	WATER SUPPLY & SEWERAGE TURNOVER ($M)	WATER SUPPLY: OUTCOMES FOR 6 BPM CRITERIA											SEWERAGE: OUTCOMES FOR 4 BPM CRITERIA										
			(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 15 September each year (Yes/No)	(4) Sound Water Conservation implemented (Yes/No)	(5) Sound Drought Management implemented (Yes/No)	(6) Integrated Water Cycle Management Strategy Commenced (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 (Yes/No)	(3) Complete performance Reporting Form by 15 September each year (Yes/No)	(4) Integrated Water Cycle Management Strategy Commenced (Yes/No)	Compliance with required Criteria[6] (Yes/No)	Proposed Dividend from Surplus $'000
42	Corowa	3.6	Yes	Yes	Yes			Yes	Yes	Yes	Yes			Yes	Yes	Yes					Yes	Yes		
43	Tumut	4.9	Yes	Yes	Yes	Yes	Yes	Yes		Yes					Yes	Yes	Yes	Yes	Yes	Yes	Yes			
44	Gunnedah (Groundwater)	3.2	Yes	Yes	Yes	Yes	Yes	Yes	Yes		Yes			Yes	Yes	Yes			Yes		Yes	Yes		
45	Upper Hunter	4.5		Yes	Yes			Yes							Yes	Yes	Yes				Yes			
46	Narrabri (Groundwater)	3.5		Yes		Yes		Yes												Yes	Yes			
47	Bellingen (Unfiltered)	3.8		Yes	Yes	Yes	Yes	Yes						Yes	Yes	Yes		Yes	Yes		Yes			
48	Leeton	4.4		Yes	Yes	Yes	Yes*	Yes											Yes*		Yes			
49	Young (Reticulator)	3.9	Yes	Yes	Yes	Yes	Yes	Yes			Yes			Yes	Yes	Yes		Yes	Yes		Yes	Yes		
50	Cooma-Monaro	4.2	Yes	Yes	Yes		Yes	Yes						Yes	Yes	Yes		Yes	Yes		Yes			
51	Forbes	3.8	Yes	Yes	Yes	Yes		Yes						Yes							Yes			
52	Snowy River (Unfiltered)	3.0		Yes	Yes										Yes	Yes								
53	Berrigan (Dual Supply)	3.3	Yes				Yes	Yes	Yes	Yes				Yes		Yes			Yes		Yes			
54	Deniliquin	3.9	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes		Yes	Yes	Yes			Yes		Yes	Yes		
55	Warrumbungle	1.9					Yes	Yes						Yes							Yes			
% of LWUs 'Yes' (3,001 - 10,000 connected properties)			*67%*	*85%*	*89%*	*59%*	*70%*	*96%*	*44%*	*41%*	*30%*	*22%*	*4%*	*67%*	*67%*	*74%*	*26%*	*30%*	*59%*	*37%*	*89%*	*30%*	*7%*	*0%*
	LWUs with 1,501 - 3,000 Properties																							
56	Yass Valley	3.0	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes		Yes					Yes	Yes	Yes	Yes		
57	Wellington	3.1	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes		Yes		Yes	Yes	Yes	Yes	Yes		Yes	Yes			
58	Cootamundra (Reticulator)	2.2		Yes	Yes	Yes		Yes													Yes			
59	Lachlan	2.8	Yes	Yes	Yes			Yes		Yes				Yes		Yes				Yes	Yes			
60	Glen Innes Severn	2.1			Yes		Yes	Yes						Yes	Yes	Yes			Yes		Yes			
61	Liverpool Plains	1.6			Yes	Yes	Yes*				Yes				Yes	Yes	Yes					Yes		
62	Narromine (Groundwater)	2.0		Yes				Yes													Yes			
63	Narrandera (Groundwater)	2.5		Yes				Yes		Yes											Yes			
64	Dungog (Reticulator)	1.9	Yes	Yes	Yes		Yes*	Yes	Yes					Yes	Yes	Yes		Yes	Yes*		Yes			
65	Murray (Dual Supply)	2.5		Yes	Yes			Yes							Yes						Yes			
66	Cobar WB (Bulk Supplier, No Sge)										Yes			NO SGE										
67	Cobar	2.1			Yes	Yes										Yes				Yes				
68	Tenterfield	1.7	Yes	Yes	Yes		Yes	Yes	Yes	Yes				Yes	Yes	Yes		Yes	Yes	Yes	Yes			
69	Temora (NO WS)	0.4	NO WS											Yes										
70	Kyogle	1.6	Yes	Yes	Yes	Yes		Yes	Yes	Yes	Yes			Yes	Yes	Yes	Yes	Yes		Yes	Yes	Yes		
71	Palerang	1.9					Yes	Yes								Yes			Yes*		Yes			
72	Bland (NO WS)	0.8	NO WS																Yes		Yes			
73	Upper Lachlan	1.7		Yes	Yes		Yes	Yes		Yes					Yes	Yes					Yes			
74	Wentworth (Dual Supply)	2.429	Yes	Yes	Yes	Yes	Yes	Yes							Yes	Yes			Yes		Yes			
75	Coonamble (Groundwater)	1.182	Yes	Yes				Yes	Yes	Yes				Yes	Yes						Yes			
76	Harden (Reticulator)	1.6						Yes								Yes					Yes			
% of LWUs 'Yes' (1,501 - 3,000 connected properties)			*42%*	*68%*	*68%*	*37%*	*47%*	*84%*	*32%*	*42%*	*21%*	*11%*	*0%*	*42%*	*53%*	*63%*	*16%*	*21%*	*32%*	*32%*	*84%*	*16%*	*0%*	*0%*
	LWUs with 200 - 1,500 Properties																							
77	Junee (NO WS)	0.5	NO WS													Yes		Yes						
78	Blayney (NO WS)	1.1	NO WS											Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes		Yes	
79	Walgett (Dual Supply)	1.8								Yes						Yes								
80	Greater Hume	1.4					Yes	Yes						Yes					Yes*					
81	Gwydir	1.1	Yes		Yes	Yes		Yes			Yes			Yes		Yes	Yes				Yes	Yes		
82	Gloucester	2.9	Yes	Yes	Yes	Yes	Yes	Yes	Yes					Yes	Yes	Yes	Yes		Yes	Yes	Yes			
83	Oberon (Reticulator)	1.6		Yes	Yes	Yes	Yes	Yes							Yes	Yes	Yes	Yes	Yes		Yes			
84	Gilgandra (Groundwater)	1.1	Yes	Yes	Yes	Yes		Yes						Yes	Yes	Yes	Yes			Yes	Yes			

Table 3 - 2004/05 Best-Practice Management Compliance

	WATER UTILITY (sorted on connected properties)	WATER SUPPLY & SEWERAGE TURNOVER ($M)	WATER SUPPLY: OUTCOMES FOR 6 BPM CRITERIA											SEWERAGE: OUTCOMES FOR 4 BPM CRITERIA										
			(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 15 September each year *(Yes/No)*	(4) Sound Water Conservation implemented *(Yes/No)*	(5) Sound Drought Management implemented *(Yes/No)*	(6) Integrated Water Cycle Management Strategy Commenced *(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 *(Yes/No)*	(3) Complete performance Reporting Form by 15 September each year *(Yes/No)*	(4) Integrated Water Cycle Management Strategy Commenced *(Yes/No)*	Compliance with required Criteria[6] *(Yes/No)*	Proposed Dividend from Surplus $'000
85	Uralla	1.0		Yes	Yes		Yes	Yes							Yes	Yes		Yes	Yes	Yes	Yes			
86	Hay (Dual Supply)	1.1	Yes	Yes	Yes	Yes	Yese	Yes	Yes	Yes		Yes		Yes	Yes	Yes			Yese	Yes	Yes			
87	Bourke (Dual Supply)	1.4		Yes				Yes	Yes	Yes					Yes						Yes			
88	Wakool (Dual Supply)	1.7	Yes	Yes	Yes	Yes	Yes	Yes		Yes				Yes	Yes	Yes					Yes			
89	Bogan	1.3			Yes	Yes		Yes	Yes	Yes											Yes			
90	Guyra	1.2	Yes	Yes	Yes		Yes	Yes	Yes	Yes	Yes			Yes	Yes	Yes			Yes	Yes	Yes	Yes		
91	Cabonne	2.6	Yes	Yes	Yes			Yes						Yes	Yes	Yes	Yes				Yes			
92	Carrathool (Groundwater)	1.0		Yes	Yes											Yes								
93	Tumbarumba	1.2	Yes	Yes	Yes	Yes	Yese	Yes	Yes			Yes		Yes	Yes	Yes	Yes	Yes	Yese	Yes	Yes		Yes	
94	Gundagai	0.7		Yes	Yes	Yes		Yes							Yes	Yes	Yes				Yes			
95	Weddin (NO WS)	0.3	NO WS												Yes	Yes								
96	Warren (Dual Supply)	1.0	Yes	Yes	Yes			Yes	Yes	Yes				Yes	Yes	Yes					Yes			
97	Bombala	0.8	Yes					Yes	Yes	Yes				Yes		Yes		Yes	Yes		Yes			
98	Walcha	0.7			Yes	Yes		Yes								Yes	Yes				Yes			
99	Coolamon (NO WS)	0.7	NO WS												Yes	Yes					Yes	Yes		
100	Balranald (Dual Supply)	0.8		Yes	Yes	Yes		Yes							Yes	Yes	Yes				Yes			
101	Murrumbidgee (Groundwater)	0.6		Yes	Yes	Yes		Yes													Yes			
102	Lockhart (NO WS)	0.3	NO WS											Yes	Yes	Yes	Yes							
103	Central Darling (Dual Supply)	0.7		Yes	Yes		Yes	Yes	Yes	Yes	Yes					Yes					Yes	Yes		
104	Boorowa	0.6		Yes	Yes	Yes	Yese								Yes	Yes		Yes	Yes					
105	Brewarrina	0.8						Yes		Yes											Yes			
106	Jerilderie (Dual Supply)	0.5		Yes	Yes	Yes		Yes							Yes	Yes	Yes				Yes			
107	Urana (NO WS)	0.2	NO WS													Yes			Yes*		Yes			
%of LWUs 'Yes' (200 - 1,500 connected properties)			*40%*	*72%*	*80%*	*56%*	*40%*	*88%*	*36%*	*40%*	*12%*	*8%*	*0%*	*35%*	*48%*	*65%*	*32%*	*16%*	*29%*	*19%*	*68%*	*10%*	*3%*	*0%*
	WS LWUs with >$5M turnover	28																						
	WS LWUs with <$5M turnover	70																						
	SGE LWUs with >$5M turnover	25																						
	SGE LWUs with <$5M turnover	76																						
	TOTAL 'YES' for large LWUs (>$10M turnover)[2]		22	27	27	22	26	27	22	22	13	16	5	19	23	24	18	14	23	20	24	14	10	6
	% of Large LWUs (28 WS LWUs and 25 SGE LWUs)		79%	96%	96%	79%	93%	96%	79%	79%	46%	57%	18%	76%	92%	96%	72%	56%	92%	80%	96%	56%	40%	24%
	TOTAL 'YES' for remainder of LWUs (<$10M turnover)[2]		35	53	55	35	37	63	26	28	15	10	0	39	46	57	22	19	33	22	64	15	4	0
	% of Small LWUs (70 WS LWUs and 76 SGE LWUs)		50%	76%	79%	50%	53%	90%	37%	40%	21%	14%	0%	51%	61%	75%	29%	25%	43%	29%	84%	20%	5%	0%
	TOTAL 'YES' for all LWUs		57	80	82	57	63	90	48	50	28	26	5	58	69	81	40	33	56	42	88	29	14	6
	% all LWUs		58%	82%	84%	58%	64%	92%	49%	51%	29%	27%	5%	57%	68%	80%	40%	33%	55%	42%	87%	29%	14%	6%

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 2004/05 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 2004/05, the turnover reported for 2003/04 is shown in italics bold above.

5 The required criteria for water supply in 2004/05 are (1), (2), (2a), (2b), (2c), (3), (4) and (5).

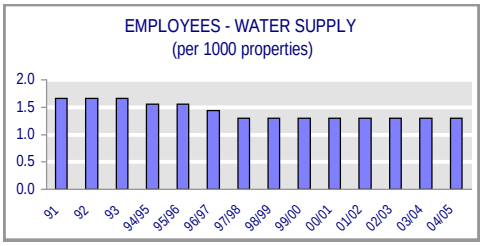
6 The required criteria for sewerage in 2004/05 are (1), (2), (2a), (2b), (2c), (2d), (2e) and (3).

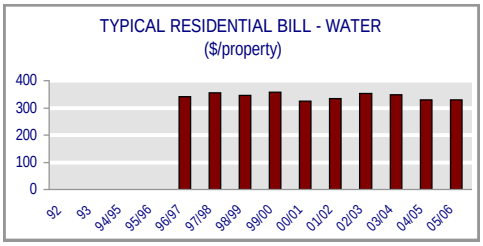
7 Yes[+] in column (1) indicates that the LWU's strategic business plan and financial plan need to be updated.

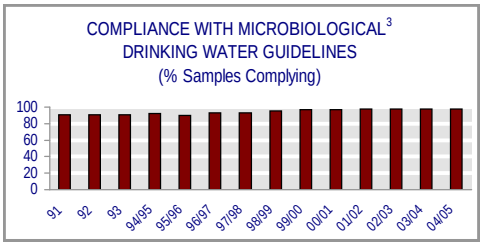
8 Yes* in column 2c for water supply or column 2d for sewerage indicates that the LWU has commercial developer charges in place but is yet to complete its complying Development Servicing Plan (DSP).
Yes[e] in these columns indicates the LWU is exempt from the requirement to prepare a DSP due to low growth (under 5 lots/a).

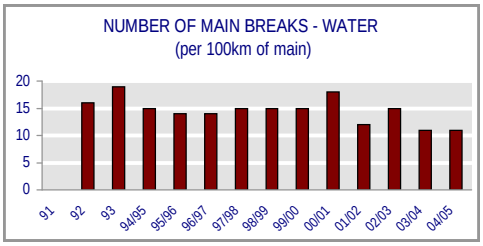
Table 4 - Trends in Statewide Performance Indicators - 1991 to 2004/05

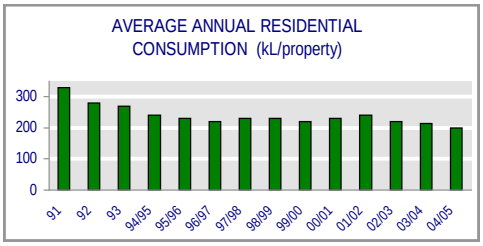
WATER SUPPLY	91	92	93	94/95	95/96	96/97	97/98	98/99	99/00	00/01	01/02	02/03	03/04	04/05	05/06
UTILITY CHARACTERISTICS															
Employees (Employees/1000 properties)	1.7	1.7	1.7	1.6	1.6	1.4	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	
SOCIAL - *Bills/Charges*															
Typical Residential Bill ($/ property) (January 2006$)	January 2005$					340	354	347	357	324	335	352	349	330	330
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	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	11	
ENVIRONMENTAL															
Annual Residential Consumption (kL/property)	330	280	270	240	230	220	230	230	220	230	240	220	215	200	
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	2.3	
ECONOMIC - *Efficiency*															
Operating (OMA) Cost ($/property) (January 2005$)	222	214	218	199	194	166	189	211	208	223	227	252	262	260	
Management Cost ($/property) (January 2005$)	67	67	78	73	67	70	78	94	86	89	95	100	103	100	

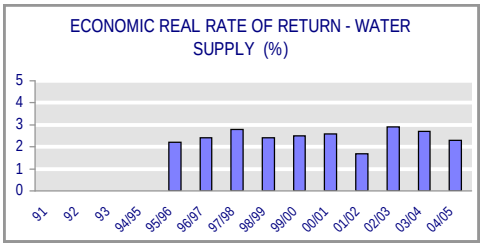


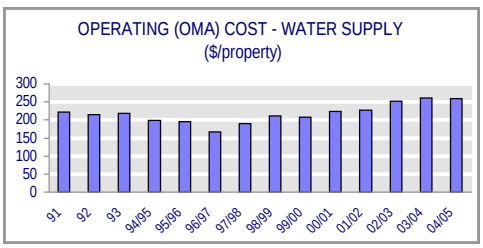












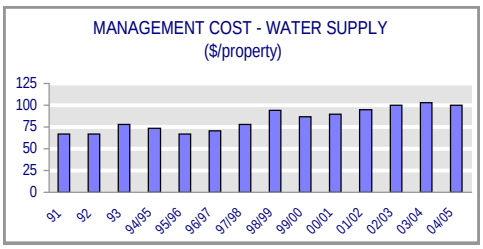
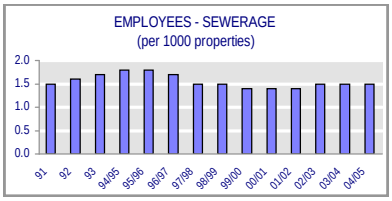
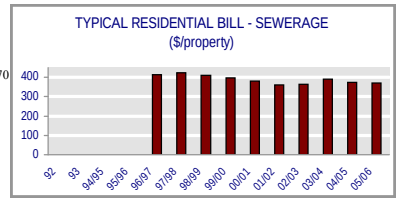


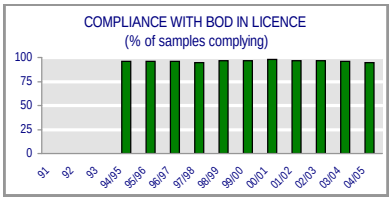
Table 4 - Trends in Statewide Performance Indicators - 1991 to 2004/05 cont'd

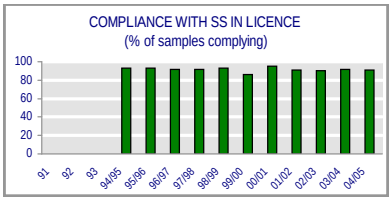
SEWERAGE

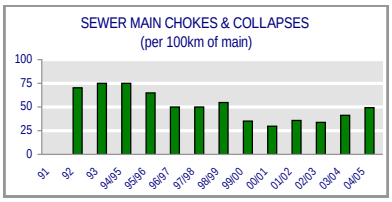
	91 92	93 94/95	95/96 96/97	97/98 98/99	99/00 00/01	01/02 02/03	03/04 04/05	05/06
UTILITY CHARACTERISTICS								
Employees (Employees/1000 properties)	1.5 1.6	1.7 1.8	1.8 1.7	1.5 1.5	1.4 1.4	1.4 1.5	1.5 1.5	
SOCIAL - Bills/Charges								
Typical Residential Bill ($/property) (January 2006$)			413	425 411	398 380	362 362	390 375	370
ENVIRONMENTAL								
Compliance with BOD in Licence (% of samples complying)		96	96 96	95 97	97 98	97 97	96 95	
Compliance with SS in Licence (% of samples complying)		93	93 92	92 93	86 95	91 90	92 91	
Sewer Main Chokes and Collapses (per 100 km of Main)	70 75	75 65	50 50	55 35	30 36	34 41	49	
Sewer Overflows to the Environment (per 100 km of Main)			8 6	3 3	4 4	5 7	7 11	
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 1.8	
ECONOMIC - Efficiency								
Operating (OMA) Cost ($/property) (January 2005$)	208 208	218 212	209 228	248 246	254 251	259 273	272 270	
Management Cost ($/property) (January 2005$)	67 64	69 67	66 86	86 87	81 84	91 95	98 100	

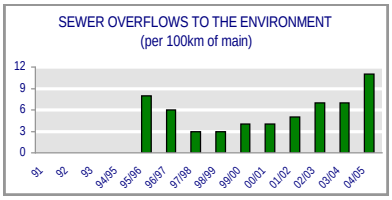


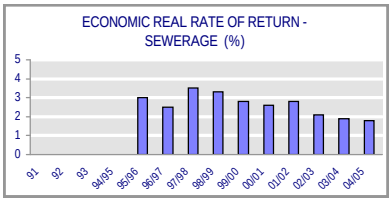


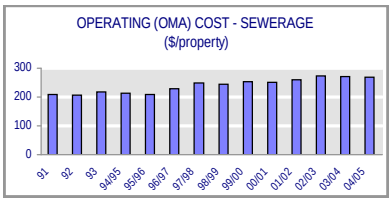


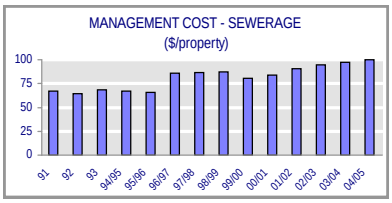












Notes:

1. The values shown are Statewide medians on a percentage of connected properties basis from 1991 to 2004/05, except for microbiological, BOD and SS compliance which are the percentage of samples complying.
2. 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 - 2004/05 NSW Water Utility Performance Summary

	WATER UTILITY	Water Supply - 2004/05 unless noted								Sewerage - 2004/05 unless noted				Water Supply and Sewerage - 2004/05 unless noted									
		Supply Assessments (No.)[5]	Total Water Supplied Potable + Non-potable (ML)[2]	Average Annual Residential Water Consumption (Potable) (kL/connected property)	Turnover ($M)[8]	2005/06 Tariff Pay-for-Use ?[9]	2005/06 Residential Tariff Independent of Land Value ?[10]	Water Quality Compliance (1996 NHMRC/ARMCANZ Guidelines)		Turnover ($M)[2,8]	2005/06 Residential Tariff Independent of Land Value ?	DEC Licence Compliance		Total Turnover ($M)	2005/06 Typical Residential Bill ($/assessment)	2005/06 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)
	Sydney Water	1,685,000	525,000	211	**587**	Yes	**P**	100	100	**675**	**P**			**1,262**	676	5,700	3.8		429			Yes	
	Hunter Water	211,200	69,900	197	**60.4**	Yes	**P**	100	100	**62.7**	**P**			**123**	609	4,400	3.2		317		2,463	Yes	
LWUs with > 10,000 Properties																							
1	Gosford	67,700	15,200	180	**20.2**	Yes	**P**	100	100	**27.4**	**P**	100	100	**47.6**	612	4,100	-0.7	0	516	273	738		Yes
2	Wyong	59,200	14,200	178	**29.0**	Yes	**P**	100	100	**24.8**	**P**	100	100	**53.8**	625	4,500	1.1	8	460	166	676	Yes	Yes
3	Shoalhaven	47,600	15,900	167	**18.9**	Yes	**P**	99	100	**27.6**	**P**	100	95	**46.5**	727	4,450	4.0	6	539	248	532	Yes	Yes
4	Rous (Bulk Supplier) (NO SGE)	37,300	11,700		**10.0**		**P**	100	100	**NO SGE**				**10.0**		3,280	0.2	5	177	81	129		Yes
5	MidCoast (Combined - Unfiltered)	36,400	10,400	204	**19.5**	Yes	**P**	95	100	**26.1**	**P**	98	96	**45.6**	950	7,700	4.7	25	599	115	470	Yes	Yes
6	Tweed	30,900	9,980	221	**18.9**	Yes	**P**	94	100	**25.3**	**P**	94	87	**44.2**	716	7,820	5.3	1	553	232	418	Yes	Yes
7	Port Macquarie-Hastings (Unfiltered)	28,500	7,320	186	**19.1**	Yes	**P**	100	100	**15.7**	**P**	77	90	**34.8**	754	10,200	2.1	2	628	180	401	Yes	Yes
8	Riverina (Groundwater) (NO SGE)	27,700	16,000	343	**14.6**	Yes	**P**	98	100	**NO SGE**				**14.6**	320	2,300	2.3	4	237	65	207	Yes	Yes
10	Coffs Harbour	24,000	6,010	186	**18.2**	Yes	**P**	100	100	**24.1**	**P**	100	98	**42.3**	1024	10,900	6.8	19	566	218	383	Yes	Yes
11	Albury	21,300	14,400	284	**9.0**	Yes	**P**	85	100	**10.3**	**P**	82	94	**19.3**	583	10,000	0.2	6	478	193	455	Yes	Yes[15]
12	Fish River WS (Unfiltered, Bulk Supplier)	23,000	16,300		**5.8**	No	**P**	100	100	**NO SGE**				**5.8**			1.0	14	77		100		Yes
13	Tamworth Regional	19,530	10,700	317	**11.6**	Yes	**P**	98	97	**12.1**	**P**	99	92	**23.7**	874	4,990	3.3	5	544	200	342	Yes	Yes
14	Clarence Valley	20,400	16,500	178	**20.2**	Yes	**P**	91	100	**9.2**	**P**	95	71	**29.4**	716	12,100							Yes
15	Eurobodalla (Unfiltered)	19,730	4,820	151	**11.9**	Yes	**P**	98	100	**14.0**	**P**	98	100	**25.9**	884	16,800	4.1	5	682	262	285	Yes	Yes
16	Wingecarribee	19,210	5,110	220	**9.6**	Yes	**P**	100	100	**9.3**	**P**	99	98	**18.9**	818	7,310	2.7	9	459	215	250	Yes	Yes
17	Queanbeyan (Reticulator)	16,430	4,010	185	**8.2**	Yes	**P**	100	100	**7.3**	**P**	100	100	**15.5**	722	7,810	0.4	0	406	127	288	Yes	Yes
18	Dubbo	13,800	9,580	462	**9.3**	Yes	**P**	100	100	**8.8**	**P**	92	92	**18.1**	919	5,280	2.5	4	738	263	218	Yes	Yes
19	Orange	15,010	4,760	221	**11.8**	Yes	**P**	100	100	**8.9**	**P**	100	100	**20.7**	687	9,040	1.9	0	584	203	210	Yes	
20	Goulburn Mulwaree	13,950	2,340	93	**5.2**	Yes	**P**	96	100	**5.8**	**P**	100	100	**11.0**	792	7,960	2.7	21	410	178	81	Yes	Yes*
21	Bathurst Regional	12,870	7,960	283	**7.5**	No	**P**	100	100	**5.4**	**P**	100	90	**12.9**	719	4,210	-0.6	1	665	284	234		Yes*
22	Lismore (Reticulator)	12,910	3,850	179	**5.4**	Yes	**P**	98	100	**7.2**	**P**	100	100	**12.6**	569	6,500	2.8	1	581	135	137	Yes	Yes
23	Bega Valley (Unfiltered)	13,230	3,540	178	**6.8**	Yes	**P**	99	100	**7.4**	**P**	99	99	**14.2**	861	9,700	0.9	0	791	364	199	Yes	Yes
24	Ballina (Reticulator)	13,180	4,470	220	**4.8**	Yes	**P**	100	100	**7.1**	**P**	100	100	**11.9**	636	10,400	-1.7	0	743	207	138		Yes
25	Kempsey (Groundwater)	11,470	4,170	187	**9.4**	Yes	**P**	98	100	**5.8**	**P**	99	96	**15.2**	924	13,800	4.4	12	565	190	192	Yes	Yes
26	Country Energy	10,390	7,230	281	**12.2**	Yes	**P**	100	100	**2.4**	**P**	100	100	**14.6**	652		-0.3	0	843	216	95		Yes
27	Byron (Reticulator)	10,610	3,020	214	**4.6**	Yes	**P**	100	100	**8.3**	**P**	100	99	**12.9**	810	15,700	0.0	9	928	271	158		Yes
28A	Goldenfields (Reticulator) (NO SGE)	10,200	3,890	311	**8.7**	Yes	**P**	95	100	**NO SGE**				**8.7**	534	2,000	2.8		589	90	122	Yes	Yes
28B	Goldenfields (Bulk Supplier) (NO SGE)	18,800	9,420		**8.7**	Yes	**P**	95	100	**NO SGE**				**8.7**		2,000	-1.9		204	40	168		Yes
	Totals or Medians (%of connected properties basis) for >10,000 Properties	*576,000*	*205,360*	*185*	*339.0*					*300.3*				*639*	*688*	*6,430*				*197*	*7,625*		
LWUs with 3,001 - 10,000 Properties																							
29	Armidale Dumaresq	8,160	3,160	253	**4.4**	Yes	**P**	100	100	**3.5**	**P**	100	100	**7.9**	686	4,860	-0.4	3	659	326	165		Yes
30	Griffith	8,650	9,420	685	**7.4**	Yes	**P**	100	100	**5.0**	**P**	54	45	**12.4**	820	4,620	3.1	1	890	265	85	Yes	Yes
31	Lithgow	7,380	2,140	181	**3.8**	Yes	**P**	100	100	**2.9**	**P**			**6.7**	734	4,020	-0.5	5	601	316	75		Yes
32	Mid-Western Regional	6,390	2,420	286	**4.6**	Yes	**P**	84	100	**3.2**	**P**	100	92	**7.8**	935	4,650	2.8	11	694	286	111	Yes	Yes
33	Richmond Valley	6,720	3,040	286	**3.6**	Yes	**P**	100	100	**3.4**	**P**	100	87	**7.0**	1094	7,290	2.2	0	702	321	80	Yes	Yes
34	Nambucca (Groundwater)	6,290	1,910	205	**2.5**	Yes	**P**	100	100	**3.4**	**P**	90	96	**5.9**	630	7,420	3.4	5	445	166	79	Yes	Yes
35	Singleton	6,060	2,750	309	**4.5**	Yes	**P**	100	100	**2.4**	**P**	100	100	**6.9**	768	4,060	3.5	0	494	164	86	Yes	Yes
36	Parkes	5,940	6,520	362	**5.9**	Yes	**P**	100	100	1.6	**P**	66	42	**7.5**	742	9,210	2.0	0	610	102	103	Yes	Yes
37	Inverell	5,170	2,100	227	**3.4**	Yes	**P**	100	100	1.6	**P**	100	87	**5.0**	782	5,420	1.3	5	597	200	76	Yes	Yes
38	Moree Plains (Groundwater)	5,160	3,220	420	**3.1**	Yes	**P**	100	84	**2.9**	**P**	58	92	**6.0**	1164	6,270	2.5	11	662	261	43	Yes	Yes
39	Cowra	5,250	2,180	240	**2.9**	Yes	**P**	100	95	1.4	**P**	100	75	**4.3**	836	5,150	-0.3	3	705	450	43		Yes*
40	Central Tablelands (NO SGE)	5,220	2,090	236	**3.6**	Yes	**P**	100	100	**NO SGE**				**3.6**	398	4,430	1.2	20	374	178	72	Yes	Yes
41	Muswellbrook	5,070	2,870	314	**4.3**	Yes	**P**	95	100	**2.8**	**P**	100	100	**7.1**	984	8,050	6.0	11	667	127	62	Yes	Yes

Table 5 - 2004/05 NSW Water Utility Performance Summary

	WATER UTILITY	Water Supply - 2004/05 unless noted								Sewerage - 2004/05 unless noted				Water Supply and Sewerage - 2004/05 unless noted									
		Supply Assessments (No.)[5]	Total Water Supplied Potable + Non-potable (ML)[2]	Average Annual Residential Water Consumption (Potable) (kL/connected property)	Turnover ($M)[8]	2005/06 Tariff Pay-for-Use ?[9]	2005/06 Residential Tariff Independent of Land Value ?[10]	Water Quality Compliance (1996 NHMRC/ARMCANZ Guidelines)		Turnover ($M)[2,8]	2005/06 Residential Tariff Independent of Land Value ?	DEC Licence Compliance		Total Turnover ($M)	2005/06 Typical Residential Bill ($/assessment)	2005/06 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)
42	Corowa	4,740	3,260	587	1.8	Yes	P	100	100	1.8	P			**3.6**	709	1,710	-0.1	1	498	190	60		Yes
43	Tumut	4,530	2,050	301	**2.5**	Yes	P	98	100	**2.4**	P	88	98	**4.9**	785	7,580	2.4	1	528	132	76	Yes	Yes
44	Gunnedah (Groundwater)	4,170	2,850	367	**2.1**	Yes	P	100	77	1.1	P	100	78	**3.2**	535	5,340	1.4	1	336	78	46	Yes	Yes
45	Upper Hunter	4,560	2,790	239	**2.7**	Yes	P	100	100	1.8	P	100	89	**4.5**	774	4,410	3.6	0	601	243	49	Yes	Yes
46	Narrabri (Groundwater)	4,250	3,740	562	**2.1**	Yes	P	100	100	1.4	P			**3.5**	700	4,080	1.1	7	448	109	65	Yes	Yes*
47	Bellingen (Unfiltered)	4,150	1,390	223	**2.1**	Yes	P	100	100	1.7	P	92	91	**3.8**	810	10,100	-0.1	0	572	274	60		Yes
48	Leeton	4,260	3,130	524	**2.5**	Yes	P	100	100	1.9	O	100	100	**4.4**	628	5,800	2.2	1	721	227	52		
49	Young (Reticulator)	3,770	1,630	247	**2.4**	Yes	P	100	100	1.5	P	100	92	**3.9**	879	3,000	10.2	4	476	55	13	Yes	Yes
50	Cooma-Monaro	3,690	1,700	344	**2.3**	Yes	P	100	100	1.9	P			**4.2**	1058	4,250	2.2	5	711	252	41	Yes	Yes
51	Forbes	3,530	2,350	377	**2.1**	Yes	P	100	91	1.7	O	31	92	**3.8**	904	1,320	3.2	13	493	84	33		Yes
52	Snowy River (Unfiltered)	2,370	2,260	542	1.4	Yes	P	99	100	1.6	P	84	77	**3.0**	1110	5,000					42		Yes
53	Berrigan (Dual Supply)	3,310	2,210	247	**2.1**	No	P	100	100	1.2	P	100	100	**3.3**	826	5,900	1.4	3	548	184	48		Yes
	Totals or Medians (%of connected properties basis) for 3,001 - 10,000	*129,000*	*73,180*	*286*	*79.9*					*54.1*				*134.0*	*796*	*5,162*				*200*	*1,665*		
	LWUs with 1,501 - 3,000 Properties																						
54	Deniliquin	3,160	2,960	597	**2.3**	Yes	P	100	100	1.6	P	85	100	**3.9**	1107	1,050	3.5	2	614	251	30	Yes	Yes
55	Warrumbungle	3,060	1,250	368	1.1	No	P	99	91	0.8	P			1.9	761	1,690	-2.1	0	520	243	49		Yes
56	Yass Valley	2,950	840	195	1.6	Yes	P	100	96	1.4	P	100	100	**3.0**	896	12,700	3.6	0	601	198	45	Yes	Yes
57	Wellington	2,880	1,020	256	1.8	Yes	P	100	100	1.3	P	100	50	**3.1**	1029	3,390	3.0	14	611	212	41	Yes	Yes
58	Cootamundra (Reticulator)	2,830	900	239	1.3	Yes	P	99	100	0.9	O	100	85	**2.2**	623	2,700	-1.6	4	495	100	11		Yes
59	Lachlan	2,640	1,430	382	1.7	Yes	P	100	100	1.1	P	100	60	**2.8**	832		-0.9	0	712	167	50		Yes
60	Glen Innes Severn	2,970	740	187	1.2	Yes	P	100	100	0.9	P	100	100	**2.1**	681	4,450					39		Yes
61	Liverpool Plains	2,260	950	280	1.0	Yes	P	100	100	0.7	P	92	37	1.6	560	4,000	-1.1	3	488	129	40		
62	Narromine (Groundwater)	2,130	1,540	656	1.0	Yes	P		100	1.0	P			**2.0**	1042	1,440	-0.3	0	628	218	26		Yes
63	Narrandera (Groundwater)	2,180	1,440	445	1.4	Yes	P	87	100	1.1	O	100	33	**2.5**	856		6.9	0	581	225	22		Yes*
64	Dungog (Reticulator)	2,100	680	175	1.2	Yes	P	100	100	0.7	P			1.9	688	5,650	5.3	5	637	188	19	Yes	Yes
65	Murray (Dual Supply)	2,030	1,280	222	1.4	Yes	P		100	1.1	P			**2.5**	738	1,400	4.7	23	571	212	17	Yes	Yes
67	Cobar	2,020	1,660	485	1.6	Yes	P	100	100	0.5	P	100	100	**2.1**	825	2,180	0.1	0	562	124	30	Yes	
66	Cobar WB (Bulk Supplier)	2,020	4,250						100	**NO SGE**													Yes*
68	Tenterfield	2,000	520	163	0.9	Yes	P	100	94	0.8	P	95	43	1.7	743	3,000	-4.3	0	835	403	31		Yes
70	Kyogle	1,890	470	135	0.9	Yes	P	90	92	0.8	P	66	37	1.6	806	2,000	-0.3	0	540	201	27		Yes
71	Palerang	1,880	540	180	1.0	Yes	P	100	100	0.9	P	95	87	1.9	1018	6,090					18		Yes
73	Upper Lachlan	1,720	330	148	1.0	Yes	P	85	95	0.7	P	100	100	1.7	1037	3,100	1.0	13	656	186	24	Yes	Yes
74	Wentworth (Dual Supply)	1,800	2,580	104	1.7	Yes	P	100	95	0.7	P	100	100	**2.4**	1046	5,580	0.1	10	766	161	35	Yes	Yes
76	Harden (Reticulator)	1,570	790	418	1.2	No	P	100	100	0.3	P	90	90	1.6	956		-4.5	0	862	118	19		Yes*
75	Coonamble (Groundwater)	1,550	1,630	621	0.7	No	P	50	100	0.5	P	92	41	1.2	595		-1.5	1	318	40	21		Yes
	Totals or Medians (%of connected properties basis) for 1,501 - 3,000 Properties	*46,000*	*23,550*	*239*	*26.0*					*17.7*				*43.7*	*713*	*3,360*				*187*	*593*		
	LWUs with 200 - 1,500 Properties																						
79	Walgett (Dual Supply)	1,680	2,300	523	1.3	No	P	86	95	0.6	P			1.8	855		-2.5	2	780	209	27		
80	Greater Hume	1,500	620	318	0.7	No	O	100	100	0.8	O	100	100	1.4	670	6,800	0.3	2	509	143	21		Yes
81	Gwydir	1,450	930	333	0.8	Yes	P	89	83	0.4	P	94	46	1.1	1088						26		Yes
82	Gloucester	1,440	450	185	1.5	Yes	P	100	96	1.4	P	100	85	**2.9**	768	11,300	12.0	0	925	128	21	Yes	Yes
83	Oberon (Reticulator)	1,340	690	167	1.0	Yes	P	100	100	0.6	P	92	50	1.6	510	2,410	1.5	7	541	100	10	Yes	Yes*
84	Gilgandra (Groundwater)	1,370	1,050	460	0.7	Yes	P	100	100	0.4	P	100	100	1.1	825		1.0	0	456	121	23	Yes	Yes

Table 5 - 2004/05 NSW Water Utility Performance Summary

	WATER UTILITY	Water Supply - 2004/05 unless noted								Sewerage - 2004/05 unless noted				Water Supply and Sewerage - 2004/05 unless noted									
		Supply Assessments (No.)[5]	Total Water Supplied Potable + Non-potable (ML)[2]	Average Annual Residential Water Consumption (Potable) (kL/connected property)	Turnover ($M)[8]	2005/06 Tariff Pay-for-Use ?[9]	2005/06 Residential Tariff Independent of Land Value ?[10]	Water Quality Compliance (1996 NHMRC/ARMCANZ Guidelines) Chemical[11] (%)	Water Quality Compliance (1996 NHMRC/ARMCANZ Guidelines) Microbiological: E. coli[12] (%)	Turnover ($M)[2,8]	2005/06 Residential Tariff Independent of Land Value ?	DEC Licence Compliance BOD[13] (%)	DEC Licence Compliance SS[14] (%)	Total Turnover ($M)	2005/06 Typical Residential Bill ($/assessment)	2005/06 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)
85	Uralla	1,300	330	196	0.6	Yes	P	100	94	0.5	P	100	100	1.0	737	700	0.0	1	565	208	15		
86	Hay (Dual Supply)	1,320	1,660	140	0.6	Yes	P	100	100	0.5	P	100	90	1.1	747		-1.9	0	601	164	15		Yes
87	Bourke (Dual Supply)	1,700	3,530	500	0.9	Yes	P	100	88	0.6	P	42	8	1.4	1175	860	-4.0	12	764	207	21		Yes
88	Wakool (Dual Supply)	1,330	860	589	1.1	Yes	P	100	100	0.6	P			1.7	1498		2.0	12	714	170	26	Yes	Yes
89	Bogan	1,190	860	476	0.9	Yes	P		100	0.5	P			1.3	907		-0.9	2	756	381	23		
90	Guyra	1,190	570	319	0.7	Yes	P	100	90	0.5	P	100	83	1.2	1038		1.1	10	587	173	22	Yes	Yes
91	Cabonne	1,130	330	176	0.9	Yes	P	100	100	1.7	P	100	100	**2.6**	850		4.9	5	515	160	37	Yes	Yes
92	Carrathool (Groundwater)	1,130	2,060	493	0.9	Yes	P	100	100	0.1	P			1.0	891	1,470	0.2	2	631	125	17	Yes	Yes*
93	Tumbarumba	1,080	460	364	0.6	Yes	P	100	97	0.6	P			1.2	882	840	2.7	2	506	157	19	Yes	Yes
94	Gundagai	1,000	490	257	0.5	Yes	P	100	100	0.2	P			0.7	447		0.0	0	573	119	5		
96	Warren (Dual Supply)	1,060	810	170	0.5	Yes	P	100	94	0.5	P		100	1.0	847		-1.3	2	593	121	16		Yes
97	Bombala	900	410	481	0.4	Yes	P	100	100	0.4	P	100	100	0.8	1043	2,990	4.0	5	459	171	12	Yes	Yes*
98	Walcha	810	230	167	0.4	Yes	P	100	100	0.2	P	92	58	0.7	747		-1.0	0	605	170	16		Yes
100	Balranald (Dual Supply)	840	1,130	150	0.5	Yes	P	100	100	0.3	P			0.8	866	1,590	0.6	12	503	95	19	Yes	Yes
101	Murrumbidgee (Groundwater)	770	710	570	0.3	Yes	P		100	0.3	O	9	17	0.6	640	2,000	2.2	0	348	152	8		Yes
103	Central Darling (Dual Supply)	720	580	131	0.6	Yes	P	96	100	0.1	P			0.7	1079		-2.8	0	896		17		Yes*
104	Boorowa	610	210	215	0.5	Yes	P	100	100	0.1	P			0.6	783	900	2.7	7	531	87	9	Yes	
105	Brewarrina	550	1,200	525	0.5	No	O	100	100	0.3	O			0.8	1147		3.7	1	1126	85	14		
106	Jerilderie (Dual Supply)	490	270	217	0.3	Yes	P	100	95	0.3	P	100	75	0.5	1225	2,930	3.0	1	808	169	5	Yes	Yes*
	Totals or Medians (%of connected properties basis) for 200 - 1,500 Properties	*77,000*	*48,710*	*215*	*45.4*					*31.0*				*76.4*	*746*	*1,863*				*155*	*442*		
	LWUs without Water Supply																						
9	Wagga Wagga (NO WS) **NO WS**	24,400								**10.0**	P	98	93	**10.0**	309	1,450	9.0	0	145	28	166		Yes
30A	Hawkesbury **NO WS**	7,510								**3.8**	P			**3.8**	384	5,590	-1.4	0	379	165	57		
69	Temora **NO WS**	1,890								0.4	P	100	90	0.4	187	150	-1.1	0	171	29	9		Yes
72	Bland **NO WS**	1,810								0.8	O	92	95	0.8	392	1,000	1.0	0	256	66	8		Yes
77	Junee **NO WS**	1,570								0.5	P	100	100	0.5	293	550	1.3	0	230	56	7		Yes
78	Blayney **NO WS**	1,430								1.1	P	100	100	1.1	440	2,000	3.3	13	302	136	10		Yes
95	Weddin **NO WS**	1,060								0.3	P			0.3	162		4.2	0	137	26	7		Yes
99	Coolamon **NO WS**	850								0.7	P			0.7	240		11.3	0	178	62	4		
102	Lockhart **NO WS**	810								0.3	P	100	100	0.3	337	1,000	-0.2	0	186	86	11		Yes
107	Urana **NO WS**	310								0.2	P			0.2	195	4,100	0.3	14	276	111	4		Yes
	Totals or Medians (%of connected properties basis) for LWUs without WS	*42,000*								*18.3*				*18.3*							*283*		
	Statewide Totals[6]	790,000	335,000 ML (note 6)	Median 200kL/connected property (note 7)	$462M (note 6)	87 / 95 Yes (note 9)	93 / 95 Yes (note 9)	86% Complied (note 11)	78% Complied (note 12)	$396M (note 6)	94/101 Yes (note 9)	44/101 Complied 100% (note 13)	27/101 Complied 100% (note 14)	$850M (note 6)	Median $700 per assessment (note 7)	Median $4,900 per ET (note 7)	Median 2.2% (74/98 +ve) (note 7)	Median 4% (note 7)	Median $530/ connected property (note 7)	Median $200/ connected property (note 7)	$11,100M	57/95 Yes (note 10)	81 Yes 12 Yes* 93/107 (note 15)

Notes

1. This table shows the key 2004/05 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 *2004/05 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).
2. **No WS** means not responsible for water supply; **No SGE** means not responsible for sewerage.
3. In NSW in 2004/05, there were 110 water utilities comprising:
   - 3 metropolitan water utilities (Sydney and Hunter Water Corporations and Hawkesbury Council), and
   - 107 non-metropolitan Local Water Utilities (LWUs).

   The 107 LWUs comprised:
   - 102 local government councils (under *Local Government Act 1993*),
   - 5 LWUs (Gosford Council, Wyong Council, Cobar WB, Fish River WS, Country Energy) under the *Water Management Act 2000* .

   Of the 107 LWUs,
   - 98 were responsible for water supply (including 3 for bulk supply [Cobar WB, Fish River WS, Rous Water]),
   - 101 were responsible for sewerage.
   - 92 were responsible for both water supply and sewerage, 6 for water supply only and 9 for sewerage only.
4. Where an LWU has not reported an item for 2004/05, 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 & therefore exclude Sydney & Hunter Water Corporations and Hawkesbury Council. The totals for the Water Supply Assessments (col (1)), Annual Water Consumption (col (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 790,000 (column (1)).
   - **Total annual water consumption** was 335,000 ML (column (2)).
   - **Total turnover** for water supply and sewerage was $850M (column (13)) and the current replacement cost of assets was $10,800M (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** - 200kL/connected property (column (3)).
   - **Typical residential bill** for water and sewerage - $700/assessment (column(13a). The 2005/06 typical residential bill for water supply has been calculated on the basis of each LWU's 2005/06 tariff using the 2004/05 average annual residential water consumption (column (3)). The typical residential bill for sewerage is based on the LWU's access charge (col (1)) of Table 7 except for 5 LWUs where account was also taken of the LWU's usage charges.
   - **Typical developer charge** for water and sewerage - $4,900/ET (col (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 Tables 6 and 7.
   - **Economic real rate of return (ERRR)** for water and sewerage - 2.2% (column (15)). 94 of the 107 non-metropolitan LWUs had a positive real rate of return. Refer also to Tables 6 and 7.
   - **Debt/equity** for water and sewerage - 4% (column (16)).
   - **Operation, maintenance and administration (OMA)** cost for water and sewerage - $530/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 Tables 6 and 7.
   - **Management cost** for water supply and sewerage - $200/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 in Cols (4) & (9)). 31 of these are Category 1 for both 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** - 87 of the 95 water supply LWUs have a pay-for-use water supply tariff in 2005/06 (ie. a two-part tariff or an inclining block tariff) (column (5)).
   In addition, 93 of these water supply LWUs (col 6) and 94 of the 101 LWUs responsible for sewerage (col 10) have residential tariffs independent of land value. Refer also to Table 6.
   Such tariffs comply with IPART recommendations and COAG Water Reforms.
10. **Pay-for-Use Pricing & Full Cost Recovery** - 56 of the 95 LWUs have pay-for-use water supply pricing in 2005/06 (cols 5, 20), residential tariffs independent of land value (cols 6, 10) together with a positive ERRR (Tables 6 and 7) 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 (col 6) for amalgamated LWUs are shown in brackets.
11. **Physical and chemical water quality** - 97% of the 33,100 physical samples and 96% of the 34,900 chemical samples tested for NSW LWUs achieved 100% compliance with the 1996 NHMRC/ARMCANZ Guidelines. Col (7) shows that 84 LWUs complied with chemical water quality (health related). 72 out of 98 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 29,300 samples tested for NSW LWUs achieved 100% compliance with the 1996 NHMRC/ARMCANZ Guidelines. 76 out of 98 LWUs complied with these guidelines (column 8).
13. **BOD** - 95% 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). 44 out of 75 LWUs licenced by the DEC achieved 100% BOD compliance (column 11). (10 LWUs had no DEC discharge licence (NL), 16 did not report)
14. **SS** - 91% 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). 27 out of 76 LWUs licenced by the DEC achieved 100% SS compliance (column 12). (10 LWUs had no DEC discharge licence (NL), 15 did not report)
15. **Strategic Business Plans** - 82 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 12 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 2005* .

Blank Page

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)			Access Charge Independent of Land Value?		Allowance			Usage Charge												Operating Cost (OMA)			Typical Developer Charge			Typical Residential Bill			Average Residential Bill			ERRR			Residential Revenue from Usage Charges		Annual Residential Cnsmptn (Potable)**		Connected Properties
											Step 1				Step 2																												
											Step (kL)			Charges (c/kL)			Step (kL)			Charges (c/kL)																								
		(1)	(2)			(3)		(4)			(5a)			(5b)			(5c)			(5d)			(6)			(7)			(8)			(9)			(12)			(13)		(14)		(15)
		2005/06	2003/04	2004/05	2005/06	2004/05	2005/06	2003/04	2004/05	2005/06	2003/04	2004/05	2005/06	2003/04	2004/05	2005/06	2003/04	2004/05	2005/06	2003/04	2004/05	2005/06	2002/03	2003/04	2004/05	2003/04	2004/05	2005/06	2003/04	2004/05	2005/06	2002/03	2003/04	2004/05	02/03	03/04	04/05	03/04	04/05	03/04	04/05	04/05
	Sydney Water	Inclining Block	75	78	76	P	P	Nil	Nil	Nil	All	All	<400	98	101	120			>400			148	62	87	74	1,800	1,800	1,800	314	289	329				2.8	4.1	3.8	73	77	224	211	1,685,000
	Hunter Water	Declining Block	26	25	32	P	P	Nil	Nil	Nil	All	All	<1000	98	101	109			>1000			103	49	56	44	900	900	900	235	225	246				3.7	4.2	3.2	89	86	208	197	211,200
	LWUs with > 10,000 Properties																																								
1	Gosford	Two Part	71	72	81	P	P	Nil	Nil	Nil	All	All	All	73	76	93							72	85	108	2,040	2,110	2,300	228	218	248	199	184	212	0.2	-1.1	-1.9	69	73	193	180	66,100
2	Wyong	Two Part	82	83	92	P	P	Nil	Nil	Nil	All	All	All	73	76	93							71	75	91	2,500	2,500	2,500	226	225	257	209	206	213	7.2	4.1	2.2	68	66	188	178	57,100
3	Shoalhaven	Inclining Block	212	130	95	P	P	Nil	Nil	Nil	<300	All	<450	20	60	70	>300		>450	70		105	44	43	57	2,300	2,370	2,440	254	268	212	261	267	213	4.0	4.3	3.1	22	44	230	167	43,800
4	Rous (Bulk Supplier) (No Sge)			94	104	P	P	Nil	Nil	Nil		All	All		87	96							57		54	3,120	3,190	3,280							-0.8	1.4	0.2		100			35,800
5	MidCoast (Combined - Unfiltered	Two Part	168	168	140	P	P	Nil	Nil	Nil	All	All	All	71	71	120							72	79	92	3,500	3,800	4,000	332	358	385	335	325	178	4.8	5.3	4.2		25	219	204	35,000
6	Tweed	Two Part	106	106	90	P	P	Nil	Nil	Nil	All	All	All	62	68	82							62	62	68	4,100	4,325	4,330	238	255	271	239	212	241	2.8	3.4	4.2	62	68	219	221	28,100
7	Port Macquarie-Hastings (U	Inclining Block	180	185	113	P	P	Nil	Nil	Nil	All	All	<270	90	93	125			>270			250	103	111	111	4,500	5,850	7,010	352	351	345	339	326	353	3.5	4.2	2.3	50	49	178	186	27,100
8	Riverina (Groundwater) (No	Two Part	80	80	80	P	P	Nil	Nil	Nil	All	All	All	65	65	70							32		39	1,300	1,400	2,300	341	310	320	391	349	344	4.6	3.9	2.3	76	74	354	343	26,600
10	Coffs Harbour	Two Part	184	193	200	P	P		Nil	Nil	All	All	All	125	131	136								79	83	5,550	5,750	5,990	420	441	452	335	355	385	5.7	5.3	6.5	64	64	189	186	22,600
11	Albury City	Inclining Block	153	76	84	P	P		Nil	Nil	<300	<275	<250	15	44	45	>300	>275	>250	48	88	90	42	42	32	1,490	4,590	4,590	201	225	228	230	221	221	0.1	1.0	0.1	43	72	307	284	22,000
12	Fish River WS (Bulk Supplier) (No Sge)		MAQ	MAQ	MAQ	P	P	MAQ	MAQ	MAQ													14		10										2.7	0.6	1.0		100			21,600
13	Tamworth Regional	Inclining Block	128	138	150	P	P		Nil	Nil	All	<450	<450	65	70	80		>450	>450		75*	85		58	58	3,450	3,520	3,520	322	348	404	398	330	338	0.7	1.7	2.0	54	69	294	317	19,700
14	Clarence Valley	Two Part	191	160	90	P	P		Nil	Nil	All	All	All	69	77	98								54		4,000	4,140	4,140	341	321	264	269			12.1	8.9		48		216	178	19,200
15	Eurobodalla (Unfiltered)	Two Part	220	220	220	P	P	Nil	Nil	Nil	All	All	All	80	100	120							99	95	118	5,000	5,000	8,980	385	403	402	344	363	349	2.7	2.5	3.4	40	38	183	151	18,500
16	Wingecarribee	Two Part	197	197	197	P	P	Nil	Nil	Nil	<150	<150	<150	53	53	53	>150	>150	>150	143*	143*	143	50	55	62	2,510	2,510	2,510	406	368	314	407	401	385	5.0	5.6	4.1	49	49	214	220	18,300
17	Queanbeyan (Reticulator)	Inclining Block	222	230	238	P	P	Nil	Nil	Nil	<176	<176	<176	73	95	100	>176	>176	>176	110	135	150	114	101	80	780	780	6,730	433	377	428	436	354	385	2.1	0.4	0.8	51	49	155	185	16,900
18	Dubbo	Inclining Block	210	210	175	P	P	Nil	Nil	Nil	All	All	<550	52	52	70			>550			105	54	52	59	2,430	2,510	2,640	472	448	498	454	436	438	1.5	2.1	2.2	55	56	459	462	15,300
19	Orange	Inclining Block	300	280	102	P	P	152	Nil	Nil	All	All	<450	52	55	141			>450			212	52	81	103	4,850	5,740	5,870	379	393	414	425	375	417	1.4	2.7	3.6		30	206	221	15,000
20	Goulburn Mulwaree	Two Part	225	242	256	P	P		Nil	Nil	<400	<400	<292	63	66	70	>400	>400	>292	141	148	157	88	124	124	3,849	5,160	2,860	318	339	321	446	408	297	3.2	1.1	0.3	43	40	147	93	14,400
21	Bathurst Regional	45kL Allowance	250	250	250	P	P	45	45	45	>45	>45	>45	50	50	50	>300	>300	>255	80	80	80	64	58	61	2,060	2,160	2,160	375	420	369	391	384	290	2.1	2.6	-0.1	41	24	333	283	13,600
22	Lismore (Reticulator)	Two Part	86	92	100	P	P	Nil	Nil	Nil	All	All	All	86	92	111							108	92	106	1,860	1,900	1,940	259	264	299	211	240	259	-0.4	1.5	1.4	68	70	186	179	13,500
23	Bega Valley (Unfiltered)	Two Part	146	146	125	P	P	Nil	Nil	Nil	All	All	All	82	88	110							78	94	115	2,950	4,500	4,500	289	276	321	322	302	166	0.7	0.1	0.8	55	18	158	178	12,900
24	Ballina (Reticulator)	Inclining Block	90	90	95	P	P	Nil	Nil	Nil	<350	<350	<350	72	77	82	>350	>350	>350	95	100	105	106	94	101	4,510	4,510	4,510	231	270	276	227	239	248	-1.9	0.6	-2.6	70	17	234	220	12,300
25	Kempsey (Groundwater)	Two Part	252	265	265	P	P	Nil	Nil	Nil	All	All	All	80	83	86							58	53	62	2,940	2,940	7,470	410	429	425	402	387	380	3.5	3.6	6.6	41	37	197	187	11,900
26	Country Energy	Inclining Block	233	185	185	P	P	200	Nil	Nil	>200	<200	<400	65	48	71	>400	>200	>400	178	75*	220	152	148	93				288	373	384	365	408	448	2.6	-0.1	0.7	48	45	323	281	10,500
27	Byron (Reticulator)	Two Part	95	99	101	P	P	Nil	Nil	Nil	All	All	All	92	96	108							118	92	121	6,460	6,460	6,460	264	291	332	241	286	304	-1.6	2.1	-0.3	67	69	200	214	10,200
28A	Goldenfields (Reticulator) (	Two part	204	204	204	P	P	Nil	Nil	Nil	All	All	All	102	104	106								55	85	2,000	2,000	2,000	514	553	534	458	513	522	-0.7	-0.4	-1.9	21	63	335	311	9,600
28B	Goldenfields (Bulk Supplier) (No Sge)					P	P																	41		2,000	2,000	2,000							2.2	-0.4	2.8		67			17,700
	LWUs with 3,001 - 10,000 Properties																																								
29	Armidale Dumaresq	Inclining Block	180	180	219	P	P	Nil	Nil	Nil	<400	<200	<400	70	75	77	>400	>200	>400	88*	100*	103	81	90	91	3,620	3,620	3,620	378	369	414	390	339	375	0.7	-0.7	-0.6	70	8	239	253	8,000
30	Griffith	Inclining Block	186	168	153	P	P	200	Nil	Nil	>200	<200	<200	37	25	30		>200	>200		47	55	34	35	33	2,110	2,855	2,930	398	404	480	567	518	449	3.4	0.7	5.0	51	50	596	685	7,400
31	Lithgow	Inclining Block	260	260	200	P	P	Nil	Nil	Nil	<500	<500	<500	38	51	85	>500	>500	>500	100*	132*	160	86	90	116	2,230	2,230	2,230	346	369	354	420	371	374	-0.3	0.7	-2.0	28	27	214	181	7,200
32	Mid Western Regional	Two Part	300	265	265	P	P		Nil	Nil	All	All	All	90	96	96								81	108	2,798	2,800	2,800	549	531	539	519	501	575	3.0	2.0	2.7	44	42	277	286	6,500
33	Richmond Valley	Inclining Block	229	215	215	P	P	Nil	Nil	Nil	<275	<200	<200	40	55	55	>275	>200	>200	60*	80	80	77	73	77	2,192	2,330	2,330	262	385	394	244	265	326	-0.4	2.0	2.8	48	39	275	286	6,500
34	Nambucca (Groundwater)	Two Part	145	86	85	P	P	Nil	Nil	Nil	All	All	All	65	90	90							58	61	58	3,300	3,695	3,780	299	254	270	221	233	230	5.1	4.5	3.6	45	66	186	205	6,000
35	Singleton	Two Part	194	194	194	P	P	Nil	Nil	Nil	All	All	All	77	77	77							50	58	61	2,600	2,660	2,730	494	425	432	547	417	366	7.8	9.8	5.4	56	52	301	309	5,800
36	Parkes	Inclining Block	340	350	295	P	P	Nil	Nil	Nil	<365	<365	<365	29	30	60	>365	>365	>365	111	114	160	34	36	39	3,760	3,870	5,110	501	474	512	493	457	494	2.5	3.0	1.9	31	30	378	362	5,600
37	Inverell	Two Part	220	230	245	P	P	Nil	Nil	Nil	All	All	All	95	100	100							94	88	94	1,690	1,690	4,240	464	468	472	442	424	463	0.2	1.0	2.3	49	50	238	227	5,100
38	Moree Plains (Groundwater	Two Part	295	265	255	P	P	Nil	Nil	Nil	All	All	All	50	56	62							55	82	44	3,270	3,270	3,270	534	411	544	600	564	592	-2.3	5.5	1.7	62	61	261	467	5,000
39	Cowra	Inclining Block	320	330	347	P	P	Nil	Nil	Nil	<500	<500	<500	28	28	36	>500	>500	>500	55*	57*	71	54	83	104	2,500	2,500	2,500	422	407	433	483	465	458	1.2	-0.7	-1.3	20	15	273	240	5,000
40	Central Tablelands (No Sge	Inclining Block	124	124	124	P	P	Nil	Nil	Nil	<5000	All	<450	106	112	116	<9000		>450	72*		174	70		89	3,000	3,000	4,430	419	408	398	396	407	416	-0.1	0.0	1.2	71	37	254	236	5,000
41	Muswellbrook	Inclining Block	123	127	167	P	P	Nil	Nil	Nil	All	All	<350	97	107	120			>350			180	66	65	59	2,370	2,370	3,300	445	494	544	487	442	503	8.5	7.9	8.5	75	76	343	314	4,800

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)			Access Charge Independent of Land Value?		Allowance			Usage Charge Step 1						Usage Charge Step 2						Operating Cost (OMA)			Typical Developer Charge			Typical Residential Bill			Average Residential Bill			ERRR			Residential Revenue from Usage Charges		Annual Residential Cnsmptn (Potable)**		Connected Properties
			($)					(kL)			Step (kL)			Charges (c/kL)			Step (kL)			Charges (c/kL)			(c/kL)			($/ET)			($/assessment)			($/property)			(%)			(% of residential		kL/property		
		(1)	(2)			(3)		(4)			(5a)			(5b)			(5c)			(5d)			(6)			(7)			(8)			(9)			(12)			(13)		(14)		(15)
		2005/06	2003/04	2004/05	2005/06	2004/05	2005/06	2003/04	2004/05	2005/06	2003/04	2004/05	2005/06	2003/04	2004/05	2005/06	2003/04	2004/05	2005/06	2003/04	2004/05	2005/06	2002/03	2003/04	2004/05	2003/04	2004/05	2005/06	2003/04	2004/05	2005/06	2002/03	2003/04	2004/05	02/03	03/04	04/05	03/04	04/05	03/04	04/05	04/05
42	Corowa	Inclining Block	212	140	120	P	P		Nil	Nil	>450	<300	<999	50	10	50		>300	>1000		50	110		26	35		440	440	317	441	414	335	355	319	5.7	5.3	-0.5	64	35	583	587	4,400
43	Tumut	Inclining Block	277	296	89	P	P	Nil	Nil	Nil	<400	<400	<400	55	59	80	>400	>400	>400	77	83	100	42	31	53	2,790	2,870	3,970	457	477	330	426	434	451	2.9	2.0	3.1	30	29	306	301	4,300
44	Gunnedah (Groundwater)	Inclining Block	270	278	125	O	P	440	440	Nil	>440	>440	<450	61	63	45			>450			90	27	36	33	3,390	3,390	3,390	347	278	290	440	388	389	5.9	3.6	2.5	24	24	357	367	4,300
45	Upper Hunter	Two Part	193	200	205	P	P		Nil	Nil	All	All	All	94	97	100								54	47	2,110	2,110	2,110	444	459	444	485	456	426	4.2	4.2	5.6	53	55	277	239	4,200
46	Narrabri (Groundwater)	Two Part	153	153	40	P	P	Nil	Nil	Nil	All	All	All	33	33	35							16	20	21	2,200	2,200	2,200	308	338	237	418	324	335	6.0	5.1	5.8	27	27	561	562	4,200
47	Bellingen (Unfiltered)	Two Part	207	207	214	P	P	Nil	Nil	Nil	All	All	All	61	62	64							50	62	67	4,310	6,140	6,300	352	346	357	312	348	239	1.7	1.8	0.5	41	21	225	223	3,900
48	Leeton	Inclining Block	244	175	175	P	P	Nil	Nil	Nil	<350	<400	<350	43	46	49	>350	>400	>350	51	55	64	36	39	47	2,600	2,600	2,600	503	461	458	534	497	461	8.8	3.4	2.5	60	64	578	524	3,900
49	Young (Reticulator)	Inclining Block	400	420	175	P	P	265	265	Nil	>265	>265	<100	120	125	125			>100			170	82	94	84	2,000	2,000	2,000	430	420	549	548	530	551	1.9	1.6	6.4	30	32	264	247	3,900
50	Cooma-Monaro	Two Part	335	342	342	P	P	Nil	Nil	Nil	All	All	All	50	52	60							62	69	69	2,300	2,340	2,340	500	505	549	493	524	561	6.7	7.7	6.5	33	35	314	344	3,600
51	Forbes	Inclining Block	289	298	186	P	P	Nil	Nil	Nil	<600	<600	<400	26	30	61	>600	>600	>400	52	60	92	25	37	36	650	670	670	418	391	416	476	399	410	4.5	2.7	2.9	31	27	410	377	3,600
52	Snowy River (Unfiltered)	Two Part	253	262	455	P	P	Nil	Nil	Nil	All	All	All	41	42	44							58	31		2,500	2,500	2,500	382	511	570	328	387		0.8	1.8		34		591	542	3,400
53	Berrigan (Dual Supply)	250kL Allowance	474	489	506	P	P	250	250	250	>250	>250	>250	55	55	57							35	44	47	475	4,200	4,200	533	489	506	545	525	480	3.7	1.6	2.5	10	15	329	247	3,200
53	Berrigan (Non Potable)	500kL Allowance								500	>500	>500	>500	27	27	28																								490	450	
	LWUs with 1,501 - 3,000 Properties																																								
54	Deniliquin	Inclining Block	519	460	274	P	P	1000	Nil	Nil	>1000	<800	<400	56	15	53		>800	>400		31*	81	24	28	35	479	450	450	519	564	646	663	633	675	10.5	8.4	5.8	8	19	696	597	3,000
55	Warrumbungle	418kL Allowance	465	345	419	P	P		535	418	>683	>535	>418	68	78	90								86	66	1,000	1,000	1,000	465	345	419	451	454	304	-2.9		-2.1			311	368	3,000
56	Yass Valley	Two Part	200	171	196	P	P	Nil	Nil	Nil	All	All	All	100	110	115							88	96	109	1,500	8,280	8,490	401	396	421	389	410	386	0.8	2.8	1.5	52	58	204	195	2,900
57	Wellington	Inclining Block	420	380	310	P	P	350	Nil	Nil	>350	<500	<300	100	65	95		>500	<500		85	105	88	91	103	1,400	1,480	1,480	857	574	554	693	538	616	2.2	0.9	2.3	21	38	298	256	2,800
58	Cootamundra (Reticulator)	Inclining Block	298	298	96	O	P	219	219	Nil	>219	>219	<450	113	113	123	>719		>450	99	99	246	86	101	100	2,000	2,000	2,000	393	359	390	463	446	415	4.8	2.4	1.8	23	20	273	239	2,800
59	Lachlan	Inclining Block	220	230	230	P	P	Nil	Nil	Nil	<300	<300	<300	57	60	70	>300	>300	>300	100	100	100	60	46	96				570	658	522	472	411	415	1.6	-0.7	-2.3	52	49	548	382	2,700
60	Glen Innes Severn	Inclining Block	175	88	88	P	P		Nil	Nil	All	<450	<450	80	130	130		>450	>450		195	195		97				2,590	329	339	331	339	357		-1.4	-0.6		47		193	187	2,700
61	Liverpool Plains	Inclining Block	200	174	100	P	P		300	Nil	>400	>300	<300	50	60	60			>300			100		64	70		3,390	3,390	200	174	268	351	331	374	0.6	0.6	-1.0	30	27	247	280	2,200
62	Narromine (Groundwater)	Two Part	200	200	175	P	P	Nil	Nil	Nil	All	All	All	45	50	62							39	40	47	500	500	500	458	532	582	394	415	432	-2.0	1.9	0.6	56	58	663	656	2,000
63	Narrandera (Groundwater)	Two Part	236	236	225	P	P	Nil	Nil	Nil	All	All	All	47	51	58							30	32	34	1,000	1,000	1,000	523	520	481	560	475	541	7.6	4.3	7.5	55	52	556	445	2,000
64	Dungog (Reticulator)	Inclining Block	180	189	194	P	P	Nil	Nil	Nil	<220	<220	<220	62	65	66	>220	>220	>220	124	129	133	43	56	107	2,650	2,650	2,700	319	310	310	427	353	363	2.6	1.5	3.0	42	39	186	175	2,000
65	Murray (Dual Supply)	Two Part	400	177	177	P	P	250	Nil	Nil	All	All	All	50	56	56							33	41	53	700	700	700	409	472	420	472	511	487	5.6	7.1	7.0	17	46	237	222	1,900
65	Murray (Non Potable)	Two Part		63	63						All	All	All	Nil	38	38																								520	390	
67	Cobar	Inclining Block	517	300	290	P	P	550	Nil	Nil	>550	<500	<450	135	65	60		>500	>450		130	100	40	31	38	1,400	1,410	1,410	600	616	595	616	589	711	-1.7	1.7	1.5	24	51	485	***485***	1,900
66	Cobar WB (Bulk Supplier)	(No Sge)																																							1,900
68	Tenterfield	Two Part	267	278	210	P	P	Nil	Nil	Nil	All	All	All	68	71	112							122	98	154	1,500	1,500	1,500	397	423	393	411	322	379	-3.2	1.6	-5.1	31	34	204	163	1,900
70	Kyogle	Two Part	175	175	175	P	P	Nil	Nil	Nil	All	All	All	86	100	105							85	83	93	1,000	1,000	1,000	326	362	316	276	248	284	-0.8	-1.6	-0.5	52	60	187	135	1,800
71	Palerang	Inclining Block	292	130	160	P	P		Nil	Nil	>280	<200	<200	85	85	92		>200	>200		90	125		69		2,450	2,490	2,490	292	336	326	408			1.9	1.8		41		240	180	1,800
73	Upper Lachlan	Inclining Block	375	375	401	P	P		Nil	Nil	<300	<300	<300	82	90	92	>300	>300	>300	98	100	110		108	170	780	1,600	1,600	528	543	537	507	471	482	3.5	3.9	1.8	26	32	187	148	1,700
74	Wentworth (Dual Supply)	Inclining Block	485	200	220	P	P	250	Nil	Nil	>250	<250	<250	210	100	110		>250	>250		250	260	24	32	35	2,120	2,375	2,880	485	524	646		653	752	1.9	0.8	0.7	38	58	224	104	1,700
74	Wentworth (Non Potable)	Inclining Block		100	110		P			Nil	All	<700	<700	Nil	30	35		>700	>700		50	60																		800	680	
75	Coonamble (Groundwater)	360kL Allowance	194	194	175	O	P	809	808	360	>808	>808	>360	24	24	48							15	11	13	450			500	270	300	375	361	291	2.1	3.8	2.9	12	13	1128	621	1,600
	LWUs with 200 - 1,500 Properties																																								
76	Harden (Reticulator)	300kL Allowance	435	453	470	P	P	300	300	300	>300	>300	>300	97	100	104							116	88	108	2,000	2,000	2,000	684	619	593	997	909	894	-2.3	-2.6	-3.8	42	42	466	418	1,500
79	Walgett (Dual Supply)	Unmetered	565	565	570	P	P						All										33	46	37				565	565	570	702	715	745	-2.0	-1.9	-3.1	12	13	146	523	1,400
79	Walgett (Non Potable)	Unmetered									All	All	All	Nil	Nil	Nil																								700	1100	
80	Greater Hume	400kL Allowance	200	425	425	O	O		400	400	>400	>400	>400	90	90	90	>1000	>1000	>1000	110	110	110	85	92	65	1,300	1,300	1,300	200	425	425	408	377	382	3.3	1.0	1.2	32	21	290	318	1,400
81	Gwydir	Inclining Block	344	391	364	P	P		320	Nil	>320	>320	<450	170	175	80			>450			220	37					2,000	368	416	630	471			3.3			5		334	333	1,400
82	Gloucester	Two Part	385	230	225	P	P	350	Nil	Nil	>350	All	All	110	110	118							112	140	165	1,535	5,580	5,580	385	521	443	411	453	478	0.2	-4.8	11.9	5	41	265	185	1,400
83	Oberon (Reticulator)	Two Part	188	91	94	P	P	Nil	Nil	Nil	All	All	All	94	97	100							48	37	46	1,100	1,100	1,100	426	287	261	365	338	345	2.2	3.0	2.0	49	48	202	167	1,400
84	Gilgandra (Groundwater)	Two Part	275	235	250	P	P	Nil	Nil	Nil	All	All	All	30	45	50							29	29	37				421	427	480	366	359	418	-1.5	2.8	2.5	41	51	426	460	1,300

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)			Access Charge Independent of Land Value?		Allowance			Usage Charge Step 1						Usage Charge Step 2						Operating Cost (OMA)			Typical Developer Charge			Typical Residential Bill			Average Residential Bill			ERRR			Residential Revenue from Usage Charges		Annual Residential Cnsmptn (Potable)**		Connected Properties
				($)					(kL)			Step (kL)			Charges (c/kL)			Step (kL)			Charges (c/kL)			(c/kL)			($/ET)			($/assessment)			($/property)			(%)			(% of residential		kL/property		
		(1)		(2)			(3)		(4)			(5a)			(5b)			(5c)			(5d)			(6)			(7)			(8)			(9)			(12)			(13)		(14)		(15)
		2005/06		2003/04	2004/05	2005/06	2004/05	2005/06	2003/04	2004/05	2005/06	2003/04	2004/05	2005/06	2003/04	2004/05	2005/06	2003/04	2004/05	2005/06	2003/04	2004/05	2005/06	2002/03	2003/04	2004/05	2003/04	2004/05	2005/06	2003/04	2004/05	2005/06	2002/03	2003/04	2004/05	02/03	03/04	04/05	03/04	04/05	03/04	04/05	04/05
85	Uralla	Two Part		325	186	190	P	P	275	Nil	Nil	>275	All	All	50	70	70							128	113	118		350	360	325	320	327	362	364	374	-2.9	-0.4	-0.4	8	42	192	196	1,300
86	Hay (Dual Supply)	Inclining Block		354	260	70	P	P	300	Nil	Nil	>300	<300	<300	77	50	58	>300	>300		80	87		16	25	24				354	360	371	338	352	342	-1.3	-1.1	-1.9	5	25	200	140	1,300
86	Hay (Non Potable)	Unmetered				220					Nil	All	All	All	Nil	Nil	Nil																							790	670	
87	Bourke (Dual Supply)	Two Part		434	450	170	P	P	Nil	Nil	Nil	All	All	All	37	37	50							41	22	18	400	400	400	603	590	700	639	621	726	####	-9.3	-5.7	18	25	378	500	1,300
87	Bourke (Non Potable)	Two Part				280						All	All	All																									1580	1780	
88	Wakool (Dual Supply)	Inclining Block		245	685	150	P	P	300	300	Nil	>300	>300	<400	65	65	80		>400			160		34	39	66					736	1078	490	559	772	2.3	2.2	1.8	3	9	532	589	1,300
88	Wakool (Non-Potable)	Unmetered				400					400																													900	1000	
89	Bogan	Inclining Block		549	195	195	P	P	700	Nil	Nil	>700	<450	<450	78	60	70		>450	>450		92	105	66	62	73				549	520	537	619	652	604	-1.5	-0.7	-3.1	14	65	510	476	1,200
90	Guyra	Inclining Block		232	232	245	P	P	Nil	Nil	Nil	<750	<750	<750	80	88	92	>750	>750	>750	145	160	165	107	78	63	555	555	560	372	386	538	379	376	394	-1.3	-0.6	1.0	45	46	175	319	1,100
91	Cabonne	Inclining Block		520	470	170	P	P	300	Nil	Nil	>300	<300	<300		71	125	>300	>300	>300	175	115	275	90	88	111	400	400	400	520	577	390	599	602	528	0.4	1.8	2.1	20	12	151	176	1,100
92	Carrathool (Groundwater)	Inclining Block*		315	315	325	P	P	500	500	Nil	>500	>500	<350	28	33	70	>1000	>1000	>350	44	47	80	27	34	26	840	860	900	326	315	684	506	514	743	1.7	1.0	0.8		50	489	493	1,100
93	Tumbarumba	Inclining Block		310	310	310	P	P	500	Nil	Nil	>500	<500	<400	77	55	60		>500	>400		87	90	48	55	59	400	400	410	310	453	528	393	473	489	1.5	5.5	3.0	26	27	261	364	1,000
94	Gundagai	Inclining Block		70	70	75	P	P	Nil	Nil	Nil	<300	<300	<300	60	63	65	>300	>300	>300	80*	83	85	59	57	70	570	580	600	217	266	242	400	300	216	1.1	-0.6	0.2	80	69	311	257	1,000
96	Warren (Dual Supply)	Inclining Block		365	365	210	P	P	650	650	Nil	>650	>650	<450	54	60	70		>450			105		32	32	40				365	365	382	440	444	449	0.2	0.6	-1.3	20	20	199	170	960
96	Warren (Non Potable)	Inclining Block									Nil	All	All	<450	Nil	Nil	25		>450			45																	480	380	
97	Bombala	Inclining Block		360	373	373	P	P	Nil	Nil	Nil	<350	<350	<350	41	43	44	>350	>350	>350	90	93	96	78	59	53	1,190	1,280	1,280	468	561	653	427	452	411	0.7	3.9	3.1	31	22	392	481	860
98	Walcha	Inclining Block		324	321	120	P	P	Nil	Nil	Nil	All	All	<300	87	91	175		>300			260	134	128	139				465	468	412	480	497	522	-0.1	-0.3	-0.3	38	40	162	167	820
100	Balranald (Dual Supply)	Two Part		456	340	171	P	P		Nil	Nil	All	All	All		55	57							12	16	25	910	910	910	456	505	530	544	539	457	1.8	1.4	0.7		21	179	150	800
100	Balranald (Non Potable))	200kL Allowance				181					200	All	>200	>200		20	21																							990	790	
101	Murrumbidgee (Groundwat	Two Part		180	180	180	P	P	Nil	Nil	Nil	All	All	All	20	20	20							19	21	24	1,000	1,000	1,000	321	296	294	337	347	328	1.6	2.4	1.3	50	52	581	570	790
103	Central Darling (Dual Supply)	Two Part		535	100	105	P	P	100	100	Nil	>100	>100	All	280	290	300							85	68	80				700	813	779	615	776	440	-5.6	-4.2	-3.1	51	53	153	131	720
103	(Non Potable-Wilcanni	Two Part			400	425					Nil	>200	All	All	120																									590	550	
104	Boorowa	Two Part		390	300	310	P	P	Nil	Nil	Nil	All	All	All	70	100	105							88	83	89	400	400	400	578	517	536	489	502	493	1.8	3.1	5.7	28	42	217	215	570
105	Brewarrina	Unmetered		600	648	700	O	O				All	All	All										27	28	28				600	648	700	575	744	811	-0.1	0.5	5.1	38	35	519	525	470
106	Jerilderie (Dual Supply)	Inclining Block		403	406	160	O	P	300	300	Nil	>300	>300	<200	100	100	140	>600	>600	>200	90*	90*	200	45	72	86	700	2,000	2,030	450	406	705	542	549	643	2.5	1.2	-0.5	16	16	171	217	460
106	Jerilderie (Non Potable)	300kL Allowance				225					300	>300	>300	>300	37	37	37																							370	450	

NOTES: 11 LWUs had a dual water supply to over 50% of their residential customers with a potable supply for indoor use and a non-potable supply for outdoor use (refer to General Notes - Note 10 on page 15).

6 LWUs (Bathurst, Berrigan, Coonamble, Greater Hume, Harden, Warrumbungle) have a tariff which includes an allowance for their potable water supply.

2 LWUs (Brewarrina and Walgett) have a potable water supply which is unmetered.

** Total Annual Residential consumption for LWUs with a dual water supply is shown above in the non-potable water supply row. This is the sum of LWU's potable and non-potable consumption for the towns served by a dual water supply (refer to Note 10 on page 1

Table 6A - Water Supply - 2005/06 Residential Multiple Tariffs

	WATER UTILITY	Town	Tariff Type (1)	Access Charge ($) (2)	Access Charge Independent of Land Value ? (3)	Allowance (kL) (4)	Usage Range (kL) (5)	Usage Charge (c/kL) (6)
29	Armidale Dumaresq	Armidale	Inclining Block	219	P	Nil	up to 400 kL	77
							401 kL to 1000 kL	103
							>1000 kL	118
		Armidale, untreated	Inclining Block	219	P	Nil	up to 400 kL	38
							401 kL to 1000 kL	67
							>1000 kL	82
100	Balranald (Dual Supply)	Balranald	Two Part	171	P	Nil	All	57
		Balranald & Euston, Raw	200 kL Allowance	181	P	200	>200 kL	21
21	Bathurst Regional	Filtered	45 kL Allowance	250	P	45	46 kL to 300 kL	50
							> 300 kL	80
		Raw	45 kL Allowance		P	45	46 kL to 300 kL	35
							> 300 kL	65
53	Berrigan (Dual Supply)	Berrigan,Barooga,Finley(Potable)	250 kL Allowance	506	P	250	>250 kL	57
		Berrigan,Barooga,Finley(Non-Potable)	500 kL Allowance	506	P	500	>500 kL	28
		Tocumwal (Filtered)	750kL Allowance	506	P	750	>750 kL	45
89	Bogan	Nyngan	Inclining Block	195	P	Nil	up to 450 kL	70
							>450 kL	105
		Nyngan, Raw Water (private)	Inclining Block	200			up to 450 kL	42
							>450 kL	63
		Hermidale	Annual Charge	436	P			
		Girilambone & Coolabah	Annual Charge	290	P			
97	Bombala	Bombala	Inclining Block	373	P	Nil	up to 350 kL	44
							>350 kL	96
		Delegate	Unmetered	182	P			
105	Brewarrina	Brewarrina	Unmetered	700	O			
		Goodooga	Unmetered	575	O			
91	Cabonne	Molong	Inclining Block	170	P	Nil	up to 300 kL	125
							301 kL to 500 kL	275
							>500 kL	375
		Cumnock	Inclining Block	150	P	Nil	up to 300 kL	295
							301 kL to 500 kL	380
							>500 kL	400
		Yeoval	Inclining Block	125	P	Nil	up to 300 kL	160
							301 kL to 500 kL	220
							>500 kL	360
		Delgany	300 kL Allowance	480	P	Nil	up to 300 kL	103
							301 kL to 500 kL	160
							>500 kL	210
92	Carrathool	Carrathool	Inclining Block	325	P	Nil	up to 350 kL	70
							>350 kL	80
		Hillston	Inclining Block	150	P	Nil	up to 350 kL	47
							>350 kL	58
		Melbergen	Inclining Block	200	P	Nil	up to 400 kL	37
							>400 kL	65
		Goolgobi/Merriwagga	500 kL Allowance	647	P	500	500 kL to 1,000 kL	30
							>1,000 kL	47
		Rankins Springs	500 kL Allowance	551	P	500	>500 kL	44
103	Central Darling	Wilcannia (Filtered)	Two Part	105	P	Nil	All	300
		Wilcannia (Raw)	Two Part	170	P			
		White Cliffs, Raw	Two Part	400	P	Nil	All	330
		Ivanhoe (Raw)	Two Part	170	P	Nil	All	130
		Ivanhoe (Filtered)	Two Part	105	P	Nil	All	300
40	Central Tablelands	Central Tablelands	Inclining Block	124	P	Nil	up to 450 kL	116
							>450 kL	174
		Quandialla	Inclining Block	464	P	Nil	up to 200 kL/quarter	120
							after 200 kL/quarter	200
67	Cobar	Cobar	Inclining Block	290	P	Nil	up to 450 kL	60
							451 to 550 kL	100
							>551 kL	150

Table 6A - Water Supply - 2005/06 Residential Multiple Tariffs

	WATER UTILITY	Town	Tariff Type	Access Charge ($)	Access Charge Independent of Land Value ?	Allowance (kL)	Usage Range (kL)	Usage Charge (c/kL)
			(1)	(2)	(3)	(4)	(5)	(6)
75	Coonamble Shire	Coonamble	360 kL Allowance	175	P	360	>360 kL	48
		Gulargambone	430 kL Allowance	290	P	430	>430 kL	67
		Quambone	591 kL Allowance	290	P	430	>430 kL	67
42	Corowa	Corowa	Two Part	120	P	Nil	All	50
		Mulwala	Declining Block	120	P	Nil	up to 80,000 kL	50
							>80,000 kL	32
		Howlong	Inclining Block	120	P	Nil	up to 1000 kL	50
							>1000kL	110
26	Country Energy	Broken Hill, Sunset Strp, Menindi (filtered)	Inclining Block	185	P	Nil	up to 400 kL	71
							> 400 kL	220
		Silverton (chlorinated)	Inclining Block	185	P	Nil	up to 400 kL	59
							> 400 kL	208
		Untreated Water		185	P	Nil	up to 400 kL	47
							> 400 kL	197
		Pipeline Customers or Unfiltered Water	Inclining Block	185	P	Nil	up to 400 kL	47
							> 400 kL	104
39	Cowra	Cowra	Inclining Block	347	P	Nil	up to 500 kL	36
							501 to 1,000 kL	71
							>1000 kL	135
		Raw Water	Inclining Block	141	P	Nil	up to 500 kL	33
							>500 kL	46
54	Deniliquin	Deniliquin, Filtered	Inclining Block	274	P	Nil	up to 400 kL	53
							400 to 800kL	81
							>800 kL	100
		Deniliquin, Raw	Flat rate	200	P	Nil	Unrestricted	
64	Dungog (Unfiltered)	Dungog	Inclining Block	194	P	Nil	up to 220 kL	66
							> 220 kL	133
		Clarence Town	Inclining Block	198	P	Nil	up to 220 kL	68
							> 220 kL	133
		Patterson District	Inclining Block	304	P	Nil	up to 220 kL	83
							> 220 kL	177
		Gresford	Inclining Block	384	P	Nil	up to 220 kL	74
							> 220 kL	181
84	Gilgandra (Groundwater)	Gilgandra	Two Part	250	P	Nil	All	50
		Tooraweenah	Two Part	67	P	Nil	All	105
60	Glen Innes Severn	Glen Innes	Inclining Block	88	P	Nil	up to 450 kL	130
							>450 kL	195
		Deep water	Two Part	258	P	Nil	All	60
82	Gloucester	Gloucester	Two Part	225	P	Nil	All	118
		Barrington	Two Part	225	P	Nil	All	118
20	Goulburn Mulwaree Council	Goulburn	Inclining Block	256	P	Nil	up to 292 kL	70
							>292 kL	157
		Marulan	Inclining Block	327	P	Nil	<292 kL	100
							>292 kL	203
80	Greater Hume	Culcairn	238kL Allowance	152	P	400	>400kL	64
		Villages	400kL Allowance	425	P	400	>400kL<1000kL	90
							>1000kL	110
30	Griffith	Griffith (Filtered)	Inclining Block	153	P	Nil	up to 200 kL	30
							>200 kL	55
		Yenda (Dual), Filtered	Inclining Block	237	P	Nil	up to 200 kL	30
							>200 kL	55
		Yenda (Dual), Raw	Two Part		P	Nil	All	20
94	Gundagai		Inclining Block	75	P	Nil	up to 300 kL	65
							301 to 500 kL	85
							> 500 kL	130
44	Gunnedah (Groundwater)	Gunnedah	Inclining Block	125	P	Nil	up to 450 kL	45
							>450 kL	90
		Curlewis	450 kL Allowance	314	P	450	All	65
		Mullaley	450 kL Allowance	572	P	450	All	65
		Tambar Springs	450 kL Allowance	652	P	450	All	65

Table 6A - Water Supply - 2005/06 Residential Multiple Tariffs

	WATER UTILITY	Town	Tariff Type	Access Charge ($)	Access Charge Independent of Land Value ?	Allowance (kL)	Usage Range (kL)	Usage Charge (c/kL)
			(1)	(2)	(3)	(4)	(5)	(6)
90	Guyra	Guyra	Inclining Block	245		Nil	up to 750 kL	92
							>750 kL	120
		Tingha	Two Part	215		Nil	All	147
		Tingha Rural	Two Part	185		Nil	All	147
86	Hay (Dual Supply)	Hay (Filtered)	Inclining Block	70	P	Nil	up to 300 kL	58
							>300 kL	87
		Hay (Unfiltered)	Unmetered	220	P			
106	Jerilderie (Dual Supply)	Jerilderie, Filtered	Two Part	160	P	Nil	up to 200 kL	160
							>200 kL	200
		Jerilderie, Raw	300 kL Allowance	225	P	300	>300 kL	37
61	Liverpool Plains Shire Council	Quirindi, Blackville,Caroona, Premer, Spring Ridge,Wallabadah, Willow	Inclining Block	100	P	Nil	up to 300 kL	60
							>300 kL	100
		Werris Creek	Inclining Block	300	P	300	up to 300 kL	92
							>300 kL	150
32	Mid Western Regional Council	Mudgee	Two Part	277	P	Nil	All	96
		Gulgong	Two Part	277	P	Nil	All	96
		Rylstone	Two Part	370	P	Nil	All	150
38	Moree Plains Shire	Moree, Mungindi, Boggabilla, Pallamallawa	Potable,Two Part	255	P	Nil	All	62
		Garah, Boomi, Boggabilla, Gurley, Weemalah	Non-Potable, Two Part	255	P	Nil	All	44
65	Murray	Murray, Filt	Two Part	177	P	Nil	All	56
		Murray, Raw	Two Part	63	P	Nil	All	38
101	Murrumbidgee	Darlington Point	Two Part	180	P	Nil	All	20
		Coleambally	Two Part	200	P	Nil	All	20
46	Narrabri (Groundwater)	Narrabri	Two Part	40	P	Nil	All	35
		Narrabri, non - metered		155				
		Gwabegar	Two Part	175	P	Nil	All	50
		Wee Wa	Two Part	25	P	Nil	All	51
		Boggabri	Two Part	225	P	Nil	All	51
		Bellata	Two Part	316	P	Nil	All	51
		Pilliga	Two Part	200	P	Nil	All	51
19	Orange	Orange	Inclining Block	102	P	Nil	up to 450 kL	141
							>450 kL	212
71	Palerang	Bungendore	Inclining Block	160	P	Nil	up to 200 kL	92
							>200 kL	125
		Braidwood	Inclining Block	230	P	Nil	up to 200 kL	95
							>200 kL	120
		Captains Flat	Inclining Block	210	P	Nil	up to 200 kL	180
							>200 kL	210
8	Riverina (Groundwater) (No Sge)	WaggaWagga	Two Part	80	P	Nil	All	70
		Rural Towns & Villages	Two Part	100	P	Nil	All	70
35	Singleton	Singleton	Two Part	180	P	Nil	All	77
		Mt Thorley	Two Part	496	P	Nil	All	150
		Jerry's Plains /Broke Water	Two Part	180	P	Nil	All	120
13	Tamworth	Tamworth	Inclining Block	150	P	Nil	up to 450 kL	80
							451 to 900 kL	85
							> 900 kL	90
		Calala Backwash Water	Inclining Block		P	Nil	All	18
		Raw Water			P		up to 450 kL	55
							451 to 900 kL	60
							> 900 kL	65
		Dungowan Dam (if main crosses property)	Inclining Block	75	P	Nil	up to 450 kL	55
		Raw Water					451 to 900 kL	60
							> 900 kL	65
		Dungowan Dam (if main does not cross property)	Inclining Block	150	P	Nil	up to 450 kL	55
		& Conners Creek Dam (Raw Water)					451 to 900 kL	60
							> 900 kL	65
68	Tenterfield	Tenterfield	Two Part	210	P	Nil	All	112
		Jennings	Two Part	125	P	Nil	All	200
		Urbenville	Two Part	310	P	Nil	All	58

Table 6A - Water Supply - 2005/06 Residential Multiple Tariffs

	WATER UTILITY	Town	Tariff Type	Access Charge ($)	Access Charge Independent of Land Value ?	Allowance (kL)	Usage Range (kL)	Usage Charge (c/kL)
			(1)	(2)	(3)	(4)	(5)	(6)
93	Tumbarumba (Unfiltered)	Tumbarumba	Inclining Block	310	P	Nil	up to 400 kL	60
							>400 kL	90
		Khancoban, metered	IncliningBlock	350	P	Nil	up to 400 kL	60
							>400 kL	90
45	Upper Hunter Shire Council	Murrurundi	Two Part	270	P	Nil	All	123
		Merriwa/Cassilis	Two Part	205	P	Nil	All	75
		Aberdeen/Scone	Two Part	205	P	Nil	All	100
73	Upper Lachlan Council	Crookwell	Inclining Block	401	P	Nil	up to 300 kL	92
							> 300 kL	110
		Taralga	Inclining Block	298	P	Nil	up to 400 kL	100
							> 400 kL	159
		Dalton Water	Two Part	397	P	Nil	All	113
		Gunning	Inclining Block	169	P	Nil	up to 300 kL	50
							> 300 kL	75
85	Uralla	Uralla	Two Part	190	P	Nil	All	70
		Bundarra	Two Part	480	P	Nil	All	80
88	Wakool (Dual Supply)	Barham, Tooleybuc, Moulamein(Filtered + Raw Water)	Inclining Block, Raw Water is unmetered	150+400	O	Nil	up to 400 kL	80
							>400 kL	160
		Wakool , Murray Downs, Koraleigh (Filtered)	Inclining Block	150	O	Nil	up to 400 kL	80
							>400 kL	160
98	Walcha	Treated	Inclining Block	120	P	Nil	up to 300 kL	175
							> 300 kL	260
		Untreated		43	P	Nil		
79	Walgett	Walgett Shire Water Charge	Unmetered	570	P			
		Carinda Water Charge	Unmetered	271	P			
		Carinda Bore Water Charge	Unmetered	258	P			
		Rowena Water Charge	Unmetered	309	P			
96	Warren (Dual Supply)	Warren Bore Water	Inclining Block	210	P	Nil	up to 450 kL	70
							>450 kL	105
		Warren River Water	Inclining Block			Nil	up to 450 kL	25
							>450 kL	45
		Nevertire	Inclining Block	320	P	Nil	up to 450 kL	40
							>450 kL	60
		Collie	Inclining Block	215	P	Nil	up to 450 kL	85
							>450 kL	126
55	Warrumbungle, Northern	Coonabarabran	418kL Allowance	419	P	418	>418 kL	90
		Timore Dam (Raw)	477kL Allowance	429	P	477	>477 kL	90
		Baradine	418kL Allowance	418	P	418	>418 kL	83
		Binnaway	397kL Allowance	418	P	397	>397 kL	105
		Village	358kL Allowance	427	P	358	>358 kL	119
	Warrumbungle, Southern	Southern	Nil	259	P	Nil	<300 kL	70
				Village:				88
				$589.20			301 to 500 kL	
							501 to 800 kL	101
							> 800 kL	116
57	Wellington	Wellington, Geurie	Inclining Block	310	P	Nil	up to 300 kL	95
							301 to 500 kL	105
							>500 kL	115
74	Wentworth (Dual Supply)	Filtered	Inclining Block	220	P	Nil	up to 250 kL	110
							>250 kL	260
		Raw	Inclining Block	110	P	Nil	up to 700 kL	35
							>700 kL	60
16	Wingecarribee		Inclining Block	197	P	Nil	up to 150 kL	53
							151 to 5,000 kL	143
							>5,000 kL	169
56	Yass Valley	Yass, Bowning, Binalong & Rural Areas	Two Part	196	P	Nil	All	115
		Murrumbateman	Two Part	148	P	Nil	All	115
49	Young (Reticulator)	Young	Inclining Block	175	P	Nil	up to 50 kL (1st & 4th quarter)	125
							>50 kL	170
							up to 100 kL (2nd & 4th quarter)	215
							>100 kL	170

Table 6B - Water Supply - 2005/06 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	Compliance with 2(b) of BPMG
			(1)	($) (2)	*Proportional to square of size of service connection or water meter (3)	(4)	(kL) (5)	(kL) (6)	(c/kL) (7)	(8)
11	Albury City	Albury	Inclining Block	84	Meter Size* (eg 40mm:$336)	P	Nil	up to 275 kL	45	P
								276 kL to 19999kL	90	
								>19999	65	
29	Armidale Dumaresq	Armidale	Inclining Block	219	Uniform Access Charge	P	Nil	Up to 400 kL	77	O
								401 kL to 1000 kL	103	
								>1000 kL	118	
		Armidale, Untreated Water	Inclining Block	219	Uniform Access Charge	P	Nil	Up to 400 kL	38	
								401 kL to 1000 kL	67	
								>1000 kL	82	
24	Ballina (Reticulator)	Ballina	Inclining Block	95	Service Connection Size* (eg. 40mm $380)	P	Nil	<350 kL	82	P
								>350 kL	105	
100	Balranald (Dual Supply)	Balranald & Euston, Raw	200 kL Allowance	181	Service Connection Size* (eg. 40mm $724)	P	200	>200 kL	21	P
		Balranald	Two Part	171	Service Connection Size* (eg. 40mm $683)	P	Nil	All	57	
21	Bathurst Regional	Bathurst (Filtered)	Inclining Block	250	Service Connection Size* (eg. 25mm $390; 40mm $1000)	P	Nil	0 to 300 kL	50	P
								>300 kL	80	
		Bathurst (Raw)	Inclining Block	250	Service Connection Size* (eg. 25mm $390; 40mm $1000)	P	Nil	0 to 300 kL	35	
								>300 kL	65	
23	Bega Valley (Unfiltered)	Bega Valley	Two Part	125	Service Connection Size* (eg. 40mm $500)	P	Nil	all	110	P
47	Bellingen (Unfiltered)		Two Part	214	Meter Size*: eg 40mm $856	P	Nil	All	64	P
53	Berrigan (Dual Supply)	Berrigan,Barooga,Finley(Potable)	250 kL Allowance	506	Uniform Access Charge	P	250	>250 kL	57	O
		Berrigan,Barooga,Finley(Non-Potab	500 kL Allowance	506	Uniform Access Charge	P	500	>500 kL	28	
		Tocumwal (Filtered)	750kL Allowance	506	Uniform Access Charge	P	750	>750 kL	45	
89	Bogan	Nyngan	Inclining Block	195	Service Connection Size* (eg. 25mm $305; 40mm $780)	P	Nil	<450 kL	70	P
								>450 kL	105	
97	Bombala	Bombala	Inclining Block	373	Uniform Access Charge	P	Nil	up to 350 kL	44	O
								>350 kL	96	
		Delegate	Unmetered	182	Uniform Access Charge	P				
104	Boorowa	Boorowa	Two Part	310	Uniform Access Charge	P	Nil	All	105	O
87	Bourke (Dual Supply)	Bourke	Filtered: Two Part, Raw: Unmetered	450	Uniform Access Charge	P	Nil	All	50	O
105	Brewarrina	Brewarrina	Unmetered	700	Land Value	O				O
		Goodooga	Unmetered	575	Land Value	O				P
27	Byron (Reticulator)	Byron	Two Part	101	Service Connection* (40mm: $404)	P	Nil	All	108	
91	Cabonne	Molong	Inclining Block	170	Uniform Access Charge	P	Nil	<300 kL	125	O
								301 kL to 500 kL	275	
								>500 kL	375	
		Cumnock	Inclining Block	150	Uniform Access Charge	P	Nil	<300 kL	295	
								301 kL to 500 kL	380	
								>500 kL	400	
		Yeoval	Inclining Block	125	Uniform Access Charge	P	Nil	<300 kL	160	
								301 kL to 500 kL	220	
								>500 kL	360	
		Delgany	Inclining Block	480	Uniform Access Charge	P	Nil	<300 kL	103	
								301 kL to 500 kL	160	
								>500 kL	210	
92	Carrathool	Carrathool	Inclining Block	325	Meter Size (40mm $488)	P	Nil	<350kL	70	P
								>350kL	80	
		Hillston	Inclining Block	150	Meter Size (40mm $225)	P	Nil	<350kL	47	
								>350kL	58	
		Melbergen	Inclining Block	200	Uniform Access Charge	P	Nil	<400 kL	37	
								>400 kL	65	
		Goolgowi/Merriwagga	500 kL Allowance	647	Uniform Access Charge	P	500	500 kL to 1,000 kL	30	
								>1,000 kL	47	
		Rankins Springs	500 kL Allowance	551	Uniform Access Charge	P	500	>500 kL	44	
103	Central Darling	Wilcannia (Filtered)	Two Part	105	Uniform Access Charge	P	Nil	All	300	O
		Wilcannia (Raw)	Unmetered	425	Uniform Access Charge	P	Nil			
		White Cliffs, Raw	Two Part	400	Uniform Access Charge	P	Nil	All	330	
		Ivanhoe (Raw)	Two Part	170	Uniform Access Charge	P	Nil	All	130	
		Ivanhoe (Filtered)	Two Part	105	Uniform Access Charge	P	Nil	All	300	

Table 6B - Water Supply - 2005/06 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	Compliance with 2(b) of BPMG
			(1)	($) (2)	*Proportional to square of size of service connection or water meter (3)	(4)	(kL) (5)	(kL) (6)	(c/kL) (7)	(8)
40	Central Tablelands	Central Tablelands	Inclining Block	124	Meter Size*(40mm:$496)	P	Nil	>450kL	116	P
								<450kL	174	
		Quandialla	Inclining Block	464		P	Nil	up to 200 kL/quarter	120	
								after 200 kL/quarter	200	
14	Clarence Valley		Two Part	90	Service Connection Size (40mm:$360)	P		All	73	P
67	Cobar (Dual Supply)	Cobar	Inclining Block	290	Service Connection Size (40mm:$1200)	P	Nil	<450 kL	60	P
								451 - 550 kL	100	
								>551 kL	150	
10	Coffs Harbour (Unfiltered)	Coffs Harbour, Nana Glen, Coramb	Two Part	200	Uniform Access Charge	P	Nil	All	136	O
50	Cooma-Monaro	Cooma, Bredbo, Nimmitabel	Two Part	342	Uniform Access Charge	P	Nil	All	60	O
75	Coonamble Shire	All	360kL Allowance	175	Based on business category	P	360	All	48	O
58	Cootamundra (Reticulator)	Cootamundra	Inclining Block	161	Meter Size: 40 mm $644	P	Nil	<450	118	P
42	Corowa	Corowa	Two Part	120	Uniform Access Charge	P	Nil	all	50	O
		Mulwala	Declining Block	120	Uniform Access Charge	P	Nil	up to 80,000 kL	50	
								>80,000 kL	32	
		Howlong	Inclining Block	120	Uniform Access Charge	P	Nil	up to 1000 kL	50	
								>1000kL	110	
26	Country Energy	Broken Hill, Sunset Strp, Menindi,	Inclining Block	185	Service Connection* (eg.40mm $794)	P	Nil	0 kL to 400 kL	71	P
								> 400 kL	220	
		Chlorinated	Inclining Block	185	Service Connection* (eg.40mm $794)	P	Nil	0 kL to 200 kL	59	
								> 400 kL	208	
		Untreated	Two Part	185	Service Connection* (eg.40mm $794)				104	
		Effluent Water	Two Part	185	Service Connection* (eg.40mm $794)	P	Nil	all	32	
39	Cowra	Cowra	Inclining Block	347	Uniform Access Charge	P	Nil	Up to 5000 kL	58	O
								5,001 to 10,000 kL	102	
								> 10000 kL	167	
54	Deniliquin	Deniliquin, Filtered	Two Part	263	Service connection*(40mm:526)	P	Nil	All	58	P
		Deniliquin,Raw	Unlimited	200		P	Nil	Unlimited		
18	Dubbo	Dubbo	Inclining Block	175	Meter Size* (eg.40mm $700)	P	Nil	<550 kL	70	P
								>550 kL	105	
64	Dungog (Unfiltered)	Dungog	Inclining Block	194	Uniform Access Charge	P	Nil	upto 220 kL	66	O
								> 220 kL	133	
		Clarence Town	Inclining Block	198	Uniform Access Charge	P	Nil	upto 220 kL	68	
								> 220 kL	133	
		Patterson District	Inclining Block	304	Uniform Access Charge	P	Nil	upto 220 kL	83	
								> 220 kL	177	
		Gresford	Inclining Block	384	Uniform Access Charge	P	Nil	upto 220 kL	74	
								> 220 kL	181	
15	Eurobodalla (Unfiltered)	Eurobodalla	Two Part	220	Meter Size*: 40mm:$880	P	Nil	All	120	P
51	Forbes	Forbes	Inclining Block	186		P	Nil	<400 kL	61	P
								>400 kL	92	
84	Gilgandra (Groundwater)	Gilgandra	Two Part	250	Service Connection Size* (32mm:405, 50mm:$505)	P	Nil	All	50	P
		Tooraweenah	Two Part	67	Uniform Access Charge	P	Nil	All	105	
60	Glen Innes Severn	Glen Innes	Inclining Block	88	Uniform Access Charge	P	Nil	upto 450 kL	130	O
								>450 kL	195	
		Deepwater	Two part	258	Uniform Access Charge	P	Nil	All	60	
82	Gloucester	Gloucester	Two Part	225	Service Connection Size (40mm:$900)	P	Nil	all	118	P
		Barrington	Two Part	225	Uniform Access Charge	P	Nil	all	118	
0	Goldenfields (Reticulator)	Retail	Two Part	204	Uniform Access Charge	P	Nil	All	106	O
1	Gosford	Gosford	Two Part	81	Service Connection Size* (40mm:$323.28)	P	Nil	All	93	P
20	Goulburn	Goulburn	Inclining Block	256	Meter Size*(40mm:$1025)	P	Nil	up to 400 kL (for 20mm	70	P
								>292 kL (for 20mm meter)	157	
		Marilan	Inclining Block	327	Uniform Access Charge	P	Nil	up to 400 kL (for 20mm	140	
								>292 kL (for 20mm meter)	274	

Table 6B - Water Supply - 2005/06 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	Compliance with 2(b) of BPMG
			(1)	($) (2)	*Proportional to square of size of service connection or water meter (3)	(4)	(kL) (5)	(kL) (6)	(c/kL) (7)	(8)
80	Greater Hume	Culcairn	238kL Allowance	152	Uniform Access Charge	P	238	>238kL	64	O
		Villages	400kL Allowance	425	Uniform Access Charge	P	400	>400kL<1000kL	90	
			400kL Allowance					>1000kL	110	
30	Griffith	Griffith (Filtered)	Inclining Block	153	Meter Size*(40mm:$612)	P	Nil	up to 200 kL	30	P
								>200 kL	55	
		Griffith (Raw)		153	Meter Size*(40mm:$612)	P		All	30	
94	Gundagai	Gundagai	Inclining Block	75	Service Connection Size*: 40mm:$300	P	Nil	all	85	P
44	Gunnedah (Groundwater)	Gunnedah	Inclining Block	125	Service Connection Size: 20 to 40 mm:$125, 50mm: $290	O	Nil	<450 kL	45	P
								>450 kL	90	
		Curlewis	440 kL Allowance	314	Uniform Access Charge	O	450	All	65	
		Mullaley	440 kL Allowance	572	Uniform Access Charge	O	450	All	65	
		Tambar Springs	440 kL Allowance	652	Uniform Access Charge	O	450	All	65	
90	Guyra	Guyra	Inclining Block	245	Uniform Access Charge	P	Nil	up to 750 kL	92	O
								>750 kL	120	
		Tingha	Two Part	215	Uniform Access Charge	P	Nil	All	147	
81	Gwydir			364	Meter Size*(40mm:$1456)	P	Nil	<300kL	100	P
								>300kL	220	
76	Harden (Reticulator)	Harden	300 kL Allowance	471	Uniform Access Charge	P	300	>300 kL	104	P
7	Port Macquarie-Hastings (Unfiltered)	Hastings	Inclining Block	113	Meter Size* (eg. 40mm $452)	P	Nil	<270 kL	125	P
								>270 kL	250	
86	Hay (Dual Supply)	Hay (Filtered)	Inclining Block	70	Service Connection Size*:40 mm:$280	P	Nil	up to 300 kL	58	P
								>300 kL	87	
		Hay (Unfiltered) - commercial users	Inclining Block	70	Service Connection Size*:40 mm:$280	P	Nil	<450 kL	25	
								>450 kL	38	
22	Hunter Water		Declining Block	26	Meter Size* (eg. 50mm: $162, 100mm: $645, 300mm:	P	Nil	up to 1,000 kL	93	
								>1000 kL	86	
37	Inverell	Inverell/Ashford/Yetman, Filtered	Two Part	245	Uniform Access Charge	P	Nil	All	100	O
106	Jerilderie (Dual Supply)	Jerilderie, Filtered	Two Part	160	Service Connection Size*(40mm:$640)	P	Nil	All	140	P
		Jerilderie, Raw	300 kL Allowance	225	Uniform Access Charge	O	300	>300kL	37	
25	Kempsey (Groundwater)	Kempsey	Two Part	265	Uniform Access Charge	P	Nil	All	86	O
70	Kyogle	Kyogle, Bonalbo, Muli-Muli, Wood	Two Part	175	Service Connection Size*:40 mm:$700	P	Nil	All	105	P
59	Lachlan	Condoblin	Inclining Block	230	Uniform Access Charge	P	Nil	up to 300 kL	70	O
								>300 kL	100	
48	Leeton	Leeton, Whitton, Murrami	Inclining Block	175	Meter Size*(40mm:$700)	P	Nil	up to 350 kL	49	P
								>350 kL	64	
22	Lismore (Reticulator)	Lismore, Nimbin	Two Part	100	Service Connection Size*(40mm:$400)	P	Nil	All	111	P
31	Lithgow	Lithgow	Inclining Block	200	Uniform Access Charge	P	Nil	<500 kL	85	O
								>500 kL	160	
61	Liverpool Plains Shire Council	Premer, Spring Ridge,Wallabadah,	Inclining Block	100	Service Connection Size* (eg. 40mm $400)	P	Nil	<300kL	60	P
								>300kL	100	
		Werris Creek	Inclining Block	300	Service Connection Size(eg. 40mm $1280)			<300kL	92	
								>300kL	150	
5	MidCoast		Two Part	140	Meter Size* (eg. 40mm $560)	P	Nil	All	120	P
32	Mid Western Regional Council	Mudgee	Two Part	277	Uniform Access Charge	P	Nil	All	96	O
		Gulgong	Two Part	277	Uniform Access Charge	P	Nil	All	96	
		Rylstone	Two Part	370	Uniform Access Charge	P	Nil	All	150	
38	Moree Plains Shire	Pallamallawa	Two Part	255	Service Connection Size (eg. 40mm $950)	P	Nil	All	62	P
		Weemalah	Two Part	256	Service Connection Size (eg. 40mm $950)	P	Nil	All	40	
65	Murray	Murray, Filt	Two Part	177	Uniform Access Charge	P	Nil	All	56	O
		Murray, Raw	Two Part	63	Uniform Access Charge	P	Nil	All	38	
101	Murrumbidgee	Darlington Point	Two Part	180	Service Connection Size* (eg. 40mm $340)	P	Nil	All	20	P
		Coleambally	Two Part	200	Service Connection Size* (eg. 40mm $360)	P	Nil	All	20	
41	Muswellbrook	Muswellbrook,Denman, Sandy Hol	Two Part	167	Service Connection Size* (eg. 40mm $668)	P	Nil	All	150	P
34	Nambucca	Nambucca	Two Part	85	Service Connection Size* (eg. 40mm $185)	P	Nil	All	90	P

Table 6B - Water Supply - 2005/06 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	Compliance with 2(b) of BPMG
			(1)	($) (2)	*Proportional to square of size of service connection or water meter (3)	(4)	(kL) (5)	(kL) (6)	(c/kL) (7)	(8)
46	Narrabri (Groundwater)	Narrabri	Two Part	40	Service Connection Size (eg. 40mm $102)	P	Nil	All	35	P
		Narrabri, non - metered	Unmetered	155	Service Connection Size (eg. 40mm $397)					
		Gwabegar	Two Part	175	Service Connection Size* (eg. 40mm $448)	P	Nil	All	50	
		Wee Wa	Two Part	25	Service Connection Size* (eg. 40mm $64)	P	Nil	All	51	
		Boggabri	Two Part	225	Service Connection Size* (eg. 40mm $576)	P	Nil	All	51	
		Bellata	Two Part	316	Service Connection Size* (eg. 40mm $809)	P	Nil	All	51	
		Pilliga	Two Part	200	Service Connection Size* (eg. 40mm $512)	P	Nil	All	51	
63	Narrandera (Groundwater)	Narrandera	Two Part	225	Uniform Access Charge	P	Nil	All	58	O
62	Narromine (Groundwater)	Narromine, Trangie, Tomingley	Two Part	175	Uniform Access Charge	P	Nil	All	62	O
83	Oberon (Unfiltered, Reticulator)	Oberon	Two Part	100	Service Connection Size* (eg. 38mm $361)	P	Nil	All	100	P
19	Orange	Orange	Two Part	102	Service Connection Size* (eg. 40mm $408)	P	Nil	All	141	P
71	Palerang	Bungendore	Inclining Block	160	Uniform Access Charge	P	Nil	<200kL	92	O
								>200kL	125	
		Braidwood	Inclining Block	230	Uniform Access Charge	P	Nil	<200kL	95	
								>200kL	120	
		Captains Flat	Inclining Block	210	Uniform Access Charge	P	Nil	<200kL	180	
								>200kL	210	
36	Parkes	Parkes	Inclining Block	295	Meter Size, eg : 40mm $614	P	Nil	up to 365kL	60	P
								>365 kL	160	
17	Queanbeyan (Reticulator)	Queanbeyan	Inclining Block	238	Meter Size, eg : 40mm $1034	P	Nil	up to 176 kL	100	P
								>176kL	150	
33	Richmond Valley	all	Inclining Block	215	Service Connection Size* (eg. 40mm $860)	P	Nil	up to 200 kL	55	P
								>200 kL	80	
8	Riverina	Wagga Wagga	Declining Block	120	Uniform Access Charge	P	Nil	up to 36,000 kL	70	O
								>36,000 kL	60	
4	Rous County Council	Rous Retail	Two Part	104	Uniform Access Charge	P	Nil	All	96	O
3	Shoalhaven	Shoalhaven, treated	TwoPart	95	Service Connection Size(40mm:$307)	P	Nil	All	70	P
35	Singleton	Singleton	Two Part	194	Meter Size* (eg. 40mm $775)	P	Nil	All	77	P
		Mt Thorley	Two Part	510	Meter Size* (eg. 40mm $720)	P	Nil	All	150	
		Jerry's/Broke Plains	Two Part	180	Meter Size (eg. 40mm $1,036)	P	Nil	All	120	
52	Snowy River (Unfiltered)	Snowy River	Two Part	455	Uniform Access Charge	P	Nil	All	0	O
0	Sydney Water		Two Part	75	Meter Size* (eg. 40mm $300, 100mm $1,875, 300mm $16,875)	P	Nil	All	94	
13	Tamworth	Tamworth	Inclining Block	150	Service Connection Size* (eg. 40mm $600.20)	P	Nil	upto 450 kL	80	P
								451 to 900 kL	85	
								> 900kL	90	
		Calala Backwash Water						All	18	
		Raw Water						up to 450 kL	55	
								451 to 900 kL	60	
								> 900 kL	65	
		Dungowan Dam (if main crosses pr	Inclining Block	75	Uniform Access Charge	P	Nil	up to 450 kL	55	
		Raw Water						451 to 900 kL	60	
								> 900 kL	65	
		Dungowan Dam (if main does not c	Inclining Block	150	Uniform Access Charge	P	Nil	up to 450 kL	55	
		& Conners Creek Dam (Raw Water)						451 to 900 kL	60	
								> 900 kL	65	
68	Tenterfield	Tenterfield	Two Part	210	Uniform Access Charge	P	Nil	All	112	O
		Jennings	Two Part	125	Uniform Access Charge	P	Nil	All	200	
		Urbenville	Two Part	310	Uniform Access Charge	P	Nil	All	58	
93	Tumbarumba (Unfiltered)	Tumbarumba	Inclining Block	310	Meter Size* (eg. 40mm $1240)	P	Nil	<400 kL	60	P
								>400 kL	90	
		Khancoban	Inclining Block	350	Meter Size* (eg. 40mm $1400)	P	Nil	<400 kL	60	
								>400 kL	90	
43	Tumut	Tumut	Inclining Block	89	Meter Size* (eg. 40mm $356)	P	Nil	up to 400 kL	80	P
								> 400 kL	100	
6	Tweed	Tweed	Two Part	90	Meter Size*(40mm:$360)	P	Nil	All	82	P
45	Upper Hunter Shire Council	Murrurundi	Two Part	270	Uniform Access Charge	P	Nil	All	123	O
		Merriwa/Cassilis	Two Part	205	Uniform Access Charge	P	Nil	All	75	
		Aberdeen/Scone	Two Part	205	Uniform Access Charge	P	Nil	All	120	

Table 6B - Water Supply - 2005/06 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	Compliance with 2(b) of BPMG
			(1)	($) (2)	*Proportional to square of size of service connection or water meter (3)	(4)	(kL) (5)	(kL) (6)	(c/kL) (7)	(8)
73	Upper Lachlan Council	Crookwell	Inclining Block	401	Uniform Access Charge	P	Nil	Up to 300kL	92	O
								> 300kL	110	
		Taralga	Inclining Block	298	Uniform Access Charge	P	Nil	Up to 400kL	100	
								> 400kL	159	
		Dalton	Two Part	397	Uniform Access Charge	P	Nil	All	113	
		Gunning	Inclining Block	169	Uniform Access Charge	P	Nil	Up to 300kL	50	
								> 300kL	75	
85	Uralla	Uralla	Two Part	190	Uniform Access Charge	P	Nil	All	70	O
		Bundarra	Two Part	480	Uniform Access Charge	P	Nil	All	80	
88	Wakool (Dual Supply)	Moulamein(Filtered + Raw Water)	Two Part, Raw Water is unmetered	150+400	Service Connection Size*(40mm:$600)	P	Nil	all	80	P
			Two Part	150	Service Connection Size*(40mm:$360)	P	Nil	all	80	
98	Walcha	Wakool , Murray Downs, Koraleigh	Two Part	120	Service Connection Size 38mm:$480)	P	Nil	All	175	P
		Raw	Two Part	43	Uniform Access Charge	P	Nil			
79	Walgett (Dual Supply)	Walgett Shire Water Charge	Unmetered	570	Uniform Access Charge	P	Unmetered			O
		Carinda Water Charge	Unmetered	271	Uniform Access Charge					
		Carinda Bore Water Charge	Unmetered	258	Uniform Access Charge					
		Rowena Water Charge	Unmetered	309	Uniform Access Charge					
96	Warren (Dual Supply)	Warren Bore Water	Inclining Block	210	Uniform Access Charge	P	Nil	<450 kL	70	O
								>450 kL	105	
		Warren River Water	Inclining Block				Nil	<450 kL	25	
								>450 kL	45	
		Nevertire	Inclining Block	320	Uniform Access Charge	P	Nil	<450 kL	40	
								>450 kL	60	
		Collie	Inclining Block	215	Uniform Access Charge	P	Nil	<450 kL	85	
								>450 kL	126	
55	Warrumbungle	Coonabarabran	418kL Allowance	419	Uniform Access Charge	P	418	>418 kL	90	O
		Timore Dam (Raw)	477kL Allowance	429	Uniform Access Charge	P	477	>477 kL	90	
		Baradine	418kL Allowance	418	Uniform Access Charge	P	418	>418 kL	83	
		Binnaway	397kL Allowance	418	Uniform Access Charge	P	397	>397 kL	105	
		Village	358kL Allowance	427	Uniform Access Charge	P	358	>358 kL	119	
		Southern	Inclining Block	259	Uniform Access Charge	P	Nil	<300 kL	70	
				Village: $589.20	Uniform Access Charge	P		301 - 500kL	88	
								501- 800 kL	101	
								> 800kL	116	
57	Wellington	Wellington, Geurie	Inclining Block	310	Service Connection Size 40mm:$620)	P	Nil	up to 300 kL	95	P
								301 kL to 500 kL	105	
								>500 kL	115	
74	Wentworth (Dual Supply)	Filtered	Inclining Block	220	Service Connection Size*(40mm:$880)	P	Nil	up to 250 kL	110	P
								>250 kL	260	
		Raw	Inclining Block	110	Service Connection Size*(40mm:$440)	P	Nil	up to 700 kL	35	
								>700 kL	60	
16	Wingecarribee	Wingecarribee	Inclining Block	197	Meter Size*(40mm:$799.35)		Nil	up to 150 kL	53	P
								151 kL to 5,000 kL	143	
						P		>5,000 kL	169	
2	Wyong	Wyong	Two Part	92	Service Connection Size* (eg. 40mm $369)	P	Nil	All	93	P
56	Yass Valley	Areas	Two Part	196	Meter Size 40mm:$360)	P	Nil	All	115	P
		Murrumbateman	Two Part	148	Uniform Access Charge	P	Nil	All	115	
49	Young (Reticulator)	Young	Two Part	175	Meter Size* (40mm:$700)	P	Nil	All	125	P

Table 6C - Water Supply - 2005/06 Non-Rateable Tariffs

	WATER UTILITY	Town	Property	Tariff Type	Access Charge for 20 mm Service Connection (or Minimum)	Basis for Access Charge	Allowance	Usage Range	Usage Charge	Reduction* for Non-rateable properties
				(1)	($) (2)	*Proportional to square of size of service connection or water meter (3)	(kL) (5)	(kL) (6)	(c/kL) (7)	
11	Albury City	Albury		Inclining Block	84	Uniform Access Charge	Nil	up to 275 kL 276 kL to 19999kL >19999	45 90 65	N
29	Armidale Dumaresq	Armidale	Non Rateable Non-Profit Sporting Dialysis Users	Two Part Two Part Allowance, Inclining Block	219 219 219	Uniform Access Charge Uniform Access Charge Uniform Access Charge	Nil Nil 100	all all 101 to 400 kL 401 kL to 1000 kL >1000 kL	107 81 72 96 118	N
24	Ballina (Reticulator)	Ballina		Inclining Block	95	Uniform Access Charge	Nil	<350 kL >350 kL	82 105	N
100	Balranald (Dual Supply)	Balranald & Euston, Raw Balranald	All All	200 kL Allowance Two Part	181 171	Service Connection Size* (eg. 40mm $724) Service Connection Size* (eg. 40mm $683)	200 Nil	>200 kL All	21 57	N
21	Bathurst Regional	Bathurst (Filtered) Bathurst (Raw)		Inclining Block Inclining Block	250 250	Service Connection Size* (eg. 25mm $390; 40mm $1000) Service Connection Size* (eg. 25mm $390; 40mm $1000)	Nil Nil	0 to 300 kL >300 kL 0 to 300 kL >300 kL	50 80 35 65	N N
23	Bega Valley (Unfiltered)	Bega Valley	Public Hospitals and Nursing Homes Home Dialysis, Home Care Patients Non-Profit Community Org. Churches Church Halls, Residences, Church Schools		Nil Nil Nil Nil Full Access ($149.76)	No Access Charge No Access Charge No Access Charge No Access Charge Uniform Access Charge	300 > 4 monthly of 70 kL Nil Nil Nil	>300kL >Allowance all all all	110 110 110 110 110	L
47	Bellingen (Unfiltered)				214	Meter Size 40mm $856	Nil	all	64	N
53	Berrigan (Dual Supply)	Berrigan,Barooga,Finley(Potable) Berrigan,Barooga,Finley(Non-Potable) Tocumwal (Filtered)		250 kL Allowance 500 kL Allowance 750kL Allowance	506 506 506	Uniform Access Charge Uniform Access Charge Uniform Access Charge	250 500 750	>250kL >500kL >750kL	57 28 45	N
89	Bogan	Nyngan	all	Inclining Block	98	Service Connection Size* (eg.40mm $390)	Nil	*<450 kL* *>450 kL*	*70* *105*	L
97	Bombala	Bombala Delegate		Incining Block Unmetered	373 182	Uniform Access Charge Uniform Access Charge	Nil	up to 350 kL >350 kL	44 96	N
104	Boorowa	Boorowa		Usage Charge only	Nil	No Access Charge	Nil	All	131	N
87	Bourke (Dual Supply)	Bourke		Filtered: Two Part, Raw: Unmetered	Filtered Water: $170, Raw Water: $280	Uniform Access Charge	Nil	All filtered water	50	N
105	Brewarrina	Brewarrina Goodooga		Unmetered Unmetered	700 575	Uniform Access Charge Uniform Access Charge	Nil Nil	Unmetered Unmetered		N
27	Byron (Reticulator)	Byron		Two Part	101	Service Connection Size* (eg. 40mm: $404)	Nil	All	108	N
91	Cabonne	Molong Cumnock Yeoval Delgany		Inclining Block Inclining Block Inclining Block Inclining Block	170 150 125 480	Uniform Access Charge Uniform Access Charge Uniform Access Charge Uniform Access Charge	Nil Nil Nil Nil	<300 kL 301 kL to 500 kL >500 kL <300 kL 301 kL to 500 kL >500 kL <300 kL 301 kL to 500 kL >500 kL <300 kL 301 kL to 500 kL >500 kL	125 275 375 295 380 400 160 220 360 103 160 210	N
92	Carrathool	Carrathool Hillston Melbergen Goolgowi/Merriwagga Rankins Springs	Churches, 1/2 charge Churches, 1/2 charge Churches, 1/2 charge Non-Rateable	500 kL Allowance 500 kL Allowance 500 kL Allowance 500 kL Allowance	163 75 200 647 551	Meter Size (40mm $488) Meter Size (40mm $225) Uniform Access Charge Uniform Access Charge Uniform Access Charge	Nil Nil Nil 500 500	<350kL >350kL <350kL >350kL <400 kL >400 kL 500 kL to 1,000 kL >1,000 kL >500 kL	70 80 47 58 37 65 30 47 44	L
103	Central Darling	Wilcannia (Filtered) Wilcannia (Raw) White Cliffs, Raw Ivanhoe (Raw) Ivanhoe (Filtered)		Two Part	400	Uniform Access Charge		All All All All	360 330 300 360	S
40	Central Tablelands	Central Tablelands Quandialla		Inclining Block Inclining Block	124 464	Meter Size* (eg. 20mm $124; 40mm $496)	Nil Nil	>450kL <450kL up to 200 kL/quarter after 200 kL/quarter	116 174 120 200	N

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

Table 6C - Water Supply - 2005/06 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)	
14	Clarence Valley			Two Part	90	Service Connection Size (40mm:$360)	Nil	All	73	N
67	Cobar	Cobar		Inclining Block	290	Service Connection Size (40mm:$1200)	Nil	<450 kL 451 - 550 kL >551 kL	60 100 150	N
10	Coffs Harbour (Unfiltered)	Coffs Harbour, Nana Glen, Coramba		Two Part	16	Uniform Access Charge (with a testable backflow)	Nil	All	162	S
50	Cooma-Monaro	Cooma, Bredbo, Nimmitabel		Two Part	342	Uniform Access Charge	Nil	All	60	N
75	Coonamble (Groundwater)	Coonamble			175	$175 for usage up to 250kL, increases to $587 for usage of 12	Nil			N
58	Cootamundra (Reticulator)	Cootamundra	community	Two Part	81	Meter Size* (eg 40mm $322)	Nil	>219 kL	94	N
42	Corowa	Corowa		Two Part	140	Uniform Access Charge	Nil	all	50	N
		Mulwala		Declining Block	120	Uniform Access Charge	Nil	up to 80,000 kL >80,000 kL	50 32	
		Howlong		Inclining Block	120	Uniform Access Charge	Nil	up to 1000 kL >1000kL	50 110	
26	Country Energy	Broken Hill & other towns	Exempt Properties	Usage Charge only	Nil	No Access Charge	Nil	All Filtered	143	L
39	Cowra	Cowra	All	Inclining Block	347	Uniform Access Charge	Nil	all	77	S
54	Deniliquin	Deniliquin, Filtered		Two Part	263	Service connection*(40mm:526)	Nil	up to 400 kL	58	N
		Deniliquin, Raw		Unlimited	200	Meter Size	Nil	Unlimited		
18	Dubbo	Dubbo		Inclining Block	175	Meter Size* (eg.40mm $700)	Nil	<550 kL >550 kL	70 105	N
64	Dungog (Unfiltered)	Dungog					Nil	all	133	S
		Clarence Town					Nil	all	133	
		Patterson District					Nil	all	177	
		Gresford					Nil	all	181	
15	Eurobodalla (Unfiltered)	Eurobodalla		Two Part	220	Meter Size*: 40mm $880	Nil	All	120	N
51	Forbes	Forbes		Inclining Block	186		Nil	<400kL >400kL	61 92	N
84	Gilgandra (Groundwater)	Gilgandra		Two Part	250	Service Connection Size* (32mm:405, 50mm:$505)	Nil	All	50	N
		Tooraweenah		Two Part	67	Uniform Access Charge	Nil	All	105	N
60	Glen Innes Severn	Glen Innes		Inclining Block	88	Uniform Access Charge	Nil	upto 450 kL >450 kL	130 195	N
		Severn		Two Part	258	Uniform Access Charge	Nil	All	60	N
82	Gloucester	Gloucester		Two Part	225	Service Connection Size (40mm:$900)	Nil	all	118	N
		Barrington		Two Part	225	Uniform Access Charge	Nil	All	118	
0	Goldenfields (Reticulator)	Retail		Two Part	204	Uniform Access Charge	Nil	All	106	N
1	Gosford	Gosford			81	Service Connection Size* (40mm:$323.28)	Nil	All	93	N
20	Goulburn Mulwaree Council	Goulburn		Inclining Block	256	Meter Size*(40mm:$1025)	Nil	up to 400 kL (for 20mm >292 kL (for 20mm meter)	70 157	N
		Marulan		Inclining Block	327	Uniform Access Charge	Nil	up to 400 kL (for 20mm meter) >292 kL (for 20mm meter)	140 274	
80	Greater Hume	Culcairn				Uniform Access Charge	238kL	All	64	N
		Villages				Uniform Access Charge	400kL	All	110	N
30	Griffith	Griffith			Nil	No Access Charge	Nil	all	55	L
94	Gundagai	Gundagai			75	Service Connection Size*: 40mm:$300	Nil	all	85	N
44	Gunnedah (Groundwater)	Gunnedah		Inclining Block	125	Service Connection Size: 20 to 40 mm:$125, 50mm: $290	Nil	<450 kL >450 kL	45 90	N N
		Curlewis, Mullaley, Tambar Springs			Nil	No Access Charge	Nil	All	65	L
90	Guyra	Guyra		Inclining Block	245	Uniform Access Charge	Nil	up to 750 kL >750 kL	92 120	N
		Tingha			215	Uniform Access Charge	Nil	All	147	
81	Gwydir			Inclining Block	364	Meter Size*(40mm:$1456)	Nil	<300kL >300kL	100 220	N
76	Harden (Reticulator)	Harden						All	184	S
7	Port Macquarie-Hastings (Unfiltered)	Hastings		Two Part	113	Uniform Access Charge	Nil	All	80	L
86	Hay (Dual Supply)	Hay (Filtered)		Inclining Block	70	Uniform Access Charge	Nil	up to 300 kL >300 kL	58 87	N
		Hay (Unfiltered)		Inclining Block	70	Uniform Access Charge	Nil	<450 kL >450 kL	25 38	
22	Hunter Water			Declining Block	26	Meter Size* (eg. 50mm: $162, 100mm: $645, 300mm:	Nil	up to 1,000 kL >1000 kL	93 86	
37	Inverell	Inverell, Filtered		Two Part	245	Uniform Access Charge	Nil	All	100	N
106	Jerilderie (Dual Supply)	Jerilderie, Filtered		Two Part	160	Service Connection Size*(40mm:$640)	Nil	all	140	N
		Jerilderie, Raw		300 kL Allowance	220	Uniform Access Charge	300 kL	>300 kL	37	
25	Kempsey (Groundwater)	Kempsey	All	Two Part	265	Uniform Access Charge	Nil	All	86	L

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

Table 6C - Water Supply - 2005/06 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)	
70	Kyogle	Kyogle		Two Part	175	Service Connection Size*:40 mm:$700	Nil	All	105	N
59	Lachlan	Condoblin		Inclining Block	230	Uniform Access Charge	Nil	up to 300 kL	70	N
								>300 kL	100	
48	Leeton	Leeton, Whitton, Murrami		Inclining Block	175	Meter Size*(40mm:$700)	Nil	up to 350 kL	49	N
								>350 kL	64	
22	Lismore (Reticulator)	Lismore		Two Part	100	Service Connection Size*(40mm:$400)	Nil	All	111	N
31	Lithgow	Lithgow		Inclining Block	200	Uniform Access Charge	Nil	<500 kL	85	N
61	Liverpool Plains Shire Council	Spring Ridge,Wallabadah, Willow Tree		Inclining Block	100	Service Connection Size* (eg. 40mm $400)	Nil	<300kL	60	N
								>300kL	100	
		Werris Creek		Inclining Block	300	Service Connection Size(eg. 40mm $1280)	Nil	<300kL	92	N
								>300kL	150	
5	MidCoast			Two part	140	Meter Size* (eg. 40mm $560)	Nil	All	120	N
32	Mid Western Regional Council	Mudgee		Two part	277	Uniform Access Charge	Nil	All	96	N
		Gulgong		Two part	277	Uniform Access Charge	Nil	All	96	N
		Rylstone		Two part	370	Uniform Access Charge	Nil	All	150	N
38	Moree Plains Shire	Moree, Mungindi, Boggabilla,		Two Part	255	Service Connection Size (eg. 40mm $950)	Nil	All	62	N
		Garah, Boomi, Boggabilla, Gurley,		Two Part	255	Service Connection Size (eg. 40mm $950)	Nil	All	44	
65	Murray	Murray, Filt		Two Part	177	Uniform Access Charge	Nil	All	56	N
		Murray, Raw		Two Part	63	Uniform Access Charge	Nil	All	38	
101	Murrumbidgee	Darlington Point	Churches	Two Part	Nil	No Access Charge	Nil	All	20	N
		Coleambally	Churches	Two Part	Nil	No Access Charge	Nil	All	20	
41	Muswellbrook	Muswellbrook,Denman, Sandy Hollow		Two Part	167	Service Connection Size	Nil	All	150	N
34	Nambucca	Nambucca		Two Part	85	Uniform Access Charge	Nil	All	90	N
46	Narrabri (Groundwater)	Narrabri		Two Part	40	Service Connection Size (eg. 40mm $102)	Nil	All	35	N
					155	Service Connection Size (eg. 40mm $397)				N
		Gwabegar		Two Part	175	Service Connection Size* (eg. 40mm $448)	Nil	All	50	N
		Wee Wa		Two Part	25	Service Connection Size* (eg. 40mm $64)	Nil	All	51	N
		Boggabri		Two Part	225	Service Connection Size* (eg. 40mm $576)	Nil	All	51	N
		Bellata		Two Part	316	Service Connection Size* (eg. 40mm $809)	Nil	All	51	N
		Pilliga		Two Part	200	Service Connection Size* (eg. 40mm $512)	Nil	All	51	N
63	Narrandera (Groundwater)	Narrandera		Two Part	225	Uniform Access Charge	Nil	All	58	N
62	Narromine (Groundwater)	Narromine, Trangie, Tomingley		Two Part	175	Uniform Access Charge	Nil	All	62	N
83	Oberon (Unfiltered, Reticulator)	Oberon		Two Part	100	Service Connection Size* (eg. 38mm $361)	Nil	All	100	N
19	Orange	Orange		Two Part	102	Service Connection Size* (eg. 40mm $408)	Nil	All	141	N
71	Palerang	Bungendore		Inclining Block	160	Uniform Access Charge	Nil	<200kL	92	N
								>200kL	125	
		Braidwood		Inclining Block	230	Uniform Access Charge	Nil	<200kL	95	N
								>200kL	120	
		Captains Flat		Inclining Block	210	Uniform Access Charge	Nil	<200kL	180	N
								>200kL	210	
36	Parkes	Parkes		Inclining Block	295	Meter Size, eg : 40mm $614	Nil	up to 365kL	60	N
								>365 kL	160	
17	Queanbeyan	Queanbeyan		Inclining Block	238	Meter Size, eg : 40mm $1034	Nil	up to 176 kL	100	N
								>176kL	150	
33	Richmond Valley	Casino		Inclining Block	215	Service Connection Size* (eg. 40mm $860)	Nil	up to200 kL	55	N
								>200 kL	80	
8	Riverina (Groundwater)	Wagga Wagga	Courts, Schools, Staff Housing,		Village: $100	Uniform Access Charge	Nil	up to 36,000 kL	70	S
			Churches or similar	Usage charge only	No Access Charge	No Access Charge		>36,000 kL	60	
4	Rous County Council	Rous Retail	Community org	Two Part	52	50% of Normal	Nil	All	96	S
3	Shoalhaven	Shoalhaven, treated	All	Two Part	95	Service Connection Size(40mm:$307)	Nil	All	70	N
35	Singleton	Singleton		Two Part	180	Meter Size* (eg. 40mm $720)	Nil	All	77	N
		Mt Thorley		Two Part	496	Meter Size (eg. 40mm $1,036)	Nil	All	150	
		Jerry's/Broke Plains		Two Part	180	Uniform Access Charge	Nil	All	120	
52	Snowy River (Unfiltered)	Snowy River		Two Part	455	Uniform Access Charge	Nil	All	44	N
0	Sydney Water			Two Part	75	Meter Size* (eg. 40mm $300, 100mm $1,875, 300mm $16,875	Nil	All	94	S
13	Tamworth	Tamworth		Inclining Block	150	Service Connection Size* (eg. 40mm $553.20)	Nil	upto 450 kL	80	N
								451 to 900 kL	85	
								> 900kL	90	
		Calala Backwash Water						All	18	
		Raw Water						up to 450 kL	55	
								451 to 900 kL	60	
								> 900 kL	65	
		property)		Inclining Block	75	Uniform Access Charge	Nil	up to 450 kL	55	
		Raw Water						451 to 900 kL	60	
								> 900 kL	65	
		Dungowan Dam (if main does not cross property)		Inclining Block	150	Uniform Access Charge	Nil	up to 450 kL	55	
		& Conners Creek Dam (Raw Water)						451 to 900 kL	60	
								> 900 kL	65	

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

Table 6C - Water Supply - 2005/06 Non-Rateable Tariffs

	WATER UTILITY	Town	Property	Tariff Type	Access Charge for 20 mm Service Connection (or Minimum)	Basis for Access Charge	Allowance	Usage Range	Usage Charge	Reduction* for Non-rateable properties
				(1)	($) (2)	*Proportional to square of size of service connection or water meter (3)	(kL) (5)	(kL) (6)	(c/kL) (7)	
68	Tenterfield	Tenterfield		Two Part	210	Uniform Access Charge, Council will consider on application, the making of a contribution equivalent to that of the water availability charge		All	112	S
		Jennings		Two Part	125			All	200	
		Urbenville		Two Part	310			All	58	
93	Tumbarumba (Unfiltered)	Tumbarumba		Inclining Block	310	Uniform Access Charge	Nil	<400 kL	60	N
								>400 kL	90	
		Khancoban		Inclining Block	350	Uniform Access Charge		<400 kL	60	
								>400 kL	90	
43	Tumut	Tumut		Inclining Block	89	Service Connection (eg. 38mm $356)	Nil	up to 400 kL	80	N
								> 400 kL	100	
6	Tweed	Tweed		Two Part	90	Meter Size*(40mm:$360)	Nil	All	82	N
45	Upper Hunter Shire Council	Murrurundi		Two Part	270	Meter Size	Nil	All	123	N
		Merriwa/Cassilis		Two Part	205		Nil	All	75	
		Aberdeen/Scone		Two Part	205		Nil	All	120	
73	Upper Lachlan Council	Crookwell		Inclining Block	401	Uniform Access Charge	Nil	Up to 300kL	92	N
								> 300kL	110	
		Taralga		Inclining Block	298	Uniform Access Charge	Nil	Up to 400kL	100	
								> 400kL	159	
		Dalton		Two Part	397	Uniform Access Charge	Nil	All	113	
		Gunning		Inclining Block	169	Uniform Access Charge	Nil	Up to 300kL	50	
								> 300kL	75	
85	Uralla	Uralla		275 kL Allowance	190	Uniform Access Charge	Nil	All	70	N
		Bundarra		275 kL Allowance	480	Uniform Access Charge	Nil	All	80	
88	Wakool (Dual Supply)	Barham, Murray Downs, Tooleybuc, Moulamein(Filtered + Raw Water)		300 kL Allowance	Nil	No Access Charge	Nil	All	80	L
		(Raw)		600 kL Allowance	Nil	No Access Charge	Nil	All	80	
98	Walcha	Walcha,Treated		Two Part	120	Uniform Access Charge	Nil	All	175	N
		Walcha, Untreated		Two Part	41	Uniform Access Charge	Nil			
79	Walgett (Dual Supply)	Walgett Shire Water Charge		unmetered	570	unmetered				N
		Carinda Water Charge		unmetered	271	unmetered				
		Carinda Bore Water Charge		unmetered	258	unmetered				
		Rowena Water Charge		unmetered	309	unmetered				
96	Warren (Dual Supply)	Warren Bore Water		Inclining Block	210	Uniform Access Charge	Nil	<450 kL	70	N
								>450 kL	105	
		Warren River Water					Nil	<450 kL	25	
								>450 kL	45	
		Nevertire		Inclining Block	320	Uniform Access Charge	Nil	<450 kL	40	
								>450 kL	60	
		Collie		Inclining Block	215	Uniform Access Charge	Nil	<450 kL	85	
								>450 kL	126	
55	Warrumbungle	Coonabarabran		418kL Allowance	419	Uniform Access Charge	418	>418 kL	90	N
		Timore Dam (Raw)		477kL Allowance	429	Uniform Access Charge	477	>477 kL	90	
		Baradine		418kL Allowance	418	Uniform Access Charge	418	>418 kL	83	
		Binnaway		397kL Allowance	418	Uniform Access Charge	397	>397 kL	105	
		Village		358kL Allowance	427	Uniform Access Charge	358	>358 kL	119	
		Southern		Inclining Block	259	Uniform Access Charge	Nil	<300 kL	70	
					Village: $589.20			301 - 500kL	88	
								501- 800 kL	101	
								> 800kL	116	
57	Wellington	Wellington, Geurie		Inclining Block	No Access Charge	No Access Charge	Nil	up to 300 kL	95	L
								301 kL to 500 kL	105	
								>500 kL	115	
74	Wentworth (Dual Supply)	Filtered		Inclining Block	220	Service Connection Size*(40mm:$880)	Nil	up to 250 kL	110	N
								>250 kL	260	
		Raw		Inclining Block	110	Service Connection Size*(40mm:$440)	Nil	up to 700 kL	35	
								>700 kL	60	
16	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	
#N/A	Wyong	Wyong		Two Part	92	Service Connection Size* (eg. 40mm $369)		All	93	N
56	Yass Valley		Churches,etc	Two Part	196	Meter Size (40mm:$360)	Nil	All	29	S
			Playgrounds & Yass Pool	Two Part	196	Uniform Access Charge	Nil	All	52	
			Binalong Pool	Two Part	196	Uniform Access Charge	Nil	All	104	
49	Young (Reticulator)	Young		Two Part	175	Meter Size* (40mm:$700)	Nil	All	125	S

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

Blank Page

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

	WATER UTILITY	RESIDENTIAL CHARGES/OMA																RESIDENTIAL BILLS						COST RECOVERY			
		Access Charge (or Minimum) ($) (1)			Operating Cost (OMA) (c/kL) (2)			Access Charge Independent of Land Value ? Yes/No (3)		Non-residential Sewer Usage Charge (Not incl SDF) c/kL (3a)		Does Council Have Liquid Trade Waste Fees and Charges* ? (4)		Non-Res & Trade Waste Charges (% of Annual rates & Charges) (5)	Non-Res & Trade Waste Volume (% of Sewage Collected) (6)	Typical Developer Charge ($/Equivalent Tenement [ET]) (7)			Typical Residential Bill ($/assessment) (8)			Average Residential Bill ($/assessment) (9)			Economic Real Rate of Return (%) (11)			Connected Properties (No.) (12)
		2003/04	2004/05	2005/06	02/03	03/04	04/05	04/05	05/06	04/05	05/06	2004/05	2005/06	2004/05	2004/05	03/04	04/05	05/06	03/04	04/05	05/06	02/03	03/04	04/05	02/03	03/04	04/05	04/05
	Sydney Water	339	347	347	80	88	72	P	P	106	119	P	P			3900	3900	3900	339	347	347				2.8	4.1	3.8	1,635,000
	Hunter Water	+279+usag	288+usag	268+usag	51	55	48	P	P	42	43	P	P			3500	3500	3500	323	332	363				3.7	4.2	3.2	199,000
	LWUs with > 10,000 Properties																											
1	Gosford	347	352	364	99	103	115	P	P	76	78	P	P	1	22		1650	1800	347	352	364	315	324	332	2.1	1.5	0.2	64,500
2	Wyong	354	359	368	93	115	115	P	P	64	66	P	P	13		1900	2000	2000	354	359	368	333	335	335	0.8	1.1	0.2	56,100
3	Shoalhaven	515	510	515	164	172	187	P	P	80	80	P	P	10	24	1890	1950	2010	515	510	515	510	502	508	4.6	4.1	4.7	36,600
5	MidCoast (Combined)	480	500	565	129	154	127	P	P	135	145	P	P	23	17	3700	3700	3700	480	500	565	443	479	507	3.8	-0.2	5.0	31,100
6	Tweed	430	435	445	79	96	104	P	P	67	69	P	P	4	26	3280	3490	3490	430	435	445	410	435	423	5.1	5.3	6.2	26,400
9	Wagga Wagga	270	279	309	46	53	63	P	P		62	P	P	14	32	1290	1450	1450	270	279	309	220	248	254	11.9	6.3	9.0	25,400
7	Port Macquarie-Hastings	495	395	409	62	112	107	P	P	60	62	P	P	13		2800	2800	3150	495	395	409	463	450	392	6.0	5.3	1.8	24,300
11	Albury City	275+usag	345	355	107	108	129	P	P	182	185	P	P	10	39	1500	5420	5420	353	345	355	317	307	319	0.3	0.2	0.3	21,300
10	Coffs Harbour	537	553	572	108	115	140	P	P			P	P	7	24	4750	4930	4930	537	553	572	578	589	605	6.5	4.8	7.0	20,800
13	Tamworth Regional	396	396	470	117	104	101	P	P			P	P	11	25	1440	1470	1470	396	396	470	394	379	350	0.8	1.1	4.9	20,500
15	Eurobodalla	450	470	482	164	203	204	P	P			P	P	7	1	6000	6000	7800	450	470	482	431	421	447	3.4	4.3	4.7	17,000
17	Queanbeyan	283	294	294	86	106	100	P	P	50	50			12	28	1080	1080	1080	283	294	294	315	334	260	5.1	4.3	0.1	15,900
19	Orange	260	273	273	59	65	83	P	P	128	128	P	P	3	4	2900	3170	3170	260	273	273	251	272	260	-0.8	0.4	0.2	14,400
20	Goulburn Mulwaree	325	444	471	136	146	185	P	P	166	176	P	P	25	37	4040	4540	5100	325	444	471	359	382	284	3.3	4.6	5.3	14,100
18	Dubbo	403	403	421	85	179	178	O	P		120	P	P	1	17	2430	2509	2642	403	403	421	388	394	407	2.1	2.4	2.8	13,700
16	Wingecarribee	+402+usag	402+usag	416+usag	105	124	139	P	P	40	40	P	P	12		4100	4300	4800	487	488	504	437	601	495	0.9	1.9	1.7	13,300
14	Clarence Valley	380	393	452	123	123		P	P		28	P	P		14	3330	8000	8000	380	393	452	368	382	234	2.6	4.8		13,100
21	Bathurst Regional	351	351	351	91	88	118	P	P	78	78	P	P	27		1750	1750	2050	351	351	351	315	334	308	3.1	5.2	-1.4	12,700
24	Ballina	330	330	360	95	109	120	P	P		105	P	P	19		4450	5930	5930	330	330	360	355	355	352	0.4	6.0	-1.1	12,600
22	Lismore	367	412	270	87	93	93	P	P		110	P	P	25		4370	4460	4560	367	412	270	306	341	383	2.3	2.7	3.5	11,900
	LWUs with 3,001 - 10,000 Properties																											
23	Bega Valley	400	490	540	156	221	241	P	P	138	138	O	P	17		2580	5200	5200	400	490	540	356	356	460	-2.6	-2.4	1.1	9,800
27	Byron	+446+usag	464+usag	478	187	161	211	P	P	72	101	P	P	20		5980	6170	9200	592	572	478	558	670	591	2.1	2.6	0.1	9,800
26	Country Energy	231	250	268	127	140	144	P	P	80	86	P	P						231	250	268	234	211	184	0.6	-0.3	-3.9	9,700
25	Kempsey	482	499	499	155	153	156	P	P		126		P	29		4320	4530	6300	482	499	499	437	459	470	2.1	9.6	1.5	8,700
31	Lithgow	303	313	380	98	87		O	P		98	P	P	3		1780	1790	1790	303	313	380	256	267	291	-1.7	3.0	2.8	7,600
29	Armidale Dumaresq	255	264	272	119	133	117	P	P			O		30	18	1240	1240	1240	255	264	272	242	239	252	-1.0	-1.1	0.0	7,500
30A	Hawkesbury	359	371	384	96	106		P	P	155	155	P	P	27		5590	5590	5590	359	371	384	347	363	371	0.0	-0.2	-1.4	7,300
30	Griffith	270	284	340	120	100	149		P			P	P	17	40	2100	1650	1690	270	284	340	422	421	317	0.5	0.7	0.6	7,200
33	Richmond Valley	495	418	700	131	109	115	P	P	138	60	O		25		4680	4820	4960	495	418	700	421	431	399	7.0	3.2	1.6	6,000
32	Mid Western Regional	380	396	396	105	130	130	P	P			P	P		12	1850	1850	1850	380	396	396	355	372	408	1.3	0.5	2.9	5,900
34	Nambucca	360	360	360	95	106	103	P	P			O		8		1950	3550	3640	360	360	360	334	309	317	3.4	2.6	3.2	5,800
35	Singleton	300	307	336	83	81	77	P	P			P	P	17		1270	1300	1330	300	307	336	313	307	316	2.7	5.2	1.3	4,900
37	Inverell	285	298	310	105	115	136	P	P			P	O	6	7			1180	285	298	310	263	259	269	-3.1	-3.8	-2.3	4,700
41	Muswellbrook	382	395	440	102	99	112	P	P		150	P	P	2	47	4290	4290	4750	382	395	440	411	422	438	0.8	2.9	3.8	4,700

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

	WATER UTILITY	RESIDENTIAL CHARGES/OMA														RESIDENTIAL BILLS						COST RECOVERY			
		Access Charge (or Minimum) ($) (1)			Operating Cost (OMA) (c/kL) (2)			Access Charge Independent of Land Value ? Yes/No (3)		Non-residential Sewer Usage Charge (Not incl SDF) c/kL (3a)		Does Council Have Liquid Trade Waste Fees and Charges* ? (4)		Non-Res & Trade Waste Charges (% of Annual rates & Charges) (5)	Non-Res & Trade Waste Volume (% of Sewage Collected) (6)	Typical Developer Charge ($/Equivalent Tenement [ET]) (7)			Typical Residential Bill ($/assessment) (8)			Average Residential Bill ($/assessment) (9)			Economic Real Rate of Return (%) (11)			Connected Properties (No.) (12)
		2003/04	2004/05	2005/06	02/03	03/04	04/05	04/05	05/06	04/05	05/06	2004/05	2005/06	2004/05	2004/05	03/04	04/05	05/06	03/04	04/05	05/06	02/03	03/04	04/05	02/03	03/04	04/05	04/05
36	Parkes	185	191	230	55	53	93	O	P		95		P	17		3860	3970	4095	185	191	230	209	210	226	1.7	6.5	2.4	4,600
42	Corowa	270	290	295	111	121	142	P	P			P	P	14		1290	1270	1270	270	290	295	298	298	318	0.2	-0.5	0.5	4,200
38	Moree Plains	530	580	620	137	104	96	P	P	100	100	P	P		40	700	3000	3000	530	580	620	488	501	548	-0.6	1.6	3.5	4,200
44	Gunnedah	230	237	245	58	71	82	P	P			O	P	5		1950	1950	1950	230	237	245	225	217	223	2.0	1.7	-0.6	4,000
46	Narrabri	296	316	463	298	65		P	P			P	P	6		1880	1880	1880	296	316	463	289	264	294	-0.6	-1.3	-1.9	3,800
43	Tumut	470	488	455	111	105	92	P	P		116	P	P	25		3400	3610	3610	470	488	455	429	437	460	1.3	1.5	1.5	3,700
49	Young	280	315	330	57	54	58	P	P			P	P	20		700	700	1000	280	315	330	221	273	275	6.8	11.4	15.4	3,400
39	Cowra	265	290	403	72	81	110	P	P			P	P	28		2500	2650	2650	265	290	403	273	279	313	4.2	5.9	3.8	3,400
45	Upper Hunter	309	320	330	89	94	110	P	P	60	62	P	P	11		1850	1900	2300	309	320	330	298	310	373	-2.2	0.5	1.7	3,400
52	Snowy River	+306+usag	316+usag	422+usag	149	140		P	P	56	107	O				2500	2500	2500	341	525	540	412	383		3.8	3.1		3,300
51	Forbes	456	472	488	81	110	133	O	O			P	P		9	650	650	650	456	472	488	384	378	402	7.7	5.4	3.7	3,200
50	Cooma-Monaro	453	485	509	178	233	257	P	P			P	P	19		1870	1910	1910	453	485	509	424	445	482	0.5	0.2	0.0	3,200
53	Berrigan	290	310	320	110	132	138	P	P					15			1700	1700	290	310	320	311	313	319	-0.4	-0.8	-0.3	3,000
	LWUs with 1,501 - 3,000 Properties																											
48	Leeton	84	125	170	76	75	74	O	O			P	P		41	3100	3150	3200	84	125	170	407	492	503	9.7	4.7	1.9	3,000
54	Deniliquin	418	439	461	82	105	120	P	P			O			23	600	600	600	418	439	461	383	404	427	0.0	0.8	1.9	2,900
47	Bellingen	438	438	453	137	133	120	P	P	102	105	P	P	12		3810	3700	3800	438	438	453	409	422	419	0.1	-0.3	-0.7	2,900
60	Glen Innes Severn	275	260	350	108	74		P	P			O						1860	275	260	350	288	302		4.2	5.0		2,800
58	Cootamundra	173	208	233	42	68	72	O	O			O	O		1	700	700	700	173	208	233	195	206	257	-5.3	-8.8	-3.6	2,600
57	Wellington	430	450	475	118	138	148	O	P		90	O		12		1850	1910	1910	430	450	475	435	469	463	3.9	5.4	4.8	2,500
91	Cabonne	539	577	460	153	121	124	O	P		118	O	P	10					539	577	460	441	455	485	2.4	3.8	7.0	2,300
80	Greater Hume	236	245	245	137	104	105	O	O			O	O			2930	2930	5500	236	245	245	259	263	290	-0.3	-0.1	-0.1	2,200
59	Lachlan	300	300	310	53	65	80	P	P			O	O	19	15				300	300	310	270	270	268	1.0	0.3	2.4	2,200
65	Murray	318	318	318	83	75	84	P	P			P	P	24		700	700	700	318	318	318	365	399	361	1.9	2.9	2.8	2,100
62	Narromine	417	440	460	171			P	P				P	7		940	940	940	417	440	460	410	408	433	-1.7	-0.8	-0.7	2,100
56	Yass Valley	355	370	475	133	113	144	P	P			O	O	1		2500	4060	4160	355	370	475	388	433	462	6.7	11.5	10.2	2,000
61	Liverpool Plains	289	299	292	76	88	98	P	P			P	P	11		600	610	610	289	299	292	321	321	291	0.4	0.8	-1.4	1,900
55	Warrumbungle	330	345	342	112	124	92	P	P			O	O			550	685	685	330	345	342	338	344	321	0.9	-1.0	-2.4	1,900
69	Temora	156	170	187	62	86	93	P	P			O	O	5				150	156	170	187	119	131	142	-2.7	-0.2	-1.1	1,900
71	Palerang	585	595	692	173	173		P	P			O	O			2200	2320	3600	585	595	692	440	450		2.0	2.1		1,800
72	Bland	361	373	392	107	148	158	O	O			O	O	22		1000	1000	1000	361	373	392	382	414	370	0.3	0.7	1.0	1,700
63	Narrandera	330	350	375	70	92	102	O	O				O	19	12				330	350	375	395	454	450	1.8	1.8	5.7	1,700
67	Cobar	192	225	230	36	77	83	P	P			O	O			770	770	770	192	225	230	187	184	221	-2.4	-0.2	-4.6	1,600
74	Wentworth	350	370	400	75	68	71	P	P			O			8	2200	2200	2700	350	370	400	348	396	394	0.5	0.7	-0.6	1,600
75	Coonamble	244	244	295	84	81	92	O	P		70	O		9					244	244	295	282	292	235	-3.4	-3.5	-5.2	1,600
	LWUs with 200 - 1,500 Properties																											
70	Kyogle	+ 412	474	490	235	253	153	P	P	82	85	P	P	8		1000	1000	1000	412	474	490	342	368	434	-1.6	-1.3	-0.2	1,500
77	Junee	283	283	293	118	138	127	P	P			P	P	18		550	550	550	283	283	293	272	289	294	2.2	0.2	1.3	1,500
78	Blayney	396	410	440	123	169	148	P	P		50	P	P	14	15	1150	1930	2000	396	410	440	456	467	495	4.4	3.6	3.3	1,500
79	Walgett	274	274	285	54	58		P	P			O	O	8					274	274	285	340	361	364	-2.7	-2.7	-1.7	1,400
68	Tenterfield	312	325	350	182	182	205	P	P			O	P	21		1500	1500	1500	312	325	350	331	346	365	-2.2	1.9	-3.7	1,400
84	Gilgandra	256	295	345	69	61	75	P	P	30	35	P	P	15	12				256	295	345	180	230	243	-4.0	-0.9	-1.3	1,300

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

	WATER UTILITY	RESIDENTIAL CHARGES/OMA																RESIDENTIAL BILLS						COST RECOVERY				
		Access Charge (or Minimum) ($) (1)			Operating Cost (OMA) (c/kL) (2)			Access Charge Independent of Land Value ? Yes/No (3)		Non-residential Sewer Usage Charge (Not incl SDF) c/kL (3a)		Does Council Have Liquid Trade Waste Fees and Charges* ? (4)		Non-Res & Trade Waste Charges (% of Annual rates & Charges) (5)	Non-Res & Trade Waste Volume (% of Sewage Collected) (6)	Typical Developer Charge ($/Equivalent Tenement [ET]) (7)			Typical Residential Bill ($/assessment) (8)			Average Residential Bill ($/assessment) (9)			Economic Real Rate of Return (%) (11)			Connected Properties (No.) (12)
		2003/04	2004/05	2005/06	02/03	03/04	04/05	04/05	05/06	04/05	05/06	2004/05	2005/06	2004/05	2004/05	03/04	04/05	05/06	03/04	04/05	05/06	02/03	03/04	04/05	02/03	03/04	04/05	04/05
73	Upper Lachlan	441	469	500	156	169	132	O	P		92	P	P	2	17	590	900	1500	441	469	500	416	433	431	0.0	0.6	0.3	1,300
82	Gloucester	370	325	325	139	176	208	P	P		100	P	P	11		1770	5550	5750	370	325	325	352	371	337	5.1	0.9	12.2	1,300
87	Bourke	449	459	475	77	203	112	P	P			O	P	8		460	460	460	449	459	475	517	501	533	-1.5	-10.4	-1.1	1,300
86	Hay	354	363	376	82	85	120	P	P		50		O	13					354	363	376	355	366	366	-2.1	-1.2	-1.8	1,300
83	Oberon	269	278	249	125	124	113	O	P		37	P	P	26		1200	1270	1305	269	278	249	274	271	281	-3.2	-2.0	0.7	1,200
81	Gwydir	344	393	458	29	44		P	P		240	P	P						344	393	458	265	275		-4.6	-5.3		1,100
64	Dungog	342	360	378	92	121	105	P	P			O	P	15		2870	2870	2950	342	360	378	400	421	443	5.7	12.8	10.3	1,000
85	Uralla	412	400	410	181	167	192	P	P	100	100	P	P	14				340	412	400	410	394	394	403	-1.8	0.0	0.7	1,000
95	Weddin	152	157	162	75	61	84	P	P			O	O	8					152	157	162	122	117	126	-13.8	-12.5	4.2	1,000
89	Bogan	358	370	370	40	66	68	O	P			O	O	4					358	370	370	417	432	450	4.3	4.9	3.9	980
76	Harden	301	331	363	110	110	150	P	P			O	O	7					301	331	363	260	287	312	-7.0	-1.8	-12.0	960
88	Wakool	410	420	420	190	342		P	P			O	O	24					410	420	420	438	448	454	3.2	1.6	2.7	960
93	Tumbarumba	342	354	354	82	69	84	P	P		75	O	O	15		420	430	430	342	354	354	305	312	349	-5.4	-4.0	2.2	910
94	Gundagai	227	195	205	197	194			P		95	P	P	32					227	195	205	210	270	166	-0.3	0.5	-1.2	870
92	Carrathool	151	200	207	130	163	86	P	P				O			536	550	570	151	200	207	129	143	143	12.5	-5.0	-1.7	840
96	Warren	465	465	465	83	100	120	P	P			P	P	21					465	465	465	454	480	482	3.8	4.7	3.6	810
99	Coolamon	240	240	240	61	190	152	P	P			O	O	18					240	240	240	284	300	***300***	0.8	2.3	11.3	810
102	Lockhart	121	125	337	115	107	91	O	P		147	O	O	15				1000	121	125	337	364	370	356	0.1	0.2	-0.2	770
98	Walcha	267	292	335	120	81	98	P	P		80	O	P						267	292	335	246	253	267	-3.3	-3.1	-2.6	760
100	Balranald	325	325	336	32	49	46	P	P		14	O	O	13		680	680	680	325	325	336	404	409	396	1.0	0.5	0.5	760
97	Bombala	345	357	390	84	74	89	O	P		14	O	P	18	5	1530	1640	1710	345	357	390	410	424	426	3.0	4.9	4.7	750
101	Murrumbidgee	346	346	346	123	58	59	O	O			O	O	6		1000	1000	1000	346	346	346	265	260	257	2.7	3.2	3.1	720
90	Guyra	500	500	500	75	140	117	P	P			O	O	17					500	500	500	519	517	524	1.8	1.2	1.1	700
104	Boorowa	187	212	247	78	104	120	P	P			O	O	4		500	500	500	187	212	247	154	178	203	-2.4	-1.4	-1.2	530
105	Brewarrina	383	414	447	85	104	90	O	O			O	O	22					383	414	447	333	361	448	-0.5	-3.7	-1.2	460
106	Jerilderie	475	520	520	125	118	143	O	P		55		O	2		650	900	900	475	478	520	257	269	314	5.6	7.1	6.6	420
103	Central Darling	390	350	300	75	44	88	P	P			O				400	400	400	390	350	300	292	289	372	-0.4	-0.2	-1.5	340
107	Urana	180	189	195	76		93	P	P			O				4100	4100	4100	180	189	195	460	460	455	1.0	0.0	0.3	300

NOTE: Bills and Charges are in Dollars of the Year 2005

Table 7A - Sewerage - 2005/06 Residential Multiple Tariffs

WATER UTILITY		Town	Access Charge (or Minimum) ($) (1)	Access Charge Independent of Land Value ? (2)	
53	Berrigan	Berrigan, Finley & Tocumwal	320		P
		Barooga	214	O	
78	Blayney	Blayney	440		P
		Millthorpe	680		P
87	Bombala	Bombala	390	O	
		Delegate	637	O	
105	Brewarrina	Brewarrina	447	O	
		Goodooga	194	O	
91	Cabonne	Molong	320		P
		Canowindra	460		P
		Eugora	420		P
		Manildra	500	O	
		Cudal, Cumnock, Yeoval	500	O	
92	Carrathool	Hilston	207		P
		Rankins Springs	174		P
75	Coonamble	Coonamble	295	O	
		Gulargambone	360	O	
42	Corowa	Corowa	295		P
		Mulwala	365		P
		Howlong	260		P
64	Dungog	Dungog	378		P
		Clarence	260	O	
60	Glen Innes Severn	Glen Innes	350		P
		Deepwater	474		P
20	Goulburn Mulwaree Council	Goulburn	471		P
		Marulan	605		P
80	Greater Hume	Burrumbuttock	450	O	
		Jindera	210	O	
		Holbrook	215	O	
		Culcairn	245		P
		Henty	162		P
		Walla Walla	270		P
44	Gunnedah	Gunnedah	245		P
		Curlewis	444		P
102	Lockhart	Lockhart	337		P
		The Rock	339		P
		The Rock west	330		P
32	Mid Western Regional Council	Mudgee & Gulgong	414		P
		Rylstone	444		P
38	Moree Plains Shire	Moree, Mungindi	620		P
		Balone	1560		P
		Bogabilla and Gurly	400		P
101	Murrumbidgee	Darlington Point	346	O	
		Coleambally	183	O	
46	Narrabri	Narrabri	463		P
		Wee Waa	456		P
		Boggabri	337		P
71	Palerang	Bungendore	692		P
		Braidwood	440		P
		Captaind Flat	630		P
68	Tenterfield	Tenterfield	350		P
		Urbenville	550		P
93	Tumbarumba	Tumbarumba	354		P
		Khancoban	375		P
45	Upper Humter Shire Council	Murrurundi	350		P
		Merriwa	300		P
		Aberdeen/Scone	330		P
73	Upper Lachlan Council	Crookwell	500		P
		Gunning	566		P
		Taralga	566		P
96	Warren	Warren	465		P
		Nevertire	490		P
55	Warrumbungle Shire Council	Coolah & Dunedo	303		P
		Coonabarabran	370	O	
		Baradine	623		P
57	Wellington	Wellington	475	O	
		Mumbli	455	O	
		Guerie	445	O	

NOTE: This Table only lists LWUs with multiple tariffs for residential customers. Residential tariffs for all LWUs are shown in Table 7.

Table 7B - Sewerage - 2005/06 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 (3)	Sewer Usage Charge (for estimated volume discharged to sewerage system = water usage x sewer discharge factor) (4)	Compliance with 2(b) of BPMG Yes/No (5)
11	Albury	Albury	186	P	Meter Size (eg 25mm:$289.52, 40mm:$742.28)+usage	185 c/kL	P
29	Armidale Dumaresq	Armidale	272	O	Multiple Units: $243/WC; Hotels, Motels: $88/WC, $32/Urinals		O
24	Ballina	Ballina	280+usage	P	Service connection size* (40mm $1120)	105 c/kL	P
100	Balranald	Balranald	285	P	Service connection size	14 c/kL	P
21	Bathurst Regional	Bathurst	307	P	Service Connection Size*(25mm:$480, 40mm:$1229)	78 c/kL	P
23	Bega Valley	Bega Valley	540	P	Meter size* (eg. 40mm $2160)	138 c/kL	P
47	Bellingen	Bellingen, Urunga, Dorrigo	453	P	Uniform Access Charge	105 c/kL	O
53	Berrigan	Berrigan, Finley & Tocumwal	320	P	Uniform Access Charge, after two WCs $70/WC		O
		Barooga	214	O	Uniform Access Charge, after two WCs $70/WC		
72	Bland	Bland	392	O	Land Value		O
78	Blayney	Blayney	392	P	Service connection size* (40mm $1568)	50 c/kL	P
		Millthorpe	636	P	Service connection size* (40mm $2544)	50 c/kL	
89	Bogan	Nyngan	370	P	Uniform Access Charge		O
97	Bombala	Bombala	390	P	Uniform Access Charge	14 c/kL	O
		Delegate	637	P	Uniform Access Charge	63 c/kL	
104	Boorowa	Boorowa	247	P	Uniform Access Charge		O
87	Bourke	Bourke	475	P	Uniform Access Charge		O
105	Brewarrina	Brewarrina	447	O	$25/Urinals, $60/WC up to 5, 5+ $25/WC		O
		Goodooga	194	O	$37.80/Urinals, $113.40/WC up to 5, 5+ $37.80/WC		
27	Byron	Byron	478	P	$478 for up to 1 kL/d of usage, $478 for each additional kL/d of usage	101 c/kL	P
91	Cabonne	Molong	320	P	Service connection size* (40mm $640)	118 c/kL	P
		Canowindra	460	P	Uniform Access Charge	118 c/kL	
		Eugora	420	P	Uniform Access Charge		
		Manildra	500	O	Land Value		
		Cudal, Cumnock, Yeoval	500	O	Land Value		
92	Carrathool	Hilston	207	P	Uniform Access Charge		O
103	Central Darling	Wilcannia	300	P	Uniform Access Charge for two fittings, $100/additional fitting		O
14	Clarence Valley		260	P	Service connection size* (40mm: $1040)	28 c/kL	P
67	Cobar		230	P	Uniform Access Charge for 3 WCs, additional $60/WC		O
10	Coffs Harbour	Coffs Harbour	572	P	Uniform Access Charge		O
99	Coolamon	Coolamon	240	P	Uniform Access Charge	for >2 Pedestals, $70/Pedestal	O
		Ganmain	240	P	Uniform Access Charge	for >2 Pedestals, $70/Pedestal	
50	Cooma-Monaro	Cooma,Nimmitabel	542	P	$542 for consumption < 100 kL, increasing to $12,875 for consumption > 8,000 kL		O
75	Coonamble	Coonamble	190	P	Uniform Access Charge	70 c/kL	O
		Gulargambone	250	P	Uniform Access Charge	75 c/kL	
58	Cootamundra	Cootamundra	233	O	Land Value		O
42	Corowa	Corowa	295	P	Uniform Access Charge	4 to 8 WC: $78/WC, 9 to 20 $52/WC,	O
		Mulwala	365	P	Uniform Access Charge	>20 WCs: $38/WC	
		Howlong	260	P	Uniform Access Charge		
26	Country Energy	Broken Hill	537	P	Service connection size* (40mm:$2146)	86 c/kL	P
39	Cowra	Cowra	403	P	Uniform Access Charge	$49/cistern	O
54	Deniliquin	Deniliquin	461	P	Uniform Access Charge		O
18	Dubbo	Dubbo	225	P	Service connection size* (40mm:$900)	120 c/kL	P
64	Dungog	Dungog	378	P	Uniform Access Charge	Hotels-Licensed Area & Clubs: $170/WC, $142/Urinal, Hotels- Guest Areas & Motels: $85/WC, $71/Urinal	O
		Clarence	260	O	Land Value		
15	Eurobodalla	Eurobodalla	482	P	Meter Size(Availability Factor based)* (eg. 40mm 4x$482)		O
51	Forbes	Forbes	488	O	Land Value		O
84	Gilgandra	Gilgandra	170	P	Service Connection Size*(40mm:$340)	35 c/kL	P
60	Glen Innes Severn	Glen Innes	350	P			O
		Deepwater	474	P	$158/pedestal over 3		
82	Gloucester	Gloucester	295	P	Service connection size* (40mm:$1180)	100 c/kL	P
1	Gosford	Gosford	364	P	Meter Size*(40mm $1087.68)	78 c/kL	P
76	Goulburn Mulwaree	Goulburn	261	P	Meter Size* (40mm:1044.57)	176 c/kL	P
		Marulan	747	P	Meter Size* (40mm:2986.24)	149 c/kL	

Table 7B - Sewerage - 2005/06 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 (3)	Sewer Usage Charge (for estimated volume discharged to sewerage system = water usage x sewer discharge factor) (4)	Compliance with 2(b) of BPMG Yes/No (5)
80	Greater Hume	Burrumbuttock	450	O	Land Value		O
		Jindera	210	O	Land Value		
		Holbrook	215	O	Land Value		
		Culcairn	245	P	Uniform Access Charge		
		Henty	162	P	Uniform Access Charge		
		Walla Walla	270	P	Uniform Access Charge		
30	Griffith	Griffith	340	O	Land Value		O
94	Gundagai	Gundagai	75+usage> 205	P	Service Connection*(eg 40mm:300)	95 c/kL	P
44	Gunnedah	Gunnedah	245	P	Uniform Access Charge		O
		Curlewis	444	P	Uniform Access Charge		
90	Guyra	Guyra	500	P	Uniform Access Charge	Ist WC/Urinal covered by rate, 2 to 6: $212/WC or Urinal, All additional: $106/WC or Urinal	O
81	Gwydir	Bingara, Warialda	341	P	Meter Size*(eg 40mm:1364)	240 c/kL	P
76	Harden	Harden	363	P	Uniform Access Charge		O
7	Port Macquarie-Hastings	Hastings	409	P	Uniform Access Charge	62 c/kL	O
30A	Hawkesbury	Category 1, Vol < 1kL/d	445	P	Uniform Access Charge	155 c/kL	O
		Category 2, Vol : 1kL to 5 kL/d	2230	P	Uniform Access Charge		
		Category 3, Vol < 5kL to 10 kL/d	4460	P	Uniform Access Charge		
		Category 4, Vol : 10kL to 20 kL/d	8910	P	Uniform Access Charge		
		Category 5, Vol > 20 kL/d	8910	P	Uniform Access Charge	for waste > 20 kL/d, 160c/kL	
86	Hay	Hay	308	P	Uniform Access Charge	50 c/kL	O
0	Hunter Water		432	P	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)	41 c/kL	
37	Inverell	Inverell, Ashford, Delungra, Gilgai	310	P	Uniform Access Charge		O
106	Jerilderie	Jerilderie	520	P	Service Connection(eg 40mm:1020)	55 c/kL	P
77	Junee	Junee	293	P	$73.60/WC, $28.30/Urinal		O
25	Kempsey	Kempsey	447	P	Meter Size*(eg 40mm:$1787)	126 c/kL	P
70	Kyogle	Kyogle	175	P	Service Connection Size*(40mm:$700)+Usage, (minimum $490 including Trade waste Charges)	85 c/kL	P
59	Lachlan	Lachlan	310	P	Uniform Access Charge		O
48	Leeton	Leeton	170	O	Land Value		O
22	Lismore	Lismore, Nimbin & Perradenya	443	P	Uniform Access Charge	110 c/kL	O
31	Lithgow	Lithgow,Wallerawang, Portland	450	P	Meter Size(50mm:$600)	98 c/kL	P
61	Liverpool Plains	Quirindi, Werris Creek	177	P	Service Connection Size*(40mm:$708))	126 c/kL	P
102	Lockhart	Lockhart	159	P	Meter Size*(40mm:$638)	147 c/kL	P
		The Rock	207	P	Meter Size*(40mm:$830)	108 c/kL	
		The Rock west	330	P	Uniform Access Charge		
5	MidCoast		425	P	Meter Size*(eg 40mm: $1700)	145 c/kL	P
32	Mid Western Regional	Mudgee & Gulgong	414	P	Uniform Access Charge		O
		Rylstone	444	P	Uniform Access Charge		
38	Moree Plains Shire	Moree, Mungindi	620	P	Meter Size(40mm:$1280)+usage	100 c/kL	P
		Balone	1560	P	Uniform Access Charge		
		Bogabilla and Gurly	400	P	Uniform Access Charge		
65	Murray	Moama, Mathoura	318	P	Uniform Access Charge		O
101	Murrumbidgee	Darlington Point	346	P	Land Value	93 c/kL	O
		Coleambally	183	O	Land Value		
41	Muswellbrook	Muswellbrook, Denman	180	O	Service Connection Size*(40mm:$720))	150 c/kL	P
34	Nambucca	Nambucca	360	P	Uniform Access Charge	$360/WC or occupancy	O
46	Narrabri	Narrabri	463	P	Uniform Access Charge	$69/Pedestal, $69/Cistern	O
		Wee Waa	456	P	Uniform Access Charge	$68/Pedestal, $68/Cistern	
		Bogabri	337	P	Uniform Access Charge	$51/Pedestal, $51/Cistern	
63	Narrandera	Narrandera	375	O	Land Value		O
62	Narromine	Narromine, Trangie	460	P	Uniform Access Charge	$115 for Motels, Carvan parks, Hotels; $230 for Flats Hostels & units	O
83	Oberon	Oberon	93	P	Service Connection Size*(38mm:$336))	37 c/kL	P
19	Orange	Orange	97	P	Service connection Size 40mm:$388.36+Usage	128 c/kL	P
71	Palerang	Bungendore	692	P	Uniform Access Charge		O
		Braidwood	440	P	Uniform Access Charge		
		Captaind Flat	630	P	Uniform Access Charge		

Table 7B - Sewerage - 2005/06 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 (3)	Sewer Usage Charge (for estimated volume discharged to sewerage system = water usage x sewer discharge factor) (4)	Compliance with 2(b) of BPMG Yes/No (5)
36	Parkes	Parkes	230	P	Meter Size*	95 c/kL	P
17	Queanbeyan	Queanbeyan	230	P	Service Connection Size (40mm:$1000)	50 c/kL	P
33	Richmond Valley	all	215	P	Service Connection Size(40mm:$860), C=Water Cons in kL, SDF=0.95	60 c/kL	P
3	Shoalhaven	Shoalhaven	515	P	Meter Size (40mm:$1152))	80 c/kL	P
35	Singleton	Singleton	336	P	Uniform Access Charge	for more than 2 WCs: $150/WC, $82/Urinal	O
52	Snowy River	Snowy River	422	P	Uniform Access Charge+usage	107 c/kL	O
0	Sydney Water		347	P	Meter Size* (eg. 40mm: $1,280, 100mm: $7,980, 300mm: $71,800)	for waste > 500kL/a, 119 c/kL	
13	Tamworth	Tamworth	470	P	Uniform Access Charge	$62/Additional unit (motels/hotels/Club), $181/Additional unit (other)	O
69	Temora	Temora	187	P	Uniform Access Charge	up to 3 WCs	O
68	Tenterfield	Tenterfield	350	P	Uniform Access Charge	$116.67/WC for Motels, $175/WC for Parks/Guest Houses/Clubs/Hotels	O
		Urbenville	550	P	Uniform Access Charge		
93	Tumbarumba	Tumbarumba	354	P	Meter Size (40mm:$816))	75 c/kL	P
		Khancoban	375	P	Meter Size (40mm:$816))	75 c/kL	
43	Tumut	Tumut	431	P	Meter Size* (40mm:$1724))	116 c/kL	P
6	Tweed	Tweed	445	P	Uniform Access Charge	for waste > 300kL/a, 69 c/kL	O
45	Upper Hunter	Murrurundi	400	P	Meter Size (40mm $800)	62 c/kL	P
		Merriwa	400	P	Meter Size (40mm $800)	62 c/kL	
		Aberdeen/Scone	400	P	Meter Size (40mm $800)	62 c/kL	
73	Upper Lachlan	Crookwell	500	P	Uniform Access Charge	92 c/kL	O
		Gunning	566	P	Uniform Access Charge	50 c/kL	
		Taralga	566	P	Uniform Access Charge		
85	Uralla	Uralla	275	P	Uniform Access Charge	100 c/kL	O
107	Urana		195	P	Uniform Access Charge		
9	Wagga Wagga	Wagga Wagga	616	P	Access charge includes first 4 pan equivalent fixtures. Additional $77/equivalent fixture	62 c/kL	O
88	Wakool	Wakool, Barham, Moulamein, Tooleybuc, M	420	P	Hotels: SC+20%SC/Cistern+10%SC/Room, Clubs: SC+20%SC/Cistern, Shops/Motels/Units: SC+10%SC		O
98	Walcha	Walcha	450	P	Meter Size* (40mm $450x4)	80 c/kL	P
79	Walgett		285	O	Uniform Access Charge	$285.20/Pedestal, $44.60/Cistern	O
96	Warren	Warren	465	P	Uniform Access Charge	$233/WC	O
		Nevertire	490	P	Uniform Access Charge		
55	Warrumbungle	Coolah & Dunedo	303	P	Uniform Access Charge		O
		Coonabarabran	370	O	Base $120+ Land Value		
		Baradine	623	P	Uniform Access Charge		
95	Weddin	Grenfell	162	P	Uniform Access Charge		O
57	Wellington	Wellington, Mumbli, Guerie	450	P	Meter Size* (40mm $1800)		O
74	Wentworth	Wentworth, Nimatjira	400	P	Uniform Access Charge		O
16	Wingecarribee	Wingecarribee	402+Usage	P	Meter Size* (40mm:$1606)	40 c/kL	P
2	Wyong	Wyong	133	P	Meter Size* (40mm:$530.12)	66 c/kL	P
56	Yass Valley	Yass	475	P	Uniform Access Charge		O
49	Young	Young	330	P	Uniform Access Charge	after 2 WCs, $165/WC	O

Table 7C - Sewerage - 2005/06 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 meter (3)	Usage/Additional Charges (for estimated volume discharged to sewer = water usage x sewer discharge factor) (4)	Reduction+ for Non-rateable properties
11	Albury	Albury		186	P	Meter Size (eg 25mm:$289.52, 40mm:$742.28)	185 c/kL	N
29	Armidale Dumaresq	Armidale	Churches & Hospitals	Nil		$40/WC, $32/Urinal		L
			Others	Nil		$88/WC, $32/Urinal		
24	Ballina	Ballina	Hospitals, Schools and Churches	280	P	Service Connection Size* (40mm:$1120)	105 c/kL	N
100	Balranald	Balranald		285	P			N
21	Bathurst Regional	Bathurst	Schools and Churches excluding church resid	307	P	Service Connection Size*(25mm:$480, 40mm:$1229)	78 c/kL	N
23	Bega Valley	Bega Valley	Nursing Homes & Public Hospitals	540	P	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	138 c/kL, Discharge Factor 76%, Sporting Complex 26%	L
			Non-Profit Community Organisations	Nil			138 c/kL	L
			Religious Bodies	Nil			138 c/kL	
47	Bellingen	Bellingen, Urunga, Dorrigo		453	P	Uniform Access Charge	105c/kL, 400kL allowance if charge is levied, else 0 kL	N
53	Berrigan	Berrigan, Finley & Tocumwal		Nil	P	$70 per cistern/toilet		L
		Barooga		Nil	P	$70 per cistern/toilet		
72	Bland	Bland			O	$73.50/WC, $21/Cistern		L
78	Blayney	Blayney	all	392	P	Service connection size* (40mm $1568)	50 c/kL	N
		Millthorpe	all	636	P	Service connection size* (40mm $2544)	50 c/kL	
89	Bogan	Nyngan	all	370	P	Uniform Access Charge		S
97	Bombala	Bombala		390	P	Uniform Access Charge	14 c/kL	N
		Delegate		637	P	Uniform Access Charge	63 c/kL	
104	Boorowa	Boorowa		247	P	Uniform Access Charge		N
87	Bourke	Bourke		475	P	Uniform Access Charge		N
105	Brewarrina	Brewarrina		447	O	$25/Urinals, <5 WC $60/WC, >5 $25/WC		N
		Goodooga		194	O	$37.80/Urinal, <5 WC $113.40/WC, >5 $37.80/WC		
27	Byron	Byron		478	P	<1kL/d usage $478, $478 each additional kL/d	81 c/kL	N
91	Cabonne	Molong		320	P	<1kL/d usage $478, $478 each additional kL/d	118 c/kL	N
		Canowindra		460	P	Service connection size* (40mm $640)	118 c/kL	
		Eugora		420	P	Uniform Access Charge		
		Manildra		500	O	Uniform Access Charge		
		Cudal, Cumnock, Yeoval		500	O	Land value		
92	Carrathool	Hilston, Goolgowi	Police Stations, Hospitals, Schools, etc	Nil	P	Land value		L
			Churches	Nil	P	$34/WC, $17/Urinals		
103	Central Darling	Wilcannia		390	P	Uniform Access Charge for two fittings, $90/additional fitting		N
14	Clarence Valley			260	P	Service connection size* (40mm: $1040)	28 c/kL	
67	Cobar			Nil	P	Uniform Access Charge For > 3 WCs, additional $60/WC		N
10	Coffs Harbour	Coffs Harbour	Schools/Church	Nil		$40/WC or Cistern		L
			Other Non-Rateables	Nil		$64/WC or Cistern		
75	Coolamon	Coolamon		240	P	for greater than 2 toilets, $70/WC		N
		Ganmain		240	P	for greater than 2 toilets, $70/WC		
50	Cooma-Monaro	Cooma		509	P			N
75	Coonamble	Coonamble		190	P	Uniform Access Charge	70 c/kL	N
		Gulargambone		250	P	Uniform Access Charge	75 c/kL	
58	Cootamundra	Cootamundra	Schools/Churches	Nil		$71.05/Pedestal		L
			Other Non-Rateables			$136.50/Pedestal, $57.45/Urinal		

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

Table 7C - Sewerage - 2005/06 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 meter (3)	Usage/Additional Charges (for estimated volume discharged to sewer = water usage x sewer discharge factor) (4)	Reduction[+] for Non-rateable properties
42	Corowa	Corowa				$78/WC, $38/Urinal		N
		Mulwala						
		Howlong						
26	Country Energy	Broken Hill	State Schools, Religious bodies				86 c/kL	L
39	Cowra	Cowra		403	P	Uniform Access Charge	$49/cistern	N
54	Deniliquin	Deniliquin	Schools & Churches	Nil	P	$50/WC $38/Cistern		S
			Others	Nil	P	$96/WC $38/Cistern		
18	Dubbo	Dubbo	All Non-Rateable	225	P			N
64	Dungog	Dungog	Schools & Churches	Nil		$170/WC, $142/Urinal		S
			Nursing Homes			$85/WC		
			Others			$339/WC, $142/Urinal		
15	Eurobodalla	Eurobodalla		482	P	Meter Size(Availability Factor based)* (eg. 40mm 4x$482)		N
51	Forbes	Forbes	All Non-Rateable					L
84	Gilgandra	Gilgandra		170	P	Service Connection Size*(40mm:$340)	35 c/kL	N
60	Glen Innes Severn	Glen Innes		350	P			N
		Deepwater			P	$84/Pedestal		L
82	Gloucester	Gloucester	Schools,Churches	325		Uniform Access Charge+Volumetric Charge	100 c/kL	N
1	Gosford	Gosford		364	P	Meter Size*(40mm $1087.68)	78 c/kL	L
20	Goulburn Mulwaree Council	Goulburn		Nil		Meter Size* (40mm:1044.57)	176 c/kL	N
		Marulan		Nil		Meter Size* (40mm:2986.24)	149 c/kL	
80	Greater Hume	Henty, Culcairn, Walla Walla	Schools	Nil		$29/WC, $22/Cistern		L
			Others	Nil		$55/WC, $22/Cistern		
		Holbrook	All			1st $69.70/WC or Urinal, additional $11.80		
		Burrumbuttock, Jindera	All			2nd $60/WC, $25/Urinal		
30	Griffith	Griffith	Churches	Nil		$65/WC or Urinal		L
			Schools	Nil		$80/WC & $70/Urinal		
			Others	Nil		$105/WC & $75/Urinal		
94	Gundagai	Gundagai	All Non-Rateable	75+usage>=205		Service Connection*(eg 40mm:$300)	95 c/kL	N
44	Gunnedah	Gunnedah, Curlewis	Schools and Churches	Nil		$45/WC & $40/Urinal		S
			Others	Nil		$85/WC & $40/Urinal		
90	Guyra	Guyra	All Non-Rateable			$106/WC or Urinal		L
81	Gwydir	Bingara, Warialda		341	P	Meter Size*(eg 40mm:$1364)	240 c/kL	N
76	Harden	Harden	Schools and Residences, Religious bodies			$75/WC, $60/Cistern		S
			Others			$150/WC, $60/Cistern		
7	Port Macquarie-Hastings	Hastings	Churches and halls	263	P	Uniform Access Charge	62 c/kL	S
			Others	326	P			
30A	Hawkesbury	Category 1, Vol < 1kL/d		445	P	Uniform Access Charge		N
		Category 2, Vol : 1kL to 5 kL/d		2230		Uniform Access Charge		
		Category 3, Vol < 5kL to 10 kL/d		4460		Uniform Access Charge		
		Category 4, Vol : 10kL to 20 kL/d		8910		Uniform Access Charge		
		Category 5, Vol > 20 kL/d		8910		Uniform Access Charge	if waste generated > 20 kL/d, 160 c/kL	
86	Hay	Hay		308	P	Uniform Access Charge	50 c/kL	N
22	Hunter Water			432	P	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)	41 c/kL	
31	Inverell	Inverell, Ashford, Delungra, Gilgai	Schools	Nil		$35/WC, $35/Urinal		S
			Other	Nil		$70/WC, $35/Urinal		

[+]L: Large Reduction in comparison with non-residential tarrif
S: Significant Reduction in comparison with non-residential tarrif
N: No Reduction

Table 7C - Sewerage - 2005/06 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 meter (3)	Usage/Additional Charges (for estimated volume discharged to sewer = water usage x sewer discharge factor) (4)	Reduction[+] for Non-rateable properties
106	Jerilderie	Jerilderie	Schools, etc	Nil		$37/WC, $35/Urinal		L
			Others	Nil		$70/WC, $40/Urinal		
77	Junee	Junee	School, Churches and Hospitals	Nil	P	$33/WC, $25/Urinal		S
			Aged Care Hostel/Unit	Nil	P	$50.10/Unit		
			Others	Nil	P	$73.60/WC, $28.30/Urinal		
25	Kempsey	Kempsey	All	447	P	Meter Size*(eg 40mm:$1787)	126 c/kL	S
70	Kyogle	Kyogle,Wooden Bong, Bonalbo		175	P	Service Connection Size*(40mm:$700)	85 c/kL	N
59	Lachlan	Lachlan	Schools			$40/WC, $30/Urinal		L
			Others			$70/WC, $30/Urinal		
48	Leeton	Leeton	Churches &Schools	Nil		$83.60/WC, $33.40/Cistern		L
			Others	Nil		$41.80/WC, $33.40/Cistern		
22	Lismore	Lismore, Nimbin & Perradenya		443	P	Uniform Access Charge		N
31	Lithgow	Lithgow,Wallerawang, Portland		450	P	Meter Size(eg: 50mm:$600)		N
61	Liverpool Plains Shire Council	Quirindi, Werris Creek	All	177	P	Service Connection Size*(40mm:$708))		N
102	Lockhart	Lockhart		159	P	Meter Size*(40mm:$638)	147 c/kL	L
		The Rock		207	P	Meter Size*(40mm:$830)	108 c/kL	
		The Rock west		330	P	Uniform Access Charge		
5	MidCoast			425	P	Meter Size*(eg 40mm: $1700)	145 c/kL	N
32	Mid Western Regional Council	Mudgee & Gulgong		414	P	Uniform Access Charge		N
		Rylstone		444	P	Uniform Access Charge		
38	Moree Plains Shire	Moree, Mungindi		620	P	Meter Size(40mm:$1280)+usage	100 c/kL	N
		Balone		1560	P	Uniform Access Charge		
		Bogabilla and Gurly		400	P	Uniform Access Charge		
65	Murray	Moama, Mathoura	Church	318	P	Uniform Access Charge		N
			Schools	318	P	$317.95/25 children		
101	Murrumbidgee	Darlington Point		346		Land Value		N
		Coleambally		183		Land Value		N
		Churches	Churches	25				L
41	Muswellbrook	Muswellbrook, Denman	Schools, Religious Bodies	Nil	P	$50.15/WC, $41/Cistern		L
			Others	Nil	P	$101/WC, $41/Cistern		
34	Nambucca	Nambucca	State Schools		P	$100/WC, $100/Urinal		L
			Religious bodies & Others		P	$80/WC, $80/Urinal		
46	Narrabri	Narrabri		463	P	$69/Pedestal, $69/Cistern		N
		Wee Waa		456	P	$68/Pedestal, $68/Cistern		
		Bogabri		337	P	$51/Pedestal, $51/Cistern		
63	Narrandera	Narrandera	Schools	Nil		$57/WC, $45/Urinal		L
			Religious bodies			$57/WC, $45/Urinal		
			All others			$107/WC, $45/Urinal		
62	Narromine	Narromine, Trangie	Schools and Religious Bodies			$50/WC, $45/Urinal		S
			Others			$100/WC, $45/Urinal		
83	Oberon	Oberon	Non-Rateable	93	P	Service Connection Size*(38mm:$336))	37 c/kL	N
19	Orange	Orange	All	97	P	Service connection Size 40mm*:$388.36+Usage	128 c/kL	N
71	Palerang	Bungendore		692	P	Uniform Access Charge		N
		Braidwood		440	P	Uniform Access Charge		
		Captaind Flat		630	P	Uniform Access Charge		
36	Parkes	Parkes	Chrches	Nil		Minimum charge $117.50	95 c/kL	L
17	Queanbeyan	Queanbeyan	Schools and Churches			$50/WC		L
33	Richmond Valley	Richmond		(215+(1.38xC))xSDF	P			N
3	Shoalhaven	Shoalhaven		515	P	Meter Size (40mm:$1152))	80 c/kL for >100kL/a	N
35	Singleton	Singleton	Non-Rateable Properties	Nil		$41.60/WC and $30/Urinals		L
16	Snowy River	Snowy River		422	P	Uniform Access Charge	107 c/kL	N

[+]L: Large Reduction in comparison with non-residential tarrif
S: Significant Reduction in comparison with non-residential tarrif
N: No Reduction

Table 7C - Sewerage - 2005/06 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 meter (3)		Usage/Additional Charges (for estimated volume discharged to sewer = water usage x sewer discharge factor) (4)	Reduction[+] for Non-rateable properties
2	Sydney Water			328	P	Meter Size* (eg. 40mm: $1,280, 100mm: $7,980, 300mm:		106 c/kL for discharges over 500kL/a	
13	Tamworth	Tamworth		Nil	P		$62/WC or Urinal		S
69	Temora	Temora		187	P		up to 3 WCs		N
68	Tenterfield	Tenterfield	Schools, Churches & Community Managed s	Nil			$55/WC, $45/Cistern		L
			Others				$102/WC, $45/Cistern		
93	Tumbarumba	Tumbarumba		354	P	Meter Size (40mm:$816))			N
		Khancoban		375	P	Meter Size (40mm:$816))			
43	Tumut	Tumut	All	431	P	Meter Size* (40mm:$1724))		116 c/kL	N
6	Tweed	Tweed	All	445	P	Uniform Access Charge		>300kL @ 69 c/kL	N
45	Upper Hunter Shire Council	Murrurundi		400	P	Meter Size (40mm $800)		62 c/kL	N
		Merriwa		400	P	Meter Size (40mm $800)		62 c/kL	
		Aberdeen/Scone		400	P	Meter Size (40mm $800)		62 c/kL	
73	Upper Lachlan Council	Crookwell		500	P	Uniform Access Charge		92 c/kL	N
		Gunning		566	P	Uniform Access Charge		50 c/kL	
		Taralga		566	P	Uniform Access Charge			
85	Uralla	Uralla		275	P	Uniform Access Charge		100 c/kL	N
107	Urana			195		Uniform Access Charge			N
9	Wagga Wagga	Wagga Wagga		616	P		Includes up to 4 pan equivalent fixtures. Additional $77/equivalent fixture		N
88	Wakool	Barham, Moulamein, Murray Downs, Tooleyb	Churches	Nil			15% of SC per cistern		L
			Hospitals/Nursing homes				1xSC+15% of SC per cistern		
			Others				1xSC		
98	Walcha	Walcha		450		Meter Size* (40mm $450x4)		80 c/kL	N
79	Walgett			285	P		$285.20/Pedestal, $44.60/Cistern		N
96	Warren	Warren		465	P				N
		Nevertire		490	P				
55	Warrumbungle Shire Council		Schools & Hospitals	Nil			$77.65/WC, $39.35/Urinal		L
			Others	342					L
95	Weddin	Grenfell	Schools, Religious Bodies	Nil	P		$41/WC, $34/Cistern		N
			Others	Nil	P		$75/WC, $34/Cistern		
57	Wellington	Wellington, Mumbli, Guerie	All	450	P	Meter Size* (40mm $1800)			N
74	Wentworth	Wentworth, Nimatjira	Church	Nil	P		$40/WC, $38Urinal		L
			Others	Nil	P		$75/WC, $38Urinal		
16	Wingecarribee	Wingecarribee		402+Usage	P	Meter Size*		40 c/kL	N
2	Wyong	Wyong		133	P	Meter Size* (40mm:$530.12)		66 c/kL	N
56	Yass Valley	Yass	All	475					N
49	Young	Young	Schools and associated residences/churches	Nil	P		$82.50/WC, $66/Urinal		S
			Church residences and Others	Nil			$165/WC, $66/Urinal		

[+]L: Large Reduction in comparison with non-residential tarrif
S: Significant Reduction in comparison with non-residential tarrif
N: No Reduction

Table 7D - Sewerage - Liquid Trade Waste Fees and Charges (2005/06)

	WATER UTILITY	Does LWU have complying Liquid Trade Waste Policy* ? (1) 2004/05	Does LWU have complying Liquid Trade Waste Policy* ? (2) 2005/06	Complying Trade Waste Fees & Charges (Yes/No) (3)	All liquid trade waste approvals (Yes/No) (4)	ANNUAL TRADE WASTE FEE ($) Category 1 (5)	Category 1A [Prescribed pretreatment with low impact] (6)	Category 2 (7)	Category 3 (8)	Reinspection Fee $/inspection Cat/1/2/3 (9)	Category 2 Trade Waste Usage Charge (c/kL) (10)	Excess Mass Charge (c/kg) BOD (11)	Suspended Solids (12)	Oil & Grease (13)	Non-compliance Excess Mass Charge for BOD (Yes/No) (14)
11	Albury City	P	P	Yes	Yes						124	26	16	41	
29	Armidale Dumaresq	O		No	Yes	50	100	222	554			50	63	70	
24	Ballina	P	P	Yes	Yes	60	60	60	60	90	93	45	95	200	Yes
100	Balranald	O	O	No											
21	Bathurst Regional	O	P	No		471					55				
23	Bega Valley	O	P	No											
47	Bellingen	P	P	Yes		80				90					
53	Berrigan	P	P	No											
72	Bland	O	O	No											
78	Blayney	P	P	Yes	Yes	160		160	265			44	43	85	
89	Bogan	O	O	No											
97	Bombala	O	P	No											
104	Boorowa	O	O	No											
87	Bourke	O	P	No											
105	Brewarrina	O	O	No											
27	Byron	P	P	Yes	Yes	196									
91	Cabonne	O	P	No											
92	Carrathool	O		No											
103	Central Darling	O		No											
40	Central Tablelands (No Sge)														
14	Clarence Valley	P	P												
67	Cobar	O	O	No	Yes										
66	Cobar WB														
10	Coffs Harbour	P	P	Yes		150									
99	Coolamon	O		No											
50	Cooma-Monaro	P	P	Yes											
75	Coonamble	O		No											
58	Cootamundra	O	O	No											
42	Corowa	P	P	No											
26	Country Energy	P	P	No		139		440		139					
39	Cowra	P	P	Yes											
54	Deniliquin	O		No											
18	Dubbo	P	P	Yes	Yes	112	112	588	588	129		105	86	190	
64	Dungog	O	P	No								110	110	110	
15	Eurobodalla	P	P	No	Yes	64			400						
12	Fish River WS (No Sge)														
51	Forbes	P	P	Yes		250	250								
84	Gilgandra	P	P	Yes	Yes										
60	Glen Innes Severn	O		Yes											
82	Gloucester	P	P		Yes					82					
28A	Goldenfields (Reticulator) (No Sge)														
1	Gosford	P	P	Yes	Yes	179				112		130	130	668	
20	Goulburn Mulwaree	P	P	No	Yes										
80	Greater Hume	O	O	Yes											
30	Griffith	P	P	Yes	Yes	60		64	430	60			103		
94	Gundagai	P	P	No											
44	Gunnedah	O	P												
90	Guyra	O	O		Yes										
81	Gwydir	P	P	No											
76	Harden	O	O	Yes											
7	Port Macquarie-Hastings	P	P	Yes	Yes	108		108	464	65		58	74	105	
30A	Hawkesbury	P	P	No											
86	Hay		O		Yes										
	Hunter Water	P	P	Yes											

Table 7D - Sewerage - Liquid Trade Waste Fees and Charges (2005/06)

	WATER UTILITY	Does LWU have complying Liquid Trade Waste Policy* ? (1) 2004/05	Does LWU have complying Liquid Trade Waste Policy* ? (2) 2005/06	Complying Trade Waste Fees & Charges (Yes/No) (3)	All liquid trade waste approvals (Yes/No) (4)	ANNUAL TRADE WASTE FEE ($) Category 1 (5)	Category 1A [Prescribed pretreatment with low impact] (6)	Category 2 (7)	Category 3 (8)	Reinspection Fee $/inspection Cat/1/2/3 (9)	Category 2 Trade Waste Usage Charge (c/kL) (10)	Excess Mass Charge (c/kg) BOD (11)	Suspended Solids (12)	Oil & Grease (13)	Non-compliance Excess Mass Charge for BOD (Yes/No) (14)
37	Inverell	P	O	No											
106	Jerilderie		O	Yes											
77	Junee	P	P	No											
25	Kempsey		P	Yes	Yes			69	69	65					
70	Kyogle	P	P	No	Yes	132		132	443	64	100				
59	Lachlan	O	O	Yes	Yes										
48	Leeton	P	P	Yes											
22	Lismore	P	P	Yes	Yes	170		170		95		132	82	230	
31	Lithgow	P	P	No	Yes	128		190	348						
61	Liverpool Plains	P	P	No		66		440		62		55	75	100	
102	Lockhart	O	O	Yes											
5	MidCoast	P	P		Yes	70		105	410			126	105	152	
32	Mid Western Regional	P	P	Yes	Yes										
38	Moree Plains	P	P	Yes						65					
65	Murray	P	P	No		86	86	175	600	50		70	56	140	
101	Murrumbidgee	O	O	Yes											
41	Muswellbrook	P	P	No	Yes										
34	Nambucca	O		Yes	Yes										
46	Narrabri	P	P	No	Yes	175		220	330			175			
63	Narrandera		O	No											
62	Narromine		P	Yes											
83	Oberon	P	P	Yes											
19	Orange	P	P		Yes	124		124	124			41	45	80	
71	Palerang	O	O	Yes											
36	Parkes		P	No	Yes	67		67	430	63					
17	Queanbeyan		P	No	Yes	64		64	430	60					
33	Richmond Valley	O													
8	Riverina (No Sge)														
4	Rous (No Sge)			Yes											
3	Shoalhaven	P	P	Yes	Yes										
35	Singleton	P	P	No	Yes	265				80		55	123	98	
52	Snowy River	O				50									
	Sydney Water	P	P	Yes											
13	Tamworth Regional	P	P	No	Yes	108						65	63		
69	Temora	O	O	No											
68	Tenterfield	O	P	No	Yes										
93	Tumbarumba	O	O	Yes	Yes	64				60		54	69	97	
43	Tumut	P	P	Yes	Yes	137	240	547	950	99		110	100	190	
6	Tweed	P	P		Yes							18 - 252	23 - 322	7 - 70	
45	Upper Hunter	P	P			265				80					
73	Upper Lachlan	P	P	Yes											
85	Uralla	P	P	No	Yes										
107	Urana	O		Yes											
9	Wagga Wagga	P	P	No	Yes										
88	Wakool	O	O	No											
98	Walcha	O	P	No		64			430	60					
79	Walgett	O	O	Yes											
96	Warren	P	P												
55	Warrumbungle	O	O	No		68									
95	Weddin	O	O	No											
57	Wellington	O		No	Yes										
74	Wentworth	O		Yes											
16	Wingecarribee	P	P	Yes	Yes										
2	Wyong	O	P	Yes	Yes					42		66	54	133	
56	Yass Valley	O	O	Yes	Yes										
49	Young	P	P			66				66		44	44	88	

*with 2005 Liquid Trade Waste Management Guidelines

Blank Page

PERFORMANCE INDICATOR TABLES

This section contains the following Performance Indicator Tables:

Table 8 - 2004/05 NSW Urban Water Consumptions

	WATER UTILITY	SOURCE CATCHMENT	WATER CONSUMPTION Potable Town Water Supply (ML)									WATER SUPPLIED Potable + Non-potable Town Water (ML)			RECYCLED WATER (ML)			WATER SOURCES (ML)		
			Residential	Commercial	Industrial	Rural	Institutional	Bulk Sales	Public Parks & Gardens	Water Losses[3,6] ML	Leakage[6] ML	Potable Town Water Supplied =(1)+(2)+(3)+(4)(5)+(6)+(7)+(8) or total reported	Non-Potable Town Water Supplied (includes raw & recycled) (for outdoor uses or industry)	Total Town Water Supplied[7] (Potable + Non-potable - Recycled) =(10)+(11)-(13)	For Non-Potable Town Water Supply[9]	For Agricultural or Other Uses[10]	% Recycled =(13)+(14)/(12)	Surface Water	Ground Water	Bulk Purchases
			(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(14a)	(15)	(16)	(17)
	Sydney Water	Metropolitan	329,635	50,592	52,637		27,091		3,685	62,727	52,638	526,000		525,000	1,400	13,340	3			526,000
	Hunter Water	Metropolitan	38,558	5,100	15,350			1,935	484		7,241	71,600		69,900	1,750	2,280	6	71,600		
LWUs with > 10,000 Properties																				
1	Gosford	Hawkesbury	11,408	1,684	497	17	193		120	1,235	773	15,200		15,150		150	1	15,060		90
2	Wyong	Tuggerah Lake	9,484	3,615						1,093	667	14,200	30	14,200		34	0.2	11,060		3,130
3	Shoalhaven	Shoalhaven	6,822	1,660	1,877	571	132		168	1,332	1,132	12,600	3370	15,900		1,610	10	15,860		80
4	Rous (Bulk Supplier) (NO SGE)	Tweed/Richmond	838					10,800		60	16	11,700		11,700				11,480	221	
5	MidCoast (Combined - Unfiltered)	Manning	6,785	1,111	628		83		71	1,730	984	10,400		10,400		112	1	9,740	673	
6	Tweed	Tweed/Richmond	5,996	1,548	243	175	178	143	284	1,414	600	9,980		9,980		375	4	10,870		
7	Port Macquarie-Hastings (Unfiltered)	Hastings	4,454	1,012	23	59	437		18	1,320	840	7,320		7,320		280	4	7,320		
8	Riverina (Groundwater) (NO SGE)	Murrumbidgee	8,351	1,776	778	940	881	398	432	2,398		16,000		16,000				2,430	13,450	70
10	Coffs Harbour	Clarence	3,934	1,026	114		164	37	130			6,010	150	6,010	151	338	8	2,030		4,260
11	Albury	Murray	5,803	762	532	19	334	425	329			9,120	5290	14,400		4,460	31	8,560		0
12	Fish River WS (Unfiltered, Bulk Supplier)	Castlereagh/Macquarie	162					8,250		393	393	8,810	7520	16,300				8,810		
13	Tamworth Regional	Namoi	5,624	1,073	1,534	144	349	10	491	1,291		10,500	160	10,700				10,140	377	
14	Clarence Valley	Clarence	2,955	1,029	1,723	778		4,176	472	1,237		12,400	4180	16,500		267	2	12,370		
15	Eurobodalla (Unfiltered)	Clyde	2,679	953			210	90	249			4,650	180	4,820		173	4	4,290		
16	Wingecarribee	Hawkesbury	3,634	723		171			30	553		5,110		5,110		77	2	2,120		3,730
17	Queanbeyan	Murrumbidgee	2,758	472		1			23	760	339	4,010		4,010		124	3			4,010
18	Dubbo	Castlereagh/Macquarie	6,224	966	98	28	488		703	1,073	931	9,580		9,580		2,170	23	8,420	2,170	
19	Orange	Castlereagh/Macquarie	3,070	890					100	670	460	4,730	3390	4,760	3,360	30	71	5,100		
20	Goulburn Mulwaree	Hawkesbury	1,113	198	233	2	265	10	7	515		2,340		2,340		1,130	48	2,340		
21	Bathurst Regional	Castlereagh/Macquarie	3,593	2,038	996	3	204			1,094		7,930	30	7,960				8,800		
22	Lismore (Reticulator)	Tweed/Richmond	2,213	871		262				506	275	3,850		3,850		154	4	103		3,750
23	Bega Valley (Unfiltered)	Bega	2,133	661						750		3,540		3,540		519	15	1,770	2,180	
24	Ballina (Reticulator)	Tweed/Richmond	2,465	496		52	234			892		4,140	330	4,470		324	7	136	11	3,990
25	Kempsey (Groundwater)	Macleay	1,904	471	180	392	87	17	24	879	484	3,950	220	4,170		215	5	987	2,970	
26	Country Energy	Darling	2,641	1,196	933		8		49			5,360	1870	7,230		1,720	24	90		5,940
27	Byron (Reticulator)	Tweed/Richmond	1,970	587		108		15		343	343	3,020		3,020		617	20	429		2,590
28A	Goldenfields (Reticulator) (NO SGE)	Murrumbidgee	2,076	521	96		164		241	788		3,890		3,890						3,890
28B	Goldenfields (Bulk Supplier) (NO SGE)	Murrumbidgee				2,100		7,141				9,240	180	9,420				4,070	4,950	220
	Totals/medians (excluding bulk suppliers) for LWUs with >10,000 Properties											*195,180*	*19380*	*210,840*	*3,511*	*14,879*	*9*	*144,095*	*26,781*	*35,750*
LWUs with 3,001 - 10,000 Properties																				
29	Armidale Dumaresq	Macleay	1,865	330			559		33			3,100	60	3,160		620	20	3,220		
30	Griffith	Murrumbidgee	4,174	1,965		698			900			8,600	820	9,420		400	4			9,000
31	Lithgow	Hawkesbury										2,140		2,140						
32	Mid-Western Regional	Castlereagh/Macquarie	1,600	260			20		300			2,420		2,420		90	4	2,200		
33	Richmond Valley	Tweed/Richmond										3,040		3,040		597	20	2,440		600
34	Nambucca (Groundwater)	Nambucca	1,102	249	228	130	12		1			1,910		1,910					1,880	
35	Singleton	Hunter	1,580	489	231	47	130					2,750		2,750		639	23	2,720		
36	Parkes	Lachlan	1,749	188	3,073	20	144		500		465	6,300	210	6,520		185	3	2,690	2,980	
37	Inverell	Gwydir	1,055	201	350		120	14	148	214		2,100		2,100				2,230	33	
38	Moree Plains (Groundwater)	Gwydir							64	322		3,220		3,220				171		
39	Cowra	Lachlan	1,121	126	326	329	13	3				2,130	40	2,180				2,060		
40	Central Tablelands (NO SGE)	Lachlan	889	230	190	266	47	224	32		126	2,090		2,090				1,970	95	
41	Muswellbrook	Hunter	1,357	415	36		423		82	331	213	2,640	1150	2,870	920	225	40	2,640		
42	Corowa	Murray	1,839	100	797				200			3,260		3,260		431	13	3,140		
43	Tumut	Murrumbidgee	1,107	136	422	13	78		7			1,960	90	2,050		19	1	1,760		

Table 8 - 2004/05 NSW Urban Water Consumptions

	WATER UTILITY	SOURCE CATCHMENT	WATER CONSUMPTION Potable Town Water Supply (ML)									WATER SUPPLIED Potable + Non-potable Town Water (ML)			RECYCLED WATER (ML)			WATER SOURCES (ML)		
			Residential	Commercial	Industrial	Rural	Institutional	Bulk Sales	Public Parks & Gardens	Water Losses[3,6] ML	Leakage[6] ML	Potable Town Water Supplied =(1)+(2)+(3)+(4)+(5)+(6)+(7)+(8) or total reported	Non-Potable Town Water Supplied (includes raw & recycled) (for outdoor uses or industry)	Total Town Water Supplied[7] (Potable + Non-potable - Recycled) =(10)+(11)-(13)	For Non-Potable Town Water Supply[9]	For Agricultural or Other Uses[10]	% Recycled =(13)+(14)/(12)	Surface Water	Ground Water	Bulk Purchases
			(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(14a)	(15)	(16)	(17)
44	Gunnedah (Groundwater)	Namoi	1,405	238	515	27		124	260			2,850		2,850		493	17		2,600	
45	Upper Hunter	Hunter	923	201	313	14	12	0	88	735		2,290	510	2,790		548	20	1,750	538	
46	Narrabri (Groundwater)	Namoi										3,740		3,740						
47	Bellingen (Unfiltered)	Bellinger	1,124					1		269	100	1,390		1,390				200	1,190	
48	Leeton	Murrumbidgee	1,750	260	350	35	40	12	117	565	370	3,130		3,130				3,130		
49	Young (Reticulator)	Murrumbidgee	843	50	290		20		55	244		1,500	130	1,630		130	8			1,500
50	Cooma-Monaro	Murrumbidgee										1,700		1,700						
51	Forbes	Lachlan	1,209	278	51	6	96	304	30		162	2,190	150	2,350				1,820	521	
52	Snowy River (Unfiltered)	Snowy	1,834	199								2,260		2,260				2,020		
53	Berrigan (Dual Supply)	Murray	709	79					63	270	80	1,120	1090	2,210		206	9	2,240		
	Totals (excluding bulk suppliers) for 3,000 - 10,000 Properties											*69,830*	*4250*	*73,180*	*920*	*4,584*	*8*	*38,401*	*9,837*	*11,100*
	LWUs with 1,501 - 3,000 Properties																			
54	Deniliquin	Murray	1,567	293	45	126	16	1	1			2,280	690	2,960		571	19	2,970		
55	Warrumbungle	Castlereagh/Macquarie	950	178								1,250		1,250		69	6	825	340	
56	Yass Valley	Murrumbidgee	516	100				6	36	180	100	840		840		178	21	815	47	
57	Wellington	Castlereagh/Macquarie	647	110			42		34	190	183	1,020		1,020				1,070		
58	Cootamundra (Reticulator)	Murrumbidgee	598	51	34		57		4	155		900		900		230	26			900
59	Lachlan	Lachlan	816	173		47		27	4			1,190	250	1,430		166	12	1,250	107	60
60	Glen Innes Severn	Moonie/Macintyre	452	93	2		25		4	167		740		740				749		
61	Liverpool Plains	Namoi	527	144		24	23		102	98		950		950				296	660	
62	Narromine (Groundwater)	Castlereagh/Macquarie	1,175	25						237		1,440	100	1,540				108	1	
63	Narrandera (Groundwater)	Murrumbidgee	759	150	15	15	5		165	272		1,390	50	1,440					1,390	
64	Dungog (Reticulator)	Hunter	316	52		42	54	16		200		680		680		247	36	41		640
65	Murray (Dual Supply)	Murray	397	218	6	28	6		12	85		750	530	1,280		79	6			
66	Cobar WB (Bulk Supplier)	Darling												4,250						
67	Cobar	Darling	1,297						17			1,460	200	1,660		98	6	79		1,440
68	Tenterfield	Moonie/Macintyre	279	46	15	2	2	115	7			520		520		107	21	466		
70	Kyogle	Clarence	218	50	13	42	9	0				370	100	470		62	13	370		70
71	Palerang	Murrumbidgee	482						1			540		540				205	270	
73	Upper Lachlan	Lachlan	205	20	3	1	19		24	55	20	330		330				280	60	
74	Wentworth (Dual Supply)	Darling	219							55	55	390	2190	2,580		340	13	2,250		
75	Coonamble (Groundwater)	Castlereagh/Macquarie	872	87		59	76	30	285	220		1,630		1,630		70	4		1,630	
	Totals (excluding bulk suppliers) for 1,500 - 3,000 Properties											*18,670*	*4110*	*22,760*	*0*	*2,217*	*10*	*11,775*	*4,505*	*3,110*
	LWUs with 200 - 1,500 Properties																			
76	Harden (Reticulator)	Murrumbidgee	693							101	51	790		790		74	9			790
79	Walgett (Dual Supply)	Namoi										1,180	1120	2,300				1,600	698	
80	Greater Hume	Murray	438	13	2	11	26	7	26	96		620		620		128	21		203	420
81	Gwydir	Gwydir	417	62	3	11	10	48	216	159	79	930		930		46	5	377	549	
82	Gloucester	Manning	232	58	50		14	15	9	73		450		450				450		
83	Oberon (Reticulator)	Castlereagh/Macquarie	191	25	363				36	79		690		690				694		
84	Gilgandra (Groundwater)	Castlereagh/Macquarie	550	170	85	20	14	25	80			1,050		1,050		320	30		975	
85	Uralla	Gwydir	225	41				0	13	46	31	330		330				325		
86	Hay (Dual Supply)	Murrumbidgee										340	1310	1,660				1,660		
87	Bourke (Dual Supply)	Darling	513									1,000	2530	3,530						
88	Wakool (Dual Supply)	Murray	629	136		1			8			860		860				1,500		120

Table 8 - 2004/05 NSW Urban Water Consumptions

	WATER UTILITY	SOURCE CATCHMENT	WATER CONSUMPTION Potable Town Water Supply (ML)									WATER SUPPLIED Potable + Non-potable Town Water (ML)			RECYCLED WATER (ML)			WATER SOURCES (ML)		
			Residential	Commercial	Industrial	Rural	Institutional	Bulk Sales	Public Parks & Gardens	Water Losses[3,6] ML	Leakage[6] ML	Potable Town Water Supplied =(1)+(2)+(3)+(4)+(5)+(6)+(7)+(8) or total reported	Non-Potable Town Water Supplied (includes raw & recycled) (for outdoor uses or industry)	Total Town Water Supplied[7] (Potable + Non-potable - Recycled) =(10)+(11)-(13)	For Non-Potable Town Water Supply[9]	For Agricultural or Other Uses[10]	% Recycled =(13)+(14)/(12)	Surface Water	Ground Water	Bulk Purchases
			(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(14a)	(15)	(16)	(17)
89	Bogan	Castlereagh/Macquarie										860		860				860		
90	Guyra	Gwydir	510									570		570				313		200
91	Cabonne	Lachlan	163	35						37		230	100	330		159	48	367	5	
92	Carrathool (Groundwater)	Murrumbidgee	129			106						830	1240	2,060		2	0		655	430
93	Tumbarumba	Murray	340	8	3				19			460		460				410		
94	Gundagai	Murrumbidgee	224	35	52	25	15		53	90	40	490		490				600		
96	Warren (Dual Supply)	Castlereagh/Macquarie	176	23			3		2	145		350	460	810					349	540
97	Bombala	Snowy	347	9	7		7		1			410		410		36	9	406		
98	Walcha	Namoi	117	48	1	2	11		9	40		230		230				228		
100	Balranald (Dual Supply)	Murrumbidgee	104	5								200	930	1,130				1,110		
101	Murrumbidgee (Groundwater)	Murrumbidgee	565									710		710		4	1		637	
103	Central Darling (Dual Supply)	Darling	83	7								100	480	580				658	26	
104	Boorowa	Lachlan										210		210						
105	Brewarrina	Castlereagh/Macquarie	374									420	780	1,200		170	14	1,050	100	
106	Jerilderie (Dual Supply)	Murray	83	24	2			1				120	150	270		40	15			
	Totals (excluding bulk suppliers) for 200 - 1,500 Properties											*14,430*	*9100*	*23,530*	*0*	*978*	*4*	*12,609*	*4,197*	*2,500*
LWUs without Water Supply																				
9	Wagga Wagga (NO WS)	**No WS**													460	407				
30A	Hawkesbury	**No WS**																		
69	Temora	**No WS**														350				
72	Bland	**No WS**														135				
77	Junee	**No WS**														160				
78	Blayney	**No WS**														247				
95	Weddin	**No WS**														28				
99	Coolamon	**No WS**														70				
102	Lockhart	**No WS**														17				
107	Urana	**No WS**																		
	Total for the 76 LWUs reporting column (1) together with (2) and/or (3)		**153,000**	**35,800**	**18,400**	**7,900**	**6,600**	**13,400**	**7,900**	**34,400**	**19,100**	**274,000**	**27,500**	**300,000**	**4,400**	**21,400**		**196,000**	**41,800**	**49,000**
	Percentage of Total Potable Supply (ie. % of col(10))		**56%**	**13%**	**7%**	**3%**	**2%**	**5%**	**3%**	**13%**	**7%**									
	TOTAL (all LWUs excluding metropolitan LWUs)[4]											**303,000**	**37,000**	**335,000**	**5,000**	**24,000**		**213,000**	**45,000**	**52,000**

Notes:

1. Source: Data provided by the 107 non-metropolitan NSW water utilities for the 2004/05 NSW Water Supply and Sewerage Benchmarking Report. 98 of these utilities are responsible for water supply. Columns (13) and (14) report the volume of recycled water use and include a further 9 utilities which are responsible for sewerage only.
2. The water consumption for Sydney and Hunter Water Corporations was obtained from WSAA Facts 2004 and has not been included in the totals shown above.
3. For consistency with national performance reporting, water losses (column (8)) now include leakage (column (9)).
4. Where a water utility has not reported its total potable town water supplied in 2004/05 (column (10)), the previously reported supply has been used and is shown in ***italics bold.***
5. 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.
6. 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% (but are shown as blank), and the reported values for total town water supplied (column (10)) have been increased accordingly. Similarly, minimum leakage levels for such utilities have been found to be at least 6% of the total potable town water supplied. Unless corroborated by a reservoir drop test or detailed waste metering, reported values of leakage of less than 6% (column (9)) have been increased to 6% and are shown as blank.
7. 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)).
8. The above analysis shows that the total 2004/05 town water supplied for non-metropolitan NSW was 335,000 ML (column (12)), of which 302,000 ML (column (10)) was for potable water supply. The total non-potable water supply was 37,000 ML (column (11)) which included 4,900 ML recycled water (column (13)). The non-potable supply was mainly for outdoor uses in dual water supplies (approximately 7,300 ML), but also includes supplies to industry and other outdoor uses. The average uses as a percentage of the total potable water supply were:
   - Residential - 56 % (column (1))
   - Commercial and Industrial - 20 % (columns (2) and (3))
   - Water Losses - 13 % (column (8))
9. 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.
10. The recycled water used for agricultural uses is shown in column (14). The total volume of recycled water for non-metropolitan NSW water utilities was 29,000 ML (column (13) + column (14)), which is 18% of the total volume of sewage collected.

Blank Page

Table 8A - 2004/05 Water Losses & Non-Revenue Water

	WATER UTILITY	NON-REVENUE WATER (potable)												REVENUE WATER (Potable)			TOTAL POTABLE CONSUMPTION	
		WATER LOSSES [3]										AUTHORISED CONSUMPTION						Authorised Consumption (potable) + Water Losses
		Apparent Losses (Reported) (ML)					Real Losses[4] (Leakage) (ML)			Total Water Losses[5] (ML)			Unbilled Consumption Non-Revenue Water[2] (Potable) (ML)			Billed Consumption Revenue Water[1] (Potable) (ML)			Water Losses + Billed Consumption + Unbilled Consumption	
		Unauthorised Consumption	Under-registration of meters	Total Reported (1)+(2)	Total Adopted	Adopted % (4)/(20)	Reported	Adopted (see Table 8)	% of Total Potable (see Table 8)	Reported (3) + (6)	Adopted (see Table 8)	% of Total Potable (see Table 8)	Unbilled Unmetered (firefighting flushing)	Unbilled Metered	Total Reported (12) + (13)	Billed Metered	Billed Unmetered	Total Reported	Total Reported (9) + (14) + (17)	Total Adopted (Table 8 Col (10))
		(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(20)
	Sydney Water			10,089	10,100	2	52,638	52,600	10	62,727	62,700	12						463,640	526,370	526,000
	Hunter Water						7,241	7,200	10					3,432	3,432			60,943	64,380	71,600
	LWUs with > 10,000 Properties																			
1	Gosford		301	462	462	3	773	773	5	1,235	1,240	8	361		361	13,919		13,919	15,150	15,200
2	Wyong			426	426	3	667	667	5	1,093	1,090	8				13,099		13,099	14,190	14,200
3	Shoalhaven			200			1,132	1,130	9	1,332	1,330	11	200		200	11,230		11,230	12,560	12,600
4	Rous (Bulk Supplier) (NO SGE)			44	44	0.4	16	16		60	60		44		44	11,638		11,638	11,700	11,700
5	MidCoast (Combined - Unfiltered)			746	746	7	984	984	9	1,730	1,730	17	125		125	8,678		8,678	10,410	10,400
6	Tweed	614	100	814	814	8	600	600	6	1,414	1,410	14	100		100	8,567		8,567	9,980	9,980
7	Port Macquarie-Hastings (Unfiltered)	40	240	480	480	7	840	840	11	1,320	1,320	18	200		200	6,002		6,002	7,320	7,320
8	Riverina (Groundwater) (NO SGE)		2,178	2,278			120			2,398	2,400	15	100		100	13,556		13,556	15,950	16,000
10	Coffs Harbour									371				70	70	5,405		5,405	5,850	6,010
11	Albury		300	300			29			329						8,204		8,204	8,530	9,120
12	Fish River WS (Unfiltered, Bulk Supplier)						393	393	4	393	393	4				8,412		8,412	8,810	8,810
13	Tamworth Regional									1,291	1,290	12				9,224		9,224	10,520	10,500
14	Clarence Valley	1	300	361			294			1,237	1,240	10	60		60	11,130	3	11,133	12,370	12,400
15	Eurobodalla (Unfiltered)	55	10	81			31			112			16		16	4,091	90	4,181	4,290	4,650
16	Wingecarribee									553	553	11				4,558		4,558	5,110	5,110
17	Queanbeyan	1	20	421	421	10	339	339	8	760	760	19	400	37	437	3,218		3,218	4,010	4,010
18	Dubbo	82	40	142			931	931	10	1,073	1,070	11	20	933	953	7,574		7,574	9,580	9,580
19	Orange			210	210	4	460	460	10	670	670	14		100	100	3,960		3,960	4,730	4,730
20	Goulburn Mulwaree			515						515	515	22				1,818	10	1,828	2,340	2,340
21	Bathurst Regional		1	684			410			1,094	1,090	14	683		683	6,834		6,834	7,930	7,930
22	Lismore (Reticulator)			231	231	6	275	275	7	506	506	13				3,346		3,346	3,850	3,850
23	Bega Valley (Unfiltered)			750						750	750	21				2,794		2,794	3,540	3,540
24	Ballina (Reticulator)									892	892	22						3,247	4,140	4,140
25	Kempsey (Groundwater)			395	395	10	484	484	12	879	879	22		71	71	3,004		3,004	3,950	3,950
26	Country Energy									518						4,827		4,827	5,350	5,360
27	Byron (Reticulator)						343	343	11	343	343	11				2,665	15	2,680	3,020	3,020
28A	Goldenfields (Reticulator) (NO SGE)						753	753	19	788	788	20								3,890
28B	Goldenfields (Bulk Supplier) (NO SGE)																			9,240
	Medians (% of LWUs basis) for LWUs with >10,000 Properties					*6*			*9*			*14*								
	LWUs with 3,001 - 10,000 Properties																			
29	Armidale Dumaresq		52	112			60			172			60		60	2,780	7	2,787	2,960	3,100
30	Griffith									600						7,737		7,737	8,340	8,600
31	Lithgow																			2,140
32	Mid-Western Regional			20						20			20		20			2,180	2,200	2,420
33	Richmond Valley																			3,040
34	Nambucca (Groundwater)									156						1,722		1,722	1,880	1,910
35	Singleton			136			106			242				0	0	2,477		2,477	2,720	2,750
36	Parkes						465	465	7	465								5,673	6,140	6,300
37	Inverell		100							214	214	10				1,859		1,888	2,100	2,100
38	Moree Plains (Groundwater)									322	322	10						2,896	3,220	3,220
39	Cowra			145						145			197		197	1,918		1,918	2,060	2,130
40	Central Tablelands (NO SGE)	10		60			126	126	6	186			50		50	1,878		1,878	2,060	2,090
41	Muswellbrook	34	26	118	118	4	213	213	8	331	331	13	58	82	140	2,229	2	2,231	2,640	2,640
42	Corowa									200								2,936	3,140	3,260
43	Tumut			249												1,514		1,762	1,760	1,960
44	Gunnedah (Groundwater)	6	20							38			5		5	1,838	729	2,567	2,600	2,850

Table 8A - 2004/05 Water Losses & Non-Revenue Water

	WATER UTILITY	NON-REVENUE WATER (potable)												REVENUE WATER (Potable)			TOTAL POTABLE CONSUMPTION	
		WATER LOSSES [3]										AUTHORISED CONSUMPTION						Authorised Consumption (potable) + Water Losses
		Apparent Losses (Reported) (ML)					Real Losses[4] (Leakage) (ML)			Total Water Losses[5] (ML)			Unbilled Consumption Non-Revenue Water[2] (Potable) (ML)			Billed Consumption Revenue Water[1] (Potable) (ML)			Water Losses + Billed Consumption + Unbilled Consumption	
		Unauthorised Consumption	Under-registration of meters	Total Reported (1)+(2)	Total Adopted	Adopted % (4)/(20)	Reported	Adopted (see Table 8)	% of Total Potable (see Table 8)	Reported (3) + (6)	Adopted (see Table 8)	% of Total Potable (see Table 8)	Unbilled Unmetered (firefighting flushing)	Unbilled Metered	Total Reported (12) + (13)	Billed Metered	Billed Unmetered	Total Reported	Total Reported (9) + (14) + (17)	Total Adopted (Table 8 Col (10))
		(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(20)
45	Upper Hunter	5	28							735	735	32	2	12	14	1,538	0	1,538	2,290	2,290
46	Narrabri (Groundwater)																			3,740
47	Bellingen (Unfiltered)			169	169	12	100	100	7	269	269	19	169		169	1,124		1,124	1,390	1,390
48	Leeton	15	160	195	195	6	370	370	12	565	565	18	20		20	2,564		2,564	3,130	3,130
49	Young (Reticulator)									244	244	16				1,258		1,258	1,500	1,500
50	Cooma-Monaro																			1,700
51	Forbes	2	2	29			162	162	7	191			25		25	1,974		1,974	2,170	2,190
52	Snowy River (Unfiltered)															1,918		1,792	1,790	2,260
53	Berrigan (Dual Supply)			190	190	17	80	80	7	270	270	24	190	63	253	788		788	1,120	1,120
	Medians (% of LWUs basis) for 3,000 to 10,000 Properties					*9*			*7*			*17*								
	LWUs with 1,501 - 3,000 Properties																			
54	Deniliquin	3	10	163	163	7	17			180			150		150	2,031	18	2,049	2,230	2,280
55	Warrumbungle									60						1,034		1,034	1,090	1,250
56	Yass Valley	5	15	80	80	10	100	100	12	180	180	21	60	40	100	618		618	840	840
57	Wellington			7	7	1	183	183	18	190	190	19	7		7	833		833	1,020	1,020
58	Cootamundra (Reticulator)									155	155	17	155		155	743		743	900	900
59	Lachlan	2	17	51			42			93			32		32	1,012	55	1,067	1,160	1,190
60	Glen Innes Severn		81							167	167	23				575		575	740	740
61	Liverpool Plains	8	10							98	98	10				849		849	950	950
62	Narromine (Groundwater)			237						237	237	16	237		237	1,200		1,200	1,440	1,440
63	Narrandera (Groundwater)	10	2	192			80			272	272	20	180	100	280	820	188	1,008	1,380	1,390
64	Dungog (Reticulator)	22	98							200	200	29	24		24	478		478	680	680
65	Murray (Dual Supply)									85	85	11				667		667	750	750
66	Cobar WB (Bulk Supplier)																			
67	Cobar		5																	1,460
68	Tenterfield																			520
70	Kyogle		12							12						332		332	340	370
71	Palerang		1							1								483	480	540
73	Upper Lachlan	5	5	35	35	11	20	20	6	55	55	17	25		25	270	1	271	330	330
74	Wentworth (Dual Supply)						55	55	14	55	55	14							60	390
75	Coonamble (Groundwater)		116							220	220	13	82		82	995	415	1,348	1,570	1,630
	Medians (% of LWUs basis) for 1,500 to 3,000 Properties					*8*			*13*			*17*								
	LWUs with 200 - 1,500 Properties																			
76	Harden (Reticulator)						51	51	6	101	101	13	50		50			693	790	790
79	Walgett (Dual Supply)																			1,180
80	Greater Hume	10	50							96	96	15	10		10			523	620	620
81	Gwydir	8	15	80	80	9	79	79	8	159	159	17	57	264	321	439	64	503	930	930
82	Gloucester									73	73	16				378		378	450	450
83	Oberon (Reticulator)									79	79	11	10		10			615	690	690
84	Gilgandra (Groundwater)	3	3	16			15			31			10	80	90	895		895	1,010	1,050
85	Uralla	1	2	15	15	5	31	31	9	46	46	14	12		12	266	13	279	330	330
86	Hay (Dual Supply)																			340
87	Bourke (Dual Supply)																			1,000

Table 8A - 2004/05 Water Losses & Non-Revenue Water

	WATER UTILITY	NON-REVENUE WATER (potable)													REVENUE WATER (Potable)			TOTAL POTABLE CONSUMPTION	
		WATER LOSSES [3]										AUTHORISED CONSUMPTION						Authorised Consumption (potable) + Water Losses	
		Apparent Losses (Reported) (ML)					Real Losses[4] (Leakage) (ML)			Total Water Losses[5] (ML)			Unbilled Consumption Non-Revenue Water[2] (Potable) (ML)			Billed Consumption Revenue Water[1] (Potable) (ML)			Water Losses + Billed Consumption + Unbilled Consumption	
		Unauthorised Consumption	Under-registration of meters	Total Reported (1)+(2)	Total Adopted	Adopted % (4)/(20)	Reported	Adopted (see Table 8)	% of Total Potable (see Table 8)	Reported (3) + (6)	Adopted (see Table 8)	% of Total Potable (see Table 8)	Unbilled Unmetered (firefighting flushing)	Unbilled Metered	Total Reported (12) + (13)	Billed Metered	Billed Unmetered	Total Reported	Total Reported (9) + (14) + (17)	Total Adopted (Table 8 Col (10))
		(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(20)
88	Wakool (Dual Supply)									77								774	850	860
89	Bogan																			860
90	Guyra															510		510	510	570
91	Cabonne		37							37	37	16				198		198	230	230
92	Carrathool (Groundwater)															356		356	360	830
93	Tumbarumba	15		25			15						10		10	340	11	351	350	460
94	Gundagai	20	20	50	50	10	40	40	8	90	90	18	10		10	379		379	470	490
96	Warren (Dual Supply)									145	145	42	5		5	204		204	350	350
97	Bombala		32							35						208	159	367	400	410
98	Walcha									40	40	17				188		188	230	230
100	Balranald (Dual Supply)		2							2						178		178	180	200
101	Murrumbidgee (Groundwater)															567	3	570	570	710
103	Central Darling (Dual Supply)	0	1							1						90		90	90	100
104	Boorowa																			210
105	Brewarrina																			420
106	Jerilderie (Dual Supply)																	110	110	120
	Medians (% of LWUs basis) for 200 to 1,500 Properties					*9*			*8*			*16*								

Notes:

1. Revenue water (potable) comprises billed, authorised consumption (metered and unmetered).
2. Non-revenue water (potable) comprises unbilled, authorised consumption (includes firefighting and mains flushing) plus water losses.
3. Water losses comprise apparent losses (unauthorised consumption, under-registration of customer meters) plus real losses (leakage).
4. Real losses in column (7) above are the same as those shown in column (9) in Table 8.
5. Total water losses shown in column (10) above are the same as those shown in column (8) in Table 8.
6. A minimum real loss (ie. leakage) of 6% of the potable water supplied and a minimum water loss of 10% of total potable water supplied have been adopted for this report.
   Utilities reporting real losses of less than 6% have not been included unless the utility has carried out a recent reservoir drop test or detailed waste metering which justifies the adoption of a lower value.
   Similarly reported water losses of less than 10% have not been included unless the utility has evidence which supports the adoption of a value less than 10%.
7. Total adopted revenue plus non-revenue water (potable) in column (20) above are generally the same as those shown in column (10) in Table 8.

Table 8B - 2004/05 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	2,130	661						750	213	3,540		3,540		519	1,770	2,180
Bellinger	776	182	93	40	33	68	40	269	100	1,390		1,390			200	1,190
Castlereagh/Macquarie	19,760	4,940	1,630	146	878	118	1,580	4,700	3,050	33,400	4,760	34,800	3,360	2,920	29,100	5,570
Clarence	7,110	2,100	1,850	820	173	4,210	602	1,870	1,120	18,800	4,430	23,000	151	667	14,800	
Clyde	2,680	953			210	90	249	465	279	4,650	180	4,820		173	4,290	
Darling	4,320	1,580	1,120	82	77	139	131	847	530	8,310	7,270	15,600		2,160	3,080	26
Gwydir	3,810	799	608	120	221	247	486	798	463	7,150		7,150		046	3,420	582
Hastings	4,450	1,010	23	59	437		18	1,320	840	7,320		7,320		280	7,320	
Hawkesbury (Country Towns only)	17,350	2,880	874	252	510	115	219	2,300	1,220	24,800		24,700		1,360	19,500	
Hunter (Country Towns only)	4,180	1,160	580	103	619	16	170	1,540	556	8,360	1,660	9,090	920	1,660	7,150	538
Lachlan	6,270	1,080	3,660	675	325	568	596	1,480	986	14,700	750	15,400		510	10,400	3,770
Macleay	3,770	801	180	392	646	17	57	1,190	670	7,050	280	7,330		835	4,210	2,970
Manning	7,020	1,170	678		97	15	80	1,800	1,010	10,900		10,900		112	10,200	673
Moonie/Macintyre	731	138	17	2	27	115	11	219	76	1,260		1,260		107	1,210	
Murray (Dual Supply)	11,800	1,630	1,390	185	383	434	658	2,060	1,130	18,600	7,750	26,300		5,920	18,800	203
Murrumbidgee	23,930	5,640	2,270	1,870	1,210	656	1,930	6,080	2,870	43,900	4,570	48,500		1,160	11,700	16,450
Nambucca	1,100	249	228	130	12		1	191	115	1,910		1,910				1,880
Namoi	10,420	2,150	2,380	338	501	375	1,000	1,830	943	19,500	1,280	20,800		493	12,300	4,340
Shoalhaven	6,820	1,660	1,880	571	132		168	1,330	1,130	12,600	3,370	15,900		1,610	15,900	
Snowy	2,180	208	7		7		1	267	160	2,670		2,670		36	2,430	
Tuggerah Lake	9,480	3,620						1,090	667	14,200	30	14,200		034	11,100	
Tweed/Richmond	14,340	3,900	447	685	485	307	372	3,520	1,660	24,000	330	24,400		2,070	14,000	11
No Water Supply														1,420		
	164,400	**38,500**	**19,900**	**6,500**	**7,000**	**7,500**	**8,400**	**36,000**	**20,000**	**303,000**	**37,000**	**335,000**	**4,400**	**24,100**	**205,000**	**40,000**

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 category summed for each catchment to obtain the above values.

Table 8C - 2005/06 Water Conservation Initiatives

	WATER UTILITY	CUSTOMER FOCUSSED MEASURES					BUSINESS FOCUSSED MEASURES			OTHER MEASURES					CONSUMPTION/LOSSES				
		Customer Education Program	Retrofit Program	Rebates for Water Efficient Appliances	Rebates for Water Tanks	Max Rainwater Tank Rebate	Effluent or Stormwater Reuse	Leakage Reduction Program	Customer Billing Period	Other Demand Management Measures	Sound Water Conservation Implemented?	Sound Drought Management Implemented?	Water Usage Charge/kL		Residential Revenue from Usage Charges	Average Annual Residential Consumption	Total Town Water Supplied	Total Water Losses	Real Losses (Leakage)	
		Yes/No	Yes/No	Yes/No	Yes/No	$	Yes/No	Yes/No	months		(Yes/No)	(Yes/No)	Step 1 (c/kL)	Step 2 (c/kL)	(%)	(kL/property)	(ML)	(ML)	(ML)	(L/d/connection)
		(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14) 2004/05	(15) 2004/05	(16) 2004/05	(17) 2004/05	(18) 2004/05	(19) 2004/05
11	Albury City	Yes	Yes	No	No		Yes	Yes	12	Full pay-for-use pricing, public education program, customer billing 3 times/a, annual Waterwise program, water conservation and loss management strategy, leak reduction program, reservoir drop test, effluent reuse, separate metering for new and existing multi-unit developments, monitoring programs & customer surveys, free water audits (non-residential), review of water conservation initiatives.	Yes	Yes	45	90	72	284	14,400			
29	Armidale Dumaresq	Yes	No	No	No		No	No	6	Full pay-for-use pricing, demand management plan, member of waterwise, public education program.	Yes	Yes	77	103	8	253	3,160			
24	Ballina (Reticulator)	Yes	Yes	Yes	Yes		Yes	Yes	6		Yes	Yes	82	105	17	220	4,470	892		
100	Balranald (Dual Supply)	No	No	No	No		No	No	3	Full pay-for-use pricing, member of waterwise, restrictions.			57		21	150	1,130			
21	Bathurst Regional	Yes	No	No	No		No	No		Member of waterwise, public education program.			50	80	24	283	7,960	1,090		
23	Bega Valley (Unfiltered)	Yes	No	No	No		Yes	No		Full pay-for-use pricing, customer billing 3-times/a, member of waterwise, public education, water restrictions, effluent reuse, water demand management officer.		Yes	110		18	178	3,540	750		
47	Bellingen (Unfiltered)	No	No	No	No		Yes	Yes		Full pay-for-use pricing, member of waterwise, retrofit program, public education program.			64		21	223	1,390	269	100	70
53	Berrigan (Dual Supply)	Yes	No	No	No		Yes	No		Public education.	Yes	Yes	57		15	247	2,210	270	80	80
72	Bland (No WS)																			
78	Blayney (No WS)																			
89	Bogan	No	No	No	No		Yes	No	6	Full pay-for-use pricing, member of waterwise, restrictions, public education program.	Yes	Yes	70	105	65	476	860			
97	Bombala	No	No	No	No		No	No		Full pay-for-use pricing, member of waterwise, public education program.	Yes	Yes	44	96	22	481	410			
104	Boorowa								3	Full pay-for-use pricing, public education program.			105		42	215	210			
87	Bourke (Dual Supply)	No	No	No	No		No	No	6	Full pay-for-use pricing, member of waterwise, public education program, waterwise program with local schools.	Yes	Yes	50		25	500	3,530			
105	Brewarrina	No	No	No	No		Yes	No				Yes			35	525	1,200			
27	Byron (Reticulator)	Yes	Yes	No	Yes	1800	Yes	Yes	3	Full pay-for-use pricing, member of waterwise, rainwater tank subsidy, retrofit program, public education program, pressure reduction.	Yes		108		69	214	3,020	343	343	99
91	Cabonne	Yes	No	No	No		Yes	Yes	6	Member of waterwise, public education program.			125	275	12	176	330	37		
92	Carrathool (Groundwater)				Yes	500				Full pay-for-use pricing, member of waterwise, rainwater tank subsidy, restrictions, retrofit program, public education program, other.			70	80	50	493	2,060			
103	Central Darling (Dual Supply)	No							3	Full Pay-for-use pricing, customer billing 3 times/a, water restrictions.	Yes	Yes	300		53	131	580			
40	Central Tablelands (No Sge	Yes	No	No	No		No	Yes		Full pay-for-use pricing, member of waterwise, public education program, free showerhead exchange program.	Yes		116	174	37	236	2,090		126	67
14	Clarence Valley	Yes	No		Yes	No		Yes	Yes	Full pay-for-use pricing, restrictions, retrofit program, public education program.	Yes	Yes	98			178	16,500	1,240		
67	Cobar	Yes	No	No		No			No	Full Pay-for-use pricing, member of waterwise, restrictions, retrofit program, public education program.			60	100	51	485	1,660			
66	Cobar WB (Bulk Supplier) (																4,250			
10	Coffs Harbour	Yes	Yes	Yes	No		Yes	Yes	3	Full pay-for-use pricing, customer billing 3 times/a, member of waterwise, building code program, water restrictions, public education program, rebate for water efficient appliances, rebate for water audits, effluent reuse, separate metering of new and existing multi-unit developments, leakage reduction program, reservoir drop test, monitoring program, review of water conservation measures.	Yes	Yes	136		64	186	6,010			
99	Coolamon (No WS)																			
50	Cooma-Monaro									Full pay-for-use pricing, member of waterwise, public education program, water restrictions, rainwater tank rebate, rebate for water efficient appliances, rebate for water audits, separate metering for new multi-unit developments, reservoir drop test, monitoring to review effectiveness of water conservation measures.			60		35	344	1,700			
75	Coonamble (Groundwater)									Public education program.	Yes	Yes	48		13	621	1,630	220		
58	Cootamundra (Reticulator)	No	No	No	No		Yes	No		Member of waterwise, public education program.			123	246	20	239	900	155		
42	Corowa	Yes	No	No	No		Yes	No	6	Full pay-for-use pricing, member of waterwise, restrictions, public education program.	Yes	Yes	50	110	35	587	3,260			
26	Country Energy	Yes	No	No	No		Yes	Yes		Full pay-for-use pricing, member of waterwise, rainwater tank subsidy, public education program.	Yes	Yes	71	220	45	281	7,230			
39	Cowra	No	No	No	No		No	No	6	Full pay-for-use pricing, member of waterwise, restrictions, public education program.	Yes	Yes	36	71	15	240	2,180			
54	Deniliquin	Yes	No	No	No		Yes	No	3	Member of waterwise, public education program, integrated water cycle management study.	Yes	Yes	53	81	19	597	2,960			
18	Dubbo	Yes	No	No	No		Yes	Yes	3	Full pay-for-use pricing, member of waterwise, public education program, customer billing 4 times/a, effluent reuse schemes, stormwater reuse schemes, leakage reduction program, park irrigation controls, separate metering for new multi-unit developments, water restriction, reservoir drop test, draft drought management plan, demand management strategy, demonstration waterwise garden.	Yes	Yes	70	105	56	462	9,580	1,070	931	176
64	Dungog (Reticulator)									Member of waterwise, retrofit program, public education program.	Yes		66	133	39	175	680	200		
15	Eurobodalla (Unfiltered)	Yes	Yes	Yes	Yes		Yes	No	6	Member of waterwise, public education program, restrictions, integrated water cycle management study.	Yes	Yes	120		38	151	4,820			
12	Fish River WS (Bulk Supplier)	No			No			Yes				Yes			100		16,300	393	393	
51	Forbes	Yes	Yes	No	No			No	3	Full pay-for-use pricing, customer billing 4 times/a, public education program, water restriction, free garden mulch, considering rebate for water efficient shower head, building code program, effluent reuse.			61	92	27	377	2,350		162	126
84	Gilgandra (Groundwater)	Yes	No	No	No		No	Yes	6	Full pay-for-use pricing, member of waterwise, public education program.			50		51	460	1,050			
60	Glen Innes Severn	Yes	No	No	Yes		No	Yes		Full pay-for-use pricing, rainwater tank subsidy, restrictions, ad hoc public education.			130	195		187	740	167		
82	Gloucester	Yes	No	No	No		No	Yes		Full pay-for-use pricing, restrictions, retrofit program, public education program.	Yes		118		41	185	450	73		

Table 8C - 2005/06 Water Conservation Initiatives

	WATER UTILITY	CUSTOMER FOCUSSED MEASURES					BUSINESS FOCUSSED MEASURES			OTHER MEASURES					CONSUMPTION/LOSSES				
		Customer Education Program	Retrofit Program	Rebates for Water Efficient Appliances	Rebates for Water Tanks	Max Rainwater Tank Rebate	Effluent or Stormwater Reuse	Leakage Reduction Program	Customer Billing Period	Other Demand Management Measures	Sound Water Conservation Implemented?	Sound Drought Management Implemented?	Water Usage Charge/kL		Residential Revenue from Usage Charges	Average Annual Residential Consumption	Total Town Water Supplied	Total Water Losses	Real Losses (Leakage)	
		Yes/No	Yes/No	Yes/No	Yes/No	$	Yes/No	Yes/No	months		(Yes/No)	(Yes/No)	Step 1 (c/kL)	Step 2 (c/kL)	(%)	(kL/property)	(ML)	(ML)	(ML)	(L/d/ connection)
		(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14) 2004/05	(15) 2004/05	(16) 2004/05	(17) 2004/05	(18) 2004/05	(19) 2004/05
28B	Goldenfields (Bulk Supplier														67		9,420			
28A	Goldenfields (Reticulator) (	Yes	No	No	No			No		Full pay-for-use pricing, customer billing 3 times/a, member of waterwise, public education program, water restriction, separate metering of new multi-unit developments, monitoring program, review water conservation measures.			106		63	311	3,890	788	753	202
1	Gosford	Yes	Yes	Yes	Yes	650	Yes	Yes	6	Full pay-for-use pricing, rainwater tank subsidy, mandatory rain water tanks for new houses and extensions, restrictions, retrofit program, major water user audits, public education program, promoting effluent reuse schemes, leakage reduction program, main replacement program.	Yes	Yes	93		73	180	15,150	1,240	773	36
20	Goulburn Mulwaree	Yes	Yes	Yes	Yes	650	Yes	No		Full pay-for-use pricing, member of waterwise, rainwater tank subsidy, restrictions, retrofit program, public education program, AAA washing machine rebates.	Yes	Yes	70	157	40	93	2,340	515		
80	Greater Hume									Full pay-for-use pricing, restrictions, public education program.			90	110	21	318	620	96		
30	Griffith	Yes	Yes	Yes	No		No	No		Full pay-for-use pricing, restriction policy in place, public education program.	Yes	Yes	30	55	50	685	9,420			
94	Gundagai	No	No	No	No		Yes	No	6	Full pay-for-use pricing, member of waterwise, restrictions, public education program.			65	85	69	257	490	90	40	109
44	Gunnedah (Groundwater)								12	Full pay-for-use pricing, member of waterwise, restrictions, public education program.	Yes		45	90	24	367	2,850			
90	Guyra	No	No	No	No		No	No		Full pay-for-use pricing, restrictions, public education program.	Yes	Yes	92	165	46	319	570			
81	Gwydir	Yes	No	No	No		Yes	No					80	220		333	930	159	79	155
76	Harden (Reticulator)	Yes	No	No	No		Yes	Yes	12	Full pay-for-use pricing.			104		42	418	790	101	51	89
7	Port Macquarie-Hastings (U	Yes	Yes	Yes	No		No	Yes		Full pay-for-use pricing, member of waterwise, public education program, water restrictions, encourage use of rainwater tank, water audit free of charge for large users, retrofit program, effluent reuse program, separate metering for new and encourage separate metering for existing multi-unit development, leakage reduction program, permanent water conservation measures, meter replacement program.	Yes	Yes	125	250	49	186	7,320	1,320	840	95
30A	Hawkesbury (No WS)																			
86	Hay (Dual Supply)	No	No	No	No		No	Yes	4	Full pay-for-use pricing, public education program, other.	Yes	Yes	58	87	25	140	1,660			
	Hunter Water	Yes	Yes		Yes	650	Yes	Yes	3	Full pay-for-use pricing, member of waterwise, rainwater tank subsidy, restrictions, retrofit program, public education program, leakage reduction, effluent reuse.	Yes	Yes	109	103	86	197	69,900		7,200	94
37	Inverell								3	Full pay-for-use pricing, member of waterwise, public education program.			100		50	227	2,100	214		
106	Jerilderie (Dual Supply)	No		No	No		Yes	No	12	Full pay-for-use pricing, customer billing 3 times/a, member of waterwise, building code program, water restrictions, public education, retrofit program, effluent reuse, reservoir drop test, review water conservation measures.			140	200	16	217	270			
77	Junee (No WS)																			
25	Kempsey (Groundwater)	Yes	No	No	No		Yes	Yes		Subsidised water audits, public education, rainwater tank rebates, waterwise member, leakage reduction, retrofit rebates, dual flush toilet program, Integrated Water Cycle Management Strategy, reviewing drought restriction policy.			86		37	187	4,170	879	484	126
70	Kyogle								6	Full pay-for-use pricing, member of waterwise, IWCM investigating rainwater tank subsidies, restrictions, non-potable water supplies, customer billing 4 times/a for commercial premises, 90% effluent reuse at Bonalbo and Woodenbong.	Yes	Yes	105		60	135	470			
59	Lachlan	Yes	No	No	No		Yes	Yes		Full pay-for-use pricing, restrictions, retrofit program under investigation, public education program .		Yes	70	100	49	382	1,430			
48	Leeton	No	No	No	No		Yes	No		Full pay-for-use pricing, member of waterwise, restrictions, public education program (waterweek), separate metering of new multi unit developments; converting town parks to raw water; restricting all new residential meters to 20mm.			49	64	64	524	3,130	565	370	256
22	Lismore (Reticulator)	Yes	Yes	Yes	Yes	670	Yes	Yes		Full pay-for-use pricing, customer billing 3 times/a, building code program, member of waterwise, water restrictions, public education program, rainwater tank rebate, rebate for water efficient appliance, rebate on water audits (special projects), retrofit program, effluent reuse, separate metering of new and some existing multi-unit developments, reservoir drop test, leakage reduction program, monitoring program, review water conservation measures every 2 years.	Yes	Yes	111		70	179	3,850	506	275	60
31	Lithgow									Full pay-for-use pricing, member of waterwise, public education program, water restrictions implemented from Drought Management Plan.	Yes	Yes	85	160	27	181	2,140			
61	Liverpool Plains								6				60	100	27	280	950	98		
102	Lockhart (No WS)																			
5	MidCoast (Combined - Unfiltere	Yes	No	No	No		Yes	Yes		Full pay-for-use pricing, member of waterwise, rainwater tank subsidy, restrictions, retrofit program, public education program, other.	Yes	Yes	120		25	204	10,400	1,730	984	79
32	Mid Western Regional	Yes	No	No	No		Yes	No			Yes	Yes	96		42	286	2,420			
38	Moree Plains (Groundwater	Yes	No	No			Yes	Yes		Full pay-for-use pricing, member of waterwise, restrictions, public education program (media).			62		61	467	3,220	322		
65	Murray (Dual Supply)	Yes	No	No	No		No	No		Full pay-for-use pricing, restrictions, public education.			56		46	222	1,280	85		
101	Murrumbidgee (Groundwat	No	No	No	No		No	No		Full pay-for-use pricing, rainwater tank guidelines, encouraging retrofit program.			20		52	570	710			
41	Muswellbrook	No	No		Yes		No	Yes		Full pay-for-use pricing, member of waterwise, restrictions, public education program.			120	180	76	314	2,870	331	213	114
34	Nambucca (Groundwater)	Yes	No		Yes		No	Yes	6	Full pay-for-use pricing, member of waterwise, restrictions, retrofit program, public education program.	Yes	Yes	90		66	205	1,910			
46	Narrabri (Groundwater)									Full pay-for-use pricing, member of waterwise, restrictions, retrofit program, public education program.			35		27	562	3,740			
63	Narrandera (Groundwater)									Full pay-for-use pricing, member of waterwise, restrictions, public education program.		Yes	58		52	445	1,440	272		
62	Narromine (Groundwater)	No	No	No	No		Yes	No	6	Full pay-for-use pricing, member of waterwise, restrictions, public education program.			62		58	656	1,540	237		
83	Oberon (Reticulator)	Yes	No	No	No		No	Yes		Full pay-for-use pricing, restrictions.			100		48	167	690	79		
19	Orange	Yes	No	No		Yes	No	No		Full pay-for-use pricing, member of waterwise, rainwater tank subsidy, restrictions, public education program.	Yes		141	212	30	221	4,760	670	460	95

Table 8C - 2005/06 Water Conservation Initiatives

	WATER UTILITY	CUSTOMER FOCUSSED MEASURES					BUSINESS FOCUSSED MEASURES			OTHER MEASURES					CONSUMPTION/LOSSES				
		Customer Education Program	Retrofit Program	Rebates for Water Efficient Appliances	Rebates for Water Tanks	Max Rainwater Tank Rebate	Effluent or Stormwater Reuse	Leakage Reduction Program	Customer Billing Period	Other Demand Management Measures	Sound Water Conservation Implemented?	Sound Drought Management Implemented?	Water Usage Charge/kL		Residential Revenue from Usage Charges	Average Annual Residential Consumption	Total Town Water Supplied	Total Water Losses	Real Losses (Leakage)	
		Yes/No	Yes/No	Yes/No	Yes/No	$	Yes/No	Yes/No	months		(Yes/No)	(Yes/No)	Step 1 (c/kL)	Step 2 (c/kL)	(%)	(kL/property)	(ML)	(ML)	(ML)	(L/d/ connection)
		(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14) 2004/05	(15) 2004/05	(16) 2004/05	(17) 2004/05	(18) 2004/05	(19) 2004/05
71	Palerang												92	125		180	540			
36	Parkes	No	No	No	Yes	400	Yes	Yes	4	Full pay-for-use pricing, member of waterwise, restrictions, public education program, non-potable supply for stock, roadworks and swimming pools, IWCM Strategy.	Yes	Yes	60	160	30	362	6,520		465	240
17	Queanbeyan (Reticulator)	Yes	Yes	Yes	Yes	500	Yes	No	3	Full pay-for-use pricing, customer billing 4 times/a, member of waterwise, public education program, water restrictions, rainwater tank rebate, rebate for water efficient appliances, subsidised garden mulch, free water audits, effluent reuse, retrofit program, review water conservation measures, reservoir drop test.	Yes	Yes	100	150	49	185	4,010	760	339	83
33	Richmond Valley									Full pay-for-use pricing, member of waterwise, rainwater tank subsidy, restrictions, retrofit program, public education program.			55	80	39	286	3,040			
8	Riverina (Groundwater) (No	Yes	No	No	No			Yes		Full pay-for-use pricing, customer billing 3 times/a, member of waterwise, building code program, water restrictions, public education program, separate metering of new and existing multi-unit developments, reservoir drop test, leakage reduction program, monitoring program, review of water conservation measures, meter replacement program.	Yes	Yes	70		74	343	16,000	2,400		
4	Rous (Bulk Supplier) (No S	Yes	Yes	Yes	Yes	670	Yes	Yes		Full pay-for-use pricing, member of waterwise, restrictions, retrofit program, public education program, appliance rebates, residential tune up program, school grants.	Yes	Yes	96		100		11,700	60	16	1
3	Shoalhaven	Yes	No	No	Yes	1000	Yes	Yes		Full pay-for-use pricing, quarterly billing, member of waterwise and AWA, rainwater tank subsidy, rainwater tank connection to toilet or washing machine subsidy, restrictions, public education program, Water conservation Tapstar Show, promote retrofitting of showerhead, leak reduction program, monitoring demand, effluent reuse for agriculture.	Yes	Yes	70	105	44	167	15,900	1,330	1,130	70
35	Singleton									Full pay-for-use pricing, member of waterwise, restrictions, public education program.			77		52	309	2,750			
52	Snowy River (Unfiltered)			No	No		No		4	Full pay-for-use pricing, member of waterwise, subsidy, restrictions, DCP rainwater tanks required in new developments.			44			542	2,260			
	Sydney Water	Yes	Yes	Yes	Yes		Yes	Yes	4	Full pay-for-use pricing, member of waterwise, rainwater tank subsidy, restrictions, retrofit program, public education program, leakage reduction, effluent reuse.	Yes	Yes	120	148	77	211	525,000	62,700	52,600	86
13	Tamworth Regional	Yes	Yes	No	No		No	No		Full pay-for-use pricing, billing 4 times/a, member of waterwise, water restrictions, public education program, separate metering for new multi-unit developments, water management plan for premises. Under development - price control, community awarness, residential refit program, water loss management, water conservation including rainwater tank, outdoor watering, effluent reuse and stormwater harvesting .	Yes	Yes	80	85	69	317	10,700	1,290		
69	Temora No WS)									Effluent reuse.										
68	Tenterfield	Yes	No	No	No		No	No	6	Full pay-for-use pricing, member of waterwise, water restrictions, public education program, effluent reuse, leakage reduction program, retrofit program.	Yes	Yes	112		34	163	520			
93	Tumbarumba	No	No	No	No		No	No		Full pay-for-use pricing, restrictions, public education program.	Yes		60	90	27	364	460			
43	Tumut	No	No	No	No		Yes	No		Full pay-for-use pricing, restrictions, public education program, metering.		Yes	80	100	29	301	2,050			
6	Tweed	Yes	No	No	No		No	Yes		Full pay-for-use pricing, member of waterwise, restrictions, public education program.			82		68	221	9,980	1,410	600	78
45	Upper Hunter	No	No	No	No			No	3				100		55	239	2,790	735		
73	Upper Lachlan	Yes	No	No	No		No	No				Yes	92	110	32	148	330	55	20	32
85	Uralla	No	No	No	No		No	No	6	Full pay-for-use pricing, restrictions, considering retrofit program.			70		42	196	330	46	31	67
107	Urana (No WS)																			
9	Wagga Wagga (No WS)																			
88	Wakool (Dual Supply)	No			No			No		Full pay-for-use pricing, member of waterwise, restrictions, public education program.		Yes	80	160	9	589	860			
98	Walcha	No	No	No	No		No	No		Full pay-for-use pricing, member of waterwise, restrictions.			175	260	40	167	230	40		
79	Walgett (Dual Supply)	No	No	No	No			No	4	Full pay-for-use pricing, member of waterwise, considering rainwater tank subsidy, restrictions, public education program, proposing introduction of water meters.		Yes			13	523	2,300			
96	Warren (Dual Supply)	No	No	No	No		No	No		Full pay-for-use pricing, member of waterwise, restrictions, public education program.	Yes	Yes	70	105	20	170	810	145		
55	Warrumbungle	Yes	No	No	No		No	No					90			368	1,250			
95	Weddin (No WS)																			
57	Wellington	Yes	No	No	No		No	Yes	3	Full Pay-for-use pricing, member of waterwise, restrictions, public education program.	Yes	Yes	95	105	38	256	1,020	190	183	177
74	Wentworth (Dual Supply)	No	No		No		Yes	No		Full pay-for-use pricing, restrictions.			110	260	58	104	2,580	55	55	71
16	Wingecarribee	Yes	No	No	No		Yes	No		Full pay-for-use pricing, customer billing 4 times/a, member of waterwise, restrictions, showerhead retrofit program, public education program.	Yes	Yes	53	143	49	220	5,110	553		
2	Wyong	Yes	Yes	No	Yes	650	Yes	Yes	6	Full pay-for-use pricing,residential retrofit program,industrial/commercial water usage audits,retrofit of Council owned facilities,leak detection program,restrictions,improved operational procedures,promotion of effluent reuse schemes,development of groundwater schemes,rainwater tank retrofitting (residential, schools - both subsidised and Council properties), require rainwater tanks for new residential properties and public education programs.	Yes	Yes	93		66	178	14,200	1,090	667	32
56	Yass Valley	Yes	No	No	Yes	200	No	No		Full pay-for-use pricing, higher access charges for larger services, member of waterwise, rainwater tank rebate, water restrictions, free supply of water restrictors, customer billing 3 times/a, public education, compulsary rainwater tanks for new dwellings and encourages retrofitting etc.	Yes	Yes	115		58	195	840	180	100	98
49	Young (Reticulator)	Yes	No	No	No		No	No	3	Full pay-for-use pricing, billing 4 times/a, building code program, member of waterwise, public education program, some stormwater reuse, separate metering of new and some existing multi-unit developments, leak reduction program proposed for 2006/07.			125	170	32	247	1,630	244		

Table 9 - Water Supply - Utility Characteristics

	WATER UTILITY	ASSESSMENTS - CONNECTIONS - POPULATION											ASSETS									WORKFORCE									
		Total No of Assessments				No. of Connections	Connected Properties - Total		Connected Properties - Residential			Population		Mains	Properties Served per km of Main	Water Treatment Works	Other Limited Treatment	Dams	Bores	Pumping Stations	Pumping Stations / 100km of Main	Capital Investment	Total Work Force	% Female	% Undergoing Training	Outsourcing			Injuries	Days Lost	
						(Single Dwellings + Mult Dwellings + Non-res Dwellings + Fire)	(Ratio of Connected Properties to Assessments)	Connected Properties (18) x (19)	(Ratio of Residential Assessments to Total Assessments	(Ratio of Residential Connections to Residential	Connected Residential Properties (18)x(21)x(22a)	(Permanent)	(Peak) (% of Permanent)	(km)	(20) / (25)	(No.)	(No.)	(No.)	(No.)	(No.)	(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)				(18a)	(19)	(20)	(21)	(22)	(22a)	(23)	(24)	(25)	(26)	(27)	(27a)	(28)	(29)	(30)	(30a)	(31)	(32)	33)	(34)	(35)	(36)	(37)	(38)	(39	(40)
		2001/02	2002/03	2003/04	2004/05	2004/05	2004/05	2004/05	2004/05	2004/05	2004/05	2004/05	2004/05	2004/05	2004/05	2004/05	2004/05	2004/05	2004/05	2004/05	2004/05	2004/05	2004/05	2004/05	2004/05	2004/05	2004/05	2004/05	2004/05	2004/05	2004/05
	Sydney Water	1,610,000	1,638,000	1,661,000	1,685,000	1684600	1.00	1,685,000	0.93	1.00	1566000	4,227,600		20,670	82	10		11		151	1										
	Hunter Water	202,000	205,000	209,000	211,200	209000	1.00	211,200	0.93	1.00	196000	512,400		4,480	47	6		2		81	2										
	LWUs with > 10,000 Properties																														
1	Gosford	63,400	64,900	67,300	67,700	58900	0.98	66,100	0.95	0.98	63400	153,200		939	70	1		2		20	2	9.2	0.8	5				5	5	6	93	1
2	Wyong	56,000	57,000	57,900	59,200	57100	0.96	57,100	0.93	0.97	53300	145,000	170	1,070	53	1		1		19	2	17.5	1.3		100							
3	Shoalhaven	44,700	46,100	46,800	47,600	44200	0.92	43,800	0.93	0.92	40800	85,000	350	1,490	29	4		4		29	2	1.5	0.9	9	94	3	10	11	1	3	42	0
4	Rous (Bulk Supplier) (NO SGE)	33,900	34,500	37,300	37,300	35700	0.96	35,800	0.94	0.96	33700	107,200		375	95	2		2	3	11	3	10.5	1.5	27	73					2		
5	MidCoast (Combined - Unfiltered)	34,400	35,200	35,400	36,400	34200	0.96	35,000	0.95	0.96	33300	85,000	100	1,120	31	2	2	2	15	24	2	6.2	1.1	19	100				1	4	8	0
6	Tweed	28,100	28,600	29,500	30,900	21000	0.91	28,100	0.95	0.93	27200	71,400	120	641	44	3		1		20	3	10.2	1.6	2	100	14	6	4	7	3	54	1
7	Port Macquarie-Hastings (Unfiltered)	25,100	25,100	27,700	28,500	24100	0.95	27,100	0.88	0.95	24000	66,200	140	745	36		1	1	1	18	2	18.1	1.5	6	100	25	10	10	3	2	15	0
8	Riverina (Groundwater) (NO SGE)	26,100	26,500	28,300	27,700	25900	0.96	26,600	0.92	0.96	24300	60,500	100	1,420	19	6	10		30	72	5	3.1	2.7	7	54				6	7	74	0
10	Coffs Harbour	21,700	22,400	23,400	24,000	21600	0.94	22,600	0.94	0.94	21200	58,400	120	572	39	1	2	2		7	1		1.3	7	90				12	3	114	2
11	Albury City	18,436	18,497	20,800	21,300	17500	1.03	22,000	0.92	1.03	20400	47,400	110	511	43	1				18	4	0.7	0.6	14	100	80	33	18	0	0	0	0
12	Fish River WS (Unfiltered, Bulk Sup	23,000	23,000	23,000	23,000		0.94	21,600	0.87	0.94	18800	62,000		238	91	1		2		3	1	0.2	0.6	8	100			10				
13	Tamworth Regional	18,045	18,025	18,300	19,530	17700	1.01	19,700	0.90	1.01	17700	44,700	170	642	31	5	1	2	8	16	2	0.0	2.0	3	49	5	5	5	5	7	178	2
14	Clarence Valley	19,970	20,300	20,400	20,400	16100	0.94	19,200	0.83	0.98	16600	48,400	140	1,360	14		8			8	1											
15	Eurobodalla (Unfiltered)	18,200	18,480	18,890	19,730	17800	0.94	18,500	0.95	0.94	17700	41,800	260	750	25		1	1	3	12	2	4.1	1.6	3	100	5		37	5	3	21	0
16	Wingecarribee	16,700	17,520	18,420	19,210	16200	0.95	18,300	0.89	0.96	16500	41,800	100	622	29	3		2		11	2	0.8	1.4	8	42			5	3	4	57	1
17	Queanbeyan (Reticulator)	13,800	13,930	15,390	16,430	11200	1.03	16,900	0.87	1.04	14900	34,300	100	272	62					4	1	1.3	0.4	14	71		10			0		
18	Dubbo	13,100	13,070	13,440	13,800	14500	1.11	15,300	0.89	1.10	13500	34,100	110	442	35	1			7	7	2	5.8	1.0	4	93				0	2	0	0
19	Orange	13,900	13,890	14,640	15,010	13300	1.00	15,000	0.92	1.00	13900	39,000	100	447	34	2	1	2	4	2	0	2.8	0.9		100	10	5	5				
20	Goulburn Mulwaree	9,350	9,390	9,480	13,950	9300	1.03	14,400	0.83	1.03	11900	22,500		231	62	2	1	2		5	2	6.8	1.0	11				10	2	11	21	1
21	Bathurst Regional	11,900	12,070	12,070	12,870	11300	1.06	13,600	0.92	1.07	12700	34,700	170	370	37	1		2		7	2	2.9	1.0		100		1	4	0		0	
22	Lismore (Reticulator)	12,470	12,560	12,740	12,910	12500	1.05	13,500	0.90	1.06	12400	34,200		331	41		2	1		5	2	0.1	1.1	5	41		5	5	8	6	61	2
23	Bega Valley (Unfiltered)	12,600	12,600	13,180	13,230	10900	0.97	12,900	0.92	0.98	12000	26,900	150	557	23		6	3	11	19	3	0.4	2.9	3	100				6	2	26	0
24	Ballina (Reticulator)	12,600	11,410	13,180	13,180		0.93	12,300	0.91	0.93	11200	33,300		326	38	1		1	2	4	1	0.3										
25	Kempsey (Groundwater)	10,900	10,870	11,230	11,470	10500	1.04	11,900	0.86	1.03	10200	24,300	120	587	20		9	2	38	18	3	4.4	1.4	12	100	5		10	3	0	54	1
26	Country Energy	10,200	10,260	10,130	10,390	10400	1.01	10,500	0.90	1.01	9400	22,000	100	362	29	1	1	3		7	2		4.8	6	100				0	1	0	0
27	Byron (Reticulator)	10,100	10,360	10,500	10,610	9500	0.96	10,200	0.90	0.96	9200	28,000	180	217	47	1	1			6	3	0.4	1.0	10	100				0	1	0	0
28A	Goldenfields (Reticulator) (NO SGE	10,900	10,900	10,200	10,200	10200	0.94	9,600	0.70	0.94	6700	37,600		1,820	5		3		2	22	1		2.5									
28B	Goldenfields (Bulk Supplier) (NO S	18,800	18,800	18,800	18,800	10200	0.94	17,700	0.79	0.94	14000	37,600		2,130	8	1	4		4	14	1	5.3	1.7									
	LWUs with 3,001 - 10,000 Properties																														
29	Armidale Dumaresq	7,750	7,750	8,010	8,160	7600	0.98	8,000	0.92	0.98	7400	23,000	100	302	26	1		3		11	4	0.5	1.7	4	29				0	3	0	0
30	Griffith	9,000	9,000	9,000	8,650	8700	0.85	7,400	0.84	0.84	6100	24,000	110	435	17	2				2	0	3.2	2.9	5	100	5	5	10	6	3	17	0
31	Lithgow	7,170	7,130	7,380	7,380	7400	0.98	7,200	0.93	0.98	6700	20,000		460	16	1		1		6	1	0.3										
32	Mid-Western Regional	6,020	6,020	6,210	6,390	6200	1.02	6,500	0.91	0.96	5600	13,200	150	311	21	1	2	2	37	11	4	5.9	2.0	8	92				1	3	2	0
33	Richmond Valley	6,600	6,720	6,720	6,720	6800	0.97	6,500	0.93	0.97	6100	17,300	100	176	37	1				5	3	0.1	1.8	4	35					1		
34	Nambucca (Groundwater)	6,380	6,080	6,240	6,290	6500	0.95	6,000	0.90	0.95	5400	15,500	140	184	32	1			9	2	1	0.5	1.0	8	17	20	15	20	0	1	0	0
35	Singleton	5,520	5,630	5,800	6,060	5600	0.95	5,800	0.89	0.95	5100	15,800	100	146	39	1				5	3	0.9	1.2		21				0	4	0	0
36	Parkes	5,810	5,860	5,860	5,940	5300	0.95	5,600	0.85	0.95	4800	11,600		425	13	1		2	5	8	2	0.9	2.3		100				2	1	19	1
37	Inverell	4,950	5,030	5,120	5,170	5100	0.98	5,100	0.91	0.99	4600	11,700	110	235	22	2	1		1	6	3	1.6	1.6	6	49			10	0	3	0	0
38	Moree Plains (Groundwater)	5,220	4,850	5,160	5,160	4900	0.97	5,000	0.88	0.96	4400	10,800	110	155	32	2	3		11	3	2	0.6	3.1	13	100	10	1	5	0	2	8	0
39	Cowra	5,190	5,190	5,250	5,250	5300	0.95	5,000	0.94	0.95	4700	12,600	110	240	21	1				4	2	0.5	0.4		100				0	2	0	0
40	Central Tablelands (NO SGE)	5,050	5,040	5,190	5,220	5200	0.95	5,000	0.76	0.95	3800	11,000	110	437	11	2	1	2	5	28	6	0.0	3.8	16	21				0	2	0	0
41	Muswellbrook	4,850	4,950	5,190	5,070	5100	0.94	4,800	0.89	0.96	4300	15,300		128	37	1	3		1	2	2	4.5	2.2	14	95			5		7		

Table 9 - Water Supply - Utility Characteristics

	WATER UTILITY	ASSESSMENTS - CONNECTIONS - POPULATION											ASSETS									WORKFORCE									
		Total No of Assessments				No. of Connections	Connected Properties - Total		Connected Properties - Residential			Population	Mains	Properties Served per km of Main	Water Treatment Works	Other Limited Treatment	Dams	Bores	Pumping Stations	Pumping Stations / 100km of Main	Capital Investment	Total Work Force	% Female	% Undergoing Training	Outsourcing			Injuries	Days Lost		
						(Single Dwellings + Mult Dwellings + Non-res Dwellings + Fire)	(Ratio of Connected Properties to Assessments)	Connected Properties (18) x (19)	(Ratio of Residential Assessments to Total Assessments	(Ratio of Residential Connections to Residential	Connected Residential Properties (18)x(21)x(22	(Permanent)	(Peak) (% of Permanent)	(km)	(20) / (25)	(No.)	(No.)	(No.)	(No.)	(No.)	(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)				(18a)	(19)	(20)	(21)	(22)	(22a)	(23)	(24)	(25)	(26)	(27)	(27a)	(28)	(29)	(30)	(30a)	(31)	(32)	33)	(34)	(35)	(36)	(37)	(38)	(39	(40)	
		2001/02	2002/03	2003/04	2004/05	2004/05	2004/05	2004/05	2004/05	2004/05	2004/05	2004/05	2004/05	2004/05	2004/05	2004/05	2004/05	2004/05	2004/05	2004/05	2004/05	2004/05	2004/05	2004/05	2004/05	2004/05	2004/05	2004/05	2004/05	2004/05	2004/05
42	Corowa	4,423	4,503	4,670	4,740	3400	0.93	4,400	0.72	0.92	3100	9,500	120	178	25	1	2			3	2	0.2	0.8		86				0	0	0	0
43	Tumut	4,160	4,200	4,200	4,530	5500	0.95	4,300	0.85	0.95	3700	11,700	100	161	27	4	1	2		10	6	0.2	2.3		20				3	3	54	2
44	Gunnedah (Groundwater)	4,140	4,140	4,140	4,170	4200	1.02	4,300	0.90	1.02	3800	10,200		178	24		4		17	17	10		1.6		100		5	5	0	0	0	0
45	Upper Hunter	3,824	3,694	3,730	4,560	3900	0.92	4,200	0.91	0.93	3900	9,100	120	160	26	1	2	1	9	10	6	0.1	1.3		77				0	2	0	0
46	Narrabri (Groundwater)	4,200	4,220	4,250	4,250		0.98	4,200	0.91	0.98	3800	10,800		134	31		6			2	1											
47	Bellingen (Unfiltered)	3,990	4,060	4,060	4,150	3900	0.95	3,900	0.90	0.95	3600	9,200	100	156	25	1	1	1	4	6	4	0.4	1.5		100		5	5	0	1	0	0
48	Leeton	3,630	3,740	3,740	4,260	4000	0.92	3,900	0.85	0.92	3300	8,300	110	132	30	3		1		5	4	0.5	1.3	10	80				2	2	2	0
49	Young (Reticulator)	3,570	3,640	3,760	3,770	3700	1.04	3,900	0.87	1.04	3400	8,900	120	113	35					2	2	0.2	1.0	13	100	10	30	30	5	11	15	2
50	Cooma-Monaro	3,660	3,660	3,650	3,690	3600	0.95	3,600	0.86	0.95	2800	7,600		129	28	1	2			3	2	0.1										
51	Forbes	3,450	3,450	3,450	3,530	3500	1.01	3,600	0.90	1.01	3200	7,600	100	123	29	1			1	3	2	0.1	1.7	17	67	5	10	10	1	2	2	0
52	Snowy River (Unfiltered)	2,400	2,370	2,370	2,370	3100	1.43	3,400	0.89	1.43	3000	4,200	570	131	26		6			9	7		3.2	9	36			60	3	0	0	0
53	Berrigan (Dual Supply)	2,900	2,960	2,980	3,310	2700	0.98	3,200	0.89	0.98	2900	6,300	120	200	16	4		3		7	4	0.1	3.1		100				0	5	0	0
LWUs with 1,501 - 3,000 Properties																																
54	Deniliquin	3,400	3,400	3,200	3,160	3500	0.96	3,000	0.87	0.95	2600	8,000	150	156	19	1				1	1	0.1	1.3		100				0	9	0	0
55	Warrumbungle	3,070	3,060	3,060	3,060	4000	0.99	3,000	0.87	0.97	2600	7,000	100	116	26	2	1	1	5	8	7		5.0		67							
56	Yass Valley	2,630	2,650	2,940	2,950	2800	0.98	2,900	0.91	0.98	2600	6,800	110	108	27	1		1	1	1	1	0.2	1.7	10	60			10	2	2	8	1
57	Wellington	2,830	2,830	2,930	2,880	2800	0.98	2,800	0.89	0.98	2500	6,300	100	75	38	1				1	1	0.3	1.8	5	100				0	2	0	0
58	Cootamundra (Reticulator)	2,730	2,700	2,820	2,830	2800	0.99	2,800	0.89	0.99	2500	7,000	110	90	31						0	0.1	0.7		50				0	4	0	0
59	Lachlan	2,630	2,630	2,630	2,640	2500	1.02	2,700	0.79	1.02	2100	5,600	100	163	17	3		4	1	7	4	1.3	1.9		100				0	1	0	0
60	Glen Innes Severn	3,130	3,000	2,990	2,970	3000	0.90	2,700	0.90	0.91	2400	6,400	120	94	28	2				2	2		1.6		100				0	4	0	0
61	Liverpool Plains	2,231	2,231	2,250	2,260	2200	0.98	2,200	0.85	0.98	1900	5,000	100	98	23		4	1	6	7	7	0.0	2.0		44				0	15	0	0
62	Narromine (Groundwater)	2,080	2,110	2,110	2,130		0.95	2,000	0.88	0.95	1800	5,000		55	37		1	2	14	3	5		2.0	25	50							
63	Narrandera (Groundwater)	2,170	2,200	2,200	2,180	2100	0.92	2,000	0.85	0.92	1700	4,800	110	66	31		1		2	3	5	0.1	1.7	7	100	5	5	10	1	3	8	1
64	Dungog (Reticulator)	2,040	2,020	2,050	2,100	2000	0.95	2,000	0.90	0.95	1800	7,700	100	97	21	1				3	3	0.1	2.3		89		15		0	5	0	0
65	Murray (Dual Supply)	2,000	2,030	2,030	2,030	2300	0.95	1,900	0.93	0.95	1800	5,400	210	119	16	2				2	2		1.3		100				0	4	0	0
67	Cobar	2,020	2,020	2,020	2,020	2000	0.95	1,900	0.89	0.95	1700	5,300	100	107	18	1	4	2	1	6	6	0.1	5.4	10	42					1		
66	Cobar WB (Bulk Supplier)	2,020	2,020	2,020	2,020		0.95	1,900	0.89	0.95	1700	4,800		350	5		1			3	1		4.7									
68	Tenterfield	1,800	1,800	2,030	2,000	1800	0.95	1,900	0.90	0.95	1700	3,600		64	30	1	1	1	2	2	3	0.1	2.9		91			3	2	2	25	2
70	Kyogle	1,720	1,710	1,850	1,890	1800	0.95	1,800	0.90	0.95	1600	3,700	120	65	28	1	3	1	1	4	6	0.3	3.1		100	5	5		0	2	0	0
71	Palerang	1,660	1,580	1,620	1,880	1700	0.95	1,800	0.95	0.95	1700	3,500		51	35	1	2	2	5	2	4		1.3		55				1	1	0	0
73	Upper Lachlan	1,510	1,450	1,450	1,720	1700	1.00	1,700	0.81	1.00	1400	3,500	110	52	33	2	1	1	4	3	6		4.1		100				0	2	0	0
74	Wentworth (Dual Supply)	1,600	1,620	1,690	1,800	2100	0.95	1,700	0.90	0.95	1500	3,900	100	164	10	3				8	5	0.1	3.2	9	55			2	0	4	0	0
75	Coonamble (Groundwater)	1,560	1,520	1,520	1,550	1500	1.02	1,600	0.89	1.02	1400	4,400	100	64	25		3		7	7	11		2.2	9	100				3	5	125	16
LWUs with 200 - 1,500 Properties																																
76	Harden (Reticulator)	1,520	1,520	1,530	1,570	1600	0.96	1,500	0.73	0.95	1100	3,900		168	9					3	2		2.3	14	29		3	1	0	2	0	0
79	Walgett (Dual Supply)	1,700	1,660	1,660	1,680	1700	0.85	1,400	0.90	0.85	1300	6,600	190	102	14	2	4		5	7	7											
80	Greater Hume	1,401	1,430	1,480	1,500	1500	0.95	1,400	0.97	0.95	1400	3,900	110	132	11	1	1		2	2	2	0.1	1.1		67				0	0	0	0
81	Gwydir	1,450	1,460	1,450	1,450	1400	0.95	1,400	0.91	0.95	1300	2,700	180	85	16		4		9	1	1		2.9	5	100			10	0	9	0	0
82	Gloucester	1,510	1,470	1,470	1,440	1400	0.95	1,400	0.92	0.95	1300	3,100	120	64	21	1	1		1	8	13	0.4	2.4		67			55	2	1	5	1
83	Oberon (Reticulator)	1,220	1,220	1,240	1,340	1300	1.01	1,400	0.84	1.02	1100	3,000	130	34	40	1				1	3	0.0	1.5		100			10	0	2	0	0
84	Gilgandra (Groundwater)	1,350	1,350	1,350	1,370	1300	0.98	1,300	0.89	0.98	1200	3,000	110	49	27	1			4	5	10	0.2	1.5		50			25	1	4	3	1

Table 9 - Water Supply - Utility Characteristics

	WATER UTILITY	ASSESSMENTS - CONNECTIONS - POPULATION											ASSETS									WORKFORCE									
		Total No of Assessments				No. of Connections	Connected Properties - Total		Connected Properties - Residential			Population	Mains	Properties Served per km of Main	Water Treatment Works	Other Limited Treatment	Dams	Bores	Pumping Stations	Pumping Stations / 100km of Main	Capital Investment	Total Work Force	% Female	% Undergoing Training	Outsourcing			Injuries	Days Lost		
						(Single Dwellings + Mult Dwellings + Non-res Dwellings + Fire)	(Ratio of Connected Properties to Assessments)	Connected Properties (18) x (19)	(Ratio of Residential Assessments to Total Assessments	(Ratio of Residential Connections to Residential	Connected Residential Properties (18)x(21)x(22	(Permanent)	(Peak) (% of Permanent)	(km)	(20) / (25)	(No.)	(No.)	(No.)	(No.)	(No.)	(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)				(18a)	(19)	(20)	(21)	(22)	(22a)	(23)	(24)	(25)	(26)	(27)	(27a)	(28)	(29)	(30)	(30a)	(31)	(32)	(33)	(34)	(35)	(36)	(37)	(38)	(39	(40)	
		2001/02	2002/03	2003/04	2004/05	2004/05	2004/05	2004/05	2004/05	2004/05	2004/05	2004/05	2004/05	2004/05	2004/05	2004/05	2004/05	2004/05	2004/05	2004/05	2004/05	2004/05	2004/05	2004/05	2004/05	2004/05	2004/05	2004/05	2004/05	2004/05	2004/05
85	Uralla	1,240	1,270	1,290	1,300	1300	1.01	1,300	0.86	1.02	1100	2,300	100	36	36	1		1		1	3	0.0	0.8						0	0	0	0
86	Hay (Dual Supply)	1,290	1,290	1,290	1,320	1300	0.98	1,300	0.88	0.98	1100	2,900		86	15		1			3	3	0.2	1.5		100			30	0		0	
87	Bourke (Dual Supply)	1,700	1,700	1,700	1,700	1200	0.75	1,300	0.81	0.75	1000	3,500		87	15	1	1			2	2		3.1		100				0	2	0	0
88	Wakool (Dual Supply)	1,350	1,350	1,350	1,330	1200	0.95	1,300	0.85	0.95	1100	2,800		119	11	2	6			8	7	0.2	0.2		0				0	0	0	0
89	Bogan	1,190	1,190	1,190	1,190	1000	1.01	1,200	0.86	1.01	1000	2,500		48	25	1				1	2		3.3	25	25							
90	Guyra	1,180	1,180	1,190	1,190	1400	0.95	1,100	0.90	0.95	1000	3,500	100	60	19	1		2		1	2	0.1	1.3		100	2	2	2	0	0	0	0
91	Cabonne	1,090	1,100	1,090	1,130	1100	0.95	1,100	0.86	0.95	920	2,200	100	87	12	1	3	2	2	3	3	0.1	4.7	20	80				0	2	0	0
92	Carrathool (Groundwater)	1,130	1,130	1,130	1,130	1100	0.95	1,100	0.89	0.95	960	2,000	100	475	2		5	3	7	14	3	0.3	2.7		100				0	4	0	0
93	Tumbarumba	1,030	1,070	1,070	1,080	1000	0.95	1,000	0.91	0.95	930	2,000	170	60	17		2			3	5	0.1	4.9	20	60				0	6	0	0
94	Gundagai	940	960	960	1,000	1000	1.02	1,000	0.85	1.02	870	2,400	170	36	28	1				1	3	0.1	2.1		100		15	10	0	1	0	0
96	Warren (Dual Supply)	1,030	1,030	1,070	1,060	1000	0.91	960	0.89	0.90	850	2,400	100	53	18		1		5	2	4	0.0	2.5	10	100				0	4	0	0
97	Bombala	910	910	900	900	800	0.95	860	0.84	0.95	720	1,900	110	37	23	1	1			3	8		2.1	11	100				0	4	0	0
98	Walcha	830	820	820	810	800	1.01	820	0.85	1.01	700	1,600	110	50	16	1				3	6		2.1		57				0	1	0	0
100	Balranald (Dual Supply)	800	800	850	840	800	0.95	800	0.86	0.95	690	2,000	100	29	27	1	1			3	10	0.0	1.3	5	100				0	3	0	0
101	Murrumbidgee (Groundwater)	730	750	750	770	700	1.03	790	0.89	1.03	710	1,700		29	28		2		4	3	10	0.0	2.0		0				0	0	0	0
103	Central Darling (Dual Supply)	730	730	730	720	700	1.00	720	0.88	1.00	630	1,400		66	11	1	2		1	7	11	0.5	3.7		100				0	3	0	0
104	Boorowa	620	610	620	610	600	0.94	570	0.96	0.94	560	1,200	100	100	6	1				1	1		2.6		0							
105	Brewarrina	620	620	550	550	500	0.86	470	0.87	0.94	450	1,500	120	38	12	1	1	1	1	4	10	0.1	2.5		100	50			0	4	0	0
106	Jerilderie (Dual Supply)	460	460	460	490	500	0.93	460	0.77	0.93	350	970		40	11		1			1	3		2.2		100				0	2	0	0

Blank Page

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

	WATER UTILITY	ASSET MANAGEMENT																				WATER RESOURCE MANAGEMENT																			
		Leakage (from Table 8)							Main Breaks			Unplanned 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)							
		(L/d per connection)			(ILI)*	Reservoir Drop Test			(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) (from Table 8)				For outdoor uses or industry (ML)			(Non-potable Town Water Supply + Agricultural Use)/Total Town Water Supplied (%)			(%)		Drought (Y/N)	Demand (Y/N)	From Table 8 (1) ÷ [(18) x (21) x (22)] (kL/property)							
		(41)			(41a)	Yes/No (41b)	Year (41c)	Result % (41d)	(42)			(43)			(44)	(45)	(46)	(47)	(48)	(49)				(50)			(51)			(53)		(54)	(55)	(56)							
		2002/03	2003/04	2004/05	2004/05	2004/05	2004/05	2004/05	2002/03	2003/04	2004/05	2002/03	2003/04	2004/05	2004/05	2004/05	2004/05		2004/05	2001/02	2002/03	2003/04	2004/05	2002/03	2003/04	2004/05	2002/03	2003/04	2004/05	2003/04	2004/05	03/04	04/05	2001/02	2002/03	2003/04	2004/05					
	Sydney Water		62	86	2.1				51	38	38	275	260	234	0.4					624,000	634,700	563,000	525,000				3	3	3			P	P	251	255	224	211					
	Hunter Water		68	95	1.7				47	45	42	420	368	388	0.3					78,700	77,600	77,000	69,900				7	8	6			P	P	209	222	208	197					
	LWUs with > 10,000 Properties																																									
1	Gosford	51	51	36	0.7				32	36	30	220	278	265	0.2	1.5	76	0.21	309	18,300	18,300	16,900	15,200					1	1	136	196	O	P	226	214	193	180					
2	Wyong	50	46	32		Yes	2004	4.7	4	6	5	69	24	34	0.1	0.6			404	16,700	15,300	15,000	14,200			30			0	126	130	O	O	219	197	188	178					
3	Shoalhaven	72	80	70					17	20	11			4	0.0	0.0	40	0.25	71	17,600	19,000	18,900	15,900	3,730	3,270	3,370	1	11	10	148	173	P	P	197	212	230	167					
4	Rous (Bulk Supplier) (NO SGE)	23	23	1		No	2005		13	13	13	5	4	4	1.9	0.1			95	12,900	9,950	11,500	11,700							140	124	P	P									
5	MidCoast (Combined - Unfiltered)	59	139	79		No			19	13	13				0.6				339	11,900	11,100	11,300	10,400						1	155	110	O	O	245	226	219	204					
6	Tweed	201	72	78		No			4	5	7	60	46	74	0.6	3.6			71	10,300	8,740	9,540	9,980				3	4	4	103	132	O	O	243	213	219	221					
7	Port Macquarie-Hastings (Unfiltered	80	52	95		No			3	5	4	12	13	15	0.4	0.7	39	0.12	66	6,690	6,190	6,500	7,320					4	4	145	85	P	P	207	192	178	186					
8	Riverina (Groundwater) (NO SGE)	103	127	101		No			15	12	19	110	90	1	0.6	0.2	182	1.25	40	15,400	17,800	16,100	16,000							188	149	P	P	353	402	354	343					
10	Coffs Harbour	45	44	46					10	11	10	29	32	33	0.1	0.1			128	5,660	5,490	6,030	6,010			150	7	8	8		125	P	P	189	183	189	186					
11	Albury City	104	102	86		Yes			23	13	10			0	1.7	0.1	226	0.47	95	11,184	11,403	10,668	14,400			5,290	45	46	31		151	P	P	364	378	307	284					
12	Fish River WS (Unfiltered, Bulk Sup								4	6	5			0	0.0	0.1	110	0.26		15,700	15,500	11,700	16,300		6,730	7,520						O	O									
13	Tamworth Regional	109	141	98					11	10	19			0	0.1	2.2	179	0.57	8	11,422	10,748	9,765	10,700			160		4			136	P	P	340	361	294	317					
14	Clarence Valley	131	111	126					6	8	6			52	0.3	0.3				8,910	7,100	7,610	16,500			4,180		2	2		89	O	O	252	188	216	178					
15	Eurobodalla (Unfiltered)	47	45	43					10	1	2		20	20	0.7	2.9			91	4,950	4,760	5,590	4,820		220	180	31	4	4	141	157	P	P	218	206	183	151					
16	Wingecarribee	52	63	52					16	17	18		80	85	0.2		79	0.44	73	5,100	6,040	5,170	5,110						2	153	424	P	P	235	241	214	220					
17	Queanbeyan (Reticulator)	84	132	83		No	2000		8	2	3			0	0.0	0.1				5,240	5,700	4,030	4,010				1	2	3	207	133	P	P	231	251	155	185					
18	Dubbo	108	232	176		No			7	5	6	58	79	26	0.2	0.0	82	0.35	140	9,030	10,200	9,890	9,580				21	16	23	192	187	O	O	368	503	459	462					
19	Orange	99	87	95		No			33	10	11			73	0.1	0.4			126	7,510	6,600	4,930	4,760	3,080	3,360	3,390	92	69	71	162	119	O	P	487	303	206	221					
20	Goulburn Mulwaree	77	56	41		No			14	29	15	14			1.3	1.2			189	4,880	3,500	2,710	2,340				56	66	48		106	P	P	354	246	147	93					
21	Bathurst Regional	95	101	115		No			3	4	5				2.0	0.5			245	6,480	6,260	6,810	7,960	260		30					138	O	O	302	296	333	283					
22	Lismore (Reticulator)	56	42	60		No			27	17	6	75	84	32	0.9	1.0	322	2.47	178	4,080	3,010	3,660	3,850				14	8	4			O	O	225	155	186	179					
23	Bega Valley (Unfiltered)	52	68	53		No			6	5	4				2.3	0.2	106	0.53	35	3,590	4,460	3,970	3,540	180			13	14	15	184	144	P	O	184	174	158	178					
24	Ballina (Reticulator)					Yes	1996	11.0	8	6	8	5	4			3.3	83	0.57	110	4,210	3,450	4,430	4,470		320	330	18		7			P	P	270	202	234	220					
25	Kempsey (Groundwater)	65	65	126		No			19	9	34	32			0.3				104	4,020	3,970	4,300	4,170		260	220	7	6	5	133	150	O	O	217	197	197	187					
26	Country Energy	101	78	85		No			7	15	12				0.3	0.2			420	8,150	5,620	6,050	7,230	1,780	560	1,870	14	15	24	170		O	O	324	286	323	281					
27	Byron (Reticulator)	75	55	99		Yes	2005	12.7	37	13	33	3	2	5	0.5	2.9			67	3,630	2,640	3,560	3,020		580		11	16	20			O	P	282	184	200	214					
28A	Goldenfields (Reticulator) (NO SGE	119	112	202					7	24	18	171	129	151	1.5	0.7			34	5,790	6,860	5,660	3,890									O	O	294	304	335	311					
28B	Goldenfields (Bulk Supplier) (NO SGE)																		24		10,700	9,560	9,420	120	170	180				194		O	O									
	LWUs with 3,001 - 10,000 Properties																																								
29	Armidale Dumaresq		82	67		No				11	31				0.3		21	0.06	137	3,270	3,320	2,910	3,160		60	60	39	36	20	191	175	P	P	280	283	239	253					
30	Griffith	172	169	162					26	16	14	26	39	37	0.8	0.6			37	9,480	9,200	9,010	9,420	530	750	820	4	2	4	179	163	O	P	791	774	596	685					
31	Lithgow	47	47						3	4		43	15						119	2,110	2,110	2,140	***2,140***									P	P	227	227	214	181					
32	Mid-Western Regional			64					10	9	11		79	77	0.2	0.3	142	0.62	213	2,880	2,800	2,620	2,420				4	3	4		253	P	P	295	296	277	286					
33	Richmond Valley	84	71	73					11	11	11				2.0	2.2	368	1.97	180	3,500	2,940	2,930	3,040				2	7	20			O	O	346	286	275	286					
34	Nambucca (Groundwater)	55	55	48		No			3	6	6	6	17	13	0.5	0.9			85	1,900	1,740	1,810	1,910					7		123	105	P	P	249	238	186	205					
35	Singleton	93	97	81					17	8	7	374	363	347	0.5	6.5	97	0.35	106	2,970	3,130	2,800	2,750				36	40	23	162	151	O	O	374	390	301	309					
36	Parkes	219	215	240		Yes	2004		16	15	14				0.2				11	6,990	6,850	6,720	6,520			210	4	4	3			P	P	388	415	378	362					
37	Inverell	65	70	68		No			10	10	10	5	5	5	0.2	0.2	289	1.39	88	1,970	2,140	2,080	2,100							134	131	O	O	227	257	238	227					
38	Moree Plains (Groundwater)	69	135	108					9	42	14		284		193.5	0.3			13	2,740	3,980	2,350	3,220				8	17				O	O	535	478	261	420					
39	Cowra	52	102	66		No			4	6	8				0.6	0.2			139	2,440	3,300	2,560	2,180			40				192	217	O	O	244	370	273	240					
40	Central Tablelands (NO SGE)	154	129	66		No			10	7	14	2	6	87	3.0	1.0	413	2.51	60	2,900	2,650	2,160	2,090							271	245	O	O	244	278	254	236					
41	Muswellbrook	75	78	114		No			19	23	29	67	29	89	0.4	0.4			257	2,360	2,430	2,630	2,870	640	870	1,150	71	42	40	195	155	O	O	357	345	343	314					

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

	WATER UTILITY	ASSET MANAGEMENT																				WATER RESOURCE MANAGEMENT																			
		Leakage (from Table 8)						Main Breaks			Unplanned 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)			
		(L/d per connection)			(ILI)*	Reservoir Drop Test Yes/No	Year	Result %	(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) (from Table 8)				For outdoor uses or industry (ML)			(Non-potable Town Water Supply + Agricultural Use)/Total Town Water Supplied			(%)		Drought (Y/N)	Demand (Y/N)	From Table 8 (1) ÷ [(18) x (21) x (22)] (kL/property)			
		(41)			(41a)	(41b)	(41c)	(41d)	(42)			(43)			(44)	(45)	(46)	(47)	(48)	(49)				(50)			(51)			(53)		(54)	(55)	(56)			
		2002/03	2003/04	2004/05	2004/05	2004/05	2004/05	2004/05	2002/03	2003/04	2004/05	2002/03	2003/04	2004/05	2004/05	2004/05	2004/05		2004/05	2001/02	2002/03	2003/04	2004/05	2002/03	2003/04	2004/05	2002/03	2003/04	2004/05	2003/04	2004/05	03/04	04/05	2001/02	2002/03	2003/04	2004/05
42	Corowa	259	262	158					30	34	15			41	0.4	0.3			68	4,045	4,406	3,892	3,260				11	13	13			P	P	667	772	583	587
43	Tumut	72	80	59		No			6	5	25			139	0.5	2.5			69	2,110	2,520	4,010	2,050	50	1,650	90	3		1	149		O	O	304	325	306	301
44	Gunnedah (Groundwater)	122	133	112		No			16	6	15	4	5	4	0.6	0.3				3,110	3,390	2,660	2,850				18	19	17	300	173	O	O	488	565	357	367
45	Upper Hunter	173	174	96		No			34	71	52		442	3	1.3	0.8	123	0.83	301	2,374	2,678	2,206	2,790			510		25	20		58	O	O	290	330	277	239
46	Narrabri (Groundwater)								178	115							473	2.87	130	4,420	4,430	3,740	***3,740***									O	O	650	734	561	562
47	Bellingen (Unfiltered)	65	59	70					27	21	14				1.3				50	1,600	1,440	1,470	1,390								129	O	O	268	237	225	223
48	Leeton	230	240	253		No			12	13	14	47	49	38	1.1	1.0			314	2,770	3,200	3,250	3,130							209	163	O	O	497	568	578	524
49	Young (Reticulator)	74	79	67					17	14	13	21	58	77	0.0	1.1				1,600	1,690	1,590	1,630			130	13	6	8	197	170	O	O	278	290	264	247
50	Cooma-Monaro	58	78						27	47							283	2.23	145	1,470	1,730	1,700	***1,700***				2			174		O	O	281	329	314	344
51	Forbes	271	168	127		No			33	29	25	42	205	195	0.4	0.1			155	4,030	3,750	2,410	2,350	660	90	150				196	141	O	O	581	597	410	377
52	Snowy River (Unfiltered)	38	64	120					2	2	14			1	0.0	0.3				670	1,110	2,210	2,260									O	O	130	313	591	542
53	Berrigan (Dual Supply)	75	81	81					9	8	30	3	3	6	0.2	0.0				2,370	2,580	2,260	2,210	1,180	1,100	1,090	3	4	9	179	135	P	P	291	356	329	247
LWUs with 1,501 - 3,000 Properties																																									
54	Deniliquin	131	146	107		Yes	2005	0.5	18	31	13				0.2	11.1	15	0.35		3,430	3,800	3,330	2,960	730	720	690	24	19	19	175	174	P	P	581	642	696	597
55	Warrumbungle	66	54	52					14	14		6	10		0.4	0.3			46	1,500	1,190	1,340	1,250					19	6			O	O	362	292	311	368
56	Yass Valley	62	49	98		No			15	15	11	3	10	4	1.3	0.7	29	0.09	140	1,030	810	850	840				30	20	21	153	196	O	O	259	201	204	195
57	Wellington	203	145	179		Yes	2004	25	16	28	13	65	139	64	0.7	1.2			385	1,100	1,360	1,190	1,020							220	200	P	P	288	438	298	256
58	Cootamundra (Reticulator)	78	71	53					293	222	333			0	0.0					1,230	1,120	1,000	900				28	23	26		54	O	O	281	303	273	239
59	Lachlan	79	113	78		No			4	5	6	3	6	12	0.4	0.5			125	1,110	1,590	1,980	1,430		230	250	8	8	12	200	235	O	O	308	479	548	382
60	Glen Innes Severn	52	51	41					7	3	10	18	7	7						830	860	729	740					2			139	O	O	195	198	193	187
61	Liverpool Plains	80	82	71		No			11	10	8	24		27	0.0	0.9			57	1,064	1,075	832	950					8			162	O	O	320	330	247	280
62	Narromine (Groundwater)								4	4	4				0.0	3.6			356	1,340	1,760	1,540	***1,540***		100	100						O	O	454	574	663	656
63	Narrandera (Groundwater)	312	260	109					12	6	18	99	74	70	0.0	1.5			110	1,600	1,770	1,630	1,440		50	50				217	191	P	O	576	608	556	445
64	Dungog (Reticulator)	65	69	56		No			48	30	23	47	1,011	259	0.0	0.7			32	780	830	720	680				31	30	36	176	150	O	P	209	222	186	175
65	Murray (Dual Supply)	73	76	54					26	13	8	185	370	60	0.0	0.0			98	1,760	1,880	1,550	1,280	900	760	530	1	13	6	179	138	O	O	262	267	237	222
67	Cobar	121	146	120					8	3	3	4	2	2	0.0	0.0			191	1,710	1,910	1,660	***1,660***	200	200	200	16	6	6			O	O	522	614	485	485
66	Cobar WB (Bulk Supplier)																			4,000	4,000	4,250	***4,250***							145		O	O				
68	Tenterfield	75	47	47		No			24	17	25	41	49	37	0.5	1.6	93	0.34		640	530	690	520		120		21	15	21	152	267	P	P	231	190	204	163
70	Kyogle	40	34	34		No			28	6	11	23	10	21	0.0	0.5			213	530	480	460	470	80	100	100	7	15	13	142	160	P	P	240	176	187	135
71	Palerang	61	58	52					39		16	39		3	0.0	0.0				620	580	390	540									O	O	262	254	240	180
73	Upper Lachlan	78	79	32		No			29	17	10	14		6	0.6	1.2	337	1.43		520	460	406	330								431	P	O	205	248	187	148
74	Wentworth (Dual Supply)	57	46	72		No			22	9	15	12	14	11	0.0	0.3			116	2,520	3,080	2,760	2,580	1,800	2,190	2,190	11	12	13	406	796	O	O	416	248	224	104
75	Coonamble (Groundwater)	178	199	179		No			73	67	9	79	41	6	0.0				99	1,630	1,820	1,810	1,630	150			8	9	4		192	P	P	980	1,091	1,128	621
LWUs with 200 - 1,500 Properties																																									
76	Harden (Reticulator)	140	140	87					17	13	11	27	27	27	0.0	0.4			81	850	820	1,060	790	190	230		45	17	9			O	O	470	556	466	418
79	Walgett (Dual Supply)	152	178	114		No					42				0.4	0.0			173	2,310	2,310	1,640	2,300	1,300	1,300	1,120	23	28				O	O	450	448	230	523
80	Greater Hume	120	27	68		Yes			34	16	17	166	7	7	0.2	0.2			17	662	761	671	620				22	22	21		103	O	O	329	475	290	318
81	Gwydir	126	143	155		No			41	48	8	50	164	30	0.8	5.7				940	1,080	920	930					5	5		39	O	O	424	490	334	333
82	Gloucester	99	78	53		No				12	16		4	110	0.0	0.0	161	1.08	205	660	520	560	450							166	146	O	P	341	295	265	185
83	Oberon (Reticulator)	117	173	88							24		9	7	1.8	1.1	388	2.21	294	830	890	760	690							128		O	O	202	253	202	167
84	Gilgandra (Groundwater)	113	145	133		No			23	31	41	38	38	34	1.0	0.7			188	890	1,140	1,030	1,050				25	30	30	152	134	O	O	395	488	426	460

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

	WATER UTILITY	ASSET MANAGEMENT																			WATER RESOURCE MANAGEMENT																			
		Leakage (from Table 8)						Main Breaks			Unplanned 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)							
		(L/d per connection)			(ILI)*	Reservoir Drop Test								Mains (km per 100 km)	Service Connections (%)	($'000 per 100km of Main)	(% of CRC)	($'000 per 100km of Main)	Potable + Non-potable (ML) (from Table 8)				For outdoor uses or industry (ML)			(Non-potable Town Water Supply + Agricultural Use)/Total Town Water Supplied			(%)		Drought (Y/N)	Demand (Y/N)	From Table 8 (1) ÷ [(18) x (21) x (22)] (kL/property)							
						Yes/No	Year	Result %																																	
		(41)			(41a)	(41b)	(41c)	(41d)	(42)			(43)			(44)	(45)	(46)	(47)	(48)	(49)				(50)			(51)			(53)		(54)	(55)	(56)							
		2002/03	2003/04	2004/05	2004/05	2004/05	2004/05	2004/05	2002/03	2003/04	2004/05	2002/03	2003/04	2004/05	2004/05	2004/05	2004/05		2004/05	2001/02	2002/03	2003/04	2004/05	2002/03	2003/04	2004/05	2002/03	2003/04	2004/05	2003/04	2004/05	03/04	04/05	2001/02	2002/03	2003/04	2004/05				
85	Uralla	51	65	65		No			17	11	8	47	32	11	0.3	0.3				390	330	320	330										O	O	210	187	192	196				
86	Hay (Dual Supply)	45	49	43						17	17				0.5	0.8			68	2,170	2,370	1,510	1,660	1,810	1,130	1,310					147	O	P	198	212	200	140				
87	Bourke (Dual Supply)	109	112	137		No				155	115	1		764	0.0	0.0	155	1.01	89	2,240	1,880	2,930	3,530	1,460	2,250	2,530	4				120	P	P	446	458	378	500				
88	Wakool (Dual Supply)	108	110	118					6	15							13	0.09	87	1,560	1,410	1,350	860	700	470							P	O	496	528	532	589				
89	Bogan	163	149	141					23	36	27								74	1,020	940	920	860							176	198	P	P	590	537	510	476				
90	Guyra	35	32	67		No				17	32		31	65	1.0	4.5			78	290	260	310	570							142	122	P	P	241	175	175	319				
91	Cabonne	45	45	35		No			3	6	15			28	0.0	1.1			67	460	460	360	330	160	120	100	27	12	48	116	120	O	O	193	190	151	176				
92	Carrathool (Groundwater)	115	136	124					15	29	29	353		52	0.1	4.6			22	2,040	2,020	1,700	2,060	1,230	880	1,240			0	261	810	O	O	502	543	489	493				
93	Tumbarumba	114	79	75		No			4	3	10		2	2	6.7	0.6	61	0.40	25	660	460	430	460							240		O	P	454	324	261	364				
94	Gundagai	144	93	110		No			15	14	17	20	20	49	0.3	1.0			103	580	540	600	490				19	18		173	197	O	O	344	244	311	257				
96	Warren (Dual Supply)	45	55	57		No				85	79								278	820	920	800	810	530	430	460				118	126	O	O	203	247	199	170				
97	Bombala	68	63	85		No			35	11	11	123	15	82	0.0	0.0	30	0.18	22	340	320	350	410				11	10	9		40	P	P	270	262	392	481				
98	Walcha	45	51	47		No			6	4	2	12	12	6	0.0	0.0			110	220	220	230	***230***							172	185	O	O	177	160	162	167				
100	Balranald (Dual Supply)	38	43	41		No			24	3	68	809	782	651	0.0	3.1			188	1,540	1,550	1,440	1,130	1,360	1,200	930				107	102	O	O	170	166	179	150				
101	Murrumbidgee (Groundwater)	189	189	166					42	17	31	3			0.0	1.4			21	840	840	690	710					1	1			O	O	733	707	581	570				
103	Central Darling (Dual Supply)	28	71	23		No			5	8	26			73	0.0	4.0			121	780	700	700	580	610	530	480						P	P	159	159	153	131				
104	Boorowa	69	76						3		10	18		0					12	260	210	210	***210***								811	O	O	275	268	217	215				
105	Brewarrina	96	133	137					40	59	78	75	43	0	0.0	1.1			235	650	1,210	1,210	1,200	240	800	780	13	13	14		483	O	O	472	470	519	525				
106	Jerilderie (Dual Supply)	38	38	40					33	23	25	30		22	0.0	12.0			163	330	360	270	***270***	220	150	150	11	15	15		63	O	O	163	163	171	217				

+ There are 11 LWUs with a dual water supply in 2004/05; Balranald, Berrigan, Bourke, Central Darling, Hay, Jerilderie, Murray, Wakool, Walgett, Warren, Wentworth.
For these 11 LWUs, note 10 on page 15 reports the approximate total annual residential consumption per property.

* ILI is the Infrastructure Leakage Index, defined as current real losses divided by unavoidable real losses. Apart from Gosford, Hunter Water and Sydney Water, no data has been collected for this indicator.
However, this information will be required for the next performance report as this indicator is necessary for international comparisons and for national comparisons under the National Performance Framework.

Blank Page

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 Vs Consumption		Current Replacement Cost (CRC) of System Assets			Debt to Equity			ERRR			Cross Subsidies		Operating Result		Externalities (Fees to State Water)	Operating Cost (OMA)				OMA + Depreciation**				Management Cost			
		($'000)		Res Revenue (% annual rates & charges)*	Res Consumption (% of potable excluding water losses)	Written Down Cost ($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)			(63a) see also Table 6 Col (12)			(64a)	(64b)	(65)		(66)	(67)				(68)				(68a)			
		2003/04	2004/05	2004/05	2004/05	2004/05	2004/05	2004/05	02/03	03/04	04/05	02/03	03/04	04/05	2004/05	2004/05	03/04	04/05	2004/05	2001/02	2002/03	2003/04	2004/05	2001/02	2002/03	2003/04	2004/05	2001/02	2002/03	2003/04	2004/05
	Sydney Water	677,000	587,000		71	4,341						2.8	4.1	3.8						240	250	221	230	316	325	296	305				
	Hunter Water	87,000	60,400			826	1044	4,900				3.7	4.2	3.2				24		191	195	158	162	241	242	206	210				
	LWUs with > 10,000 Properties																														
1	Gosford	18,900	20,200		75	220	339	5,000	0.4	0.4	0.4	0.2	-1.1	-1.9			-16	-32	0.0	190	204	219	248	263	276	298	321	103	120	130	137
2	Wyong	28,200	29,000		72	209	328	5,500	6.1	6.1	8.5	7.2	4.1	2.2			149	83	0.0	183	199	199	227	294	315	313	350	64	77	83	98
3	Shoalhaven	19,800	18,900		61	156	237	5,000	4.3	3.1	2.4	4.0	4.3	3.1			175	133	0.0	198	195	191	207	284	281	275	291	92	100	103	111
4	Rous (Bulk Supplier) (NO SGE)	9,790	10,000		57	85	129	3,400	0.0	1.9	4.7	-0.8	1.4	0.2			70	51	0.1	141	172	151	177	197	232	208	235	74	86	76	81
5	MidCoast (Combined - Unfiltered)	19,300	19,500	78	75	95	182	5,000	11.6	14.7	18.0	4.8	5.3	4.2			140	110	0.3	236	235	262	274	354	351	377	388	26	23	25	65
6	Tweed	16,400	18,900		70	143	200	6,500	0.3	0.3	0.0	2.8	3.4	4.2			216	273	0.0	184	210	222	243	294	324	336	357	73	88	112	123
7	Port Macquarie-Hastings (Unfiltere	18,900	19,100		74	183	246	8,600	0.1	0.1	1.1	3.5	4.2	2.3		39	317	243	0.0	211	267	273	299	342	401	394	418	70	54	81	94
8	Riverina (Groundwater) (NO SGE	15,600	14,600		62	117	207	7,500	5.7	5.0	4.3	4.6	3.9	2.3			154	104		204	220	211	237	336	349	342	385	58	61	61	65
10	Coffs Harbour	16,300	18,200		73	136	170	7,100	23.0	20.3	17.7		5.3	6.5			332	401	0.0	205	195	217	215	277	265	299	297	106	96	97	103
11	Albury City	9,726	8,980		71	150	246	11,500	0.5	0.4	0.3	0.1	1.0	0.1			43	14	3.9	214	252	208	207	302	375	373	378	113	120	94	94
12	Fish River WS (Unfiltered, Bulk Su	5,780	5,770		60	45	100	4,400	9.4	9.3	13.8	2.7	0.6	1.0			17	22		109	99	114	77	209	193	216	160	42	33	38	
13	Tamworth Regional	10,450	11,600		61	102	201	10,300	3.3	2.9	1.9		1.7	2.0			111	127	12.8	323	350	298	313	467	491	439	447	99	122	101	113
14	Clarence Valley	20,240	20,200		27				2.5				8.9				596		0.0	263	288	297		375	452	463		90	108	107	
15	Eurobodalla (Unfiltered)	10,600	11,900	59	64	96	143	7,300	3.2	1.8	1.1	2.7	2.5	3.4			151	204	0.0	246	271	300	308	369	395	426	428	115	137	153	155
16	Wingecarribee	9,680	9,550		75	68	112	5,800	5.8	3.8	1.8	5.0	5.6	4.1			211	170		175	181	163	174	283	286	263	279	82	86	80	87
17	Queanbeyan (Reticulator)	7,400	8,190	51	75	90	125	7,600	0.1	0.1	0.0	2.1	0.4	0.8			27	61	0.0	289	318	256	191	420	449	318		100	98	89	47
18	Dubbo	8,750	9,290		73	62	103	7,400	0.0	0.0	8.4	1.5	2.1	2.2		2	92	104	5.7	286	376	348	367	429	522	495	505	77	120	113	140
19	Orange	10,500	11,800	69	75	70	100	6,700	0.0	0.7	0.0	1.4	2.7	3.6			151	196	0.1	244	250	273	325	373	383	412	464	72	91	105	114
20	Goulburn Mulwaree	5,050	5,180	65	61	34	44	3,200	2.6	2.0	7.3		1.1	0.3			78	26	0.1	296	318	343	202	403	431	455	278	128	141	144	98
21	Bathurst Regional	9,770	7,500	64	53	126	142	11,000	1.7	1.5	1.2	2.1	2.6	-0.1			259	-6	0.1	283	311	308	357	419	462	459	503	105	101	106	139
22	Lismore (Reticulator)	4,900	5,370		66	28	43	3,400	1.2	0.8	0.6	-0.4	1.5	1.4		4	42	46	0.0	213	248	252	302	267	346	353	357	46	56	57	79
23	Bega Valley (Unfiltered)	6,110	6,840	79	75	59	111	8,400	0.2	0.2	0.2	0.7	0.1	0.8		4	27	60	1.4	263	282	291	317	417	438	447	469	154	162	157	175
24	Ballina (Reticulator)	5,370	4,790	77	75	33	47	3,600	0.1	0.1	0.1	-1.9	0.6	-2.6			54	-31	0.2	240	346	339	368	290	463	445	419	67	106	99	88
25	Kempsey (Groundwater)	6,380	9,420	56	62	76	104	9,000	17.9	15.9	15.3	3.5	3.6	6.6			154	353	1.6	204	205	196	216	287	290	283	348	71	73	67	79
26	Country Energy	11,400	12,200		55		***60***	***5,800***	7.8	0.0	0.0	2.6	-0.1	0.7			-7	41		698	822	875	642	910	1014	1089	847	344	221	251	135
27	Byron (Reticulator)	4,720	4,610		74	25	37	3,500	0.5	0.4	0.3	-1.6	2.1	-0.3			87	42	0.0	277	314	325	360	334	415	413	405	94	100	117	115
28A	Goldenfields (Reticulator) (NO SG	6,070	8,710		67	81	122	11,900				-0.7	-0.4	-1.9			22	-102		477	484		589	681	564	620	841	87		118	90
28B	Goldenfields (Bulk Supplier) (NO	6,740	8,720			78	168	8,900				2.2	-0.4	2.8				144		195		220	204	272		323	306	41		51	40
	LWUs with 3,001 - 10,000 Properties																														
29	Armidale Dumaresq	3,810	4,350	80	67	55	107	13,100	0.8	1.7	4.1	0.7	-0.7	-0.6		83	-52	-17	0.1	367	353	333	360	558	547	513	547	171	171	144	191
30	Griffith	5,020	7,350		54	44	47	5,400	0.0	0.0	0.0	3.4	0.7	5.0			61	767		428	408	415	423	556	548	568	596	154	148	151	139
31	Lithgow	3,380	3,790	59		17	37	5,000	0.0	0.0	7.4	-0.3	0.7	-2.0			40	-13		279	261	266	342	358	356	366	417	124	120	129	210
32	Mid-Western Regional	4,130	4,570	52	73	46	71	11,100	6.1	13.7	14.3		2.0	2.7			186	167		316	335	333	401	435	453	450	474	118	122	155	178
33	Richmond Valley	3,180	3,580	54	63	22	33	4,900	0.6	0.0	0.0	-0.4	2.0	2.8			74	108	0.1	277	350	325	359	349	437	409	426	116	157	142	158
34	Nambucca (Groundwater)	2,580	2,480		64	20	30	4,800	0.8	0.3	0.3	5.1	4.5	3.6			184	163	0.7	157	175	187	184	217	241	251	249	66	79	86	76
35	Singleton	5,590	4,500		64	28	41	6,700	0.0	0.0	0.0	7.8	9.8	5.4			559	335	15.8	303	295	294	293	434	425	424	421	101	114	92	97
36	Parkes	5,850	5,880		31	42	80	13,500	0.0	0.0	0.0	2.5	3.0	1.9			360	304	8.7	387	421	436	456	575	611	627	649	54	59	61	69
37	Inverell	2,900	3,410		56	28	49	9,400	0.2	6.8	6.2	0.2	1.0	2.3			81	125	0.6	318	410	365	388	490	544	496	518	82	133	109	118
38	Moree Plains (Groundwater)	2,870	3,050		63		***15***	***2,800***	10.7	4.9	4.3	-2.3	5.5	1.7			86	73	1.1	261	464	386	315	309	516	438	404	91	97	161	129
39	Cowra	2,950	2,870	68	58		***34***	***6,400***	0.9	0.8	0.7	1.2	-0.7	-1.3			-39	-72	9.6	335	363	423	453	501	499	560	610	135	168	260	272
40	Central Tablelands (NO SGE)	3,260	3,600	55	47	32	72	13,800	22.2	21.2	20.3	-0.1	0.0	1.2			-23	52		369	387	402	374	572	596	611	585	173	192	195	178
41	Muswellbrook	3,510	4,300		59	15	29	5,800	8.4	25.5	22.1	8.5	7.9	8.5			248	378		293	342	348	356	397	450	455	464	71	82	88	52

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 Vs Consumption		Current Replacement Cost (CRC) of System Assets			Debt to Equity			ERRR			Cross Subsidies		Operating Result		Externalities (Fees to State Water)	Operating Cost (OMA)				OMA + Depreciation**				Management Cost			
		($'000)		Res Revenue (% annual rates & charges)*	Res Consumption (% of potable excluding water losses)	Written Down Cost ($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)			(63a) see also Table 6 Col (12)			(64a)	(64b)	(65)		(66)	(67)				(68)				(68a)			
		2003/04	2004/05	2004/05	2004/05	2004/05	2004/05	2004/05	02/03	03/04	04/05	02/03	03/04	04/05	2004/05	2004/05	03/04	04/05	2004/05	2001/02	2002/03	2003/04	2004/05	2001/02	2002/03	2003/04	2004/05	2001/02	2002/03	2003/04	2004/05
42	Corowa	2,085	1,820		63	22	35	7,500	0.0	1.3	0.7		5.3	-0.5			64	63	14.0	265	361	326	259	358	481	441	360	75	78	96	105
43	Tumut	2,300	2,520	57	63	24	37	8,200	1.1	0.9	0.1	2.9	2.0	3.1			121	191	2.7	232	266	307	254	381	413	452	392	80	83	93	82
44	Gunnedah (Groundwater)	2,030	2,130	71	55	16	25	6,000	3.3	2.2	1.2	5.9	3.6	2.5			158	131	0.2	187	213	225	221	262	284	296	347	49	52	72	53
45	Upper Hunter	2,404	2,710		59	13	24	5,200	0.1	0.0	0.0		4.2	5.6			234	223	0.1	265	308	304	314	373	417	400	395	85	94	117	115
46	Narrabri (Groundwater)	1,910	2,110	73		12	22	5,200	1.6	1.1	0.6	6.0	5.1	5.8			200	240	1.5	184	170	176	189	256	242	248	261	79	63	67	58
47	Bellingen (Unfiltered)	2,290	2,100	72	71	18	33	8,100	0.1	0.0	0.0	1.7	1.8	0.5			171	105	0.5	187	186	238	236	362	360	413	411	73	84	140	135
48	Leeton	2,430	2,540		68	14	29	6,800	3.6	0.5	0.4	8.8	3.4	2.5			180	129		331	333	366	374	442	442	481	483	84	76	88	86
49	Young (Reticulator)	2,200	2,440	68	67	6	7	2,000	4.9	3.9	3.5	1.9	1.6	6.4			42	121	0.0	259	367	250	350	318	568	381	405	37	35	35	35
50	Cooma-Monaro	2,120	2,310	63		9	16	4,400	0.1	0.0	0.0	6.7	7.7	6.5			163	211		256	308	326	322	339	412	421	419	85	98	92	135
51	Forbes	1,900	2,050	57	61	14	18	5,200	3.4	2.9	2.4	4.5	2.7	2.9			149	159	13.0	212	267	253	234	297	366	341	319	23	20	42	45
52	Snowy River (Unfiltered)	1,370	***1,370***		75		***21***	***8,700***	1.6	1.4		0.8	1.8				83		0.2	161	189	202		266	295	313		66	64	70	
53	Berrigan (Dual Supply)	1,960	2,090	85	75	14	25	7,700	6.1	4.8	3.4	3.7	1.6	2.5	85	42	99	129	5.0	307	309	340	310	481	480	511	466	105	102	105	96
	LWUs with 1,501 - 3,000 Properties																													
54	Deniliquin	2,190	2,290	81	75	6	7	2,100	2.2	1.9	1.6	10.5	8.4	5.8			221	193	12.1	268	282	304	342	407	429	461	493	101	104	123	142
55	Warrumbungle	1,660	1,090		75	15	29	9,400	0.1		0.0			-2.1			15	-55		380	425	369	275	538	598	535	414	162	178	141	142
56	Yass Valley	1,770	1,610		75	16	33	11,300	0.5	0.1	0.1	0.8	2.8	1.5			192	103	0.3	301	275	285	315	439	426	421	453	92	98	102	108
57	Wellington	1,750	1,830	62	75	13	22	7,700	13.1	16.7	16.5	2.2	0.9	2.3		4	30	88	1.4	392	468	376	371	513	587	483	486	131	135	104	117
58	Cootamundra (Reticulator)	1,340	1,320	79	75		***3***	***1,200***	0.0	0.0	0.0	4.8	2.4	1.8			19	22		263	360	247	319	289	524	345	350	44	46	45	54
59	Lachlan	1,600	1,720		75	18	34	12,900	0.0	0.0	0.0	1.6	-0.7	-2.3			50	-86	11.3	292	354	338	512	425	497	505	677	94	90	89	109
60	Glen Innes Severn	1,145	1,150		75		***21***	***7,200***	0.8	0.5			-0.6				24			279	247	258		455	359	371		108	113	114	
61	Liverpool Plains	947	980	74	62	10	22	9,700	5.4	5.1	4.0		0.6	-1.0			64	25		204	246	232	301	313	356	342	420	46	55	60	85
62	Narromine (Groundwater)	950	1,020		75	3	10	4,500	0.0	0.0	0.0	-2.0	1.9	0.6			67	38	2.4	268	343	307	357	371	438	391	440	118	116	116	93
63	Narrandera (Groundwater)	1,190	1,430		68	6	10	4,400	0.1	0.0	0.0	7.6	4.3	7.5			257	348	5.3	222	260	262	271	277	315	324	334	53	60	61	89
64	Dungog (Reticulator)	1,090	1,190		66	5	10	4,700	3.0	3.4	2.7	2.6	1.5	3.0			69	110	0.5	138	187	353	363	193	255	410	425	41	76	89	95
65	Murray (Dual Supply)	1,250	1,360	50	60		***8***	***4,000***	27.8	24.6	34.7	5.6	7.1	7.0			168	186	7.8	290	325	327	354	371	430	421	447	92	100	101	113
67	Cobar	1,440	1,620		63	12	21	10,300	0.0	0.0	0.0	-1.7	1.7	1.5			114	114	0.4	601	395	270	327	770	555	416	487	118	104	104	104
66	Cobar WB (Bulk Supplier)												1.7																		
68	Tenterfield	870	920	61	60	5	17	8,600	0.0	0.0	0.0	-3.2	1.6	-5.1			-71	-114	0.3	308	375	349	419	484	554	513	588	153	189	173	182
70	Kyogle	1,060	850		66	5	14	7,100	1.0	0.9	0.0	-0.8	-1.6	-0.5			-11	20	0.2	248	249	218	240	404	406	364	386	109	109	98	108
71	Palerang	1,040	***1,040***		63		***10***	***5,100***	0.8				1.8						0.1	188	238	232		298	375	367		53	75	72	
73	Upper Lachlan	970	1,020	67	75	9	12	7,200	16.1	14.4	10.7		3.9	1.8			183	82		210	272	303	359	312	384	417	457	41	56	58	100
74	Wentworth (Dual Supply)	1,590	1,680		67	18	20	11,000	11.4	10.3	9.3	1.9	0.8	0.7			18	4	22.1	466	474	542	521	726	726	832	838	95	114	110	98
75	Coonamble (Groundwater)	650	670	87	62	3	8	4,900	0.0	0.0	0.0	2.1	3.8	2.9			231	188	0.4	138	204	145	146	237	302	243	227	20	20	20	***20***
	LWUs with 200 - 1,500 Properties																													
76	Harden (Reticulator)	1,150	1,220	63	65	5	12	7,700	4.1	3.8	0.0	-2.3	-2.6	-3.8			-95	-108	0.1	403	658	443	573	593	1083	744	766	50	61	52	52
79	Walgett (Dual Supply)	1,210	1,250	87	63	7	15	9,100	3.0	2.7	2.4	-2.0	-1.9	-3.1			-28	-60	24.1	530	539	539	591	842	862	861	923	122	113	168	133
80	Greater Hume	709	680	79	75	4	6	4,100	0.0	0.0	0.0		1.0	1.2			63	37	1.1	305	501	433	282	380	656	575	353	66	77	76	77
81	Gwydir	750	***750***		54		***12***	***8,300***	26.9										1.9	334	277	322		426	370	430		102	49	69	
82	Gloucester	770	1,540	51	61	5	10	6,600	0.6	0.2	0.0	0.2	-4.8	11.9			-154	423	0.4	300	415	560	545	434	553	702	699	64	52	66	73
83	Oberon (Reticulator)	970	990		31	5	6	4,500	22.5	18.4	14.8	2.2	3.0	2.0		28	95	58		376	344	350	238	455	588	593	360	66	59	50	41
84	Gilgandra (Groundwater)	690	740		58	5	12	9,000	4.3	2.1	0.2	-1.5	2.8	2.5			114	139	2.4	219	247	226	289	488	521	358	423	46	68	74	79

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 Vs Consumption		Current Replacement Cost (CRC) of System Assets			Debt to Equity			ERRR			Cross Subsidies		Operating Result		Externalities (Fees to State Water)	Operating Cost (OMA)				OMA + Depreciation**				Management Cost			
		($'000)		Res Revenue (% annual rates & charges)*	Res Consumption (% of potable excluding water losses)	Written Down Cost ($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)			(63a) see also Table 6 Col (12)			(64a)	(64b)	(65)		(66)	(67)				(68)				(68a)			
		2003/04	2004/05	2004/05	2004/05	2004/05	2004/05	2004/05	02/03	03/04	04/05	02/03	03/04	04/05	2004/05	2004/05	03/04	04/05	2004/05	2001/02	2002/03	2003/04	2004/05	2001/02	2002/03	2003/04	2004/05	2001/02	2002/03	2003/04	2004/05
85	Uralla	560	570	58	75	5	9	6,900	1.8	1.7	1.6	-2.9	-0.4	-0.4			22	33	0.2	254	326	273	290	371	441	391	394	104	164	118	94
86	Hay (Dual Supply)	620	590	65	63	9	10	7,500	0.0	0.0	0.0	-1.3	-1.1	-1.9	44		-5	-70	10.2	253	293	297	311	441	481	485	513	78	75	89	93
87	Bourke (Dual Supply)	760	870	75	63	3	13	7,900	14.8	14.4	16.4	-11.5	-9.3	-5.7			-268	-155	0.6	549	598	517	501	854	904	823	805	78	118	94	118
88	Wakool (Dual Supply)	1,140	***1,140***	86	75	14	18	13,600	18.3	18.2	12.8	2.3	2.2	1.8			141	115	11.7	423	375	412	448	568	533	582	620	104	112	97	90
89	Bogan	910	870		63	6	16	13,200	2.8	1.8	1.3	-1.5	-0.7	-3.1			-35	-146	0.1	506	518	473	520	712	724	684	733	218	191	202	219
90	Guyra	500	680		63	6	11	9,300	4.3	0.3	0.3	-1.3	-0.6	1.0			-27	75	0.1	198	249	216	314	347	402	360	456	62	38	47	76
91	Cabonne	830	920	88	75	9	20	17,400	1.5	1.0	0.5	0.4	1.8	2.1			242	272	1.9	345	398	308	343	587	632	545	571	106	106	96	114
92	Carrathool (Groundwater)	930	880		63	9	13	11,100	3.4	3.0	2.6	1.7	1.0	0.8			148	106	8.0	606	516	532	500	772	673	660	653	227	129	86	100
93	Tumbarumba	680	610	70	75	4	9	8,300	0.0	3.3	3.2	1.5	5.5	3.0			236	129	0.7	179	216	233	262	335	371	394	430	66	81	84	92
94	Gundagai	420	450		55	3	4	4,100	3.3	1.7	0.0	1.1	-0.6	0.2			14	42	6.2	331	327	350	337	391	384	411	395	77	63	75	73
96	Warren (Dual Supply)	440	450	81	75	5	9	8,200	5.2	2.9	2.3	0.2	0.6	-1.3			16	-61	9.1	364	317	262	340	457	454	408	494	75	57	59	64
97	Bombala	420	400	80	75	3	6	6,800	1.1	0.7	0.4	0.7	3.9	3.1			148	127	0.6	220	290	239	256	299	366	315	332	52	69	58	92
98	Walcha	430	440	60	62	6	10	12,400	0.9	0.0	0.0	-0.1	-0.3	-0.3			-11	-9	0.1	295	351	347	385	435	493	502	542	80	113	93	121
100	Balranald (Dual Supply)	450	490	77	58	6	9	10,400	5.8	16.2	25.6	1.8	1.4	0.7			81	-35	13.3	336	242	282	349	488	398	439	527	70	41	67	60
101	Murrumbidgee (Groundwater)	330	***330***		63	3	5	6,100	0.0	0.0	0.0	1.6	2.4	1.3			120	77		112	210	194	215	207	321	307	325	20	99	103	97
103	Central Darling (Dual Supply)	570	580		75	8	14	20,000	0.0	0.0	0.0	-5.6	-4.2	-3.1			-390	-292		479	816	655	639	839	1174	1014	949	75	75	75	75
104	Boorowa	380	490	58		4	5	7,800	25.5	17.0	13.2	1.8	3.1	5.7			130	360	0.4	272	316	298	326	418	409	390	420	27	37	44	50
105	Brewarrina	440	520	60	63	2	9	15,500	0.0	0.0	0.0	-0.1	0.5	5.1	289		40	226	0.7	619	611	726	715	739	731	850	867	69	88	53	49
106	Jerilderie (Dual Supply)	270	280	84	75	1	2	4,600	7.6	0.0	0.0	2.5	1.2	-0.5			82	9	6.9	237	377	447	509	305	445	513	570	205	70	66	70

* Where the residential revenue is reported to be greater than 90%, a maximum value of 90% has been adopted. This is shown in ***italics bold*** .

** OMA plus depreciation is sometimes used as a proxy for the amount required for full cost-recovery, although it should be noted that this takes no account of expenditure for future capital works.

Blank Page

Table 12 - Water Supply - Health, Levels of Service

	WATER UTILITY	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/ARMCAMZ Guidelines			Chemical (70) 1996 NHMRC/ARMCAMZ Guidelines			E. coli (71) 1996 NHMRC/ARMCAMZ Guidelines				Total Coliforms (72) 1996 NHMRC/ARMCAMZ Guidelines																						
		2002/03	2003/04	2004/05	2002/03	2003/04	2004/05	2001/02	2002/03	2003/04	2004/05	2002/03	2003/04	2004/05	2002/03	2003/04	2004/05	2002/03	2003/04	2004/05	2002/03	2003/04	2004/05	2002/03	2003/04	2004/05	2002/03	2003/04	2004/05	2002/03	2003/04	2004/05	2002/03	2003/04	2004/05
	Sydney Water	100	100	100	100	100	100	100	100	100	100		99	99	2	1	1									31	275	260	234	2	2	2			
	Hunter Water	100	100	100	100	100	100	100	100	100	100	99		99	13	7	6			13						56	420	368	388	2	2	2			
LWUs with > 10,000 Properties																																		
1	Gosford	100	100	100	100	100	100	100	100	100	100	100	89	100	6	8	13	36	17	15	0			32	48	45	123	220	265	2	2	3	35	100	100
2	Wyong	100	95	100	100	100	100	100	100	100	100	84	78	80	6	7	6	2	2	1				12	4	6	39	69	34		3	3	100	100	100
3	Shoalhaven	97	98	98	98	99	99	100	100	93	100	91	83	98	3	3	3	6	5	5	0	0	0			1			4	3	3	3	0	29	30
4	Rous (Bulk Supplier) (NO SGE)	100	100	100	100	100	100	100	100	100	100	100	100	100	0	0	0	0	0	0				1	1	1	5	5	4	3	3	3	0	76	0
5	MidCoast (Combined - Unfiltered)	97	97	98	91	92	95	100	100	97	100	84	85	82	14	27	0	47	41	49		1	1									2	23	0
6	Tweed		100	100	96	99	94	100	100	100	100	99	99	97	2	2	7	31	36	38			0	7	5	9	27	60	74	2	2	2	0	34	0
7	Port Macquarie-Hastings (Unfiltered)	88	81	93	94	99	100	100	100	100	100	99	100	99	7	6	6	6	8	16	1	1	1	2	2	3	18	12	15	3	3	4	73	56	100
8	Riverina (Groundwater) (NO SGE)	94	94	93	98	96	98	100	100	100	100	89	92	95	5	1	1	3	5	3	1	1	0	18	18	0	108	110	1	3	3	3	0	21	0
10	Coffs Harbour	92	100	100	95	100	100	100	100	100	100	98		91	5	5	5	23	11	21			0			4			33			2	71	73	100
11	Albury City	95	100	100	90	99	85	100	100	100	100	98	99	92	1	0	0	15	14	12									0	3	3		0	25	0
12	Fish River WS (Unfiltered, Bulk Supplier)	100	100	100	87	98	100	100	100	100	100	83	69		0	0		0	0	0	0	0	0	0	0	0		0	0		8	8	0	9	100
13	Tamworth Regional	99	97	96	99	98	98	100	100	96	97	96	86	89	3	1	1	26	31	40			1						0	14	9		0	100	100
14	Clarence Valley	99	93	83	96	99	91	100	100	95	100	88			2	1	8	16	18	18			0			8			52			3	0	60	32
15	Eurobodalla (Unfiltered)		25	88	98	99	98	100	100	100	100	85	84	89	16	32	17	34	9	49	0	1	1	0	6	6	40	0	20	1.5	2	5	0	73	79
16	Wingecarribee	100	100	100	100	99	100	100	100	100	100	90	85	86	4			25	29	46					19	20			85	3		4	0	47	100
17	Queanbeyan (Reticulator)	100	100	100	80	100	100	100	100	100	100	98	93	98	14	2	2	6	9	4	0	0	1	0	0	0	0	0	0	2	2	4	0		100
18	Dubbo	98	100	99	98	99	100	97	100	97	100	88	87	100	1	1	1	1	1	1	0	0	0	8	9	3	29	58	26	2	2	2	0	0	0
19	Orange	100	100	100	100	100	100	100	100	100	100	99	69	97	3	15	2	14	40	34						17			73	4	3	4	0	41	100
20	Goulburn Mulwaree	98	100	100	100	99	96	100	100	100	100	90		100	2	5	11	39		5			0							4		4	1	80	100
21	Bathurst Regional	100	100	100	100	99	100	100	100	100	100	89	87	89	15	10	21	5	4	21							10			2	2	2	0	0	0
22	Lismore (Reticulator)	93	100	100	96	99	98	100	100	100	100	85	87	91	2	2	1	3	6	3	0	0	0	12	5	4		75	32	1	3	2	12	77	4
23	Bega Valley (Unfiltered)			100	99	100	99	97	100	100	100	95	100	99	0		5	3	3	6	2	2	1							4	2	2	0	56	61
24	Ballina (Reticulator)				100	95	100	100	100	100	100	79	88	94	1	0	0	2	3	3	0	0		1	0		13	5		0	2	2	0	58	
25	Kempsey (Groundwater)	100		98	100	100	98	100	100	100	100	99	100	91	6	10	8	4	3	1	0	0	0	5				32			3	0	4	52	0
26	Country Energy	93	94	99	90	98	100	100	100	100	100	100	98	98	2	30	3	90	11	9		6	1							1	1	1	0	60	0
27	Byron (Reticulator)	98	94	100	96	98	100	100	100	100	100	89	96	100	0	0		3	5	5	0	0	0	0	0	0	3	3	5	2	2	1	58	73	0
28A	Goldenfields (Reticulator) (NO SGE)	96	100	99	98	98	95	100	100	100	100	100	100	95				96	43	73				21	16	18	171	129	151	2	2	2	66	75	100
28B	Goldenfields (Bulk Supplier) (NO SGE)	96	100	99	98	98	95	100	100	100	100	100	100	95	16	10	2																		
LWUs with 3,001 - 10,000 Properties																																		
29	Armidale Dumaresq	100	100	100	100	100	100	100	100	100	100	100	92	100		25	1		91				1									2			0
30	Griffith	100	100	100	100	100	100	100	100	100	100	100	96	100	2	3	0	2	2	6	0	1	0	0	9	9	12	26	37	2	0	4		0	0
31	Lithgow	100	100		100	97	100	100	100	100	100	100	70		11	1		23	16		2	1		5	1		43	43		2	2		0	0	
32	Mid-Western Regional	92	71	63	80		84	100	80	100	100	98	87	79	6	20	1	52	35	23			2			9			77		5	2		7	100
33	Richmond Valley				0	96	100	100	100	100	100	81	79		0	0	0	6	6	6	1	1	1	0			66	0		3	3		4	76	85
34	Nambucca (Groundwater)	100	100	100	100	100	100	100	100	100	100	100	94	97	2	2	1	6	5	4	1	0	0	0	2	2	7	6	13	2	1	2	5	56	100
35	Singleton	100	100	100	100	100	100	100	100	100	100	100	99	99	2	2	2	16	23	39				45	44	42	382	374	347	2	2	2	0	0	0
36	Parkes	100	100	100	95	100	100	100	100	100	100	97	97	96	2	2	2	3	2	3		2								2	2	2	0	64	97
37	Inverell	100	100	100	100	100	100	100	100	100	100	100	94	100	1	1	5	42	5	5	0	1	1	0	0		6	5	5	1	1		0	0	0
38	Moree Plains (Groundwater)	99	97		100	99	100	97	100	100	84	0	95	100	21	12	6	43	58	89	0	1	0		26		63			1	2	2	0		0
39	Cowra		94	97	95	97	100	95	100	100	95	85	79	87	10	7	96	10	40	40							7			2	2	2	8	0	100
40	Central Tablelands (NO SGE)	100	100	100	100	100	100	100	100	100	100	100	99	98	16	10	5	32	8	11	2	2	1	1	1	21		2	87	4	4	4		62	0
41	Muswellbrook	94	76	86	99	97	95	100	100	100	100	99	97	97	12	14	17	2	3	28	0	0	1	7	3	14	6	67	89	2	2	3	3	39	0

Table 12 - Water Supply - Health, Levels of Service

	WATER UTILITY	HEALTH																LEVELS OF SERVICE																	
		Water Quality Compliance (%)																																	
		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			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)		
		2002/03	2003/04	2004/05	2002/03	2003/04	2004/05	2001/02	2002/03	2003/04	2004/05	2002/03	2003/04	2004/05	2002/03	2003/04	2004/05	2002/03	2003/04	2004/05	2002/03	2003/04	2004/05	2002/03	2003/04	2004/05	2002/03	2003/04	2004/05	2002/03	2003/04	2004/05	2002/03	2003/04	2004/05	2002/03	2003/04	2004/05
42	Corowa	100	100	100	75	98	100	100	100	100	100	76	100	100	1	2	6	28	19	19									41	3	3		0	71	100
43	Tumut	100	99	98	99	97	98	100	95	100	100	93	95	98	2	6	2	73	6	48		0	0	0	0	42		0	139	3	3	5	0	47	0
44	Gunnedah (Groundwater)				86	99	100	95	81	79	77	34	34		1	0	0	0	2	2	5	7	0	0	0		4	4	4	2	2		0	0	0
45	Upper Hunter	100	100	95	100	94	100	100	100	100	100	98	95	97	3	6	0	103	32	3			1						3	8	7		3	23	27
46	Narrabri (Groundwater)	34	90		100	100	100	100	100	97	100	90	78		30	8	0	91	84		4	8		0			6	0		4	3		0	0	
47	Bellingen (Unfiltered)	100	100	100	100	100	100	100	100	100	100	100	98	99	9	4	4	10	31	46											3	2	0	35	0
48	Leeton	100	100	100	100	100	100	100	100	100	100	96	98	100	1	1	0	2	2	0	0	0	0	6	6	5	2	47	38	2	2	2	0	0	0
49	Young (Reticulator)				98	97	100	94	100	100	100	76	85					9	10	13		0		3	7	14	24	21	77	2	2	3	0	21	0
50	Cooma-Monaro	100			70	100	100	85	100	100	100	50	91		2	2	0	13	37			1								3	3		0	34	
51	Forbes	100	100	100	99	98	100	100	100	100	91	100	87	78	1	1		29	28	24	0	0	0	5	32	29	52	42	195	3	2	3	0	0	100
52	Snowy River (Unfiltered)			90	99	100	99	91	100	100	100	83	81	87	0		8	6	6	15	1	1	6	0				0	1		2		0	0	
53	Berrigan (Dual Supply)	100	100	100	100	99	100	100	100	100	100	98	99	94	5	3	0	6	5	3	1	1	1	0	0	1	5	3	6	1	0	2	0	0	0
LWUs with 1,501 - 3,000 Properties																																			
54	Deniliquin	100	100	100	100	98	100	100	100	100	100	98	90	95		1	4		38	41	3	2	1									0	0	0
55	Warrumbungle	100	94	100	100	94	99		100		91	37		75	3	4	3	4	1	3										7	4		49	79	100
56	Yass Valley	100	100	100	100	98	100	94	94	95	96	92	65	74	1	1	1	3	15	16	0	0	0	1	2	1	2	3	4	3	3	3	8	66	76
57	Wellington	100			100	100	100	100	100	100	100	96	73	90	0	17	0	24	17	7	1		0	8	17	8	93	65	64	3	2	2	0	0	0
58	Cootamundra (Reticulator)				100	99	99	100	100	100	100	79	92					85	61	89	1	0	0	0	0	0		0	0	2	2	2	0	41	100
59	Lachlan	90	80	100	100	97	100	100	96	100	100	84	72	93	0	1	16	4	3	7	1	3	2	0	1	1	4	3	12	1	1	2	8	27	100
60	Glen Innes Severn			100	100	86	100	100	90	95	100	87	90	100	11	11	3	47	42	17			0						7	2			0	32	25
61	Liverpool Plains	94	84	100	99	98	100	92	100	100	100	92	94	94			0	3	4	8			0						27	2	1		1	54	0
62	Narromine (Groundwater)				96	96		94	85	100	100	56	88		1	1		117	84	66	0	0	0										0		
63	Narrandera (Groundwater)	100	100	100	100	95	87	100	100	100	100	100	94	100	10	7	10	7	8	7	0	0	2	9	7	6	50	99	70	2	2	2	0	0	0
64	Dungog (Reticulator)	100	90	100	100	99	100	90	96	100	100	67	90	90		0	0	81	73	29	1	1	1	14	364			47	259		5		0	0	0
65	Murray (Dual Supply)	100			100	100		96	100	100	100	100	100		0	2	0	1	0	3	1	0	1	35	49		106	185	60	6	3		0	92	0
67	Cobar	100	100		100	100	100	100	100	100	100	2	100		1	0	0	2	3	3	0	2	2	1	0		1	4	2	8	2		7	133	100
66	Cobar WB (Bulk Supplier)				100			100	100		100	98						0			0			0			0	0		0			0	0	
68	Tenterfield		100	100	97	100	100	88	100	100	94	100	100	100	0	5	21	24	26	24	1	0	2	7	7		47	41	37	3	3		5	100	100
70	Kyogle	100	2	83	99	80	90	95	94	87	92	71	48	61	4	3	4	17	30	16	2	1	1	2	1		32	23	21	2	2		28	86	100
71	Palerang				99	99	100	100	93	100	100	82		86	4		0	37		53			0						3	6	4		0	44	100
73	Upper Lachlan			100	100	100	85	100	100	100	95	92	57	58	11	0	2	12	18	2			2			1			6	4	5	2	12	65	60
74	Wentworth (Dual Supply)	98	100	100	98	97	100	100	100	89	95	97	79	86	23	7	4	26	20	2	1	1	2	1	1	1	12	12	11	1	1	1	0	6	0
75	Coonamble (Groundwater)	100	70	75	54	97	50	100	100	91	100	100	78	93	5	2	18	196	97	48	2	2	1	5	2		42	79	6	23	1		0	41	0
LWUs with 200 - 1,500 Properties																																			
76	Harden (Reticulator)	86	80		100	100	100	87	93	90	100	72	68		10	21	15	24	37	21	1	1	3	2	2	2	28	27	27	2	2	2	0	0	0
79	Walgett (Dual Supply)	100	100	67	94	98	86	100	95	91	95	85	71	74	1		1	4		7	0		0										0	6	0
80	Greater Hume		100		38	100	100	97	97	100	100	77	100	100	5	5	2	4	4	4			0						7	5			0	38	41
81	Gwydir			66	97	99	89	96	86	87	83	66	48	62		10	7	23	12	5			2			5			30		7	3		18	0
82	Gloucester	100	100	100	100	97	100	94	96	92	96	89	81	86	0	0	1	44	116	117	0	0	0		1	26		0	110			4	0	25	0
83	Oberon (Reticulator)				100	100	100	100	100	100	100	98	96			4			12	13		0			1	1			7	3		2	0		100
84	Gilgandra (Groundwater)	100	100	100	100	100	100	80	100	100	100	100	95	100	2	4	4	17	16	26	2	2	3	5	5	4	15	38	34	3	2	2	0	0	0

Table 12 - Water Supply - Health, Levels of Service

	WATER UTILITY	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/ARMCAMZ Guidelines			Chemical (70) 1996 NHMRC/ARMCAMZ Guidelines			E. coli (71) 1996 NHMRC/ARMCAMZ Guidelines				Total Coliforms (72) 1996 NHMRC/ARMCAMZ Guidelines																							
		2002/03	*2003/04*	*2004/05*	*2002/03*	*2003/04*	*2004/05*	*2001/02*	*2002/03*	*2003/04*	*2004/05*	*2002/03*	*2003/04*	*2004/05*	*2002/03*	*2003/04*	*2004/05*	*2002/03*	*2003/04*	*2004/05*	*2002/03*	*2003/04*	*2004/05*	*2002/03*	*2003/04*	*2004/05*	*2002/03*	*2003/04*	*2004/05*	*2002/03*	*2003/04*	*2004/05*	*2002/03*	*2003/04*	*2004/05*
85	Uralla	100	100	100	100		100	100	95	100	94	63		100	1	3	11	2	2	0	2	1	6	6	4	1	29	47	11	2	2	2	0	23	0
86	Hay (Dual Supply)	100	100	100	100	98	100	100	100		100	98	100			0	0		12	12			0							0		8	0		
87	Bourke (Dual Supply)		76		87	93	100	91	97	100	88	83	72	65	20	8	5	20	4	5	0	0	0	0		138	0	1	764	3	3	3	0	55	0
88	Wakool (Dual Supply)				97	98	100	95	100	100	100	92	88		0	0	0	0	0		0						0	0		2			0	0	
89	Bogan					100		100	93	97	100	61	52	75															2	2	2	0	66	100
90	Guyra	100	100	100	100	100	100	100	100	100	90	100	51	100	3	0	1	0	0	10		0	0		4	8	52		65	2		2	0	0	0
91	Cabonne	83	50	100	88	99	100	97	100	100	100	92	75	100	4	13	20	14	13	87	0	0						0	28				0	0	0
92	Carrathool (Groundwater)	100	100	100	86	98	100	81	100	100	100	82	90	89	4	4	2	8	7	27	0	0	1	53	0		37	353	52	8	3		0	6	0
93	Tumbarumba	100			100	100	100	100	97	97	97	61	56		0	2	7	4	8	2	1	2	0	0	0	0	51	0	2	3	2	3	0	24	0
94	Gundagai	100	100	100	100	98	100	100	100	100	100	100	100	100	5	0	10	2	3	3	0	2	1	4	2	6	21	20	49	2	3	2	0	0	77
96	Warren (Dual Supply)	100	100	100	89	98	100	100	100	100	94	78	50	72	3	2	6	13	33	45										4			0		0
97	Bombala			100	100	100	100	75	100	97	100	95	75	100	3	3	2	2	6	2	0	0	0	22	3		188	123	82	2	3		0	26	36
98	Walcha	100	98	100	100	100	100	100	100	100	100	100	96	100	2	4	1	18	7	5	0	2	1	1	1	1	24	12	6	2	2	2	0	60	0
100	Balranald (Dual Supply)	100	100	100	100	98	100	100	100	100	100	100	90	100	17	7	9	7	5	16	0	0	0	97	141		8	809	651	3	2		0	35	0
101	Murrumbidgee (Groundwater)					99		93	100	100	100	99	83		5	16	9	0	0	0	1	0	0	0			3	3		2	2		0	0	
103	Central Darling (Dual Supply)			100	89	100	96	75	91	100	100	75	80	100	19	18	0	140	124	93			0						73	3	4		0	49	99
104	Boorowa				100	100	100	93	100	93	100	65	54	75	0	0		0	0	0	0	0	0	3			31	18	0	3	3		0	25	
105	Brewarrina	60	60	100	100	95	100	100	100	100	100	100	79	97	6		34	0	6	34	0	0	2	9	0		75	75	0	2	2		50	100	0
106	Jerilderie (Dual Supply)	100	100	100	100	100	100	100	100	100	95	100	100	100	2		4	5	0	0	0	0	0	5		7	398	30	22	4	3	5	0	0	0

Blank Page

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

	WATER UTILITY	OPERATING & MAINTENANCE COST*										MANAGEMENT/ADMIN			RETAIL/WHOLESALE		O & M Cost Components for TYPE of ASSET												
		Components (1) - Process				Components (2) - Type of Asset						Components			Components		PUMPING STATION						WATER MAIN				TREATMENT			
		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)
		2004/05				2004/05						2004/05		2004/05	2004/05		2004/05	2004/05				2004/05	2004/05	2004/05			2004/05	2004/05		
	Sydney Water																													
	Hunter Water																													
LWUs with > 10,000 Properties																														
1	Gosford	58	30	18	6	9	55	8	23	17		118	18	60	52	196	10	77	3	13	60	18	24	389	80	309	72	8	3	6
2	Wyong	109	12	8		3	85	2	21	14	4	98		40	70	157	8	63		40	24	8	34	455	50	404	56	1	13	
3	Shoalhaven	32	40	13	10	1	40	5	16	29	4	89	23	39	66	140	6	25	3	2	20	13	14	117	47	71	100	14	4	10
4	Rous (Bulk Supplier) (NO SGE)	31	39	11	16	9	10	4	11	33	29	66	15	25	97	80	3	35	1		35	11	3	97	2	95	100	6	11	16
5	MidCoast (Combined - Unfiltered)	144	36	20	8	3	117	14	29	28	17	47	19	22	123	150	10	42	3	10	29	20	39	365	26	339	94	11	9	8
6	Tweed	56	37	16	10	10	16	5	25	26	38	106	17	35	95	147	7	35	4	8	23	16	5	71		71	74	14	2	10
7	Port Macquarie-Hastings (Unfiltered)	51	128	21	4	9	21	8	38	8	121	68	26	35	105	194	14	57	7	18	32	21	8	75	9	66	31	0	4	4
8	Riverina (Groundwater) (NO SGE)	61	42	51	16		24	5	83	26	32	48	17	11	163	73	14	30	4	8	19	51	4	45	5	40	44	9	2	16
10	Coffs Harbour	45	46	11	10	10	41	6	14	17	23	70	33	39	82	133	5	45	8	2	35	11	15	161	33	128	65	6	1	10
11	Albury City	40	27	40	5		22	4	48	25	13	84	11	23			12	58		9	49	40	5	95		95	61	14	6	5
12	Fish River WS (Unfiltered, Bulk Supplier		66	6	5	8	43		12	12	1				23	54	3	88	43		45	6	11	391	391		30	7		5
13	Tamworth Regional	37	143	3	16	32	50	8	10	95	5	80	33	21			2	12	0	8	4	3	9	155	147	8	178	66	13	16
14	Clarence Valley																													
15	Eurobodalla (Unfiltered)	48	74	28	4	5	69	18	41	5	16	153	2	62	169	139	17	64	12	9	44	28	28	171	80	91	18	0	1	4
16	Wingecarribee	41	17	18	11	1	25	8	19	34	1	81	5	31	122	52	7	32	1	2	29	18	9	73		73	120	11	11	11
17	Queanbeyan (Reticulator)	6	51	1			51	5	2				47	20	2	189	1	9		4	6	1	22	318	318					
18	Dubbo	75	91	22	38		43	4	28	120	31	126	15	22	246	121	5	62	2	13	47	22	7	150	11	140	192	56	26	38
19	Orange	73	93	11	33	59	53		25	74		76	38	36	208	117	8	191	69	36	86	11	17	177	50	126	233	29	12	33
20	Goulburn Mulwaree	45	43		16	23	31	6	2	42		74	24	60	75	34	1	5		5			19	192	3	189	257	23	3	16
21	Bathurst Regional	100	82	5	30	19	81	7	6	91	13	102	37	24	204	153	1	12		3	10	5	14	299	55	245	157	48	13	30
22	Lismore (Reticulator)	57	9	3			44	2	7		17	63	17	28	3	299	2	18		9	9	3	15	178		178				
23	Bega Valley (Unfiltered)	43	80	19		6	43	12	38	27	16	142	33	63	152	165	14	26	8	5	13	19	16	100	65	35	98	20	7	
24	Ballina (Reticulator)	45	53	2			48	16	7	3	27	86	3	26	29	339	2	20	14		7	2	14	181	71	110	8	3		
25	Kempsey (Groundwater)	82	32	21	2	7	51	6	33	36	4	67	12	24	95	84	10	22	1	7	14	21	15	104	1	104	108	20	13	2
26	Country Energy	300	45	114	47		149	21	114	222			135	26	423	218	22	171	0	0	171	114	29	432	12	420	435	40	135	47
27	Byron (Reticulator)	57	44		4		20	5		18	62	78	37	39	32	328							7	95	28	67	61	11	3	4
28A	Goldenfields (Reticulator) (NO SGE)	150	23	44			78	18	91		30	45	45	22	18	571	22	40	1	19	19	44	19	41	7	34				
28B	Goldenfields (Bulk Supplier) (NO SGE)	56	48	48	12		47	6	61	32	19	20	20	8	99	1	12	77	12	3	61	48	9	39	15	24	60	15	4	12
LWUs with 3,001 - 10,000 Properties																														
29	Armidale Dumaresq	125		11	33	16	52	3	12	60	26	157	34	49	128	232	3	9		1	8	11	13	137		137	155		27	33
30	Griffith	86		4	26		62	2	6	132	83	118	20	12	99	1	1	22		7	15	4	5	105	68	37	113	73	33	26
31	Lithgow	124		2	6		75	8	4	45		157	53	71			1	5		3	2	2	26	119		119	153		39	6
32	Mid-Western Regional	195	4	24			105	4	59	54		178		48	120	281	16	35		21	14	24	28	221	9	213	147		54	
33	Richmond Valley	54	61	10	25		49	4	14	55	28	122	36	34			3	18	5		14	10	10	180		180	117	29	1	25
34	Nambucca (Groundwater)	54	35	19			26	7	26	11	38	53	23	24	74	111	8	78		21	57	19	8	85		85	33		11	
35	Singleton	65	114	10	6		48	5	25	95	24	42	55	20	173	120	5	28	4	13	12	10	10	190	84	106	198	66	23	6
36	Parkes	72	143	135	36	6	40	5	200	74	61	43	26	6	114	342	18	141	22	24	95	135	4	53	42	11	66	30	8	36
37	Inverell	91	107	39	33		41	9	80	94	45	70	48	29			19	68		35	33	39	10	88		88	227	61		33
38	Moree Plains (Groundwater)	72	91	1	22	1	13	1	20	142	9	117	12	20			3	33	5	26	1	1	2	42	29	13	220	69	51	22
39	Cowra	80	40	30	31		67	9	41	64		223	50	64	91	362	10	51	14		38	30	16	139		139	149	29	4	31
40	Central Tablelands (NO SGE)	108	31	32	26	9	53	5	43	74	12	149	29	42	236	139	10	8		2	6	32	13	60		60	177	28	21	26
41	Muswellbrook	165	71	25	42		69	62	96	72	5		52	9	206	149	17	229	3	167	60	25	12	257		257	130	13	17	42

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

	WATER UTILITY	OPERATING & MAINTENANCE COST*										MANAGEMENT/ADMIN			RETAIL/WHOLESALE		O & M Cost Components for TYPE of ASSET													
		Components (1) - Process				Components (2) - Type of Asset						Components			Components		PUMPING STATION						WATER MAIN				TREATMENT			
		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)			($/property)			($/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)
		2004/05							2004/05			2004/05		2004/05	2004/05		2004/05					2004/05	2004/05			2004/05		2004/05	
42	Corowa	98	32	10	14		27	2	18	104	3	38	67	14			2	26		12	14	10	4	68		68	140	30	60	14
43	Tumut	125	33	14			26	4	26	87	29	73	10	18	102	152	6	11	1	5	6	14	6	69		69	190	29	58	
44	Gunnedah (Groundwater)		114	54			85	6	77			23	31	8			11	19	6		13	54	13	203	203				
45	Upper Hunter	155	17	24	4	13	115	5	29	27	11	69	46	21			5	12		2	10	24	21	301		301	49	0	23	4
46	Narrabri (Groundwater)	71	17	39	3		44	1	55	12	19	24	33	6			6	115	14	20	82	39	5	137	7	130	13	6	2	3
47	Bellingen (Unfiltered)	34	38	24	4		33	1	35	6	26	68	67	38	35	200	10	23	3	5	16	24	9	84	34	50	16	1	1	4
48	Leeton	201		23	25		107	2	47	124	8	78	8	11	224	150	6	37	12	6	18	23	13	319	5	314	156	13	86	25
49	Young (Reticulator)		65	0			41	4	1		20	6	12	5	28	322	0	2	2		1	0	11	142	142					
50	Cooma-Monaro	75	95	3	14		54	14	23	66	30	39	97	29			5	27	21	3	4	3	12	152	7	145	141	45	7	14
51	Forbes	68	99	1	21		59	3	9	118		35	10	7	140	94	2	11	0	10	1	1	10	171	16	155	192	91	6	21
52	Snowy River (Unfiltered)																													
53	Berrigan (Dual Supply)	6	207				67			140	6	41	56	28	186	124							19	108	108		405	140		
LWUs with 1,501 - 3,000 Properties																														
54	Deniliquin	18	86	9	86	86			18	87	8	140	2	19	181	161	2	55		28	27	9					116		0	86
55	Warrumbungle	36	50	25	22		39	10	30	36	18	142		34			7	11		2	9	25	9	102	56	46	86		14	22
56	Yass Valley	81		10	19	4	52	9	21	75	45	92	15	37	252	63	7	62		34	28	10	18	140		140	260	53	3	19
57	Wellington	159	69	7	19		107	1	26	120		69	48	32	215	156	7	74		53	21	7	30	403	17	385	331	64	36	19
58	Cootamundra (Reticulator)	0	42				39	1			2	43	11	17									12	121	121					
59	Lachlan	84	241	21	48		76	4	44	142	129	74	35	25	174	338	10	17	7	2	8	21	17	125		125	322	94		48
60	Glen Innes Severn																													
61	Liverpool Plains	136	26	37	16	9	25	2	76	64	40	75	10	20			18	24	2	10	12	37	6	57		57	150	16	32	16
62	Narromine (Groundwater)	184		44		29	114	9	88	2	22	46	47	13			12	60		30	30	44	16	418	62	356	3	1	0	
63	Narrandera (Groundwater)	53		64	5		56	3	105	5	13	60	29	13	157	114	15	70	24	4	43	64	8	171	61	110	8			5
64	Dungog (Reticulator)	54	57	7	4		47	6	14	12	43	51	44	28			4	9	4		5	7	14	97	65	32	35	6	3	4
65	Murray (Dual Supply)	176	44	21			61	6	35	126	13	58	55	29			9	34	14		21	21	16	98		98	323	17	109	
67	Cobar	255	9	6	38		107	72	19	107	3		19	2	163	163	2	6	2	2	2	6	14	191		191	141		70	38
66	Cobar WB (Bulk Supplier)																													
68	Tenterfield		204	16	17	40	79	4	31	81	3	125	57	67			11	29	14		15	16	29	236	236		298	64		17
70	Kyogle	96	28	8	1		77	13	8	28	6	65	43	53			4	4			4	8	38	213		213	138	27		1
71	Palerang																													
73	Upper Lachlan	92	133	17	16	14	48	5	98	68	27	69	31	52	269	90	52	56		46	10	17	25	157	157		356	51		16
74	Wentworth (Dual Supply)	185	174	64			112	30	115	116	50	69	29	44	13	297	51	25	4	7	14	64	50	116	1	116	514	107	9	
75	Coonamble (Groundwater)	104		37			40	17	56		28	4		0			5	13		4	8	37	4	99		99				
LWUs with 200 - 1,500 Properties																														
76	Harden (Reticulator)	144	9	1			91	15	5	1	43	29	23	10	29	544	1	2		2	0	1	17	81		81	1		1	
79	Walgett (Dual Supply)	255	137	41	25	5	126	16	97	164	49	63	70	16			12	20	4	8	8	41	15	177	4	173	199	80	60	25
80	Greater Hume	23		11			129	16	24	21	15	28	49	18			5	17	4	6	8	11	30	138	122	17	48	21		
81	Gwydir																													
82	Gloucester	323	108	15	26		96	2	39	183	152	29	43	22	300	245	12	7	2	2	3	15	29	205		205	556	89	68	26
83	Oberon (Reticulator)	100	68		28		74	1		104	18	19	22	8	135	102							14	294		294	202	50	25	28
84	Gilgandra (Groundwater)	120	46	36	8		69	4	65	61	11	61	19	10	87	203	8	17	3	5	10	36	9	188		188	78	35	18	8

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

	WATER UTILITY	OPERATING & MAINTENANCE COST*										MANAGEMENT/ADMIN			RETAIL/WHOLESALE		O & M Cost Components for TYPE of ASSET													
		Components (1) - Process				Components (2) - Type of Asset						Components			Components		PUMPING STATION					WATER MAIN				TREATMENT			
		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)
			2004/05				2004/05					2004/05		2004/05	2004/05		2004/05						2004/05				2004/05			
85	Uralla	14	134	13	35		24		19	141	13	72	22	38	238	52	8	25	8		17	13	10	86	86		569	91	14	35
86	Hay (Dual Supply)	71	95	29	23		45	2	55	100	15	79	15	35	211	71	21	24	9	3	12	29	17	68		68	380	66	11	23
87	Bourke (Dual Supply)	362		20			60	5	30	168	120	63	56	15	200	301	4	19		6	13	20	8	89		89	214		168	
88	Wakool (Dual Supply)	151	146	22	40		90	1	62	184	22	48	42	13	95	5	9	10	4	3	4	22	13	96	9	87	270	97	48	40
89	Bogan	181	56	13	51	44	29	3	32	127	66	219		31			4	38	6	16	16	13	4	74		74	178	51	26	51
90	Guyra	42	154	28	14	13	42		28	155		31	45	15	240	74	6	32			32	28	8	78		78	309	141		14
91	Cabonne	176	38	12	3	44	55	14	47	58	11	68	46	52			22	17	0	12	4	12	25	67		67	264	20	34	3
92	Carrathool (Groundwater)	226		174			96	4	275	20	6	87	13	13			36	21		8	13	174	12	22		22	27		20	
93	Tumbarumba	90	76	5			71	47	9	21	22	92		21	144	118	2	3	1		2	5	16	123	97	25	48		21	
94	Gundagai	101	143		21		72			191		61	13	15	243	94							15	206	103	103	397	106	64	21
96	Warren (Dual Supply)	218		36	22		154	12	76	22	11	32	31	17	136	204	21	37		19	18	36	42	278		278	60			22
97	Bombala	53	65	12	34	1	11	2	41	96	13	87	6	19			8	12	6	2	3	12	2	24	3	22	199	42	20	34
98	Walcha	112	95	40	17	28	67	1	62	106		84	37	43	289	96	22	17	5	1	11	40	24	110		110	382	58	30	17
100	Balranald (Dual Supply)	219	4	44	23		73	9	128	24	56	60		24			51	34		22	12	44	29	199	10	188	95		1	23
101	Murrumbidgee (Groundwater)	58	16	44			13	14	92				97	11			10	24	3	10	12	44	1	35	14	21				
103	Central Darling (Dual Supply)	429	94	39	75	113	111	1	57	346	8	3		2			41	6		2	4	39	80	121		121	2500		271	75
104	Boorowa	23	225	28			82	2	54	136	2	9	42	14			15	31	15		16	28	22	47	35	12	371	136		
105	Brewarrina	233	268	78	87		190	25	135	315		49		6			15	16	6	1	9	78	22	235		235	359	195	34	87
106	Jerilderie (Dual Supply)	387	7	41	4		141	24	65	159	50	28	41	26	244	265	25	30		11	19	41	53	163		163	600	7	148	4

* OMA cost comprises Operating & Maintenance Cost (Cols 79 to 82 or Cols 83 to 88) plus Administration Cost (Col 89) plus Engineering and Supervision Cost (Col 90).

Blank Page

Table 14 - Sewerage - Utility Characteristics

WATER UTILITY		ASSESSMENTS - CONNECTIONS - POPULATION										ASSETS						WORKFORCE									
		Total No of Assessments				Connected Properties - Total		Connected Properties - Residential			Population			Sewer Mains	Sewage Treatment Works	Pumping Stations	Properties Served per km of Main	Pumping Stations per 100km of Main	Capital Investment	Total Work Force	% 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)	Connected Residential Properties (1)x(4)x(5)	Permanent	Peak (% of Permanent)		(km)	(No.)	(No.)	(3) / (8)	(10) / [(8) x 100]	($'M)	(No. /1000 props)	(%)	(2 or more days per year)	(% of Management Cost)	(% of Operation Cost)	(% of Maintenance Cost)	(No.)	Total (%)	Due to Injury (No.)	(%)
		2001/02	2002/03	(1) 2003/04	2004/05	(2) 2004/05	(3) 2004/05	(4) 2004/05	(5) 2004/05	(5a) 2004/05	(6) 2004/05	(7) 2004/05		(8) 2004/05	(9) 2004/05	(10) 2004/05	(11) 2004/05	(12) 2004/05	(13) 2004/05	(14) 2004/05	(15) 2004/05	(16) 2004/05	(17) 2004/05	(18) 2004/05	(19) 2004/05	(20) 2004/05	(21) 2004/05	(22) 2004/05	2004/05
	Sydney Water	1,534,000	1,592,000	1,611,000	1,635,000	1.00	1,635,000	0.93	1.00	1525000	4,061,000			23,010	31	656	71.0	3	365.1										
	Hunter Water	188,000	192,000	196,000	199,000	1.00	199,000	0.95	1.00	189000	481,900			4,410	17	381	45.1	9	48.5										
LWUs with > 10,000 Properties																													
1	Gosford	61,500	61,600	65,440	65,900	0.98	64,500	0.95	0.98	61800	152,200			1,390	2	184	46.3	13	3.8	1.6	2				31	10	6	170	1
2	Wyong	54,100	55,300	56,632	57,400	0.98	56,100	0.94	0.98	52700	142,000	180		1,200	6	144	46.6	12	5.3	1.6		100				3			
3	Shoalhaven	38,200	39,300	39,837	40,700	0.90	36,600	0.94	0.91	34800	84,000	410		1,020	10	203	36.0	20	25.2	1.6	6	96	3	12	4	3	3	30	0
5	MidCoast (Combined)	28,900	30,600	30,588	32,400	0.96	31,100	0.95	0.96	29400	70,000	120		899	13	196	34.6	22	13.1	1.2	19	100				2	4	9	0
6	Tweed	26,200	27,000	27,426	29,000	0.91	26,400	0.95	0.93	25700	66,600	130		635	8	174	41.6	27	7.3	1.9	2	100	23	19	14	10	4	59	1
9	Wagga Wagga	21,200	21,200	21,240	24,400	1.04	25,400	0.83	1.05	21200	58,100	110		531	5	36	47.8	7	7.5	0.8	7	100				3	1	48	1
7	Port Macquarie-Hastings	23,800	24,400	25,301	25,600	0.95	24,300	0.93	0.95	22500	66,200	120		563	5	155	43.1	28	3.4	1.6	5	100				5	3	26	0
11	Albury City	18,039	18,039	20,281	20,800	1.03	21,300	0.92	1.03	19700	47,300	110		448	4	55	47.6	12	2.4	1.2	28	48	80	13	20	0	0	0	
10	Coffs Harbour	20,714	21,214	21,772	22,400	0.93	20,800	0.94	0.93	19500	53,000	120		567	5	105	36.7	19	3.8	1.4		100				13	6	84	1
13	Tamworth Regional	17,110	16,436	16,867	20,700	0.99	20,500	0.79	0.99	16300	42,700	170		469	5	22	43.7	5	2.2	1.3	3	99	5	5	5	4	5	66	1
15	Eurobodalla	16,600	16,800	17,600	18,100	0.94	17,000	0.95	0.94	16100	41,800	260		467	5	125	36.4	27	8.0	2.7	3	100	5		22	7	3	32	0
17	Queanbeyan	13,900	14,400	15,386	15,400	1.03	15,900	0.93	1.04	14900	34,400	100		314	1	13	50.5	4	0.8	0.6	10	30		10		0	0	0	
19	Orange	13,600	13,700	13,993	14,300	1.01	14,400	0.91	1.01	13100	35,800	100		381	2	11	37.8	3	0.0	1.0	7	100							
20	Goulburn Mulwaree	8,700	8,780	9,470	13,700	1.03	14,100	0.90	1.03	12700	23,100			222	2	12	63.6	5	0.9	1.2	9				5	5	13	64	2
18	Dubbo	12,100	12,300	12,399	12,300	1.11	13,700	0.90	1.12	12500	31,900	110		338	1	7	40.6	2	5.3	1.1	7	93				1	2	21	1
16	Wingecarribee	11,300	13,100	13,669	14,000	0.95	13,300	0.93	0.96	12500	38,800	110		442	5	65	30.0	15	8.0	2.1	7	29			15	3	4	16	0
14	Clarence Valley	12,217	13,057	12,794	13,900	0.94	13,100	0.87	0.85	10300	31,700	130		309	11	85	42.3	28		2.8		100							
21	Bathurst Regional	11,200	11,400	11,449	11,800	1.08	12,700	0.92	1.08	11700	34,700	170		340	1	15	37.4	4	2.4	0.7		100		1	4	0		0	
24	Ballina	12,600	12,800	13,184	13,500	0.93	12,600	0.92	0.93	11500	33,300			302	4	110	41.6	36	1.2										
22	Lismore	11,100	11,200	11,147	11,300	1.05	11,900	0.90	1.06	10900	30,200			334	3	33	35.7	10	1.5	1.3	5	39		5	5	7	4	21	1
LWUs with 3,001 - 10,000 Properties																													
23	Bega Valley	10,200	10,200	10,343	10,100	0.97	9,800	0.93	0.98	9200	23,700	170		302	6	53	32.6	18	8.5	3.9	3	100				6	2	26	0
27	Byron	10,000	10,000	10,000	10,200	0.96	9,800	0.90	0.96	8800	28,000	200		237	6	81	41.3	34	17.7	1.5	7	100				8	3	50	1
26	Country Energy	9,500	9,540	9,408	9,580	1.01	9,700	0.92	1.01	8900	22,000	100		215	2	11	45.0	5		0.8		100				0	13	0	
25	Kempsey	8,000	7,990	8,108	8,330	1.04	8,700	0.92	1.03	7900	24,300	150		251	6	79	34.6	32	1.0	1.8	6	100	5		10	1	6	17	0
31	Lithgow	7,800	7,800	7,800	7,800	0.98	7,600	0.91	0.98	7000	20,000			364	3		21.0		0.3										
29	Armidale Dumaresq	7,400	7,390	7,554	7,650	0.98	7,500	0.93	0.98	6900	23,000	110		230	1	1	32.7	0	0.1	2.0	10	33		5		1	4	6	0
30A	Hawkesbury	7,300	7,080	7,441	7,510	0.98	7,300	0.90	0.99	6600	24,000			169	2		43.5		0.1										
30	Griffith	8,500	8,500	8,500	8,500	0.85	7,200	0.78	0.84	5600	24,000	160		253	3	25	28.6	10	3.5	2.6	3	100				0	1	0	
33	Richmond Valley	6,300	6,340	6,402	6,340	0.95	6,000	0.90	0.95	5400	16,700	120		172	4	31	35.0	18	1.4	1.8	9	36					1		
32	Mid-Western Regional	5,460	5,540	5,752	5,920	1.00	5,900	0.91	1.00	5400	13,100	160		184	4	12	32.2	7	0.5	2.2	8	92	5		5	1	3	2	0
34	Nambucca	6,000	6,050	6,050	6,100	0.95	5,800	0.91	0.95	5300	13,800	130		152	4	50	38.1	33	0.2	1.6	6	22	20	15	20	6	4	54	3
35	Singleton	4,900	4,920	4,934	5,170	0.95	4,900	0.92	0.95	4500	14,000	100		165	1	14	29.8	9	0.7	0.9		28				0	3	0	
37	Inverell	4,500	4,500	4,740	4,850	0.97	4,700	0.90	0.97	4200	11,200	110		126	4	21	37.4	17	0.1	1.6	11	41			10	0	4	0	
41	Muswellbrook	4,800	4,730	4,812	4,900	0.95	4,700	0.92	0.96	4300	16,800			136	2	11	34.4	8	0.1	1.2	20	91			5		5		
36	Parkes	4,500	4,550	4,854	4,870	0.95	4,600	0.89	0.95	4100	11,300	100		95	2	2	48.7	2	0.1	0.5		100				0	3	0	
42	Corowa	4,297	4,364	4,375	4,370	0.95	4,200	0.89	0.95	3700	7,000	160		83	3	48	50.0	58	0.3	1.0		50				0	0	0	

Table 14 - Sewerage - Utility Characteristics

	WATER UTILITY	ASSESSMENTS - CONNECTIONS - POPULATION											ASSETS						WORKFORCE										
		Total No of Assessments				Connected Properties - Total		Connected Properties - Residential			Population		Sewer Mains	Sewage Treatment Works	Pumping Stations	Properties Served per km of Main	Pumping Stations per 100km of Main	Capital Investment	Total Work Force	% Female	% Undergoing Training	Outsourcing			Injuries	Days Lost			
				(1)		(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)	Connected Residential Properties (1)x(4)x(5)	Permanent	Peak (% of Permanent)	(km)	(No.)	(No.)	(3) / (8)	(10) / [(8) x 100]	($'M)	(No. /1000 props)	(%)	(2 or more days per year)	(% of Management Cost)	(% of Operation Cost)	(% of Maintenance Cost)	(No.)	Total (%)	Due to Injury (No.)	Due to Injury (%)	
		2001/02	2002/03	2003/04	2004/05	(2) 2004/05	(3) 2004/05	(4) 2004/05	(5) 2004/05	(5a) 2004/05	(6) 2004/05	(7) 2004/05	(8) 2004/05	(9) 2004/05	(10) 2004/05	(11) 2004/05	(12) 2004/05	(13) 2004/05	(14) 2004/05	(15) 2004/05	(16) 2004/05	(17) 2004/05	(18) 2004/05	(19) 2004/05	(20) 2004/05	(21) 2004/05	(22) 2004/05		
38	Moree Plains	4,300	4,280	4,279	4,280	0.97	4,200	0.88	0.96	3600	10,400		85	2	26	48.9	31	0.7	1.7	29	100	10			1	1	1	0	
44	Gunnedah	3,600	3,640	3,854	3,860	1.03	4,000	0.87	1.03	3500	9,600		96	2	2	41.5	2		1.4		100	5	10	10	0	3	0		
46	Narrabri	3,700	3,700	3,700	3,870	0.98	3,800	0.85	0.98	3200	10,200		97	3	22	39.3	23	0.1											
43	Tumut	3,720	3,770	3,774	3,890	0.95	3,700	0.91	0.95	3400	8,400	110	128	4	14	28.9	11		2.7	20					3	3	53	2	
49	Young	3,100	3,160	3,247	3,250	1.04	3,400	0.89	1.04	3000	8,100	100	103	1	5	32.8	5	0.4	1.5	10	100	10	30	30	3	11	10	1	
39	Cowra	3,500	3,470	3,570	3,560	0.95	3,400	0.91	0.95	3100	8,600	110	95	1	7	35.6	7	0.2	0.6		100				0	4	0		
45	Upper Hunter	3,588	3,600	3,635	3,670	0.92	3,400	0.92	0.92	3100	8,900	120	116	4	10	29.1	9	0.3	1.5		100								
52	Snowy River	2,300	2,300	2,300	2,300	1.43	3,300	0.91	1.43	3000	4,100	370	75	4	19	43.9	25		1.2		100			60	0	0	0		
51	Forbes	3,200	3,080	3,200	3,200	1.00	3,200	0.92	1.00	2900	7,600	110	119	1	17	26.9	14	3.9	1.6	10	60	5	10	10	1	2	0		
50	Cooma-Monaro	3,300	3,260	3,208	3,330	0.95	3,200	0.87	0.95	2700	7,500	120	228	2	7	13.9	3	0.3	2.7		100				0	6	0		
53	Berrigan	2,900	2,910	3,013	3,090	0.98	3,000	0.88	0.98	2700	6,300	110	105	4	42	28.8	40	0.1	3.3		100					5			
LWUs with 1,501 - 3,000 Properties																													
48	Leeton	2,800	3,050	3,131	3,180	0.94	3,000	0.87	0.94	2600	8,300	110	83	3	30	36.1	36	0.4	1.7	10	80				2	2	2	0	
54	Deniliquin	3,100	3,050	3,051	3,050	0.96	2,900	0.87	0.92	2400	8,000	150	67	1	23	43.7	34	0.3	1.7		100				2	10	15	1	
47	Bellingen	2,800	2,860	2,926	3,000	0.95	2,900	0.92	0.95	2600	7,300	100	77	3	27	37.2	35	0.5	2.8		100			2	0	6	0		
60	Glen Innes Severn	3,120	3,110	3,120	3,120	0.91	2,800	0.88	0.91	2500	6,400	120	91	2	5	31.2	5		2.1		100				0	3	0		
58	Cootamundra	2,600	2,600	2,676	2,640	0.98	2,600	0.89	0.98	2300	7,000	110	52	1	2	49.7	4		1.2		100				0	2	0		
57	Wellington	2,200	2,560	2,405	2,580	0.98	2,500	0.91	0.98	2300	5,700	120	42	1	11	60.3	26	1.7	1.4	7	100				0	2	0		
91	Cabonne	2,400	2,440	2,439	2,460	0.92	2,300	0.90	0.92	2000	3,700	100	56	2	10	40.3	18	0.2	2.2		60				0	2	0		
80	Greater Hume	2,354	2,337	2,348	2,350	0.95	2,200	0.91	0.95	2000	5,600	81	70	6	17	31.9	24	0.2	1.3		100				0	0	0		
59	Lachlan	2,000	2,050	2,040	2,170	1.03	2,200	0.83	1.03	1800	5,100	110	70	3	21	31.9	30	0.3	1.8		100				0	1	0		
65	Murray	2,000	2,190	2,188	2,190	0.95	2,100	0.88	0.95	1800	5,400	210	80	2	38	26.0	47		1.2		100				0	3	0		
62	Narromine	1,900	2,080	2,187	2,190	0.95	2,100	0.90	0.95	1900	5,000		49	2	9	42.5	18	0.9	1.0		100								
56	Yass Valley	2,000	1,990	2,031	2,030	0.98	2,000	0.91	0.98	1800	5,400	120	70	2	7	28.3	10	0.2	1.5		33			10	0	2	0		
61	Liverpool Plains	1,962	1,955	1,971	1,970	0.98	1,900	0.89	0.98	1700	4,800	110	52	2	9	37.2	17	0.0	1.6						0	2	0		
55	Warrumbungle	2,310	2,350	2,356	1,940	0.99	1,900	0.87	0.92	1600	5,300	100	116	4	8	16.6	7		2.1		100				0				
69	Temora	2,000	1,950	1,885	1,890	1.00	1,900	0.93	1.00	1800	4,700	120	41	1	3	46.0	7	0.5	0.1						0	0	0		
71	Palerang	1,530	1,570	1,579	1,870	0.95	1,800	0.92	0.95	1600	3,600		46	3	11	38.5	24		1.8		100				0	1	0		
72	Bland	1,800	1,820	1,818	1,810	0.95	1,700	0.86	0.95	1500	3,700	110	47	3	9	36.3	19		2.2		80				2	4	0		
63	Narrandera	1,800	1,840	1,847	1,850	0.92	1,700	0.89	0.92	1500	4,800	110	36	1	4	47.2	11	0.1	1.2		100	5	5	10	1	5	0		
67	Cobar	1,700	1,750	1,749	1,730	0.95	1,600	0.91	0.95	1500	5,000	100	72	1	4	22.8	6	0.0	4.3	14	86				0	0	0		
74	Wentworth	1,500	1,540	1,558	1,680	0.95	1,600	0.94	0.95	1500	3,900	100	76	5	25	21.1	33	0.0	3.1	10	100			2	0	1	0		
75	Coonamble	1,500	1,570	1,527	1,540	1.02	1,600	0.86	1.02	1400	4,200	130	51	2	10	31.1	20		2.2	3	100				1	2	2	0	
LWUs with 200 - 1,500 Properties																													
70	Kyogle	1,600	1,570	1,567	1,580	0.95	1,500	0.93	0.95	1400	3,600	120	37	3	8	40.0	21	0.4	3.3		100	5	5		0	1	0		
77	Junee	1,500	1,570	1,571	1,570	0.95	1,500	0.92	0.95	1400	4,000		92	1	1	16.3	1	0.1	1.3		100		10	40	0	0	0		
78	Blayney	1,300	1,240	1,355	1,430	1.03	1,500	0.88	1.03	1300	3,500	110	62	1	7	23.9	11	0.1	1.4		100				0	0	0		
79	Walgett	1,700	1,690	1,685	1,690	0.85	1,400	0.87	0.85	1200	6,300	300	52	3	9	27.8	17												
68	Tenterfield	1,500	1,530	1,525	1,500	0.95	1,400	0.91	0.95	1300	3,400		60	2	4	23.8	7	0.3	2.1		100		5	5	2	3	10	1	
84	Gilgandra	1,400	1,360	1,356	1,360	0.98	1,300	0.90	0.98	1200	3,000	100	34	1	13	39.2	38	0.0	1.1		67			30	1	1	1	0	
73	Upper Lachlan	1,230	1,260	1,254	1,330	1.00	1,300	0.88	1.01	1200	3,500	110	44	2	7	30.1	16	0.0	2.3		100				0	3	0		
82	Gloucester	1,400	1,370	1,371	1,350	0.95	1,300	0.92	0.95	1200	2,700	130	45	1	6	28.4	13	0.5	2.3		67			60	0	6	0		
87	Bourke	1,700	1,700	1,700	1,700	0.75	1,300	0.70	0.75	890	3,500		29	1	7	44.0	24	0.1	2.4		100				0	3	0		
86	Hay	1,300	1,250	1,252	1,300	0.98	1,300	0.88	0.98	1100	2,900		37	1	8	34.2	22	0.3	1.6		100			40	0	0	0		
83	Oberon	1,000	1,160	1,172	1,190	1.02	1,200	0.86	1.02	1000	3,000	150	36	1	3	34.1	8	0.0	1.7		100		5	10	0	2	0		
81	Gwydir	1,180	1,180	1,206	1,160	0.95	1,100	0.90	0.95	990	2,600	180	41	2	8	26.9	20		2.1	4	86			10	0	7	0		

Table 14 - Sewerage - Utility Characteristics

	WATER UTILITY	ASSESSMENTS - CONNECTIONS - POPULATION											ASSETS						WORKFORCE										
		Total No of Assessments				Connected Properties - Total		Connected Properties - Residential			Population		Sewer Mains	Sewage Treatment Works	Pumping Stations	Properties Served per km of Main	Pumping Stations per 100km of Main	Capital Investment	Total Work Force	% 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)	Connected Residential Properties (1)x(4)x(5)	Permanent	Peak (% of Permanent)	(km)	(No.)	(No.)	(3) / (8)	(10) / [(8) x 100]	($'M)	(No. /1000 props)	(%)	(2 or more days per year)	(% of Management Cost)	(% of Operation Cost)	(% of Maintenance Cost)	(No.)	Total (%)	Due to Injury (No.)	Due to Injury (%)	
		2001/02	2002/03	(1) 2003/04	2004/05	(2) 2004/05	(3) 2004/05	(4) 2004/05	(5) 2004/05	(5a) 2004/05	(6) 2004/05	(7) 2004/05	(8) 2004/05	(9) 2004/05	(10) 2004/05	(11) 2004/05	(12) 2004/05	(13) 2004/05	(14) 2004/05	(15) 2004/05	(16) 2004/05	(17) 2004/05	(18) 2004/05	(19) 2004/05	(20) 2004/05	(21) 2004/05	(22) 2004/05		
64	Dungog	1,100	1,100	1,100	1,100	0.95	1,000	0.90	0.95	940	3,200	130	30	1	4	35.3	14	0.1	1.4		100		10		0	6	0		
85	Uralla	980	990	993	1,010	1.00	1,000	0.88	1.01	900	2,500	100	29	1	4	34.9	14	0.0	1.0		100				0	0	0		
95	Weddin	1,000	950	1,007	1,060	0.94	1,000	0.87	0.93	860	2,000	90	31	1	0	32.3		0.2	1.0		100			5	0	0	0		
89	Bogan	960	970	965	970	1.01	980	0.88	1.01	860	2,500		20	1	4	48.1	20		4.1	25	25								
76	Harden	980	980	981	1,000	0.96	960	0.89	0.95	850	2,000		45	1	0	21.4		0.1	2.1		100			10	0	0	0		
88	Wakool	960	970	970	1,010	0.95	960	0.80	0.95	760	2,000		51	3	14	18.8	27	0.5											
93	Tumbarumba	950	930	944	960	0.95	910	0.86	0.95	780	2,000	180	43	2	1	21.3	2	0.2	5.5	20	60				0	6	0		
94	Gundagai	950	950	857	860	1.01	870	0.83	1.01	720	5,000		73	1		11.9		0.0											
92	Carrathool	880	880	883	880	0.95	840	0.86	0.95	720	1,900	110	20	3	12	42.8	61	0.2	1.9		100				0	7	0		
96	Warren	890	890	887	880	0.92	810	0.90	0.92	730	2,200	130	17	2	8	49.2	48	0.1	3.0	10	100				0	1	0		
99	Coolamon	860	850	850	850	0.95	810	0.88	0.95	710	2,200		38	2	6	21.0	16	0.4											
102	Lockhart	730	780	808	810	0.95	770	0.88	0.95	670	1,800	98	25	3	6	31.2	24		1.6		100				0	0	0		
98	Walcha	770	760	757	760	1.01	760	0.85	1.01	650	1,600	110	29	1	1	26.3	3		2.3		57				0	1	0		
100	Balranald	770	770	801	800	0.95	760	0.88	0.95	670	2,000	100	38	2	12	19.9	32		1.3		100				1	12	18	8	
97	Bombala	790	790	785	790	0.95	750	0.86	0.95	650	1,800	110	34	2	5	22.1	15		2.5	21	100				0	8	0		
101	Murrumbidgee	670	670	691	700	1.03	720	0.94	1.05	690	1,700		21	2	12	34.4	57	0.0	2.4						0	0	0		
90	Guyra	770	760	769	740	0.95	700	0.92	0.95	650	2,500	100	36	1	2	19.4	6	0.9	2.8		100	2	2	2	1	0	2	0	
104	Boorowa	560	560	564	560	0.94	530	0.89	0.94	470	1,200	100	20	1	2	27.0	10		2.8						0				
105	Brewarrina	560	560	544	540	0.86	460	0.88	0.85	400	1,500	120	16	2	8	28.5	49	0.0	2.6		100	50			0	4	0		
106	Jerilderie	420	440	435	440	0.95	420	0.77	0.95	330	970		9	1	5	49.6	59		2.4		100				0		0		
103	Central Darling	360	360	360	360	0.95	340	0.88	0.95	300	720		13	1	4	25.9	30		1.5						0	0	0		
107	Urana	300	300	300	310	0.95	300	0.91	0.95	270	720	210	15		8	19.8	53		6.7		100				0	3	0		

Blank Page

Table 15 - Sewerage - Asset Management, Resource Management

	WATER UTILITY	ASSET MANAGEMENT																	RESOURCE MANAGEMENT																				
		Infiltration			Chokes & Collapses			Overflows			Interruptions to Service			Rehabilitations		Renewals		Mains 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 Reused					
		(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)			(%)			Total Volume Reused	Volume Reused for Town Water	% of Total Effluent that is Reused			
		(23)			(24)			(25)			(26)			(27)	(28)	(29)	(30)	(31)	(32)			(33)	(34)	(35)	(36)	(37)	(38)	(39)			(40)			(41a)	(41b)	(41c)			
		2002/03	2003/04	2004/05	2002/03	2003/04	2004/05	2002/03	2003/04	2004/05	2002/03	2003/04	2004/05			2004/05	2004/05	2004/05	2002/03	2003/04	2004/05	2004/05	2004/05	2004/05	2004/05	2004/05	2004/05	2002/03	2003/04	2004/05	2002/03	2003/04	2004/05	2004/05	2004/05	2002/03	2003/04	2004/05
	Sydney Water				85	73	83		73	84									518,350	450,000	454,262	76						326	221	212	100	100	100	14,738	1,401	3	3	3
	Hunter Water					60	66	44	46	51									57,240	54,670	65,139	100						298	279	327	48	53	57	4,030	1,750	7	8	6
LWUs with > 10,000 Properties																																						
1	Gosford	1.0	1.2	1.2	29	43	49	38	58	48				0.1		99	0.3	138	14,650	15,210	14,965	100	11	67	13	8	1	243	238	232	100		100	150			1	1
2	Wyong				46	42	56		0	1				0.1	0.2			144	11,701	11,200	11,327	100						282	202	203	100	100	100	34				0.3
3	Shoalhaven	0.4	0.4	0.4	26	32	30	7	27	26				0.05	0.1	102	0.4	13	6,710	6,700	6,530	100	6	70	16	8		192	188	180	47	21	64	1,614		2	30	25
5	MidCoast (Combined)	1.3	1.2	1.4	32		33	7	2	1				0.2				77	6,860	6,570	7,960	100	16	64	16	1	3	236	211	256	100		100	112		0.4	1	1
6	Tweed	1.5	0.8	1.2	5	8	17	7	4	5	37	23	24	0.4	0.2			115	7,810	7,600	7,897	100	9	65	10	16		317	304	299	55		62	375		3	5	5
9	Wagga Wagga	0.1	0.1	0.1	152	94	102	8	4	20	88	72	21		0.2			42	6,530	6,320	5,850	100	1	67	17	16		295	286	230	100	26	100	867	460	21	17	15
7	Port Macquarie-Hastings				17		19	12		1					0.5	159	0.6	99	10,360	10,360	7,489	100						447	265	308	100		100	280			4	4
11	Albury City					185	186		37	19				0.4	0.5	150	0.3	112	4,706	5,066	4,479	100		61	29	10		255	244	211				4,461			97	100
10	Coffs Harbour			0.6	87		64	52	47	23								42	6,262	5,909	5,229	100	7	69	22	2		302	292	251				489	151	8	9	9
13	Tamworth Regional			0.2		65	84		17	16				1.1	0.5	439	1.5	119	4,754	5,364	4,712	100	2	72	8	18		295	292	230			200					
15	Eurobodalla	0.4	6.2	6.7	51	6	48	1	6	11				0.75				33	2,930	2,810	3,114	100	100			1		185	170	183		15		173		50	8	6
17	Queanbeyan	0.2	0.2	0.2	109	122	92		0	3									3,890	3,590	3,400	100	1	71	17	10	1	261	214	214	100		100	124		0.9	2	4
19	Orange	1.4	3.9	2.1	65	80	112		8	13				0.2	0.2			78	4,040	4,680	4,475	100	18			4	78	291	331	311		63	100	3,390	3,360	80	75	76
20	Goulburn Mulwaree			0.3			5			20						219	1.3	150	1,880	1,780	1,588	100	4	58	19	18	1	211	183	112				1,132			100	71
18	Dubbo	1.0	0.7	0.7	75	64	64	12	25	15	18	15	16	0.30	0.1	25	0.1	12	4,290	2,800	2,849	100	8	75	12	5		314	204	208	100	53	100	2,170		50	58	76
16	Wingecarribee					46	79		1	1				0.8		98	0.3	132	2,980	2,850	2,716	100						240	219	205				77			1	3
14	Clarence Valley			1.5	46		5		22	11				0.1					3,155	2,672	2,392	100	19	67	13	1		217	202	183				267		10		11
21	Bathurst Regional				12	20	23	3	2	3	13	12	12	0.4	0.4			176	3,200	3,310	3,334	100						258	268	262	100		100					
24	Ballina				24		24	2		3	1							122	3,860	3,650	3,920	100						325	315	312				324		8		8
22	Lismore			2.3	65	73	67	20	4	4			0	0.51	0.4	416	1.5	154	3,290	3,490	3,553	100	22	59	20			280	299	299	100	17	100	154		13	9	4
LWUs with 3,001 - 10,000 Properties																																						
23	Bega Valley				32	28	44	26	23	35				0.7		42	0.1	83	2,010	1,950	1,940	100						203	194	197				519		29	30	27
27	Byron	1.7	2.0	1.3	9	15	22	8	2	16	6	10	4	0.4				49	2,660	2,940	2,630	100	11	89				277	306	269	100	6	100	617		11	20	23
26	Country Energy				148	109	125	5	22	16				0.42	0.0			203	1,330	1,360	1,354	100						138	143	140		41		1,720		61	66	100
25	Kempsey				15	15	2	7	7	6				0.4				108	1,840	1,870	1,940	100						222	221	224	100		100	215		14.6	14	11
31	Lithgow				1	2					1							71	1,460	1,620	***1,620***							226	211	211								
29	Armidale Dumaresq				67	78	40	15	8	37					0.3	24	0.1	144	1,790	1,750	1,919	100				18	82	247	236	256	100		100	620		73	60	32
30A	Hawkesbury	1.8	1.8		41	41		2	2									77	2,390	2,390	***2,390***							345	329	325	58					10	10	
30	Griffith	1.3	1.2	1.2	38	165	161	17	12	21			9	0.7	0.4			35	2,940	2,430	2,256	100	13	56	27	13		358	358	334				400		14.5	8	18
33	Richmond Valley				9	9	9	2	2	2	3	3	3	1.7	0.8	276	1.0	118	1,420	1,780	1,804	100						235	293	299		3		597		3	11	33
32	Mid-Western Regional			0.3	54	54	98	32	8	5			46		0.1			153	1,293	1,322	1,340	100	4	84	10	1	1	246	226	226			91	90		7		7
34	Nambucca				30	46	46	6	46	33	3			0.66				66	1,360	1,420	1,469	100						236	247	254	100		100				8	
35	Singleton				8	33	23	1			16	16	15	0.1	0.1	30	0.1	132	1,150	1,130	1,278	100						240	235	260		99		639		100.0	100	50
37	Inverell	0.4	0.4	0.4	170	125	126	6	6	5	5	5	5	0.1	0.0	10	0.0	154	771	770	722	100	7	85	7		1	176	167	154								
41	Muswellbrook	0.3	0.3	0.3	181	175	208	129	98	7	115	111	149	0.4	0.4			144	1,370	1,330	1,300	100	3	50	46	1		304	290	278	100	75		1,145	920	79	83	88
36	Parkes				54	69	54	71	85	56				0.53				41	1,100	1,130	765	100		70	30			280	270	193		17		185		21	22	24
42	Corowa					38	39		7	4					0.0			112	835	880	698	100		100				201	212	177				431			59	62

Table 15 - Sewerage - Asset Management, Resource Management

	WATER UTILITY	ASSET MANAGEMENT																		RESOURCE MANAGEMENT																				
		Infiltration			Chokes & Collapses			Overflows			Interruptions to Service			Rehabilitations		Renewals		Mains 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 Reused					
		(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)			(%)			Total Volume Reused	Volume Reused for Town Water	% of Total Effluent that is Reused					
		(23)			(24)			(25)			(26)			(27)	(28)	(29)	(30)	(31)	(32)			(33)	(34)	(35)	(36)	(37)	(38)	(39)			(40)			(41a)	(41b)	(41c)					
		2002/03	2003/04	2004/05	2002/03	2003/04	2004/05	2002/03	2003/04	2004/05	2002/03	2003/04	2004/05			2004/05	2004/05	2004/05	2002/03	2003/04	2004/05	2004/05	2004/05	2004/05	2004/05	2004/05	2004/05	2002/03	2003/04	2004/05	2002/03	2003/04	2004/05	2004/05	2004/05	2002/03	2003/04	2004/05
38	Moree Plains	0.1		17.7	17	12	12		1	1	87	72	72	0.1	0.2			230	1,100	1,500	1,500	100	100	60	30	10		264	360	373	71	27	100			30	27	13
44	Gunnedah	0.7	0.7	0.7	34	55	136	16	26	126	1	2	2	1.3	0.1				700	653	559	100	12				88	187	164	164		75		493		86	77	88
46	Narrabri				266	155		7								98	0.2	64	246	1,170	***1,170***							68	314	300	57								
43	Tumut				190	99	131	13		11					1.2			70	845	961	1,097	100						236	268	297	68	3	98	19		8.1	3	2
49	Young				73	50	128	10	8	210	15	24	52	1.9	1.9				732	758	736	100						223	224	218		26		130		30	13	18
39	Cowra				21	11	11	84	89	79	3	1	1	0.5	0.4			99	736	772	771	100		100				223	228	228								
45	Upper Hunter				90	67	64	26	32	8	194		1	0.86	0.4	104	0.5	125	975	980	878	100		75	19		6	271	272	260				548				62
52	Snowy River				7	7	4	4	4	4				0.7					415	415	638	100						141	141	195								
51	Forbes	0.3	0.3	0.1	94	82	75	2	5	6	166	238	128	0.1	0.2			80	702	726	622	100	3	88	4	5		228	225	193						1.4	1	
50	Cooma-Monaro				63	49	49	62	155	155		116	112	0.0	0.1	71	0.6	62	574	479	479	100						185	157	151	100		200			7		
53	Berrigan			0.0	20	22	24				1	1		0.4	1.0				315	315	523	100		100				171	163	173		15		206		16	18	39
LWUs with 1,501 - 3,000 Properties																																						
48	Leeton	0.6	0.5	0.5	96	90	92	12	10	14	35	27	27	2.41	1.0			229	1,250	1,300	1,400	72	3	56	29	13		337	336	337		2						
54	Deniliquin		1.5	1.3	137	30	30			1		20			0.1	18	0.1	546	1,030	794	666	100	13	64	12	11		353	271	227		93		571		88.9	79	86
47	Bellingen	1.3			39	21	39		19	9				0.0	0.1			35	639	748	801	100						235	269	281								
60	Glen Innes Severn			0.1			15		8	5									390	623	589	100	1	1			98	137	219	208			100					
58	Cootamundra	0.4			74	162	162											165	507	630	630	100		99		1		363	240	244				230			37	37
57	Wellington	1.5	0.7	0.7	79	100	100	5	145	145	33			0.1				167	424	411	411	100	7	65	28			182	174	162								
91	Cabonne				66	38	46			36					0.1			78	286	292	315	100		44	5		51	127	130	139				159		44	15	50
80	Greater Hume			0.2		39	49		3				11		0.2			7	365	442	480	100	4	93	4			157	190	215				128			37	27
59	Lachlan			0.7	56	40	17						1	1.15	0.3			89	646	649	559	100	9	76	2	13		307	282	251		14		166		19	28	30
65	Murray	0.3	0.3	0.3	38	7	6				5	15	3						486	547	536	100	5	60	35			222	263	258		45		79		5.4	37	15
62	Narromine														0.0													177								0		
56	Yass Valley				62	83	71		1					0.1	0.3	26	0.1	23	378	459	394	100						194	231	198				178		65	37	45
61	Liverpool Plains				24	28	23		2	8			8		0.7			23	433	362	368	100						233	189	191								
55	Warrumbungle					64	87			43		48		0.1				43		591	514	100		100				229	255	267				69				22
69	Temora		3.0	1.0	250	599	488		449	159	1	2	27		0.2				510	360	345	100	12	87	1			256	191	186				350		20	100	100
71	Palerang	4.7		0.0	71	6	74		15	30			6						270	271	254	100		100				181	181	143								
72	Bland				81	141	116		26	179		2	74		0.3			49	289	265	277	100						201	153	161		60		135		81	25	49
63	Narrandera	2.2	2.2	1.8	157	25	11	6	11	3	35				0.2			136	540	534	519	100	13	75	2	10		316	308	308								
67	Cobar			0.0		1	1												340	466	467	100		997				421	280	284				98		70	21	21
74	Wentworth			0.0		33	29								0.1			17	520	551	549	100		92	4	3	1	355	372	344				340		65	62	62
75	Coonamble			0.4	20	16	6											101	271	270	293	100	7	74	19			199	204	186				70		57	89	24
LWUs with 200 - 1,500 Properties																																						
70	Kyogle	0.4	3.0	1.2	62	59	96	76	115	5	16	19	24	5.87	0.4			139	165	329	293	90	15	85				111	111	175		25		62		20	29	21
77	Junee				66	63	87	1						0.2	1.0			34	233	256	270	100		100				156	172	188				160		83.3	60	59
78	Blayney				49	29	26												211	258	301	100		85	7	8		165	185	204		39		247		87	80	82
79	Walgett				4		8											35	622	622	***622***							392	392	391		83				94	83	83
68	Tenterfield				140	111	100				17	48	12		0.4	87	0.4		258	276	289	100		100				178	191	203				107		44	38	37
84	Gilgandra	1.4	1.2	1.2	39	9	24	6	6		15	15	11	1.5	0.5			76	298	313	297	100	14	74	10	2		218	236	240	2		5	320		100.0	100	100
73	Upper Lachlan			0.4		63	23		2				8					32	243	258	300	100	6	77	16	1		192	204	226								
82	Gloucester		0.5	1.0	17	24	89	2	17	2			55					427	216	214	234	100	19				81	166	164	183	100		100				
87	Bourke								3	3					1.2			207		300	300	100		100				353	235	235						18		
86	Hay				280	54	54					2	2	2.7	1.2	825	5.6	121	405	369	307	100						330	301	290								
83	Oberon				42	26	42		11	8				0.3				163	287	313	326	100						296	261	269							0	
81	Gwydir		1.0	2.1		119	85		30	41		20	93		0.4					215	263	95	32	54	14			188	175	227			64	46				17

Table 15 - Sewerage - Asset Management, Resource Management

	WATER UTILITY	ASSET MANAGEMENT																RESOURCE MANAGEMENT																				
		Infiltration			Chokes & Collapses			Overflows			Interruptions to Service			Rehabilitations		Renewals		Mains 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 Reused					
		(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)			(%)			Total Volume Reused	Volume Reused for Town Water	% of Total Effluent that is Reused		
		(23)			(24)			(25)			(26)			(27)	(28)	(29)	(30)	(31)	(32)			(33)	(34)	(35)	(36)	(37)	(38)	(39)			(40)			(41a)	(41b)	(41c)		
		2002/03	2003/04	2004/05	2002/03	2003/04	2004/05	2002/03	2003/04	2004/05	2002/03	2003/04	2004/05			2004/05	2004/05	2004/05	2002/03	2003/04	2004/05	2004/05	2004/05	2004/05	2004/05	2004/05	2004/05	2002/03	2003/04	2004/05	2002/03	2003/04	2004/05	2004/05	2004/05	2002/03	2003/04	2004/05
64	Dungog				186	267	125	69	132	41	394	201	218		0.3			37	289	234	273	100						277	224	262		61		247		90	93	91
85	Uralla	0.6	0.6	0.6	14	14	28	14	14	28	4	4	8		0.4			21	145	147	145	100	11	83	6			147	148	143								
95	Weddin				149	64	132				47				0.1			58	159	171	162	100						177	181	162	18	18	17	28		31	24	18
89	Bogan				5													54	225	281	339	100						468	289	346								
76	Harden				62	40	36	22	9	13						147	1.0	122	186	186	186	100		100				198	198	193	100	75	100	74		99	99	40
88	Wakool																	37	66	73	***73***							72	80	76								
93	Tumbarumba	1.7	0.2	0.2	72	53	23				11	2	2	1.2	0.7	33	0.1		233	258	264	100	4	96				264	287	289								
94	Gundagai	0.1	0.1		34	27												12	105	105	***105***							109	121	121						100	100	100
92	Carrathool				10	51	118			5	1	2	2	0.01	0.1				72	107	127	100						86	128	152				2			1	1
96	Warren					473	327									533	1.3	194	227	196	172	100						256	230	212								
99	Coolamon				22	8	8											26	46	95	95	100		100				229	118	118		25		70		28	74	74
102	Lockhart	6.5			5	20						10						32	132	136	157	89						179	177	181	100			17		1	3	11
98	Walcha	0.7	0.8	0.5	7	14	41	28	28	38	21	5	5					79	171	188	172	100	9	84	7			224	246	226								
100	Balranald			0.0	18	11	11				10							16	228	250	250	100	1	100				311	329	331								
97	Bombala	0.8	0.8	0.4	32	44	9				21	13	13					26	184	170	171	100	8	88	3	2		247	228	227		17		36		20	21	21
101	Murrumbidgee				100	81	110											29	78	151	161	100						112	211	224				4			7	2
90	Guyra	5.2	3.6	4.5	44	30	8	11		3		15	24						190	129	164	100	100					262	177	233								
104	Boorowa				31	66	46											103	88	90	90	100		100				192	170	171								
105	Brewarrina				25	12	86											153	210	180	213	100		100				446	385	459		76		170		74	89	80
106	Jerilderie				12		71				2							47	84	90	88	100						203	218	209		4		40		48	44	45
103	Central Darling						38						58		4.1			606	100	100	100	100						292	292	292								
107	Urana					33	40		7			7						13	88	88	88	100		100				308	308	296								

Blank Page

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)		Residential Revenue Vs Vol Collected		Current Replacement Cost (CRC) of System Assets			Debt to Equity			ERRR			Cross Subsidies		Operating Result		Externalities (Annual Fees to EPA)	Operating Cost (OMA)				OMA+ Depreciation[4]				Management Cost			
		($'000)		Res Revenue (% of Annual rates and charges)	Res Vol collectd (% total excl infiltration & inflow)	Written Down Cost ($'M)	Current Replacement Cost ($'M)	Current Replacement Cost per Assessmnt ($)	(%)			(%) (48a) see also Table 7 Col (11)			Annual Fees & Charges ($/assessment) (49a)	Developer Charge ($/assessment) (49b)	($/property)		($/property)	($/property)											
		(42)		(43)	(44)	(45)	(46)	(47)	(48)								(50)		(51)	(52)				(53)				(54)			
		2003/04	2004/05	2004/05	2004/05	2004/05	2004/05	2004/05	2002/03	2003/04	2004/05	2002/03	2003/04	2004/05	2004/05	2004/05	2003/04	2004/05	2004/05	2001/02	2002/03	2003/04	2004/05	2001/02	2002/03	2003/04	2004/05	2001/02	2002/03	2003/04	2004/05
	Sydney Water	748,000	675,000			6,920						2.8	4.1	3.8						284	272	199	199	353	360	288	288				
	Hunter Water	75,000	62,700			1,195	1,419	7,100				3.7	4.2	3.2			37			184	182	158	155	255	251	227	225				
LWUs with > 10,000 Properties																															
1	Gosford	27,300	27,400	85	75	288	399	6,100	3.0	0.3	0.3	2.1	1.5	0.2			68	26	0.2	218	241	246	267	312	336	354	369	111	129	133	136
2	Wyong	23,200	24,800	85		244	348	6,100	7.2	7.4	6.2	0.8	1.1	0.2			49	6		223	261	231	233	342	396	351	363	61	90	64	68
3	Shoalhaven	24,400	27,600	85	74	216	295	7,200	9.9	7.6	8.3	4.6	4.1	4.7			197	283	0.0	310	313	323	333	418	437	449	460	116	124	127	136
5	MidCoast (Combined)	15,700	26,100	77	76	167	288	8,900	26.1	27.4	30.8	3.8	-0.2	5.0			-98	215	0.6	332	305	325	326	536	510	546	526	106	84	85	49
6	Tweed	18,900	25,300	88	71	154	218	7,500	4.8	3.3	2.8	5.1	5.3	6.2			265	486	0.7	258	252	291	310	450	395	435	453	80	90	99	110
9	Wagga Wagga	10,700	10,000	73	68		***166***	***6,800***	0.5	0.5	0.4	11.9	6.3	9.0			288	206		129	137	151	145	166	177	192	185	30	30	33	*28*
7	Port Macquarie-Hastings	19,800	15,700	87		104	154	6,000	4.1	3.0	2.6	6.0	5.3	1.8		29	335	163		255	277	298	329	366	390	411	447	73	75	93	86
11	Albury City	9,013	10,300	84		120	209	10,100	14.8	13.1	12.9	0.3	0.2	0.3			-45	-23	0.8	251	273	263	272	361	399	412	417	124	135	111	99
10	Coffs Harbour	19,861	24,100	89	74	155	212	9,500	29.3	23.9	20.6	6.5	4.8	7.0			339	524	0.5	307	314	334	352	446	463	483	508	83	84	106	114
13	Tamworth Regional	8,215	12,100	80	73	81	142	6,800	5.7	5.3	8.4	0.8	1.1	4.9			31	224	0.1	272	341	289	231	417	496	439	351	78	87	82	*86*
15	Eurobodalla	12,000	14,000	85		100	142	7,900	12.3	10.4	8.8	3.4	4.3	4.7			176	201		282	304	345	374	409	461	490	523	106	124	110	107
17	Queanbeyan	7,200	7,300	88	72	99	163	10,600	0.1	0.1	0.0	5.1	4.3	0.1			146	96	1.5	196	226	226	215	272	303	304	357	80	77	74	80
19	Orange	7,200	8,900	85		70	111	7,800	0.0	0.0	0.0	-0.8	0.4	0.2		1	21	86	9.9	157	173	217	259	367	388	437	480	66	67	86	89
20	Goulburn Mulwaree	4,783	5,800	75	60	31	37	2,700	38.2	36.8	42.1	3.3	4.6	5.3			82	88	2.1	272	288	255	208	348	367	336	273	119	129	122	*79*
18	Dubbo	8,400	8,800	81	82	53	115	9,300	0.0	0.0	0.0	2.1	2.4	2.8		3	78	137	3.1	277	266	365	371	399	402	529	503	84	107	113	122
16	Wingecarribee	8,300	9,300	88		99	138	9,900	17.7	16.8	15.7	0.9	1.9	1.7			48	108	0.4	254	252	271	284	437	446	456	466	119	96	108	128
14	Clarence Valley	9,193	***9,193***	86	83				2.0	1.8		2.6	4.8		3		236			244	250	267		355	361	377		84	88	97	
21	Bathurst Regional	9,100	5,400	73		77	92	7,800	1.2	1.0	0.8	3.1	5.2	-1.4			329	-66		233	236	237	309	366	377	369	453	96	96	99	*144*
24	Ballina	9,400	7,100	80		62	91	6,800	0.6	0.3	0.2	0.4	6.0	-1.1			308	35	1.5	329	310	323	375	455	436	446	499	98	100	115	119
22	Lismore	6,600	7,200	75	76	55	94	8,300	1.7	0.5	0.6	2.3	2.7	3.5		19	145	184		255	243	278	279	383	373	411	414	44	44	52	56
LWUs with 3,001 - 10,000 Properties																															
23	Bega Valley	5,300	7,400	83		46	88	8,700	0.7	0.7	0.6	-2.6	-2.4	1.1		9	-95	69	4.1	311	317	428	474	504	507	617	676	151	157	199	190
27	Byron	9,300	8,300	76	***90***	80	121	11,900	6.7	6.1	12.5	2.1	2.6	0.1			147	13	0.2	457	520	493	568	551	614	676	757	127	132	160	156
26	Country Energy	2,600	2,400	77			***35***	***3,700***	0.0	0.0	0.0	0.6	-0.3	-3.9			-6	-45		173	175	201	201	250	249	283	282	107	59	68	81
25	Kempsey	9,800	5,800	71		56	89	10,600	8.8	8.2	7.4	2.1	9.6	1.5			608	63	11.8	329	343	338	349	473	484	486	491	101	100	95	*112*
31	Lithgow	2,300	2,900	90		7	37	4,800	0.0	0.0	0.0	-1.7	3.0	2.8			41	45	8.5	218	221	183	259	288	290	254	331	70	55	41	106
29	Armidale Dumaresq	3,000	3,500	69		26	59	7,700	0.0	0.0	0.0	-1.0	-1.1	0.0	13	26	-39	35	1.6	235	294	313	300	359	432	441	427	141	129	131	135
30A	Hawkesbury	3,800	***3,800***	73		51	57	7,600	0.1	0.1	0.0	0.0	-0.2	-1.4			-1	-81	9.2	327	329	348	379	417	463	522	594	148	149	154	165
30	Griffith	4,100	5,000	56	64	35	38	4,500	0.0	0.0	3.2	0.5	0.7	0.6			61	58	1.8	385	430	357	466	513	568	509	629	58	99	122	*127*
33	Richmond Valley	3,700	3,400	75		23	47	7,400	9.0	0.0	0.0	7.0	3.2	1.6			138	101		254	308	320	343	367	438	434	457	102	144	148	162
32	Mid-Western Regional	2,770	3,200	85	88	19	40	6,700	5.9	5.3	4.6	1.3	0.5	2.9			56	117	0.7	247	259	291	293	374	385	412	411	81	86	106	108
34	Nambucca	3,100	3,400	71		27	49	8,000	13.2	11.2	9.8	3.4	2.6	3.2			79	155	0.3	229	225	262	261	372	368	408	392	88	86	103	90
35	Singleton	3,000	2,400	83		25	45	8,700	0.0	0.0	0.0	2.7	5.2	1.3	2		272	116		190	199	191	201	341	354	349	358	62	59	49	*66*
37	Inverell	1,300	1,600	90	***90***	7	27	5,500	0.8	0.0	0.0	-3.1	-3.8	-2.3			-64	-13		188	185	192	209	324	314	314	328	56	73	75	82
41	Muswellbrook	2,500	2,800	90	52	17	33	6,700	0.0	0.0	0.0	0.8	2.9	3.8			133	168		288	309	288	311	400	425	403	427	45	56	63	74
36	Parkes	1,500	1,600	83		8	23	4,700	0.0	0.0	0.0	1.7	6.5	2.4			121	104		130	153	142	154	203	225	210	223	30	30	28	33
42	Corowa	1,691	1,800	86		15	25	5,600	0.2	1.7	1.6	0.2	-0.5	0.5			31	77	0.8	217	219	252	239	318	319	351	327	81	84	85	*85*

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)		Residential Revenue Vs Vol Collected		Current Replacement Cost (CRC) of System Assets			Debt to Equity			ERRR			Cross Subsidies		Operating Result		Externalities (Annual Fees to EPA)	Operating Cost (OMA)				OMA+ Depreciation[4]				Management Cost			
		($'000)		Res Revenue (% of Annual rates and charges)	Res Vol collectd (% total excl infiltration & inflow)	Written Down Cost ($'M)	Current Replacement Cost ($'M)	Current Replacement Cost per Assessmnt ($)	(%)			(%) (48a) see also Table 7 Col (11)			Annual Fees & Charges ($/assessment) (49a)	Developer Charge ($/assessment) (49b)	($/property)		($/property)	($/property)				($/property)				($/property)			
		(42)		(43)	(44)	(45)	(46)	(47)	(48)								(50)		(51)	(52)				(53)				(54)			
		2003/04	2004/05	2004/05	2004/05	2004/05	2004/05	2004/05	2002/03	2003/04	2004/05	2002/03	2003/04	2004/05	2004/05	2004/05	2003/04	2004/05	2004/05	2001/02	2002/03	2003/04	2004/05	2001/02	2002/03	2003/04	2004/05	2001/02	2002/03	2003/04	2004/05
38	Moree Plains	2,600	2,900	76			***29***	***6,700***	26.4	24.2	18.5	-0.6	1.6	3.5			27	130	2.7	384	360	376	347	491	492	511	483	106	121	166	131
44	Gunnedah	1,000	1,100	88		9	21	5,400	2.0	1.1	0.2	2.0	1.7	-0.6	13		58	15		97	109	117	115	184	186	191	247	23	21	24	24
46	Narrabri	1,200	1,400	82		18	43	11,100	14.4	13.9	13.5	-0.6	-1.3	-1.9			-96	-110		224	202	204	259	405	384	383	431	66	87	84	51
43	Tumut	2,300	2,400	75		18	39	9,900	2.2	1.7	1.2	1.3	1.5	1.5			126	133	1.6	199	261	281	274	387	479	510	499	66	83	82	*49*
49	Young	1,200	1,500	75		4	6	1,800	5.5	4.9	4.1	6.8	11.4	15.4			164	245	3.2	123	127	121	126	153	158	150	157	33	33	33	20
39	Cowra	1,300	1,400	72			***9***	***2,500***	3.8	11.8	11.0	4.2	5.9	3.8			95	43	0.7	168	161	183	252	256	249	268	337	54	88	114	178
45	Upper Hunter	1,667	1,800	89		14	26	7,000	0.0	0.0	0.0	-2.2	0.5	1.7			114	104	13.6	235	226	234	287	366	356	356	420	83	96	109	128
52	Snowy River	1,600	***1,600***	83			***22***	***9,500***	0.0	0.0		3.8	3.1				153		1.6	206	211	198		332	334	323		71	61	63	
51	Forbes	1,600	1,700	80	***90***	11	15	4,700	16.5	14.7	33.6	7.7	5.4	3.7			122	126	27.8	171	184	248	259	242	285	310	338	39	39	31	38
50	Cooma-Monaro	1,700	1,900	81		19	25	7,500	11.5	10.4	9.1	0.5	0.2	0.0			-45	-19	0.2	286	329	366	389	457	504	545	563	98	104	110	117
53	Berrigan	1,200	***1,200***	85	***90***	9	22	7,300	4.1	2.8	1.4	-0.4	-0.8	-0.3	47	9	15	26	1.8	195	188	215	238	343	338	359	372	84	88	87	87
LWUs with 1,501 - 3,000 Properties																															
48	Leeton	1,900	***1,900***	82	58	13	23	7,300	5.5	4.0	1.0	9.7	4.7	1.9			265	140		271	257	253	347	396	374	371	467	73	64	74	140
54	Deniliquin	1,500	1,600	80	74	8	24	7,700	3.6	3.1	2.6	0.0	0.8	1.9			56	98		259	288	285	273	393	424	409	410	91	95	100	108
47	Bellingen	1,500	1,700	88		14	26	8,800	0.4	0.2	0.1	0.1	-0.3	-0.7			-20	52	12.3	263	322	357	336	459	514	545	523	73	141	155	138
60	Glen Innes Severn	926	***926***	89	1		***17***	***5,600***	0.4	0.2		4.2	5.0				103		1.5	123	141	145		177	195	200		60	63	62	
58	Cootamundra	598	852	90			***8***	***2,800***	11.8	11.3	6.9	-5.3	-8.8	-3.6			-165	-74	1.1	138	151	164	176	323	347	360	376	42	44	43	46
57	Wellington	1,200	1,300	88	70	6	19	7,400	10.8	9.8	7.9	3.9	5.4	4.8		5	81	109	22.9	254	214	241	240	415	346	364	354	121	95	88	95
91	Cabonne	1,300	1,700	90		12	17	7,000	10.9	9.6	8.7	2.4	3.8	7.0			212	392	1.0	168	195	158	173	301	337	301	315	40	45	38	46
80	Greater Hume	766	752	90	***90***	8	15	6,300	3.7	3.3	3.9	-0.3	-0.1	-0.1			11	-8	3.9	190	194	197	226	299	304	305	332	56	65	67	*67*
59	Lachlan	804	1,100	81	84	8	16	7,500	0.0	0.0	0.0	1.0	0.3	2.4			76	161		201	163	183	200	317	287	307	322	52	51	51	58
65	Murray	1,100	***1,100***	76	63		***9***	***4,100***	32.5	24.5	15.8	1.9	2.9	2.8			57	73	18.2	189	185	198	217	362	346	364	386	88	82	85	100
62	Narromine	966	996	90		8	17	7,700	1.7	0.0	0.0	-1.7	-0.8	-0.7			11			327	303	264	271	510	471	447	464	178	162	155	125
56	Yass Valley	1,500	1,400	86		5	12	6,000	1.0	0.0	0.0	6.7	11.5	10.2			323	274		253	258	261	286	307	347	349	376	77	80	87	*90*
61	Liverpool Plains	748	653	89		3	18	9,200	9.2	8.6	0.0	0.4	0.8	-1.4			40	6	0.4	171	175	157	187	325	334	313	333	35	35	40	44
55	Warrumbungle	1,059	773	78		9	20	10,200	4.3	4.4	4.0	0.9	-1.0	-2.4			-65	-83		238	255	299	245	421	437	483	457	88	93	111	102
69	Temora	439	440	77	***90***	3	9	4,800	0.0	0.0	0.0	-2.7	-0.2	-1.1			21	15		156	158	165	171	200	203	212	219	28	25	26	29
71	Palerang	869	***869***	90	***90***		***8***	***4,200***	8.2	10.0		2.0	2.1				-18			276	312	320		388	425	433		83	91	91	
72	Bland	762	811	78		4	8	4,400	0.0	0.0	0.0	0.3	0.7	1.0			61	67	1.4	222	215	227	256	364	356	372	405	72	45	41	66
63	Narrandera	969	1,100	81	86	3	12	6,700	0.0	0.0	0.0	1.8	1.8	5.7			200	212		197	222	284	310	308	332	371	398	59	67	84	137
67	Cobar	427	506	81	***90***	4	9	5,300	0.0	0.0	0.0	-2.4	-0.2	-4.6			42	-46		224	152	215	236	351	270	215	355	113	68	68	20
74	Wentworth	831	749	88	***90***	14	15	8,900	11.3	10.5	10.1	0.5	0.7	-0.6			-5	-114	31.1	244	267	251	244	383	471	463	481	58	70	61	*63*
75	Coonamble	518	512	86	80	4	13	8,600	1.4	1.3	1.3	-3.4	-3.5	-5.2			-25	-52		152	168	165	172	391	396	400	372	21	21	21	20
LWUs with 200 - 1,500 Properties																															
70	Kyogle	673	766	85	***90***	6	14	8,800	8.0	3.1	0.9	-1.6	-1.3	-0.2			-50	-6		244	260	279	300	426	451	474	500	92	95	91	93
77	Junee	491	542	82		3	7	4,400	0.0	0.0	0.0	2.2	0.2	1.3			4	42	1.6	193	185	237	230	276	270	325	319	45	48	55	56
78	Blayney	1,000	1,100	82		9	10	7,000	16.5	13.2	12.6	4.4	3.6	3.3			219	202	0.5	206	203	312	302	301	305	406	460	105	90	135	136
79	Walgett	556	576	90		5	12	6,900	3.1	2.7	2.2	-2.7	-2.7	-1.7			-84	-30		157	211	226	189	394	450	466	426	63	60	82	*76*
68	Tenterfield	698	755	79		6	14	9,000	0.0	0.0	0.0	-2.2	1.9	-3.7			-34	-81	3.3	302	324	347	416	462	484	509	585	160	186	204	222
84	Gilgandra	378	398	80	86	3	10	7,700	1.9	1.2	0.6	-4.0	-0.9	-1.3			-24	-23	102.2	138	150	144	167	260	276	267	290	26	41	41	41
73	Upper Lachlan	618	676	85	82	9	12	8,700	16.4	16.0	14.8	0.0	0.6	0.3			-28	-29		219	265	249	298	321	437	425	454	28	41	38	87
82	Gloucester	682	1,400	89		5	11	8,300	3.5	0.8	0.0	5.1	0.9	12.2			82	514	17.3	175	230	289	380	314	373	434	532	38	59	59	*56*
87	Bourke	531	571	90		2	7	4,400	6.3	3.7	6.8	-1.5	-10.4	-1.1			-144	7	1.9	221	271	381	263	391	441	551	435	42	102	140	89
86	Hay	519	543	87		5	6	4,300	0.0	0.0	0.0	-2.1	-1.2	-1.8	22		0	-30	0.6	297	272	255	290	460	441	423	457	94	71	73	71
83	Oberon	513	611	59		4	4	3,700	1.3	0.4	0.0	-3.2	-2.0	0.7	48	8	-23	65		290	368	325	304	401	464	420	401	60	58	58	59
81	Gwydir	360	***360***	88	79		***14***	***11,600***	1.6	1.6		-4.6	-5.3				-90		36.2	226	252	278		452	481	515		45	60	73	

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)		Residential Revenue Vs Vol Collected		Current Replacement Cost (CRC) of System Assets			Debt to Equity			ERRR			Cross Subsidies		Operating Result		Externalities (Annual Fees to EPA)	Operating Cost (OMA)				OMA+ Depreciation[4]				Management Cost			
		($'000)		Res Revenue (% of Annual rates and charges)	Res Vol collectd (% total excl infiltration & inflow)	Written Down Cost ($'M)	Current Replacement Cost ($'M)	Current Replacement Cost per Assessmnt ($)	(%)			(%) (48a) see also Table 7 Col (11)			Annual Fees & Charges ($/assessment) (49a)	Developer Charge ($/assessment) (49b)	($/property)		($/property)	($/property)				($/property)				($/property)			
		(42)		(43)	(44)	(45)	(46)	(47)	(48)								(50)		(51)	(52)				(53)				(54)			
		2003/04	2004/05	2004/05	2004/05	2004/05	2004/05	2004/05	2002/03	2003/04	2004/05	2002/03	2003/04	2004/05	2004/05	2004/05	2003/04	2004/05	2004/05	2001/02	2002/03	2003/04	2004/05	2001/02	2002/03	2003/04	2004/05	2001/02	2002/03	2003/04	2004/05
64	Dungog	723	693	85		2	9	8,000	14.8	12.9	10.5	5.7	12.8	10.3			237	244	41.1	223	254	270	274	319	351	361	389	72	88	89	93
85	Uralla	440	469	86	***90***	3	6	6,000	1.4	0.6	0.6	-1.8	0.0	0.7			25	31		225	265	248	275	387	426	408	432	116	145	115	114
95	Weddin	165	325	82		1	7	6,400	0.0	0.0	0.0	-13.8	-12.5	4.2			-77	50		141	133	111	137	281	281	251	275	27	29	27	26
89	Bogan	453	477	90		3	7	7,200	4.6	3.2	2.7	4.3	4.9	3.9			160	139	14.9	236	187	190	236	344	294	297	342	158	125	126	*162*
76	Harden	312	346	83		0	6	6,500	6.6	5.1	3.9	-7.0	-1.8	-12.0			-12	-56	8.5	220	218	217	289	345	341	340	413	62	80	69	66
88	Wakool	515	571	76		5	8	8,100	9.7	12.6	9.7	3.2	1.6	2.7			105	160	43.7	244	289	272	266	376	420	407	390	81	123	101	80
93	Tumbarumba	409	588	85	***90***	2	10	10,100	0.0	0.0	0.0	-5.4	-4.0	2.2			-7	146		207	216	197	244	427	442	423	468	51	56	59	66
94	Gundagai	244	229	56		1	1	1,200	0.7	0.3	0.0	-0.3	0.5	-1.2			15	-5		213	215	236	236	237	244	267	268	59	52	49	*46*
92	Carrathool	125	143	90		3	4	4,800	0.0	0.0	0.0	12.5	-5.0	-1.7			-131	-31		129	112	209	130	203	186	280	201	49	29	38	25
96	Warren	514	529	79		3	7	7,800	2.9	2.3	1.7	3.8	4.7	3.6			227	214		203	212	230	254	342	412	387	414	38	51	55	58
99	Coolamon	366	722	82		4	4	5,100	5.3	2.6	0.0	0.8	2.3	11.3			121	550	19.9	126	140	170	178	262	282	312	329	42	37	47	62
102	Lockhart	346	335	85		7	11	13,800	0.0	0.0	0.0	0.1	0.2	-0.2			81	0	3.1	241	206	189	186	412	371	343	404	119	93	92	*86*
98	Walcha	220	248	79	***90***	3	6	7,800	1.2	1.1	1.0	-3.3	-3.1	-2.6			-99	-70		201	268	200	220	325	390	323	345	41	48	38	50
100	Balranald	315	305	87	***90***	7	10	12,600	0.0	0.2	0.1	1.0	0.5	0.5			50	46		128	101	162	154	332	307	364	356	41	41	45	34
97	Bombala	373	393	82	***90***	3	6	7,000	16.2	13.0	9.7	3.0	4.9	4.7			178	207	3.1	193	207	168	203	263	278	243	277	60	66	56	78
101	Murrumbidgee	265	***265***	90		3	4	5,400	1.5	0.9	0.4	2.7	3.2	3.1			181	172	33.7	82	138	124	133	149	199	183	191	22	56	56	*55*
90	Guyra	543	549	80		7	11	14,700	22.5	20.4	18.3	1.8	1.2	1.1			155	159		208	196	248	273	418	414	463	496	63	52	82	97
104	Boorowa	111	139	85		3	5	8,300	0.0	0.0	0.0	-2.4	-1.4	-1.2			-77	-61	4.5	150	151	177	205	559	328	287	315	21	21	25	36
105	Brewarrina	216	250	78		1	6	10,200	4.1	3.2	2.9	-0.5	-3.7	-1.2	78		-38	-11	1.0	327	378	400	411	393	446	477	536	32	39	39	37
106	Jerilderie	280	267	43		1	2	5,500	9.3	4.1	1.1	5.6	7.1	6.6			307	239	5.6	175	254	257	299	258	334	322	363	134	97	87	*100*
103	Central Darling	102	97	90		2	2	6,200	0.0	0.0	0.0	-0.4	-0.2	-1.5			3	-61	47.6	488	219	129	257	573	304	216	345	27	27	27	
107	Urana	175	195	90		3	4	11,600	16.3	15.1	14.3	1.0	0.0	0.3			0	-3		330	235		276	495	404		430	105	84	84	111

NOTE: 1. If the reported management cost is <$20/property or not reported, the previous year's management cost has been adopted. In such cases, the OMA cost per property has not been increased to include this adopted management cost.

2. If the OMA cost is not reported, the previous year's value has been adopted and is shown in ***italics bold*** .

3. Where the residential revenue is reported to be greater than 90%, a maximum value of 90% has been adopted. This is shown in ***italics bold*** .

4. OMA plus depreciation is sometimes used as a proxy for the amount required for full cost-recovery, although it should be noted that this takes no account of expenditure for future capital works.

Blank Page

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)			
		2001/02	2002/03	2003/04	2004/05	2004/05	2001/02	2002/03	2003/04	2004/05	2004/05	2002/03	2003/04	2004/05	2002/03	2003/04	2004/05	2002/03	2003/04	2004/05	2002/03	2003/04	2004/05	2002/03	2003/04	2004/05	2001/02	2002/03	2003/04	2004/05	2001/02	2002/03	2003/04	2004/05
	Sydney Water											85	73	83		73	84	1	1	1										1	1	1	1
	Hunter Water												60	66	44	46	51	2	2	2										2	3	3	3
LWUs with > 10,000 Properties																																	
1	Gosford	100	100	100	100	30	100	100	100	100	50	29	43	49	38	58	48	1	0.9	1.0	12	13	15							2	2	3	3
2	Wyong	NL	NL	NL	100		100	100	100	100	35	46	42	56	0	1	1	1.0	1	1.1	11	10	12							2	2	2	2
3	Shoalhaven	92	98	100	100	10	86	96	93	95	15	26	32	30	7	27	26	1	0.1	1.4	16	16	16							2	2	2	2
5	MidCoast (Combined)	97	97	100	98	30	93	93	100	96	30	32		33	7	2	1	1	1	2.3	11	9	10										
6	Tweed		97	97	94	15		96	96	87	20	5	8	17	7	4	5	0.4	1	1	5	6	12	6	3	4	37	37	23	24	3	3	3	3
9	Wagga Wagga		100	100	98	20		93	90	93	30	152	94	102	8	4	20	0.1		0	101	85	75	8	5	2	95	88	72	21	1	2	1	1
7	Port Macquarie-Hastings		94	100	77	10		82	96	90	15	17		19	12		1				7	6	4								1	1	1
11	Albury City	100	96	85	82	15	96	65	58	94	20	83	187	186	22	37	19		0	0.2	28	40	39			0			0	3	2	2	2
10	Coffs Harbour	100	100	100	100	50	100	100	100	98	50	87	81	64	52	47	23	2.5	3	0	40	37	30							2			2
13	Tamworth Regional	96	97	100	99	30	90	92	81	92	25		65	84		17	16		0		39	33	30			0	1		0	5	4	5	1
15	Eurobodalla	98	98	99	98	20	98	98	100	100	30	51	6	48	1	6	11	3	2.2	2.9	13	52	27		0	0			0	2	6	5	5
17	Queanbeyan	100	100	100	100	10	100	100	100	100	20	109	122	92			3			0.1	20	22	19			0			0	3	3	3	1
19	Orange	92	92	95	100	20	92	92	95	100	25	65	80	112		8	13		0		26	34	32						0	1	2	2	
20	Goulburn Mulwaree	83	83	90	100	20	92	92	70	100	30	37		5			20		3	1	62	78	31							1			3
18	Dubbo	100	100	100	92	30	100	100	67	92	30	75	64	64	12	25	15			0.1	18	15	16	1	1	1	14	18	15	16	1	1	1	1
16	Wingecarribee	100	100	96	99	10	100	100	98	98	15		46	79		1	1	0	1	0.6	35	30	35									4	4
14	Clarence Valley	97	93	90	95	20	77	75	86	71	30	46	23	5		22	11	0.7	1	1	28	17	5							3			2
21	Bathurst Regional	100	100	100	100	20	100	100	96	90	25	12	20	23	3	2	3		0	0	15	14	14	2	1	1	12	13	12	12	2	2	2	2
24	Ballina		95		100	20		91		100	30	24		24	2		3	3		1	2		10	0		0.0		1		0.0		6		6
22	Lismore	96	96	100	100	15	80	80	87	100	20	65	73	67	20	4	4	2	0.2	0.3	44	24	19	0.1		0.0	39		0.1		3	3	1	1
LWUs with 3,001 - 10,000 Properties																																	
23	Bega Valley		97	96	99	20		95	96	99	30	32	28	44	26	23	35		1.1	2.7	2	10	10							2	2	2	2
27	Byron	100	100	100	100	15	100	100	100	99	20	9	15	22	8	2	16	3	2	1.6	14	10	10	1	1	0		6	10	4	1	2	1	2
26	Country Energy	100	100	100	100	40	97	97	96	100	45	148	109	125	5	22	16	0.7	3	0	98	2	1							1	1	1	1
25	Kempsey	99	99	100	99	15	72	99	92	96	20	15	15	2	7	7	6	1.1	1	0	2	1	1								3	3	3
31	Lithgow		80	80				75	75			1	2								12	11		0				1		1	1	1	
29	Armidale Dumaresq	100	100	100	100	20	100	100	100	100	30	67	78	40	15	8	37	0	1	0.5		49	60								1		2
30A	Hawkesbury		100	100				100	100			41	41		2	2		0.9	1		10	10					2			2	1	1	
30	Griffith	50	60	100	54	30	33	41	75	45	30	38	165	161	17	12	21	1.8	41	2	36	54	56			1			9			2	2
33	Richmond Valley		100	100	100	20		88	91	87	20	9	9	9	2	2	2	2	1.8	2.0	7	7	5	1		0	5	3	3	3	5	3		2
32	Mid-Western Regional	100	100	100	100	20	100	100	96	92	30	54	54	98	32	8	5				38	32	47			5	36			46	2	2	3	2
34	Nambucca	100	97	92	90	20	100	88	96	96	30	30	46	46	6	46	33	1.7	3	1	7	12	16	0		0	4	3		0	2	1	1	1
35	Singleton	100	100	100	100	30	100	100	100	100	30	8	33	23	1			1.3	1	0	6	13	17	3	3	3	16	16	16	15	3	3	3	3
37	Inverell		100	100	100	20		93	100	87	30	170	125	126	6	6	5	0	0.2	0.2	48	45	44	0	0	0	12	5	5	5	1	1	1	1
41	Muswellbrook		100	100	100	20		100	100	100	30	181	175	208	129	98	7	0	1	0.6	57	52	77	13	8	15	108	115	111	149	1	2	1	2
36	Parkes				66	20				42	25	54	69	54	71	85	56	1.2	1	1	12	14	11							1	1	1	1
42	Corowa	80	80	80		20	40	40	40		30	15	38	39		7	4	2.4	3	2	26	31	18							2		4	2

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)			
		2001/02	2002/03	2003/04	2004/05	2004/05	2001/02	2002/03	2003/04	2004/05	2004/05	2002/03	2003/04	2004/05	2002/03	2003/04	2004/05	2002/03	2003/04	2004/05	2002/03	2003/04	2004/05	2002/03	2003/04	2004/05	2001/02	2002/03	2003/04	2004/05	2001/02	2002/03	2003/04	2004/05
38	Moree Plains		98		58	13		95		92	57	17	12	12		1	1			1.2	92	34	34	21	17	17	30	87	72	72	1	4	4	4
44	Gunnedah	100	100	100	100	20	90	90	92	78	30	34	55	136	16	26	126		0	0.3	14	26	42	0	0	0	1	1	2	2	1	1	1	1
46	Narrabri		94	80				67				266	155		7			5.8	2		97	95								3	4	3	
43	Tumut	100	94	88	88	40	100	98	95	98	45	190	99	131	13		11		1		64	48	55			0				0	5	5	5	5
49	Young		92	100	100	30		75	83	92	30	73	50	128	10	8	210			0.6	43	44	78	1	1	5	201	15	24	52	1	1	1	2
39	Cowra		100	75	100	20		55	58	75	30	21	11	11	84	89	79		0	0.6	30	39	34	1	0	0	1	3	1	1	2	4	4	4
45	Upper Hunter	100	100	100	100	20	100	96	90	89	30	90	67	64	26	32	8		1	1		30	52			0	1			1	3	3	5	2
52	Snowy River		96	100	84	10		91	100	77	15	7	7	4	4	4	4	6.1	6	1	15	15	18								2	2	2	4
51	Forbes	79	79	93	31	20	93	93	100	92	30	94	82	75	2	5	6		0.3	0	60	80	72	23	44	11	126	166	238	128	2	2	3	2
50	Cooma-Monaro	200	100	100			200	100	100			63	49	49	62	155	155		2	2.2	88	118	114		14				116	112	2	2	2	
53	Berrigan	100	100	100	100	30	100	100	100	100	30	20	22	24						1	7	7	8		0.1	0	2	1	1	0	1	1	2	2
LWUs with 1,501 - 3,000 Properties																																	
48	Leeton	100	100	100	100	50	100	100	100	100	50	96	90	92	12	10	14	1	0.3	3.7	0	0	7	4	3	3	68	35	27	27	2	2	2	2
54	Deniliquin	71	71	69	85	20	33	33	77	100	30	137	30	30			1	1	1		31	30	41		2	0			20	0			2	2
47	Bellingen	94	94	97	92	10	84	84	95	91	15	39	21	39		19	9	1.5	1	1	11	5	22			0				0		1	1	1
60	Glen Innes Severn	100	100	100	100	20	100	100	100	100	30	12	17	15		8	5		0		11	17	0							0				
58	Cootamundra		100	100	100	30		100	85	85	40	74	162	162							39	48	49			0				0	2	2	2	2
57	Wellington	100	100	100	100	15	50	50	50	50	30	79	100	100	5	145	145	2			20	26	24	2		0	37	33		0	2	1	1	1
91	Cabonne		100	100	100	30		87	87	100	30	66	38	46			36				17	11	10			0				0				1
80	Greater Hume			90	100	20			100	100	30	36	39	49		3					22	25	26			2				11	6		4	3
59	Lachlan		100	100	100	20		100	100	60	30	56	40	17							20	20	19			0				1	1	1	1	1
65	Murray	NL	NL	NL			NL	NL	NL			38	7	6				1	0		0	0	0	1	4		4	5	15	3	2	2	4	
62	Narromine	NL	NL	NL			NL	NL	NL					0				1.5			6	5	4											
56	Yass Valley	100	100	100	100	30	100	100	100	100	30	62	83	71		1				1	44	58	55			0				0	3	3	3	3
61	Liverpool Plains		92	100	92	20		28	15	37	30	24	28	23		2	8				11	11	8			0	3			8	2	2	2	1
55	Warrumbungle	75	75			20	42	42			30		64	87			43				50	43	78										2	2
69	Temora		100	100	100	20		75	95	90	30	250	599	488		449	159			1	51	80	106	0	0	2	51	1	2	27	2	2	2	2
71	Palerang	92	92	97	95	20	86	86	92	87	30	71	6	74		15	30		3			11	26			0	21			6	6			1
72	Bland	100	100	100	92	20	94	94	77	95	30	81	141	116		26	179			1.7	62	120	128		0	9			2	74	1	1	2	2
63	Narrandera	100	100	100	100	15	50	50	42	33	20	157	25	11	6	11	3		1		41	42	94	4			5	35			2	2	2	2
67	Cobar	NL	NL	NL	100	10	NL	NL	NL	100	15		1	1							6	1	1			0	6			0	2	2	2	2
74	Wentworth		100	100	100	30		100	100	100	45	0	33	29				1.4	2	3	1	14	22			0				0	2	2	2	1
75	Coonamble		92	92	92	20		25	25	41	50	20	16	6				1			51	28	16			0				0				1
LWUs with 200 - 1,500 Properties																																	
70	Kyogle		49	92	66	20		23	78	37	30	62	59	96	76	115	5	5	4.0	4.7	16	30	24	1	1	1		16	19	24	2	1	1	1
77	Junee				100	30				100	30	66	63	87	1						69	82	101							0	1	1		
78	Blayney	100	100	100	100	30	100	100	100	100	30	49	29	26						1	14	13	11			0				0	1	1	1	1
79	Walgett											4		8							2		1											
68	Tenterfield		96	100	95	40		42	90	43	45	140	111	100							58	48	42	2	4	1		17	48	12	2	2	2	2
84	Gilgandra		100	100	100	20		100	100	100	50	39	9	24	6	6		3	4	5.3	8	5	14	3	1	1	45	15	15	11	2	3	1	1
73	Upper Lachlan	100	100	100	100	20	100	100	100	100	30	28	63	23		2		1.0			22	0	8			1				8	4	3		2
82	Gloucester	100	100	100	100	30	67	67	54	85	40	17	24	89	2	17	2		2	3	5	20	23			13				55		2		4
87	Bourke	NL	NL	NL	42	15	NL	NL	NL	8	20					3	3	6	4.7	5.5	25	89	89			0				0	2	3	3	3
86	Hay	100	100	100	100	30	88	88	90	90	40	280	54	54							116	37	35		1	1			2	2			8	8
83	Oberon				92	20				50	25	42	26	42		11	8			1		12	12				3				2	2	3	2
81	Gwydir		100	100	94	20			52	46	30		119	85		30	41		8	4		49	32			11	2			93	4		6	2

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 (%)				90 %-ile Limit (mg/L)	DEC Discharge Licence Compliance (%)				90 %-ile Limit (mg/L)	(per 100 km of Main)			(per 100 km of Main)			(per 1000 properties)			(per 1000 properties)			(mins/property-unplanned)			(per 1000 properties)				(hours)			
		(55)				(56)	(57)				(58)	(59)			(60)			(61)			(62)			(63)			(64)				(65)			
		2001/02	2002/03	2003/04	2004/05	2004/05	2001/02	2002/03	2003/04	2004/05	2004/05	2002/03	2003/04	2004/05	2002/03	2003/04	2004/05	2002/03	2003/04	2004/05	2002/03	2003/04	2004/05	2002/03	2003/04	2004/05	2001/02	2002/03	2003/04	2004/05	2001/02	2002/03	2003/04	2004/05
64	Dungog	NL	NL	NL			NL	NL	NL			186	267	125	69	132	41			1.0	75	85	98	95	24	26		394	201	218		4	2	2
85	Uralla	100	100	100	100	15	100	100	100	100	20	14	14	28	14	14	28			1.0	11	8	11	0	0	1	17	4	4	8	2	2	2	2
95	Weddin											149	64	132					1	4	47	19	41	6				47			3	2	2	4
89	Bogan	NL	NL	NL			NL	NL	NL			5									4		2								2	2	2
76	Harden		100	100	90	20		100	100	90	30	62	40	36	22	9	13			7.3	42	37	24			0			0	2	2	2	2
88	Wakool	NL	NL	NL			NL	NL	NL			0	0								0	0											
93	Tumbarumba											72	53	23							37	17	16	1	1	1	11	11	2	2	2	2	4	4
94	Gundagai											34	27					1.0			21	17									1			
92	Carrathool	NL	NL	NL			NL	NL	NL			10	51	118			5	4			21	24	38	0	0	0	7	1	2	2	1	2	2	2
96	Warren					20			100	100	65		473	327								5	58								2			
99	Coolamon											22	8	8							6	4	4									4	4
102	Lockhart		100	100	100	20		100	100	100	30	5	20	0				21.7	14	13	0	18	22		1				10	0			2	
98	Walcha	92	92	100	92	20	42	42	83	58	30	7	14	41	28	28	38			3.9	10	10	20	3	1	1	33	21	5	5	2	2	2	2
100	Balranald	NL	NL	NL			NL	NL	NL			18	11	11							19	12	12	1		0		10		0	3	1	1	1
97	Bombala		100	100	100	20		100	100	100	30	32	44	9				20.1	1		35	23	42	2	1	1		21	13	13	2	2	2	2
101	Murrumbidgee				9	10				17	15	100	81	110							45	30	35			0	4			0	3	3	2	2
90	Guyra		100	100	100	15		100	92	83	20	44	30	8	11		3			1.4	28	15	28		2	3			15	24	2		2	2
104	Boorowa											31	66	46							45	25	21				38				1		1	
105	Brewarrina		100	100		20		100	100		30	25	12	86				4.2			25	34	73							0	3	3	2	
106	Jerilderie	100	100	100	100	20	75	75	75	75	30	12		71							0	0		0		0	25	2		0	5	3		5
103	Central Darling	NL	NL	NL			NL	NL	NL					38				15	15	15	73	73	61			7				58	1	1	1	2
107	Urana											0	33	40		7			14	27	0	4	3		0.4	0.0			7	0			1	1

Blank Page

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

WATER UTILITY	OPERATING & MAINTENANCE COST*								MANAGEMENT/ADMIN			RETAIL/WHOLESAL		O&M COST COMPONENTS for TYPE of ASSET											
	Components (1) - Process				Components (2) - Type of Asse				Components			Components		Pumping						Sewer Main				Treatment			
	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)
	2004/05				2004/05				2004/05		2004/05	2004/05		2004/05	2004/05					2004/05				2004/05			
Sydney Water																											
Hunter Water																											
LWUs with > 10,000 Properties																											
1 Gosford	69	48	14		35	45	44	6	116	20	59	44	81	20	15859	3038	9984	2837	8	15	164	26	138	19	14	11	
2 Wyong	147	2	17		31	61	65	7	68		33	65	92	30	23694	215	20868	2611	7	15	146	2	144	32	0	55	
3 Shoalhaven	25	154	13	5	31	51	84	31	109	27	76	84	82	28	9153	5837	2345	970	5	17	113	100	13	47	52	9	5
5 MidCoast (Combined - Unfiltered)	81	165	24	7	31	53	104	88	33	16	19	104	85	21	8464	3485	3184	1796	11	12	109	32	77	41	28	25	7
6 Tweed	94	77	26	3	28	58	101	14	93	17	37			20	8874	2994	4017	1862	12	9	115		115	34	36	39	3
9 Wagga Wagga (NO WS)	11	83	14	9	30	18	54	15	28		12	54	49	8	12750	9583	1778	1389	2	13	146	104	42	23	31		9
7 Port Macquarie-Hastings	104	99	32	7	40	74	107	21	62	24	28	107	114	24	11561	3413	5761	2387	15	13	173	74	99	35	21	42	7
11 Albury City	62	82	24	5	24	33	77	39	84	14	47	77	57	16	12873	145	9455	3273	8	11	112		112	36	22	14	5
10 Coffs Harbour	57	141	31	8	23	73	114	27	70	45	45	114	96	29	14438	8476	3819	2143	11	9	83	41	42	45	42	23	8
13 Tamworth Regional	42	84	9	9	41	13	76	14	46	40	38	76	54	6	12364	1091	8500	2773	3	18	177	59	119	33	51	6	9
15 Eurobodalla (Unfiltered)	51	182	24	10	48	79	93	47	107		59	93	127	43	10728	5152	3848	1728	13	26	174	141	33	51	58	14	10
17 Queanbeyan (Reticulator)	45	74	11	5	60	13	56	6	26	55	38	56	73	6	15538		12538	3000	2	28	303	303		26		29	5
19 Orange	36	100	20	15	42	14	115		61	27	29	115	56	5	18727	10818	4000	3909	3	13	157	79	78	37	54	12	15
20 Goulburn Mulwaree	29	90	10		24	14	84	6	52	28	71	84	38	13	16667	9333	4917	2417	2	21	150		150	75	39	0	
18 Dubbo	39	177	23	8	9	26	192	21	91	31	59	192	36	13	51286	9000	29429	12857	7	5	38	26	12	92	148	19	8
16 Wingecarribee	54	66	18	18	44	38	74		108	20	63	74	82	19	7800	4123	908	2769	14	21	132		132	36	40	6	18
14 Clarence Valley																											
21 Bathurst Regional	75	59	21	10	50	14	97	3	98	46	55	97	64	5	12000	400	9800	1800	2	19	187	11	176	37	38	17	10
24 Ballina (Reticulator)	130	92	34		29	90	107	30	115	4	38	107	119	29	10227		8600	1627	14	9	123	0	122	34	77	11	
22 Lismore (Reticulator)	97	87	18	21	56	38	95	33	38	18	19	95	95	13	13788	394	11303	2091	6	19	201	47	154	32	27	21	21
LWUs with 3,001 - 10,000 Properties																											
23 Bega Valley (Unfiltered)	65	213	7		37	52	195		156	34	96	195	89	26	9660	3811	4491	1358	7	19	121	38	83	99	180	15	
27 Byron (Reticulator)	118	237	30	27	26	77	190	119	106	50	58	190	103	29	9259	1914	5679	1667	14	10	108	59	49	71	74	34	27
26 Country Energy	108	5	7		45	17	59		39	42	58	59	62	12	14564		11628	2936	3	32	203		203	42	5	50	
25 Kempsey (Groundwater)	82	123	23	10	38	63	134	2	100	12	50	134	102	28	6937	3013	2709	1215	11	17	133	25	108	60	63	25	10
31 Lithgow	126	14	13		34	27	92		101	5	50	92	61	13					5	16	71		71	44		70	
29 Armidale Dumaresq	93	59	10	2	44	1	116	4	96	39	53	116	45		4000		2000	2000		17	144		144	45		46	2
30A Hawkesbury (NO WS)	161	29	24		20	62	126	6	121	44	51	126	82	19					24	6	86	9	77	39	6	106	
30 Griffith	72		21	26	56	97	172	15	81	46	38			29	27920	18560	7040	2320	8	17	159	124	35	51	46	32	26
33 Richmond Valley	69	96	16		34	54	84	9	129	33	54	84	87	18	10419	7613	935	1871	10	11	118		118	28	57	21	
32 Mid-Western Regional	160	17	7		65	22	98		108		48	98	87	10	11083		9500	1583	3	29	208	55	153	43		94	
34 Nambucca (Groundwater)	109	40	22		17	42	74	37	60	30	36	74	60	17	4920		3600	1320	11	7	66		66	29		60	
35 Singleton	84	37	13		54	25	53	4	25	41	26	53	78	9	8643	643	7929	71		21	160	27	132	20	23	17	
37 Inverell	41	68	17		41	25	60		44	38	53	60	66	16	5667	4476		1190	5	27	154		154	39	48		
41 Muswellbrook	129	87	19	1	42	65	130		30	44	27	130	107	23	27545		24182	3364	8	15	144		144	47	63	30	1
36 Parkes	20	94	3	3	37		81	3	16	17	17	81	37							19	179	138	41	42	55	12	3
42 Corowa	83	59	13		22	47	82	2	21	64	48	82	70	27	4083		3125	958	11	13	112		112	47	37	22	

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

WATER UTILITY	OPERATING & MAINTENANCE COST*								MANAGEMENT/ADMIN			RETAIL/WHOLESAL		O&M COST COMPONENTS for TYPE of ASSET											
	Components (1) - Process				Components (2) - Type of Asse				Components			Components		Pumping					Sewer Main				Treatment			
	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)
		2004/05				2004/05			2004/05		2004/05	2004/05		2004/05	2004/05					2004/05				2004/05			
38 Moree Plains (Groundwater)	117	59	40		50	66	99	1	118	13	35	99	115	18	10500	7538	923	2038	13	13	243	13	230	27	6	64	
44 Gunnedah (Groundwater)		82	9		33	10	47	2	14	10	15	47	43	6	20000	15000		5000	3	20	136	136		28	40		
46 Narrabri (Groundwater)	109	70	29		39	47	73	50	21	30	17	73	85	16	8045	1000	3591	3455	20	13	152	88	64	24	35	23	
43 Tumut	65	137	22		24	39	125	36	15	34	17	125	63	13	10286	3214	5571	1500	6	8	70		70	42	109		
49 Young (Reticulator)		100	4	5	19	8	56	26	5	12	8	56	27	4	5600	5400		200	0	9	62	62		26	47		5
39 Cowra	37	27	9		28	17	28		153	26	78	28	45	8	8429	3571	2714	2143	4	12	99		99	12	20	3	
45 Upper Hunter	103	38	19		43	38	77	1	71	57	49			15	12900	5600	1000	6300	19	17	125		125	30	8	57	
52 Snowy River (Unfiltered)																											
51 Forbes	57	144	18	2	30	16	175		23	15	20	175	46	8	2941	941		2000	11	16	82	2	80	90	138	27	2
50 Cooma-Monaro	80	158	26	8	84	20	169		34	82	77	169	104	13	9143	3000	5000	1143	3	55	116	55	62	111	83	24	8
53 Berrigan (Dual Supply)		151			58		73	20	31	56	50	73	58							33	166	166		42	73		
LWUs with 1,501 - 3,000 Properties																											
48 Leeton	185		12		63	47	88	8	134	7	42			14	4667	67	3600	1000	10	19	229		229	26		86	
54 Deniliquin	147		17		125	6	32	0	108		48	32	131	3	826		43	783	6	55	546		546	14		21	
47 Bellingen (Unfiltered)	58	97	26	17	15	53	126	4	73	65	49	126	68	19	5556	2407	2074	1074	10	5	56	21	35	45	56	26	17
60 Glen Innes Severn																											
58 Cootamundra (Reticulator)	46	56	26	2	33	15	69	13	24	22	19	69	48	6	19000		16500	2500	2	14	165		165	28	26		2
57 Wellington	51	88	6		28	27	90		55	40	58	90	55	17	6273		5364	909	4	17	167		167	55	36		
91 Cabonne	58	57	11		19	49	57		19	28	33	57	69	36	11200	7500	2700	1000	4	14	78		78	41	24	27	
80 Greater Hume	53		6		24	26	109		28	39	31			12	3471	2588	59	824	6	11	76	69	7	51	59	50	
59 Lachlan	42	87	14		28	31	74	10	24	34	23	74	59	12	3286	2238	571	476	4	11	89		89	29	56	9	
65 Murray (Dual Supply)	102		15			83	34		48	52	39	34	83	32	4553		3737	816	15					13		34	
62 Narromine (Groundwater)			6		0	79	57	10	83	42					18222	16889		1333	6		2	2			57		
56 Yass Valley	13		19		23	36	137		67	23	45			18	10143	8143	571	1429	5	12	66	43	23	69	106	3	
61 Liverpool Plains	128	3	13		6	34	97	7	37	6	23	97	40	18	7222	111	5778	1333	6	3	23		23	51	1	88	
55 Warrumbungle	26	95	22		44	9	64	26		102	38	64	52	3	2125			2125	9	16	73	29	43	24	43		
69 Temora (NO WS)	46	88	8		34	3	105	1	29		15	105	37	1	1667		1667			18	156	156		57		43	
71 Palerang																											
72 Bland (NO WS)	148	34	8		27	21	138	3	19	47	41	138	48	13	4000		3556	444	2	17	99	51	49	86		116	
63 Narrandera (Groundwater)	78		14	16	39	36	92	6	110	26	44			12	15500	3000	11500	1000	2	13	183	47	136	30	44	16	16
67 Cobar	116	95	15	4	40	23	167			6	2	167	62	8	9250		7500	1750	4	14	90	90		59	40	98	4
74 Wentworth (Dual Supply)	49	111	22		33	71	59	19	44	19	18	59	104	21	4560	1600	1600	1360	21	9	68	51	17	17		7	
75 Coonamble (Groundwater)	93	54	6		32	52	68		2	17	10	68	85	28	8200	2900	4300	1000	6	17	101		101	37	35	33	
LWUs with 200 - 1,500 Properties																											
70 Kyogle	38	139	18	11	35	39	133		57	35	53	133	73	22	7250	5000	625	1625	9	20	139		139	76	113		11
77 Junee (NO WS)	134	18	21		21		153		37	19	30	153	21							11	34		34	81		113	
78 Blayney (NO WS)	9	139	18		16	42	99	9	119	17	66	99	58	21	8857	8000		857	4	8	39	39		49	80		
79 Walgett (Dual Supply)	40	61	12		13	49	47	5	40	36	19	47	61	12	7778	2667	3444	1667	10	3	35		35	12	40	6	
68 Tenterfield		179	14	1	46	11	137		151	71	109	137	58	6	4000	4000				23	110	110		67	119		1
84 Gilgandra (Groundwater)	38	82	6		28	50	47		41		17	47	78	21	5154	3077	1462	615	6	12	109	32	76	20	44	4	
73 Upper Lachlan	29	164	14	4	19	54	128	10	63	24	38	128	73	24	10286	7714	286	2286	12	8	57	25	32	57	104	17	4
82 Gloucester	192	106	27		150	36	138		23	33	30	138	186	20	7667	2500	3333	1833	9	82	427		427	76	71	27	
87 Bourke (Dual Supply)	126	31	16		47	96	31		55	34	38	31	143	41	17429		14429	3000	16	20	207		207	13	31		
86 Hay (Dual Supply)	72	127	20		43	64	103	9	63	8	24	103	108	22	10250	6000	2750	1500	9	15	148	27	121	35	73	20	
83 Oberon (Reticulator)	85	117	17	26	48	17	178	2	9	50	22	178	65	6	7000	4667		2333	6	18	163		163	66	105	36	26
81 Gwydir																											

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

WATER UTILITY	OPERATING & MAINTENANCE COST*								MANAGEMENT/ADMIN			RETAIL/WHOLESAL		O&M COST COMPONENTS for TYPE of ASSET													
	Components (1) - Process				Components (2) - Type of Asse				Components			Components		Pumping						Sewer Main				Treatment			
	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)
	2004/05				2004/05				2004/05		2004/05	2004/05		2004/05	2004/05					2004/05				2004/05			
64 Dungog (Reticulator)	57	106	17		41	33	92	15	23	70	35	92	74	12	8500		7000	1500	6	16	145	108	37	35	60	20	
85 Uralla	7	119	23	13	23	7	133	-1	82	32	79	133	30	5	1750	1000	250	500	2	16	79	59	21	92	90		13
95 Weddin (NO WS)	38	69	4		18		50	43	8	18	16	50	18							11	58		58	31	46		
89 Bogan	43	23	7		11	23	36	3	162		47	36	35	7	5750	1750	3000	1000	4	3	54		54	10		16	
76 Harden (Reticulator)	63	150	9		92		131		35	31	34	131	92							48	198	76	122	68	102	6	
88 Wakool (Dual Supply)	53	106	26		26	64	91	5	49	31	105	91	90	83	4357	2214	1000	1143	17	34	49	12	37	119	63	19	
93 Tumbarumba	124	51	3		49		129		66		23	129	49							17	105	105		45	2	124	
94 Gundagai	74	99	12	6	21	43	127		38	8	38	127	63	35					8	17	25	12	12	105	46	46	6
92 Carrathool (Groundwater)	62	30	13		29	38	37	1	14	11	17	37	67	25	2667		2167	500	7	19	123	123		24		31	
96 Warren (Dual Supply)	183		12		39	84	73		26	32	27	73	123	40	8500		8000	500	5	19	194		194	34		65	
99 Coolamon (NO WS)	28	82	6		12	16	88		19	43	53	88	28	14	2167		2167			11	26		26	75	82		
102 Lockhart (NO WS)	65	10	25		10	8	71	10	13	73	47	71	18	4	1000			1000	8	6	32		32	40		55	
98 Walcha	67	84	20		31	12	104	24	39	10	22	104	43	5	9000	3000	2000	4000	5	14	83	3	79	46	55	34	
100 Balranald (Dual Supply)	68	34	12	5	42	71	5		34		10	5	114	22	4500		3750	750	12	13	84	69	16	2			5
97 Bombala	41	70	13		12	45	64	4	78		35	64	57	20	6800	3200	2800	800	5	5	26		26	28	49	7	
101 Murrumbidgee (Groundwater)	61	1	11	4	8	33	36			55	25	36	42	15	2000		1583	417	7	4	29		29	16		26	4
90 Guyra		151	9	17	14	3	159		28	68	41	159	17	1	1000			1000	3	6	28	28		68	127		17
104 Boorowa	49	110	9		38	15	116		2	34	21	116	53	9	4000		3000	1000	4	22	103		103	68	110		
105 Brewarrina	84	267	24		54	118	202		22	15	8	202	172	26	6875	4750	1000	1125	19	12	153		153	44	185	13	
106 Jerilderie (Dual Supply)	185		14		9	69	100	21	47	52	48	100	78	33	5800		4600	1200	14	5	47		47	48		100	
103 Central Darling (Dual Supply)	249		9		234	23							257	8	2000		1250	750	9	80	606		606				
107 Urana (NO WS)	141		24		7	124	34		24	87	38	34	131	42	4625		3750	875	24	2	13		13	11		34	

* OMA cost comprises Operating & Maintenance Cost (Cols 66 to 69 or Cols 70 to 73) plus Administration Cost (Col 74) plus Engineering and Supervision Cost (Col 75).

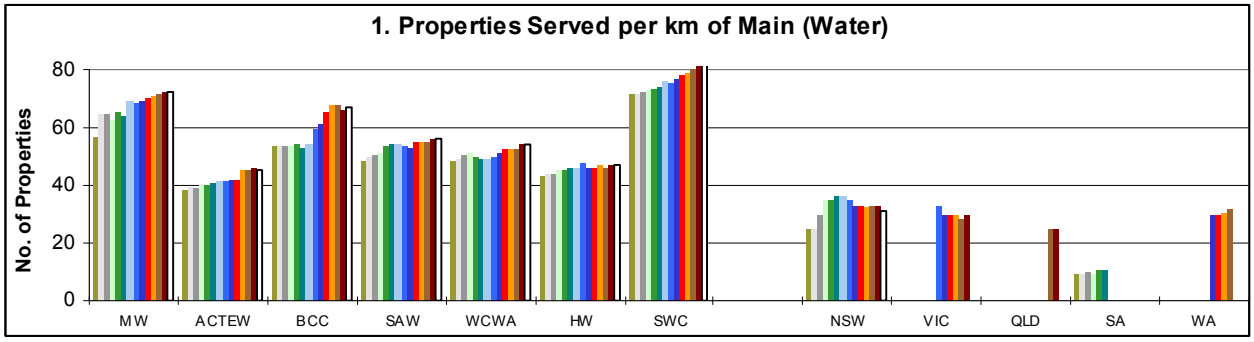
Blank Page

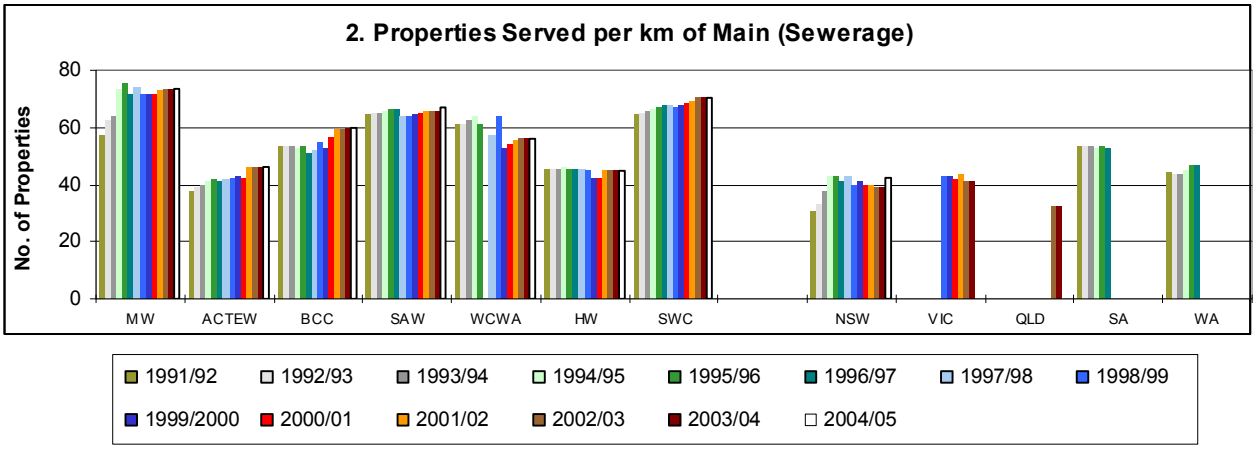
APPENDIX A

ARMCANZ PERFORMANCE COMPARISONS 1991/92 to 2004/05

Blank Page

PERFORMANCE COMPARISONS - Utility Characteristics





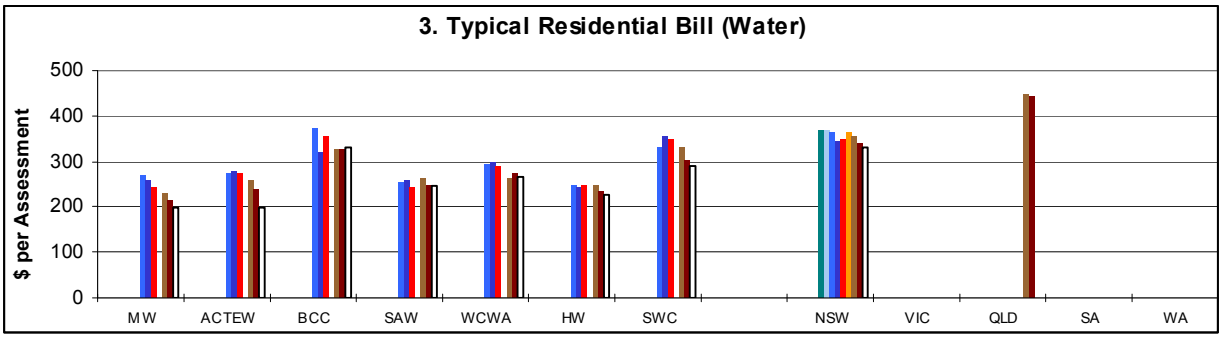
Metropolitan Water Utilities		Country Water Utilities	
MW	Melbourne Water Consolidated*	NSW	NSW Country
ACTEW	ACT Electricity and Water	VIC	VIC Country
BCC	Brisbane City Council	QLD	QLD Country
SAW	SA Water Corporation (Adelaide)	SA	SA Country
WCWA	WA Water Corporation (Perth)	WA	WA Country
HW	Hunter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

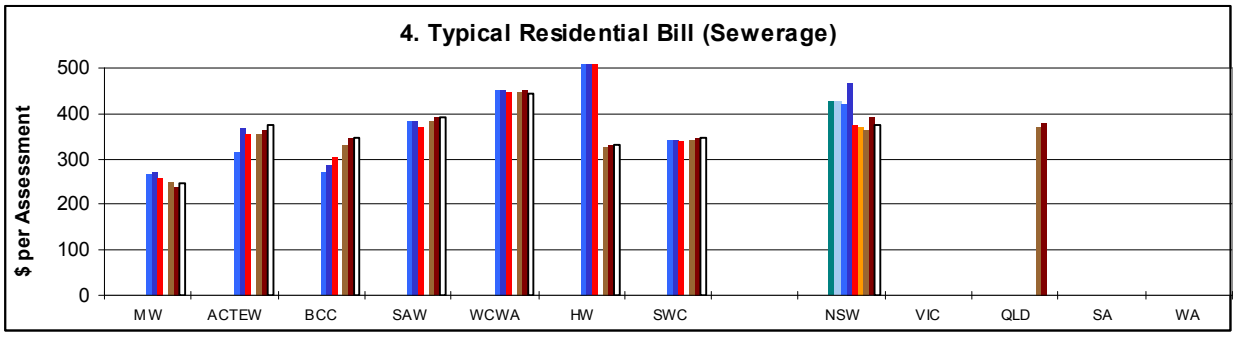
** Melbourne Water was disaggregated into 4 constituent utilities in 1994. Melbourne Water Consolidated results shown for 1994/95 to 2004/05 are either aggregated results of the constituent utilities or consolidated results reported in WSAA Facts (see note 1) or reported in Urban Water Review (see note 2).*

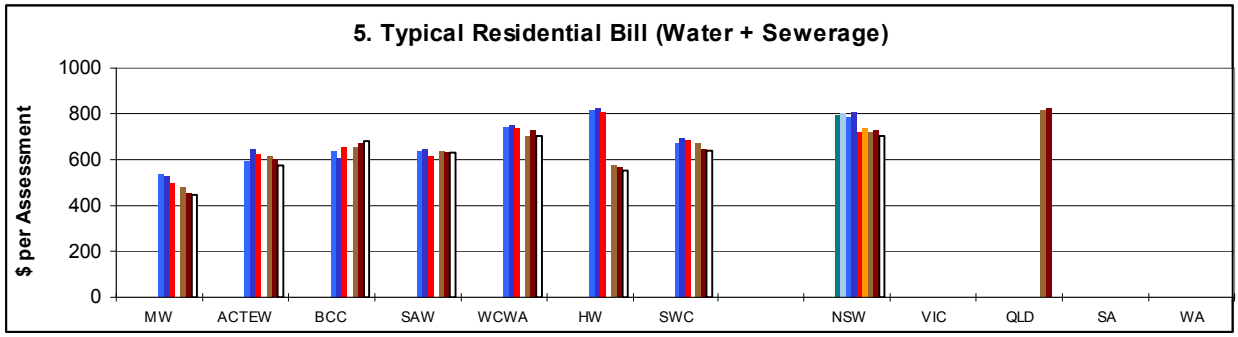
NOTES:

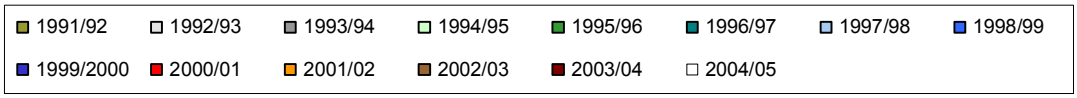
1. Results for the metropolitan water utilities for 1994/95 to 2004/05 obtained from "*The Australian Urban Water Industry - WSAA Facts 2005*", and "*The Australian Urban Water Industry - WSAA Facts 1999*", Water Services Association of Australia.
2. Results for Victoria for 1996/97 to 2004/05 obtained from *"Urban Water Review 2004/2005"*, and "*Urban Water Review 1998*", Victorian Water Industry Association.
3. 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.
4. Results QLD Country for 2002/03 and 2003/04 obtained from "*Urban Water Service Providers Queensland Report 2003/2004",* Queensland Department of Natural Resources and Mines. These results are for a limited number of medium and large utilities and include Brisbane City Council.
5. Results for WA for 1999/2003 obtained from *Water Performance Information on 32 Major WA Towns 1999/2003*, Western Australia Economic Regulation Authority. The results do not include Perth.

PERFORMANCE COMPARISONS - Social



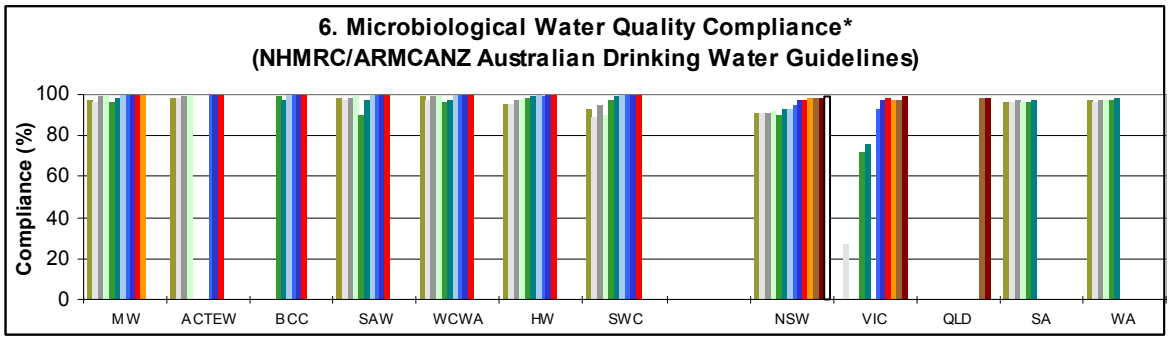


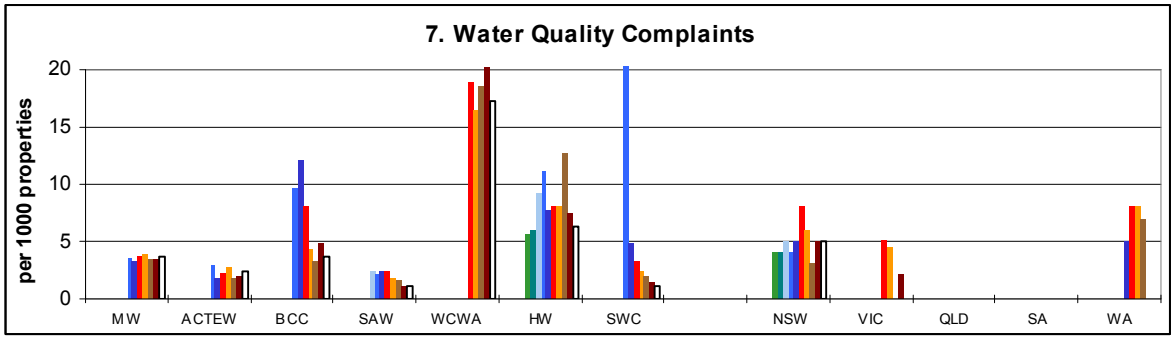


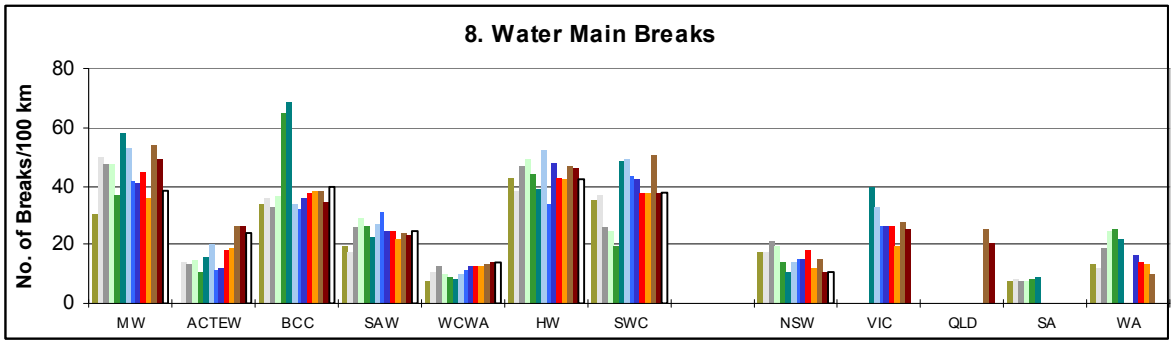


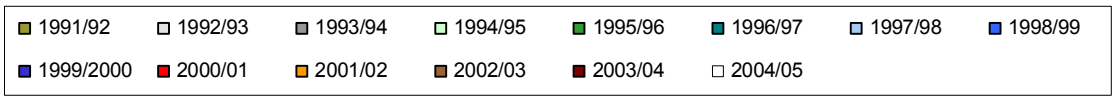
NOTES
1. The Typical Residential Bill (TRB) is the annual bill paid by a residential customer using the utility's average annual residential potable water consumption.
2. The TRB is the principal indicator of the overall cost of a water supply or sewerage system.

PERFORMANCE COMPARISONS - Social (Water)







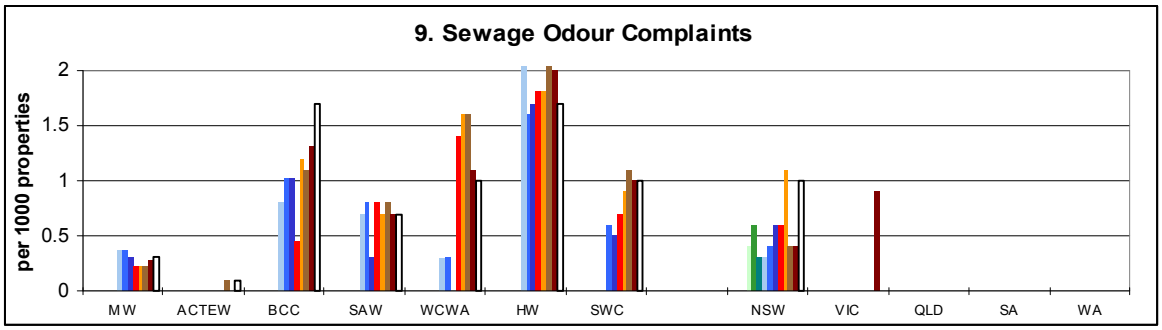


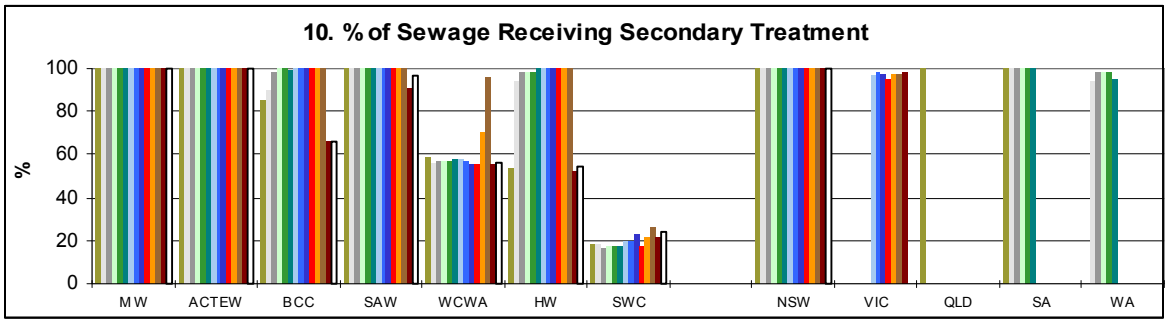
*** Microbiological Water Quality Compliance**

1991 to 1998 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 and 2004 *NHMRC/ARMCANZ Australian Drinking Water Guidelines* (ADWG).

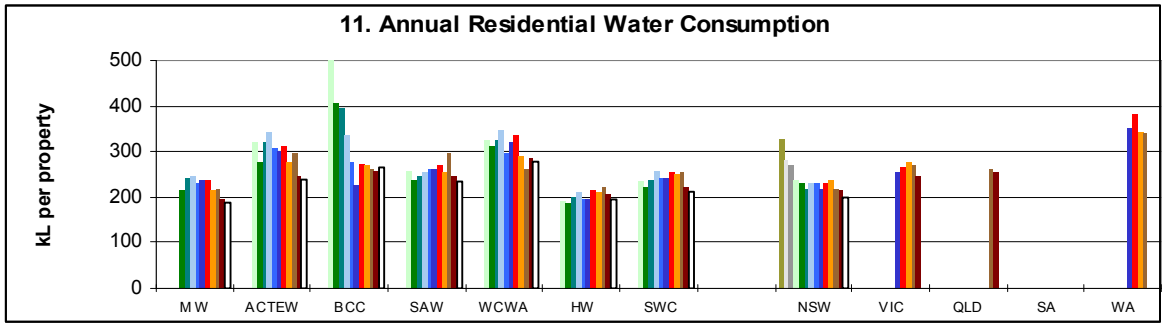
The exceptions are Victorian country utilities where results are on the basis of the less stringent 1984 *World Health Organisation Guidelines* and also Melbourne Water where prior to 2004/05 the results are on the basis of the above 1987 Guidelines. Melbourne Water results for 2004/05 are on the basis of the 2004 ADWG.

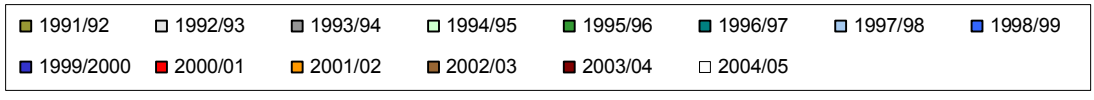
PERFORMANCE COMPARISONS - Social (Sewerage)



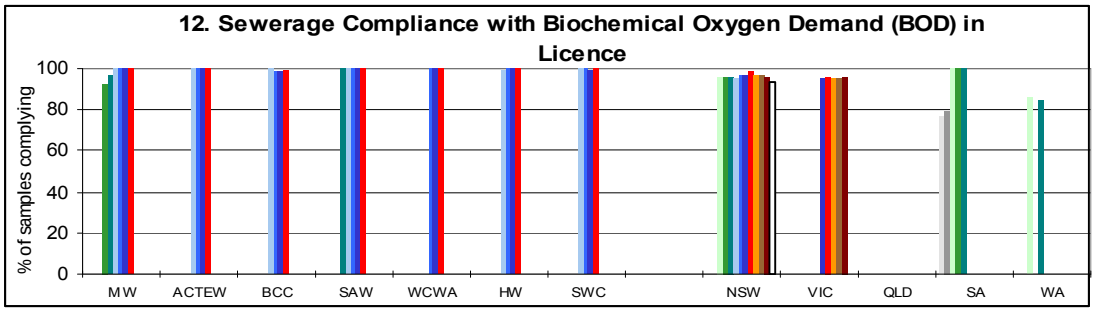


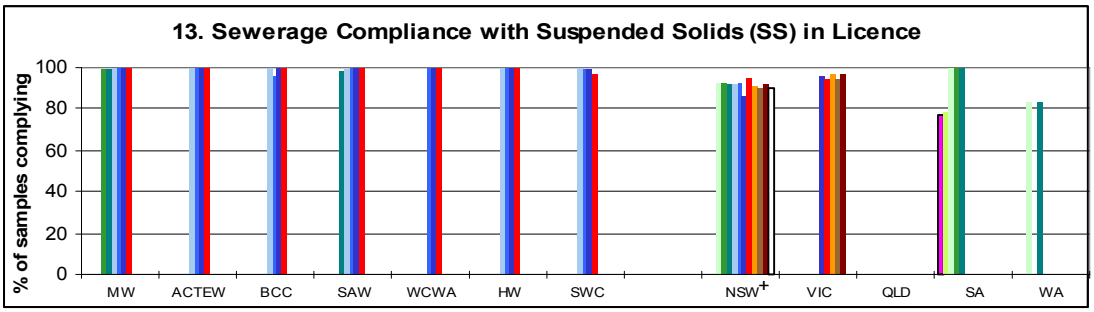
PERFORMANCE COMPARISONS - Environmental (Water)

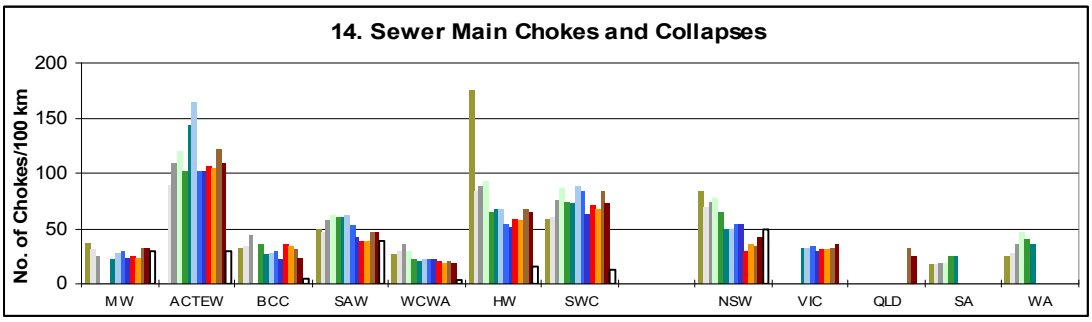


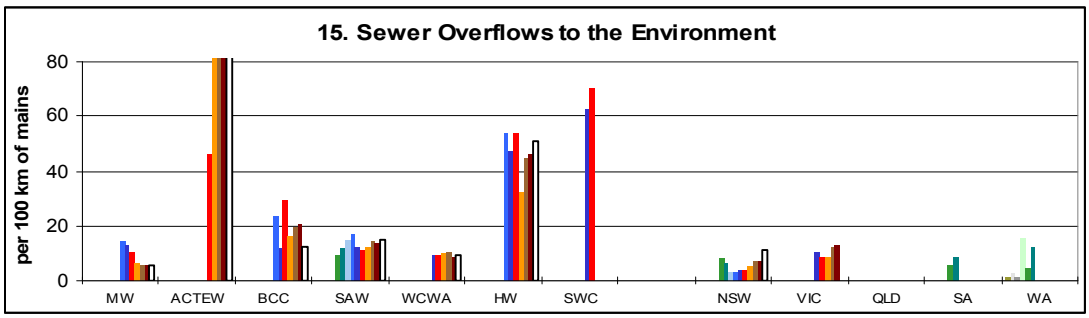


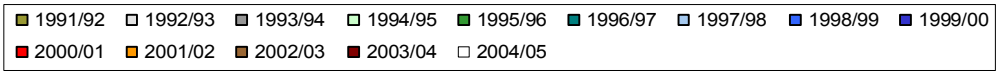
PERFORMANCE COMPARISONS - Environmental (Sewerage)





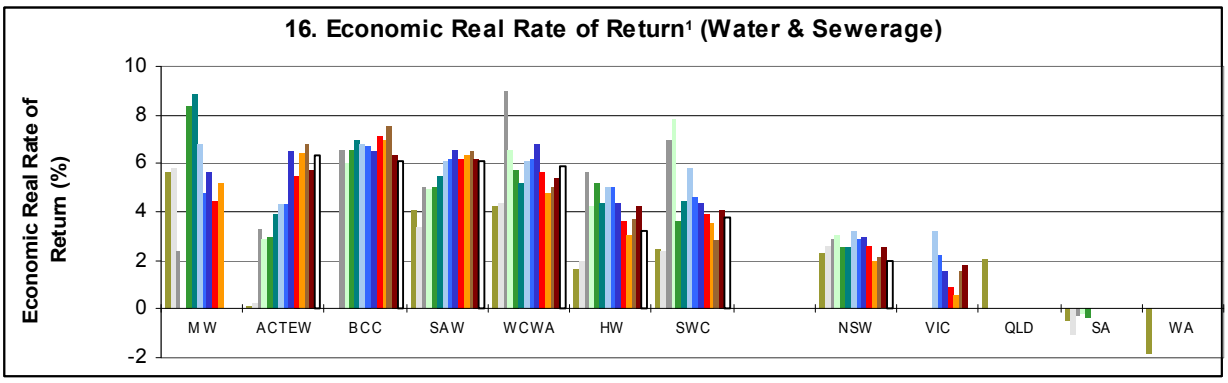


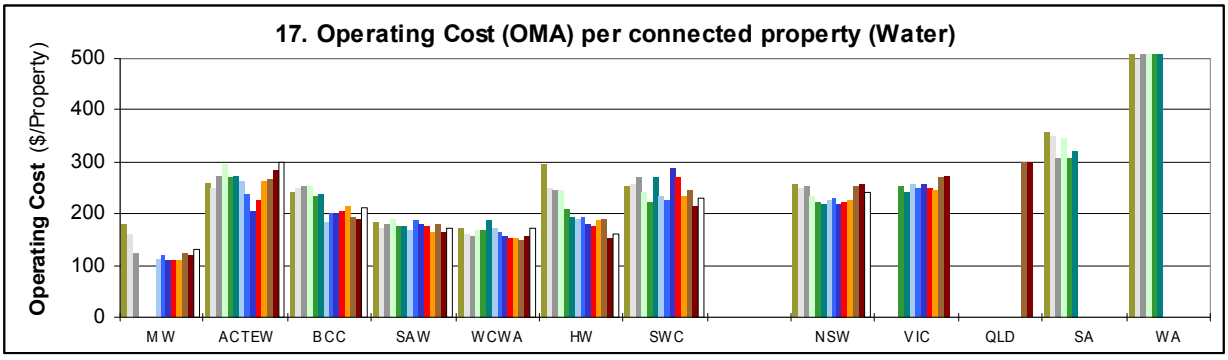


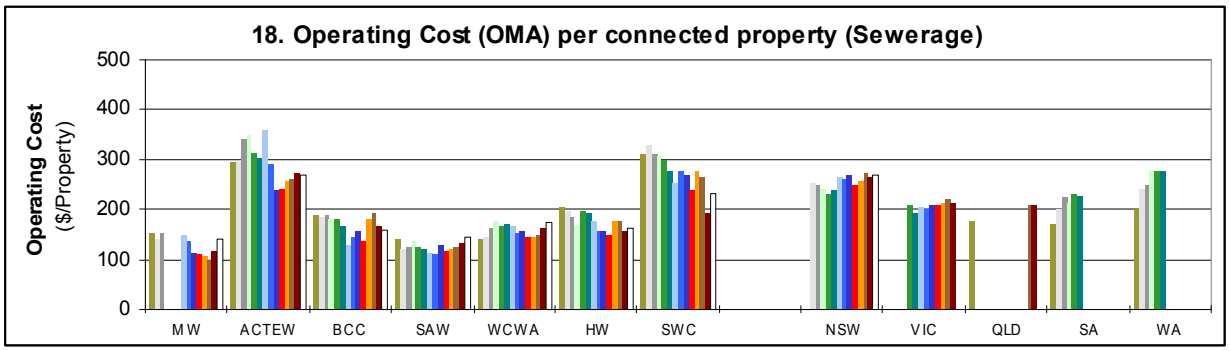


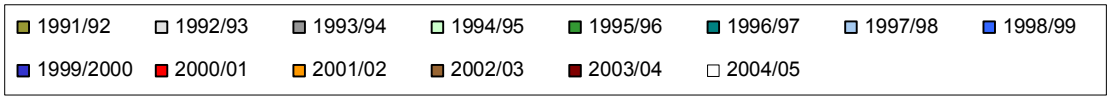
+ The major cause of non-compliance is due to the growth of algae in maturation ponds being measured as suspended solids (SS). Most treatment works in non-metropolitan NSW have maturation ponds due to previous Department of Environment and Conservation (DEC) preference for ponding over chlorination. 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.

PERFORMANCE COMPARISONS - Economic









NOTES: 1. As the economic real rate of return (ERRR) was only reported by Country NSW in 2001/02 to 2004/05, the reported values for "return on assets" has been shown in graph 16 for all the other utilities for these years.
2. Operating Cost (OMA) is the Operation, Maintenance and Administration Cost in 2004/05$.

APPENDIX B

NSW ANNUAL WATER SUPPLY & SEWERAGE REPORTING FORMS

Blank Page

ANNUAL WATER REPORT FOR 2004/05

Local Water Utility (LWU)

WATER SUPPLY BUSINESS

POPULATION AND DWELLINGS

1 Population Served: Permanent[v]: ____ 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[v]: ____ No. ☐ Non-Residential[v]: ____ 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[v]: ____ 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[v]: ____ 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[3] ☐

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

Real Losses[3] ☐

k. Real Losses (Leakage)[a]: ____ ML
Reservoir Drop Test Carried Out? ____ Y/N
Year of Drop Test? ____
Result of Drop Test (Leakage %) ____ %

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 State Water 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:** 2004/05 Rainfall: ____ mm Average Annual Rainfall: ____ mm

2004/05 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[b] 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

Note: Report the number of water quality complaints ***for each treatment work*** *at item 42*

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

Common Water Service Complaints: ____

20 Billing Complaints: No. of Billing Complaints: ____ No.

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

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

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

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

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

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

ENERGY/EMPLOYEES/DEMAND MANAGEMENT/DEVELOPER CHARGES

27 Energy Usage3:

Total Energy Usage[3]: ____ MWh ____

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

28 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.

29 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.)

30 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): ____

31 Typical Developer Charge: For 2005/06: $ ____ per ET (Equivalent Tenement) For 2004/05: $ ____ per ET

2004/05 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.

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

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

		Max	Avge		Max	Avge
34 Colour Units:	Raw Water			Treated Water		
35 Turbidity Units:	Raw Water			Treated Water		

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

37 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

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

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

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

41 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.)*

42 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 2005/06

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 Q34 for all STWs*

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

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

Equivalent BOD Load EP Equivalent SS Load: EP

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

Land Discharges: ML

LEVELS OF SERVICE

Note: *(Report the number of odour complaints* ***for each treatment work*** *at item 49.*

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

17 **Common Service Complaints:**

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.

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

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

(Include sewerage business staff engaged in operation, maintenance and management including billing. Include equivalent contractor staff. Exclude staff engaged on design and construction.)

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 Typical Developer Charge: For 2005/06: $ ____ per ET (Equivalent Tenement) For 2004/05: $ ____ per ET

2005/06 TREATMENT WORKS PERFORMANCE

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

32 Sewage Treatment Works Name: ____ Capacity: ____ EP

33 Type of Treatment Works: ____

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

34 Volume Received through Sewerage Network[3]: ____ ML ☐

35 Tankered Flows: Septic Tank Effluent: ____ kL Septic Tank Sludge/Pan: ____ kL Grease Trap Waste: ____ kL

36 Volume of Sewage Receiving Treatment: a. No Treatment[3]: ____ ML ☐ b. Primary[3]: ____ ML ☐

(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).)

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 Q36a:10, Q36b:190, Q36c:190 and Q36d:190)

37 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 37a to 37e)[3]: ____ ☐ ML

Note: Q37d should be consistent with Q15f of the Water Supply Reporting Forms

38 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: ____ %

39 Average Dry Weather Flow: Permanent Population: ____ L/s Peak Population: ____ L/s

40 Peak Dry Weather Flow: Permanent Population: ____ L/s Peak Population: ____ L/s

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

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

43 DEC Discharge Licence Expiry Date: ____

44 Effluent Volume Licensed: ____ ML/d

45 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

46 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.)

47 Sampling Days (including DEUS Sampling Days)[3]: ____ days ☐

48 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).)

49 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[3]: ____ ☐ 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: ____

2004/05 - 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)*

2004/05 - 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 Council of Australian Governments' (COAG) National Competition Policy and National Water Initiative, 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 comprehensive *NSW Benchmarking Report* enables each LWU to review trends in its performance indicators over the last 5 years, compare its performance against similar sized or relevant LWUs, and also against Statewide results. Both reports are available on the DEUS website (www.deus.nsw.gov.au/water).

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 2005.
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 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 respectively. 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 each 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.

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 2005.

Q1 to Q4 Environmental Performance

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 Social Performance

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 *Category 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

COUNCIL OF / COUNCIL OF THE CITY OF .....

SPECIAL SCHEDULE NO. 3

WATER SUPPLY STATEMENT OF FINANCIAL PERFORMANCE
(Gross Including Internal Transactions)
for the year ended 2004/2005
($'000)

		2004/05	2003/04
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)		

COUNCIL OF / COUNCIL OF THE CITY OF .....

SPECIAL SCHEDULE NO. 3 (Cont'd)

WATER SUPPLY STATEMENT OF FINANCIAL PERFORMANCE
(Gross Including Internal Transactions)
for the year ended 2004/2005
($'000)

		2004/05	2003/04
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 2004/2005
($'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 2004/05 (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.

COUNCIL OF / COUNCIL OF THE CITY OF .....

SPECIAL SCHEDULE NO. 4

WATER SUPPLY – NET ASSETS COMMITTED
(Gross Including Internal Transactions)
as at 2004/2005
($'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 2004/2005
($'000)

		2004/05	2003/04
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 2004/2005
($'000)

		2004/05	2003/04
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 2004/2005
($'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 2004/05 (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

.

COUNCIL OF / COUNCIL OF THE CITY OF .....

SPECIAL SCHEDULE NO. 6

SEWERAGE SERVICES – NET ASSETS COMMITTED
(Gross Including Internal Transactions)
as at 2004/2005
($'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 <u>not</u> 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 .....

WATER SUPPLY BEST PRACTICE MANAGEMENT DISCLOSURE REQUIREMENTS for the year ended 2004/2005

	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 15 September (Item 5 Table 1)?	☐	☐
4. Water Conservation		
Has LWU implemented sound water conservation and 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 .....

SEWERAGE BEST PRACTICE MANAGEMENT DISCLOSURE REQUIREMENTS for the year ended 2004/2005

	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 15 September (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 2005, less the cumulative Dividends Paid for the 2 years to 30 June 2004

(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		
(6) Integrated Water Cycle Management Strategy (by June 2006)		

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 2005, less the cumulative Dividends Paid for the 2 years to 30 June 2004

(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 (Item 2(f) in Table 1)		
(3) Complete Performance Reporting Form by 31 October each year		
(4) Integrated Water Cycle Management Strategy (by June 2006)		

Blank Page

Formulae for Calculation of Performance Indicators in Table 5

5. 2004/05 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 56% of the reported annual potable water consumption. As shown in Note 8 of Table 8, the average reported residential consumption is 56% of the total potable water supplied.	From Col (56) Table 10
(4)	Turnover ($M)	Total Revenue excluding grants for acquisition of assets [Residential Charges + Non-residential Charges + Extra Charges + Interest + Grants (excluding receipts from government for Acquisition of Assets) + Contributions (Developer Charges + Developer Provided Assets + Other Contributions)].	From Col (57) Table 11
(5)	2005/06 Tariff Pay-for-Use? (Yes/No)		From Col (1) Table 6
(6)	2005/06 Residential Tariff Independent of Land Value? (Yes/No)		From Col (3) Table 6
(7)	Water Quality Compliance - Chemical (%)	Chemical water quality compliance	From Col (70) Table 12
(8)	Water Quality Compliance - Microbiological - E. coli (%)	Number of samples tested that meet the water quality requirements divided by the total number of samples tested. Note that this is the number of samples not tests, one sample may have a number of tests performed.	From Col (71) Table 12
	Sewerage		
(9)	Turnover ($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)	2005/06 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) plus interest expenses 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. Operational assets include system assets and plant and equipment. Note that ERRR was not reported for Sydney or Hunter Water Corporations for 2004/05 and the Return on Assets has been used instead. The Return on Assets is calculated as per ERRR but with interest income included in revenue from operations.	$[(W_{15} + W_{4a} - W9 - W_{11a} - W_{14}) + (S_{16} + S_{4a} - S_{10} - S_{12a} - S_{15})] \times 100 \div (S_{34} + W_{33})$
(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 - 2004/05 Charges, 2005/06 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 2005/06 ($/Equivalent Tenement(ET))	Upfront infrastructure contribution for new developments.	Q_{31a} (see notes C & D)
(8)	Typical Residential Bill 2005/06 ($/assessment) (see note D)	Calculated using the average residential water consumption for 2004/05 multiplied by the usage charges for 2005/06 plus the access charge for 2005/06.	Col(5) x Col(14) ÷ 100 + Col(2) Table 6
(9)	Average Residential Bill 2004/05 ($/property) (see Note D)	Calculated using the revenue from residential rates and usage charges for 2004/05 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) plus interest expenses 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. Operational assets include system assets plus plant and equipment.	$[(W_{15} + W_{4a} - W_9 - W_{11a} - W_{14})] \times 100 \div (W_{33})$
(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, 57% 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 2005/06 ($/Equivalent Tenement(ET))	Upfront infrastructure contribution for new developments.	Q_{31a} (see notes C & D)
(8)	Typical Residential Bill 2005/06 ($/assessment) (see note D)	Calculated using the access charge for 2005/06 plus, if council has residential sewer usage charges, the average residential water consumption for 2004/05 multiplied by the usage charges and usage factor for 2005/06.	(1)
(9)	Average Residential Bill 2004/05 ($/property) (see Note D)	Calculated using the revenue from residential rates and usage charges for 2004/05 divided by the number of connected residential properties. This is generally less than the TRB, due largely to pensioner rebates.	$[S_6] \div$ [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) plus interest expenses 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. Operational assets include system assets plus plant and equipment.	$[(S_{16} + S_{4a} - S_{10} - S_{12a} - S_{15})] \times 100 \div (S_{34})$
(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 14

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. 2004/05 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, under-registration of customer meters and errors in system meters.	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.	$Q_{37a} + Q_{37b} + Q_{37c}$ (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_{15c}
(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).	$(Q_{4a} + Q_{4b})$
(18a)	Number of Connections	Number of physical connections to the water supply system (ie. A multiple dwelling with a single metered connection to the water supply system is counted as one connection).	$Q_{2a} + Q_{2b} + Q_3$
(19)	Ratio of Connected Properties to Assessments (see notes C & D)	This ratio has been determined from previous performance reports. It does not normally change from year to year and will be continued unless change is considered warranted by the LWU, in which case evidence of a different factor should be provided by the LWU.	
(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)	This ratio has been determined from previous performance reports. It does not normally change from year to year and will be continued unless change is considered warranted by the LWU, in which case evidence of a different factor should be provided by the LWU.	
(22)	Ratio of Residential Connections to Residential Assessments (see notes C & D)	This ratio has been determined from previous performance reports. It does not normally change from year to year and will be continued unless change is considered warranted by the LWU, in which case evidence of a different factor should be provided by the LWU.	
(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)	Properties Served per km of main	Total number of connected properties divided by length of mains.	Col(20) ÷ Col(25) Table 9
(27)	Water Treatment Works	Number of works.	Q_{8e}
(27a)	Other Limited Treatment	Number of Chlorinators	
(28)	Dams	Number of dams.	Q_{8c}
(29)	Bores	Number of water supply bores.	Q_{8k}
(30)	Pumping Stations	Number of pumping stations.	Q_{8g}
(30a)	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_{28a}
(33)	% Female	% of equivalent full time female employees in total water supply workforce.	Q_{28b} x 100 ÷ Q_{28a}
(34)	% Undergoing Training	% of employees in water supply workforce undergoing training for 2 or more days during the year.	Q_{28c} x 100 ÷ Q_{28a}
(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_{29b}
(39)	Total Days Lost (%)	Number of days lost for all reasons (disputes, sick leave, accidents) in water supply business expressed as a percentage of the total number of days worked.	$Q_{29a} \div (230 \times Q_{28a})$
(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_{29c}
	Days Lost due to Injuries (% of Total Days Lost)	Number of days lost due to injuries (time loss of one or more days) as a percentage of number of days lost for all reasons in water supply business.	$(Q_{29c} \times 100) / Q_{29a}$

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 - 2004/05 Asset Management

Column No.	Performance Indicator	Background to Formula	Formula
(41)	Leakage	Real loss or leakage L per day per connection.	$Q_{12k} \div 365 \div$ column (18a) Table 9
(41a)	Infrastructure Leakage Index (ILI)	Ratio of Current Annual Real Loss to Unavoidable Annual Real Loss	
(41b, 41c, 41d)	Reservoir Drop Test	Whether Drop Test undertaken, the year and the result of the test.	
(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.	$Q_{26a} \div (Q_{10c} \div 100)$
(43)	Unplanned 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.	$Q_{23} \times 1000 \div$ 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.	$Q_{11b} \times 100 \div$ 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.	$W_{16c} \times 100 \div$ (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) ÷ 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.	$(W_{6a} + W_{6b}) \times 100 \div (W_6 + W_7)$
(59)	Residential Consumption (% of potable consumption excluding water losses)	% of potable water excluding water losses.	$(Q_{12a} \div (Q_{12i} - Q_{12h})) \times 100$
(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.	$(W_{36} + W_{38}) \times 100 \div W_{44}$
(63a)	Economic Real Rate of Return (%)	From column (12) Table 6.	
(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 - 2004/05 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_{42a} 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_{19a} x 1000 ÷ Col(20) Table 9
(75)	Written Complaints (per 1000 properties)	Written complaints of customer dissatisfaction.	Q_{22a} 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_{23} x Q_{24} 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_{23} x 1000] ÷ Col(20) Table 9
(78)	Average Duration of Interruptions (hours)	Average duration of unplanned interruptions.	Q_{24}
(78a)	Drought Water Restrictions	Percent of time that water restrictions apply.	(Q_{25} ÷ 365) x 100

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 all treatment works, the product of $Q37_a$ multiplied by $Q37_b$ for each treatment works. Divide the total by the sum of $Q37_b$ for all treatment works.
Chemical compliance - sum for all treatment works, the product of $Q37_c$ multiplied by $Q37_d$ for each treatment works. Divide the total by the sum of $Q37_d$ for all treatment works.

D. Sum for all treatment works, the product of $Q37_k$ multiplied by $Q37_l$ for each treatment works. Divide the total by the sum of $Q37_l$ 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 - 2004/05 Benchmarking Cost Data

Column No.	Performance Indicator	Background to Formula	Formula
(79)	Operating Cost Components - Maintenance ($/property)	Maintenance cost of all water system assets.	$[W_{2b} + W_{2d} + W_{2f} + W_{2i} + W_{2l} + W_{2n}]$ ÷ Col(20) Table 9
(80)	Operating Cost Components - Operation ($/property)	Operation cost of all water system assets.	$[W_{2a} + W_{2c} + W_{2e} + W_{2g} + W_{2j} + W_{2m}]$ ÷ Col(20) Table 9
(81)	Operating Cost Components - Energy ($/property)	Energy cost of water pumping and treatment.	$[W_{2h}]$ ÷ Col(20) Table 9
(82)	Operating Cost Components - Chemicals ($/property)	The chemicals cost for water treatment.	$[W_{2k}]$ ÷ Col(20) Table 9
(83)	Operating Cost Components - Dams & Weirs ($/property)	Operation and Maintenance cost of dams and weirs.	$[W_{2a} + W_{2b}]$ ÷ Col(20) Table 9
(84)	Operating Cost Components - Mains ($/property)	Operation and Maintenance cost of water mains.	$[W_{2c} + W_{2d}]$ ÷ Col(20) Table 9
(85)	Operating Cost Components - Reservoirs ($/property)	Operation and Maintenance cost of reservoirs.	$[W_{2e} + W_{2f}]$ ÷ Col(20) Table 9
(86)	Operating Cost Components - Pumping Stations ($/property)	Operation and Maintenance cost of water pumping stations.	$[W_{2g} + W_{2h} + W_{2i}]$ ÷ Col(20) Table 9
(87)	Operating Cost Components - Water Treatment ($/property)	Operation and Maintenance cost of water treatment works.	$[W_{2j} + W_{2k} + W_{2l}]$ ÷ Col(20) Table 9
(88)	Operating Cost Components - Other ($/property)	Operation and Maintenance cost of other water system assets.	$[W_{2m} + W_{2n} + W_{2o}]$ ÷ Col(20) Table 9
(89)	Management Cost Components - Administration ($/property)	From special schedule No. 3.	$[W_{1a}]$ ÷ Col(20) Table 9
(90)	Management Cost Components - Engineering & Supervision ($/property)	From special schedule No. 3.	$[W_{1b}]$ ÷ Col(20) Table 9
(91)	Management Cost Components - Total (c/kL)	From special schedule No. 3.	$[W_{1a} + W_{1b}]$ x 100 ÷ Col(49) Table 10
(92)	Wholesale Component ($/property)	From the wholesale component estimated in the reporting forms.	$[W_1 + W_2]$ x Q_{18a} ÷ Col(20) Table 9
(93)	Retail Component ($/property)	From the retail component estimated in the reporting forms.	$[W_1 + W_2]$ x Q_{18b} ÷ Col(20) Table 9
(94)	Pumping Cost Components - Total Water Pumping Cost (c/kL)	From special schedule No. 3.	$[W_{2g} + W_{2h} + W_{2i}]$ x 100 ÷ Col(49) Table 10
(95)	Pumping Cost Components - Total Water Pumping Cost ($/pumping station)	From special schedule No. 3.	$[W_{2g} + W_{2h} + W_{2i}]$ ÷ Col(28) Table 9
(96)	Pumping Cost Components - Operation ($/pumping station)	From special schedule No. 3.	$[W_{2g}]$ ÷ Col(28) Table 9
(97)	Pumping Cost Components - Maintenance ($/pumping station)	From special schedule No. 3.	$[W_{2i}]$ ÷ Col(28) Table 9
(98)	Pumping Cost Components - Energy ($/pumping station)	From special schedule No. 3.	$[W_{2h}]$ ÷ Col(28) Table 9
(99)	Pumping Cost Components - Energy Cost ($/property)	From special schedule No. 3.	$[W_{2h}]$ ÷ Col(20) Table 9
(100)	Water Main Cost Components - Total Water Main Cost (c/kL)	From special schedule No. 3.	$[W_{2c} + W_{2d}]$ x 100 ÷ Col(49) Table 10
(101)	Water Main Cost Components - Total Water Main Cost ($'000/100km)	From special schedule No. 3.	$[W_{2c} + W_{2d}]$ x 100 ÷ Col(25) Table 9
(102)	Water Main Cost Components - Operation ($'000/100km)	From special schedule No. 3.	$[W_{2c}]$ x 100 ÷ Col(25) Table 9
(103)	Water Main Cost Components - Maintenance ($'000/100km)	From special schedule No. 3.	$[W_{2d}]$ x 100 ÷ Col(25) Table 9
(104)	Treatment Cost Components - Total Water Treatment Cost (c/kL)	From special schedule No. 3.	$[W_{2j} + W_{2k} + W_{2l}]$ x 100 ÷ Col(49) Table 10
(105)	Treatment Cost Components - Total Water Treatment Cost ($/property)	From special schedule No. 3.	$[W_{2j} + W_{2k} + W_{2l}]$ ÷ Col(20) Table 9
(106)	Treatment Cost Components - Operation ($/property)	From special schedule No. 3.	$[W_{2j}]$ ÷ Col(20) Table 9
(107)	Treatment Cost Components - Maintenance ($/property)	From special schedule No. 3.	$[W_{2l}]$ ÷ 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)	This ratio has been determined from previous performance reports. It does not normally change from year to year and will be continued unless change is considered warranted by the LWU, in which case evidence of a different factor should be provided by the LWU.	
(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)	This ratio has been determined from previous performance reports. It does not normally change from year to year and will be continued unless change is considered warranted by the LWU, in which case evidence of a different factor should be provided by the LWU.	
(5)	Ratio of Residential Connections to Residential Assessments (see notes D & E)	This ratio has been determined from previous performance reports. It does not normally change from year to year and will be continued unless change is considered warranted by the LWU, in which case evidence of a different factor should be provided by the LWU.	
(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} x 100 ÷ Q_{29a}
(16)	% Undergoing Training	% of employees in water supply workforce undergoing training for 2 or more days during the year.	Q_{29c} x 100 ÷ 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)	Total Days Lost (%)	Number of days lost for all reasons (disputes, sick leave, accidents) in sewerage business expressed as a percentage of the total number of days	Q_{30a} ÷ (230 x Q_{29a})
(22)	Days Lost due to Injuries	Number of days lost due to injuries (time loss of one or more days) in sewerage business.	Q_{30c}
	Days Lost due to Injuries (% of Total Days Lost)	Number of days lost due to injuries (time loss of one or more days) as a percentage of number of days lost for all reasons in sewerage business.	(Q_{30c} x 100) / Q_{30a}

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 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 15 & 16

15. Sewerage - 2004/05 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_{36c} x 100 ÷ Col(3) Table 14
(40)	Biosolids Reused	% of biosolids (sludge) to farmland, landfill etc.	Q_{38b}
(41)	% of Effluent Reclaimed		$Q_{37f} \div Q_{12e}$

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 / 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}
(48a)	Economic Real Rate of Return (%)	From column 11 Table 7.	
(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.	$[S_1 + S_{2(a\ to\ m)}] \div$ 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.	$[S_1 + S_{2(a\ to\ m)} + S_3] \div$ 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 - 2004/05 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.	$Q_{21a} \div (Q_{10c} \div 100)$
(60)	Sewer Overflows to the Environment	See Column (25) on Table 15.	$Q_{20a} \div (Q_{10c} \div 100)$
(61)	Odour Complaints (per 1000 properties)	Complaints are any expression of customer dissatisfaction reported in person, by phone, fax letter or email.	Q_{49} 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_{17} 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. For multiple treatment works, the Licence Compliance indicators are calculated as a weighted average on the basis of the number of sampling days for each treatment works.
ie. For BOD compliance, sum for all treatment works, the product of $Q46_a$ multiplied by Q47 for each treatment works.
Divide this total by the sum of Q47 for all treatment works.
ie. For BOD Licence Limits, sum for all treatment works, the product of $Q45_a$ multiplied by Q47 for each treatment works.
Divide the total by the sum of Q47 for all treatment works.

D. SS compliance is calculated in a similar manner to BOD compliance.
ie. For SS compliance, sum for all treatment works, the product of $Q45_b$ or $Q46_b$ multiplied by Q47 for each treatment works.
Divide the total by the sum of Q47 for all treatment works.

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 - 2004/05 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.	$[S_{1a} + S_{1b}]$ x 100 ÷ 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.	$[S_{2c} + S_{2d} + S_{2e}]$ x 100 ÷ 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.	$[S_{2a} + S_{2b}]$ x 100 ÷ Col(32) Table 15
(86)	Sewer Main Cost Components - Total Sewer Main Cost ($'000/100km)	From special schedule No. 5.	$[S_{2a} + S_{2b}]$ x 100 ÷ Col(8) Table 14
(87)	Sewer Main Cost Components - Operation ($'000/100km)	From special schedule No. 5.	$[S_{2a}]$ x 100 ÷ Col(8) Table 14
(88)	Sewer Main Cost Components - Maintenance ($'000/100km)	From special schedule No. 5.	$[S_{2b}]$ x 100 ÷ 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

2004/05 LOCAL WATER UTILITY TBL PERFORMANCE REPORTS

Blank Page

Orange City Council Water Supply (Page 1)

Orange City Council — TBL Water Supply Performance — 2004/05

Water is drawn from Spring Creek, Suma Creek and 3 groundwater bores (1 ML/d) to supply Orange. Council has 2 dams with a total storage capacity of 22,800 ML. The system comprises 3 conventional treatment works (50 ML/d) and 4 bore supply, 13 service reservoirs (87 ML), 2 pumping stations (50 ML/d), 50 ML/d delivery capacity into the reticulation, 91 km of trunk mains and 339 km of reticulation. Orange has a dual supply system with a fully treated potable supply (91%) and a non-potable supply of recycled water for park watering (9%). The number of microbiological test samples was 348 and the number of physical/chemical samples was 12. There was 100% compliance with microbiological (E. coli) water quality, 100% compliance with physical quality and 100% compliance with chemical quality. Non-compliance was mostly due to bird entry into reservoirs. There were no failures of the chlorination system. The current replacement cost of system assets was $100M ($6,600/assessment), cash and investments were $11.5M, debt was nil and turnover was $11.8M (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 (by June 2005)	
(2b) Complying non-Residential Charges	YES	(6) Integrated Water Cycle Management Strategy (by June 2005)	
(2c) DSP with Commercial Developer Charges	YES	Compliance with All Required Criteria	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:	39,000	Ratio of Connected Properties per assessment: 1.00				
		2	Number of Assessments:	15,010	Number of Connected Properties 15,000				
		3	Residential Assessments (% of total)			92		1	91
		4	New Residential Dwellings Connected to Water Supply (%)			1.3	3	3	1.5
		5	Properties Served per km (properties/km of main)			34		2	32
		6	Rainfall (% of average annual rainfall)			103		3	93
		7	Total Water Supplied (at Master Meters - ML)			4,760		2	8,000
		8	Peak Week to Average Consumption (%)			119		1	145
		9	Renewals Expenditure (% of current replacement cost of system assets)						0.1
		10	Employees (employees/1000 properties)			0.9	1	1	1.3
SOCIAL	Charges/Bills	11	Description of Residential [5] Tariff Structure 2004/05:		Inclining Block; Independent of Land Value				
		12	Residential Water Usage Charge 2005/065 (c/kL)		For usage Up to 450 kL	141		1	92
		13	Residential Access Charge 2005/06 ($/assessment)			102		2	101
		14	Typical Residential Bill 2005/06 ($/assessment)			414		3	330
		15	Typical Developer Charge 2005/06 ($/equivalent tenement)			5,900	1	1	2,600
		16	Average Residential Bill 2004/05 ($/connected property)			417		3	330
		17	Bill for Residential Customer using 250kL/a (2004/05) ($/assessment)			455	5	4	405
	Health	18	Urban Population without Reticulated Water Supply (%)			0.0	1	1	0.9
		19	Physical and Chemical Water Quality Compliance (%)		Water Quality Compliance on basis of	100	1	1	100
		20	Microbiological (E. coli) Water Quality Compliance (%)		1996 NHMRC/ARMCANZ Guidelines	100		1	100
		21	Category 1 Public Health incidents - Minor (per 1000 properties)			0	1	1	0.0
		22	Category 2 Public Health incidents - Limited Effects (per 1000 properties)			0.0		1	0.0
		23	Category 3 Public Health incidents - Major (per 1000 properties)			0.00		1	0.00
		24	Capital Investment on Improving Public Health Performance ($ per property)						4
	Levels of Service	25	Water Quality Complaints (per 1000 properties)			2		2	5
		26	Water Service Complaints (per 1000 properties)			34	5	5	13
		27	Customer Interruption Frequency (per 1000 properties)			73		5	58
		28	Average Duration of Interruption (hr)			4	2	5	2
		29	Average Customer Outage Time (min)			17	5	5	5
		30	Number of Main Breaks (per 100km)			11	5	3	11
		31	Drought Water Restrictions (% of time)			100	1	1	60
		32	Total Days Lost (%)						3.2
ENVIRONMENTAL	Natural Resource Management	33	Average Annual Residential Consumption (kL/property, potable)			221	5	3	200
		34	Water Losses (including leakage) (%)			14		1	11
		35	Energy Consumption (kWh/ML)			653		3	500
		36	Renewable Energy Consumption (kWh/property)			0	5	4	0
	Environmental Performance	37	Category 1 Environmental incidents - Minor (per 1000 properties)			0.0		1	0
		38	Category 2 Environmental incidents - Limited Effects (per 1000 properties)			0.0		1	0.0
		39	Category 3 Environmental incidents - Major (per 1000 properties)			0.00		1	0.00
		40	Capital Investment on Improving Environmental Performance ($ per property)						0
ECONOMIC	Financial	41	Residential Revenue from Usage Charges (% of residential bills)			30		4	50
		42	Non-residential Revenue from Usage Charges (% of non-residential bills)						63
		43	Economic Real Rate of Return (%)			3.6	2	2	2.3
		44	Return on Assets (%)			3.4		2	2.4
		45	Debt to Equity (%)			0.0	5	4	3.0
		46	Interest Cover (%)						650
		47	Loan Payment ($/property)						31
	Efficiency	48	Operating Cost (OMA) per 100km of main ($'000)			1,090	3	4	950
		49	Operating Cost (OMA) per property [6] ($/property)			325	4	3	270
		50	Operating Cost (OMA) per kL (c/kL)			103	4	1	81
		51	Management Cost ($/property)			114	4	4	100
		52	Treatment Cost ($/property)			74	5	3	26
		53	Pumping Cost ($/property)			25	3	2	23
		54	Energy Cost ($/property)			11	3	2	18
		55	Water Main Cost ($/property)			53	4	3	49

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 2004/05 Monitoring 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.*

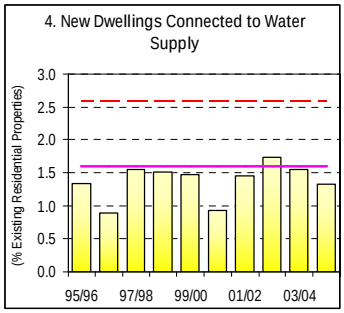
5 *Residential: for usage >450 kL = 212 c/kL; Non-residential Tariff: Access Charge based on Service Connection Size* (eg. 40mm $408), Two Part Tariff; All usage 141 c/kL. Water consumption by non-residential customers was 25% of potable water consumption excluding unaccounted-for-water. 2004/05 revenue from non-residential customers was 21% of annual rates and charges.*

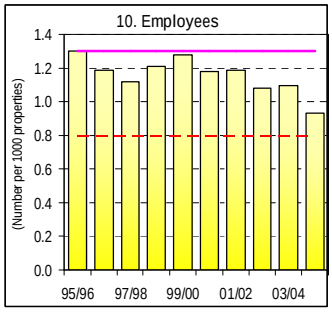
6 *The operating cost (OMA)/property was $325. The components of operating cost/property were: management ($114), operation ($93), maintenance ($73), energy ($11) and chemical ($33).*

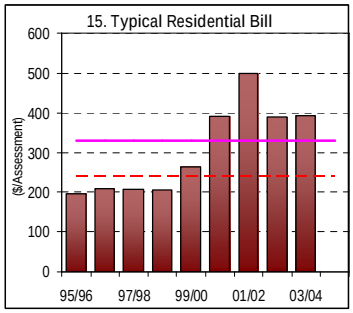
Orange City Council Water Supply (Page 2)

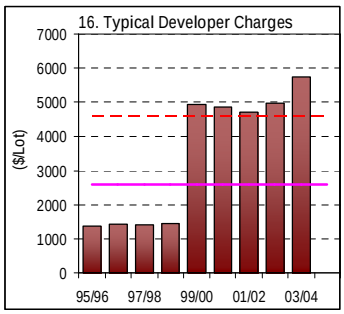
Orange City Council **TBL Water Supply Performance (page 2)** **2004/05**

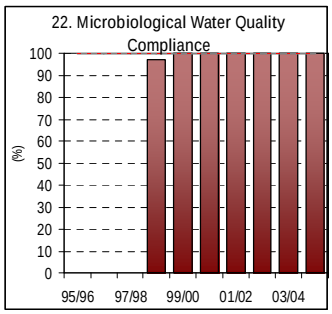
(Results shown for 10 years together with 2004/05 Statewide Median and Top 20%)

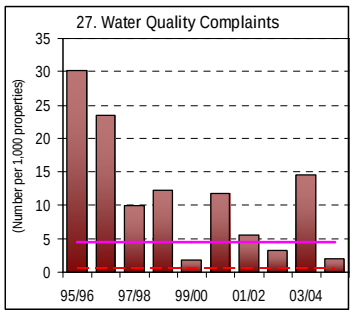


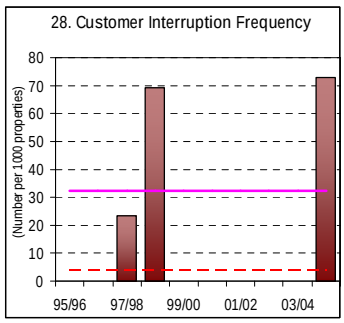


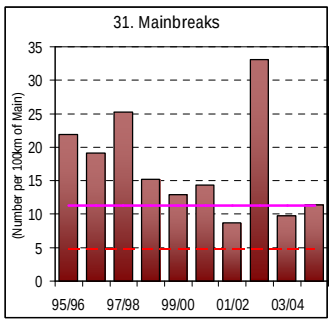


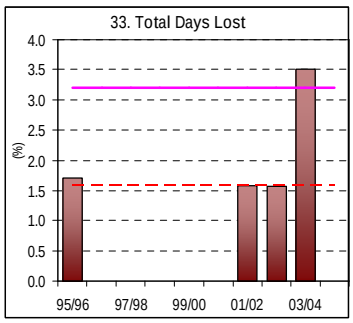


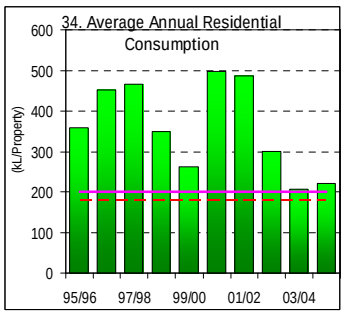


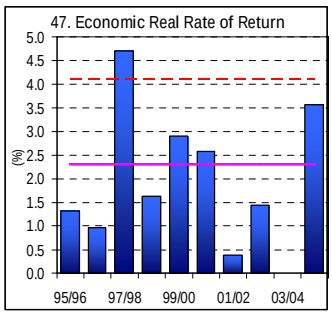


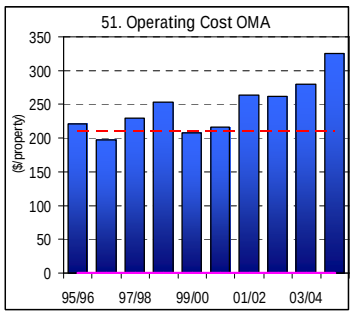


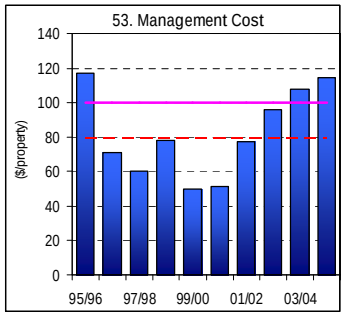


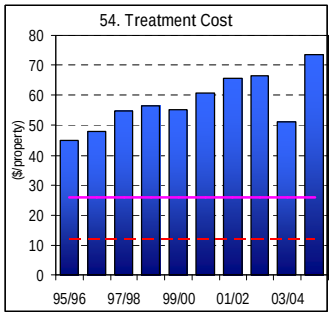


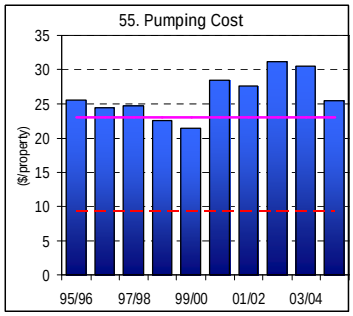












1 *Costs are in Jan 2005$.*

2 *Microbiological water quality compliance after 1998/99 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
2004/05 State Median
2004/05 Top 20%

Orange City Council Sewerage (Page 1)

Orange City Council — TBL Sewerage Performance — 2004/05

Orange Council has a sewered area of 2570 ha serving Orange and Spring Hill and has 2 sewage treatment works providing advanced secondary and tertiary treatment. The system comprises 61000 EP treatment capacity (comprising Continuous extended aeration (Activated sludge) and biological nutrient removal), 11 pumping stations (ML/d),32 km of rising mains, 349 km of reticulation, with discharge to river and land. The total number of sampling days at the treatment works was 34. There were no major malfunctions of the treatment processes. Peak wet weather flow was 800 L/s and average dry weather flow was 121 L/s. The current replacement cost of system assets was $111M ($7,800/assessment), cash and investments were $18.7M, debt was nil and turnover was $8.9M (excluding capital works grants).

Compliance with Best-Practice Management Guidelines Criteria

(1) Complete Current Strategic Business Plan & Financial Plan	YES	(2d) DSP with commercial developer charges	YES
(2) Pricing (full cost-recovery, without significant cross subsidies)	YES	(2e) Liquid trade waste approvals & policy (By June 2005)	YES
(2a) Complying Residential Charges	YES	(3) Complete performance Reporting Form by 31 October each year	YES
(2b) Complying non-Residential Charges	YES	(6) Integrated Water Cycle Management Strategy (by June 2005)	
(2c) Complying Trade Waste Fees and Charges	YES	Compliance with All Required Criteria	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:**	35,800 (1.01 connected properties per assessment)				
		2	**Number of Assessments** :	14,300 **Number of Connected Properties:** 14,400				
		3	**Residential Assessments** (% of total)		91		1	92
		4	**New Residential Dwellings Connected to Sewerage** (%)		2.4	1	1	1.2
		5	**Properties Served per km of Main**		38		3	42
		6	**Volume of Sewage Collected** (ML)		4,480		1	4,500
		7	**Renewals Expenditure** (% of current replacement cost of system assets)		0.0		2	0.4
		8	**Employees** (per 1000 properties)		1.0	3	1	1.5
		9	**Employees Undergoing 2 or more Days of Training** (%)		100		1	6
SOCIAL	Charges/Bills	10	**Description of Residential [5] Tariff Structure:**	Access Charge/property; Independent of Land Value				
		11	**Residential Access Charge 2005/06** [5] ($/assessment)		273		1	370
		12	**Typical Residential Bill 2005/06** ($/assessment)		273	1	1	370
		13	**Typical Developer Charge 2005/06** ($/equivalent tenement)		3,170		2	2,300
		14	**Average Residential Bill 2004/05** ($/connected property)		260	1	1	335
	Health	16	**Urban Properties without Reticulated Sewerage Service** (%)		0.1	1	1	3.3
		17	**Category 1 Public Health Incidents - Minor** (per 1000 properties)					0
		18	**Category 2 Public Health Incidents - Limited Effects** (per 1000 properties)					0.0
		19	**Category 3 Public Health Incidents - Major** (per 1000 properties)					0.00
		20	**Capital Expenditure on Improving Public Health** ($/property)					27
	Levels of Service	21	**Odour Complaints** (per 1000 properties)		0.0	1	1	1.0
		22	**Service Complaints** (per 1000 properties)		32		4	16
		23	**Customer Interruption Frequency** (per 1000 properties)		0		1	15
		23a	**Average Duration of Interruption** (hr)					2
		24	**Average Customer Outage Time** (min)					1
		25	**Total Days Lost** (%)					3.5
ENVIRONMENTAL	Natural Resource Management	26	**Volume of Sewage Treated per property** (kL/a)		311		5	230
		27	**Reclaimed Water** (% of effluent reclaimed)		76	1	2	11
		28	**Biosolids Reuse** (%)		100		1	100
		30	**Energy Consumption** (kWh/ML)					600
		32	**Renewable Energy Consumption** (kWh/property)					8
		33	**90 Percentile Licence Limits for Effluent Discharge:** BOD 20 mg/L; SS 25 mg/L; Total N 15 mg/L; Total P 1 mg/L					
		34	**Compliance with BOD in Licence** (%)		100	1	1	100
		35	**Compliance with SS in Licence** (%)		100	1	1	97
		36	**Sewer Main Chokes and Collapses** (per 100 km of main)		112	5	5	42
		37	**Sewer Overflows to the Environment** (per 100 km of main)		13	3	3	11
		39	**Category 1 Environmental Incidents - Minor** (per 1000 properties)					0
		40	**Category 2 Environmental Incidents - Limited Effects** (per 1000 properties)					0.1
		41	**Category 3 Environmental Incidents - Major** (per 1000 properties)					0.10
		42	**Capital Investment on Improving Environmental Performance** ($/property)					76
ECONOMIC	Financial	43	**Revenue from Non-residential plus Trade Waste Charges** (% of total)		3		5	70
		44	**Revenue from Trade Waste Charges** (% of total)		1.5		1	1.3
		46	**Economic Real Rate of Return** (%)		0.2	5	4	1.7
		46a	**Return on Assets** (%)		1.3		3	2.2
		47	**Debt to Equity** (%)		0.0	5	4	5.3
		48	**Interest Cover** (%)		>5000		1	1200
		48a	**Loan Payment** ($/property)		0	5	4	40
	Efficiency	49	**Operating Cost (OMA) per 100 km of Main** ($'000/100km)		980	1	3	1160
		50	**Operating Cost (OMA) per property** ($/property)		259	2	3	270
		51	**Operating Cost (OMA) per kL** (c/kL)		83	1	1	115
		52	**Management Cost** ($/property)		89	3	3	100
		53	**Treatment Cost** ($/property)		115	5	4	84
		54	**Pumping Cost** ($/property)		14	2	1	45
		55	**Energy Cost** ($/property)		20	3	4	17
		56	**Sewer Main Operation & Maintenance Cost** ($/property)		42	4	4	32

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 Table 2 of the 04/05 NSW Performance Benchmarking Report) as this is the most appropriate for statewide comparis*

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 based on size of service connection, sewer usage charge - 128c/kL.*

6 *Trade waste waste volume was 4% of total sewage collected; Trade waste & non-residential rates & charges provided 3% of the annual rates & charges revenue, including usage.*

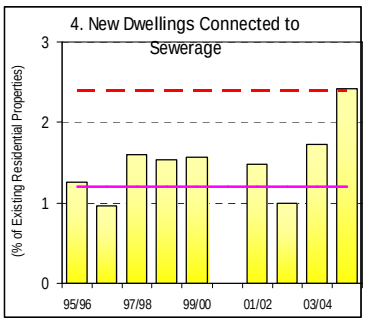
7 *Compliance with Total N in Licence was 53%. Compliance with Total P in Licence was 100%.*

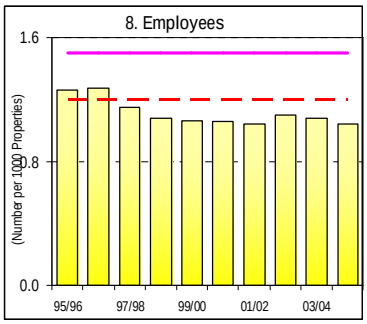
8 *The operating cost (OMA)/property was $259. The components of operating cost/property were: management ($89), operation ($100), maintenance ($36), energy ($20) and chemical ($15).*

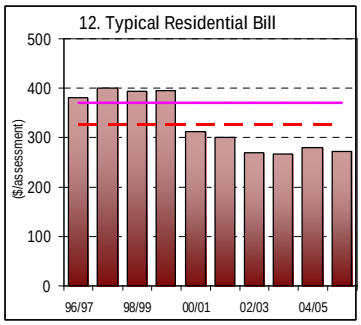
Orange City Council Sewerage (Page 2)

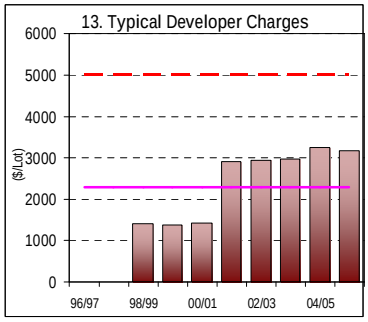
Orange City Council **TBL Sewerage Performance (page 2)** **2004/05**

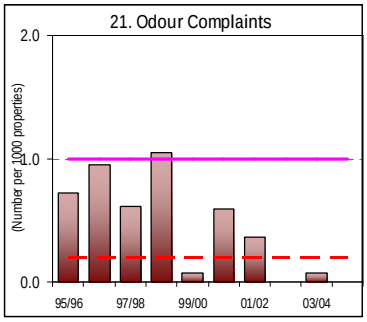
(Results shown for 10 years together with 2004/05 Statewide Median and Top 20%)

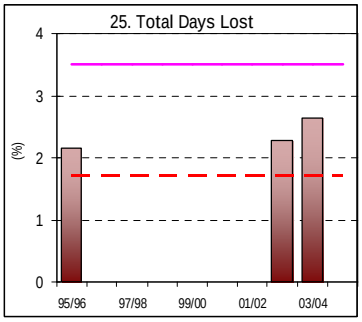


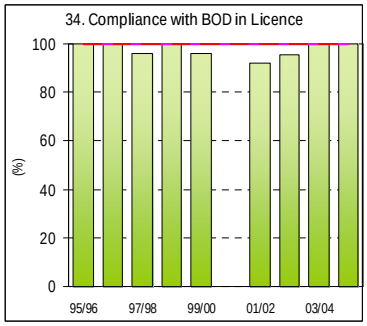


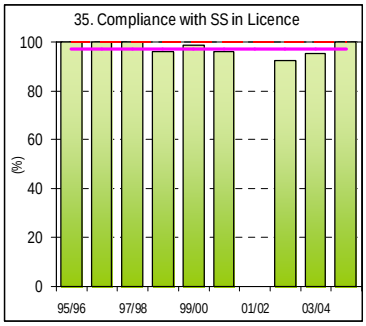


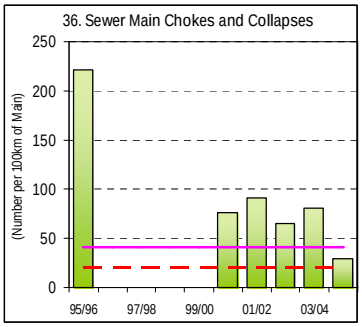


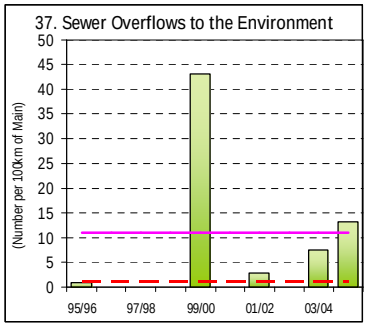


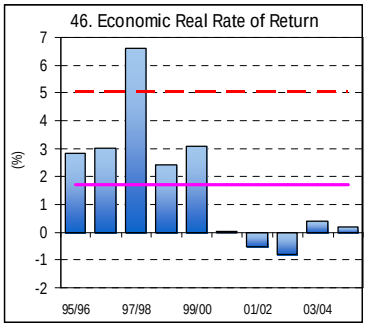


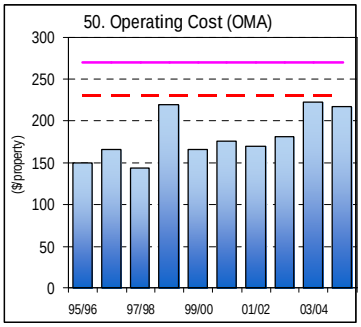


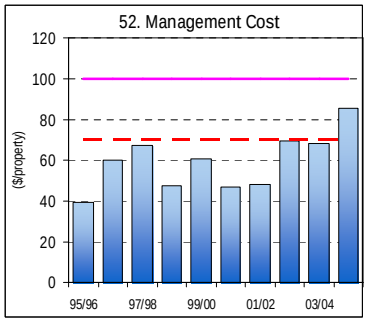


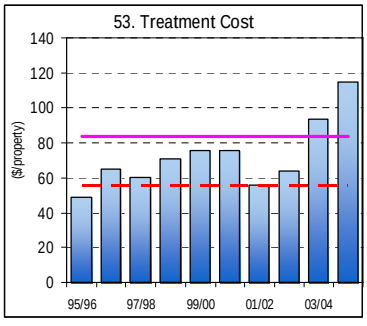


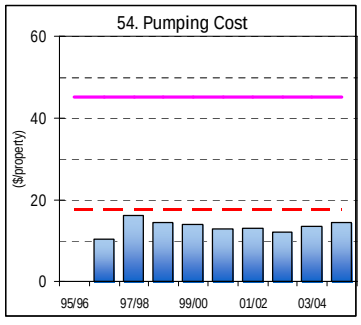












LEGEND
2004/05 State Median
2004/05 Top 20%

Note: Costs are in Jan 2005$.

2004/05 Water Performance Percentiles (% of LWUs Basis)

UTILITY CHARACTERISTICS	20%	40%	Median (50%)	60%	80%
Residential Assessments (% of total)	86	89	89	90	92
New Residential Dwellings Connected to Water Supply (%)	2.5	1.5	1.0	0.8	0.5
Properties Served per km of Main	37	29	27	24	17
Rainfall (% of average annual rainfall)	135	130	100	80	80
Total Water Supplied (at Master Meters - ML)	4830	2430	2140	1640	800
Peak Week to Average Consumption (%)	120	140	160	170	200
Renewals Expenditure (% of current replacement cost of system assets)	0.0	0.0	0.0	0.0	0.4
Employees (per 1000 properties)	1.1	1.5	1.7	2.0	2.9
SOCIAL - Charges/Bills					
Residential Water Usage Charge (2005/06) (c/kL)	115	95	80	70	60
Residential Access Charge (2005/06) ($/assessment)	100	175	190	205	265
Typical Residential Bill (2005/06) ($/assessment)	305	385	405	425	535
Typical Developer Charge (2005/06) ($/equivalent tenement)	4150	2500	2370	2000	1000
Average Residential Bill (2004/05) ($/per connected property)	285	375	390	420	495
Bill for Residential Customer using 250 kL/a ($/assessment)	310	375	410	430	495
SOCIAL - Health					
Urban Properties without Reticulated Public Water Supply (%)	1	3	5	7	10
Physical and Chemical Water Quality Compliance (%)	100	100	100	100	93
Microbiological (E. coli) Water Quality Compliance (%)	100	100	100	100	97
Category 1 Public Health Incidents - Minor (per 1000 properties)	0.0	0.0	0.0	0.0	0.0
Category 2 Public Health Incidents - Limited Effects (per 1000 properties)	0.0	0.0	0.0	0.0	0.0
Category 3 Public Health Incidents - Major (per 1000 properties)	0.0	0.0	0.0	0.0	0.0
Capital Investment on Improving Public Health Performance ($/property)	10	0	0	0	0
SOCIAL - Level of Service					
Water Quality Complaints (per 1000 properties)	1	2	3	4	10
Service Complaints (per 1000 properties)	3	6	9	14	33
Customer Interruption Frequency (per 1000 properties)	0	6	21	32	69
Average Duration of Interruption (hr)	2	2	2	3	3
Average Customer Outage Time (min)	0	1	3	4	9
Number of Main Breaks (per 100 km of main)	6	10	13	15	29
Drought Water Restrictions (% of time)	0	0	0	32	100
Total Days Lost (%)	1	2	2	3	4
ENVIRONMENTAL					
Average Annual Residential Consumption (kL/property)	180	220	250	285	445
Water Losses (including leakage) (%)	1057	1380	1499	1643	1894
Energy Consumption (kWh/ML)	620	360	460	840	730
Renewable Energy Consumption (kWh/property)	310	10	10	10	0
Category 1 Environmental Incidents - Minor (per 1000 properties)	0.0	0.0	0.0	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 ($/property)	20	0	0	0	0
ECONOMIC - Financial					
Residential Revenue from Usage Charges (% of total)	58	48	41	35	24
Non-residential Revenue from Access Charges (% of total)	59	48	40	36	27
Economic Real Rate of Return (%)	5	3	2	2	1
Return on Assets (%)	4	3	2	2	0
Debt to Equity (%)	7	2	1	0	0
Interest Cover (%)	5940	2010	840	600	220
Loan Payment ($/property)	90	45	35	20	0
ECONOMIC - Efficiency					
Operating Cost (OMA) per 100 km of Main ($'000)	545	685	790	855	1165
Operating Cost (OMA) ($/property)	250	310	330	350	390
Operating Cost (OMA) (c/kL)	40	60	70	85	105
Management Cost ($/property)	70	95	100	105	140
Treatment Cost ($/property)	25	50	70	90	130
Pumping Cost ($/property)	15	26	32	42	76
Energy Cost ($/property)	8	16	20	24	39
Water Main Cost ($/property)	39	49	55	67	91

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).

2004/05 Sewerage Performance Percentiles (% of LWUs Basis)

UTILITY CHARACTERISTICS	20%	40%	Median (50%)	60%	80%
Residential Connections (% of total)	87	89	90	91	92
New Residential Dwellings Connected to Sewerage (%)	2.4	1.1	0.9	0.8	0.5
Properties Served per km of Main	45	40	35	35	30
Volume of Sewage Collected (ML)	2720	740	560	400	260
Renewals Expenditure (% of current cost of system assets)	0.1	0.0	0.0	0.0	0.0
Employees (per 1000 properties)	1.2	1.5	1.6	1.8	2.4
Employees Undergoing 2 or more Days of Training (%)	20	10	10	9	7
SOCIAL - Charges/Bills					
Access Charge 2005/06 ($/assessment)	295	345	365	400	470
Typical Residential Bill 2005/06 ($/assessment)	295	345	370	405	475
Typical Developer Charge 2005/06 ($/equivalent tenement)	4200	2500	2000	1700	900
Average Residential Bill 2004/05 ($/connected property)	270	320	365	395	455
SOCIAL - Health					
Urban Properties without Reticulated Sewerage (%)	2	6	7	9	15
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)	0.0	0.0	0.0	0.0	0.0
Capital Investment on Improving Public Health Performance ($/property)	16	0	0	0	0
SOCIAL - Level of Service					
Odour Complaints (per 1000 properties)	0.0	0.1	0.3	0.8	1.9
Service or Choke Complaints (per 1000 properties)	10	17	22	28	52
Customer Interruption Frequency (per 1000 properties)	0	0	2	5	16
Average Duration of Interruptions (hr)	1	2	2	2	3
Average Customer Outage Time (hr)	0	0	0	1	2
Total Days Lost (%)	1	3	3	4	6
ENVIRONMENTAL					
Volume of Sewage Treated per property (kL/a)	175	210	225	235	285
Reclaimed Water (% of effluent reclaimed)	74	37	21	24	0
Biosolids Reuse (%)	100	0	0	0	0
Energy Consumption (kWh/ML)	260	440	470	540	830
Renewable Energy Consumption (kWh/property)	0	0	0	0	0
Compliance with BOD in Licence (%)	100	100	100	100	97
Compliance with SS in Licence (%)	100	100	96	92	77
Confirmed Sewer Chokes and Collapses (per 100 km of main)	15	32	43	54	83
Sewer Overflows to the Environment (per 100 km of main)	3	7	11	16	37
Category 1 Environmental Incidents - Minor (per 1000 properties)	0.0	0.0	0.0	0.1	1.4
Category 2 Environmental Incidents - Limited Effects (per 1000 properties)	0.0	0.0	0.0	0.0	0.0
Category 3 Environmental Incidents - Major (per 1000 properties)	0.0	0.0	0.0	0.0	0.0
Capital Investment on Improving Environmental Performance ($/property)	94	21	12	3	0
ECONOMIC - Financial					
Revenue from Access Charges (% of total)	87	80	77	73	62
Revenue from Trade Waste Charges (% of total)	2	0	0	0	0
Revenue from Other (% of total)	38	26	22	19	13
Economic Real Rate of Return (%)	4.2	1.9	1.1	0.3	-1.2
Return on Assets (%)	4.1	2.4	1.5	0.7	-0.4
Debt to Equity (%)	20	0	0	0	0
Interest Cover (%)	3290	1120	640	340	60
Loan Payment ($/property)	100	30	20	5	0
ECONOMIC - Efficiency					
Operating Cost (OMA) per 100 km of Main ($'000)	550	760	930	1020	1240
Operating Cost (OMA) ($/property)	210	250	260	280	320
Operating Cost (OMA) (c/kL)	90	105	115	120	150
Management Cost ($/property)	50	75	90	95	125
Treatment Cost ($/property)	60	85	95	100	130
Pumping Cost ($/property)	16	31	39	46	64
Energy Cost ($/property)	8	13	15	18	23
Sewer Main Cost ($/property)	20	29	33	38	47

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

2004/05 WATER TREATMENT PERFORMANCE

Blank Page

Appendix D1 - 2004/05 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	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[1]	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*
		Albury	1991	140.0	D	8533	38	3.2	14	0.03	10.8	4.6	2.85	0.11	100	13	83.6	961	100	13	100	13	100	13	100	198	94	198		100	100		
		Hume Weir		1.7	CH										100	3	97.6	129	100	3	100	3	100	3	100	37	84	37		100	100		
Albury City		**Total/Weighted Average[1,3]**		**141.7**		**8533**	**38**	**3.2**	**14**	**0.03**	**10.8**	**4.6**	**2.85**	**0.11**	**100**	**16**	**85.26**	**1090**	**100**	**16**	**100**	**16**	**100**	**16**	**100**	**235**	**92.43**	**235**	**0.5**	**100**	**100**		
Armidale Dumaresq		**Armidale Dumaresq**	**1988**	**42.0**	**C**	**3069**	**60**	**25.9**	**8**	**1**	**3.48**	**1.23**	**3.48**	**0.17**	**100**	**365**	**100**	**2**	**100**	**365**	**100**	**365**	**100**	**365**	**100**	**52**	**100**	**52**	**1.4**	**100**	**98**		
Ballina (Reticulator)	*Bulk Supply from Rous*	**Marom Creek**	**1981**	**3.0**	**D**	**136**																			**99.9**	**775**	**94**	**779**	**0.4**	**100**	**100**		
		Euston	1998	1.5	CH	295																								100	92		
	Dual Supply	Balranald	1988	1.1	C	182	100	20	5		60	8	4	0.5	100	2	100	2	100	2	100	1			100	52	100	5		100	100		
Balranald		**Total/Weighted Average[1,3]**		**2.6**		**477**									**100**	**2**	**100**	**2**	**100**	**2**	**100**	**1**			**100**	**52**	**100**	**5**	**8.8**	**100**	**96**		
Bathurst Regional		**Bathurst**	**1988**	**60.0**	**C**	**8,500**	**550**	**45**	**12**	**3**	**515**	**12**	**1**	**0.2**	**100**	**714**	**100**	**714**	**100**	**714**	**98**	**714**	**100**	**714**	**100**	**178**	**89**	**178**	**20.7**	**100**	**100**		
	Unfiltered	Yellow Pinch		25.0	CH	773		8	3	2		3	2	1.3	100	65	100	338	100	13	100	13	100	13	100	128	100	128		100	100		
	Unfiltered	Bega		16.0	CH	1,078		5	2	1		1	0	0.8	100	65	100	338	100	13	100	13	100	13	100	86	100	86		100	100		
	Unfiltered	Brogo		6.0	CH	418		20	13	8		2	2	2	100	30	96	150	100	6	100	6	100	6	100	62	98	62		100	100		
	Unfiltered	Kiah		6.0	CH	1,102		5	2	3		1	1	2	100	75	100	390	100	75	100	15	100	15	100	59	100	59		100	100		
	Unfiltered	Tilba		1.0	CH	7		10	12	8		2	4	2	93	15	96	78	100	3	67	3	100	3	100	49	96	49					
	Unfiltered	Bemboka		1.0	CH	41		30	15	11		5	2	2	100	15	95	84	100	3	100	3	100	3	100	25	92	25		100	100		
Bega Valley		**Total/Weighted Average[1,3]**		**55.0**		**3,419**		**8**	**4**	**3**		**1**	**1**	**1.3**	**100**	**265**	**99**	**1,378**	**100**	**113**	**98**	**53**	**100**	**53**	**100**	**409**	**99**	**409**		**100**	**100**		
	Groundwater	Bellingen		12.0	CH	1,194									100	12	100	12	100	12	100	12	100	12	100	52	100	52					
		Dorrigo	1993	2.7	C	200		20		3		2		0.2	100	2	100	2	100	2		2	100	2	100	52	98	52		100	100		
Bellingen		**Total/Weighted Average[1,3]**		**14.7**		**1,394**		**20**		**3**		**2**		**0**	**100**	**14**	**100**	**14**	**100**	**14**	**86**	**14**	**100**	**14**	**100**	**104**	**99**	**104**		**100**	**100**		
		Tocumwal	1999	7.0	DAF	622	50	20	5	5	100	25	1	1	100	365	100	2	100	365	100	365	100	365	96	50	88	50		100	100		
		Finley	1990	2.0	C	234	40	20	5	5	50	18	1	1	100	365	100	2	100	365	100	365	100	365	100	49	100	49					
		Berrigan	1990	1.0	C	138	40	20	5	5	50	20	1	1	100	365	100	2	100	365	100	365	100	365	96	50	100	47			96		
	Dual Supply	Barooga	2000	1.0	DAF	127	70	20	5	5	90	20			100	365	100	2	100	365	100	365	100	365	100	52	90	52		100	100		
Berrigan		**Total/Weighted Average[1,3]**		**11.0**		**1,121**	**49**	**20**	**5**	**5**	**82**	**22**	**1**	**0.5**	**100**	**1,460**	**100**	**8**	**100**	**1,460**	**100**	**1,460**	**100**	**1,460**	**98**	**201**	**94**	**198**		**100**	**99**		
Bland (NO WS)																																	
Blayney (NO WS)																														**A**			
Bogan		**Bogan**	**1984**	**8.6**	**C**	**860**	**100**	**33**	**5**	**5**	**122**	**21**	**1**	**1.1**											**99**	**25**	**75**	**25**			**98**		
		Bombala	1983	3.2	C	290									100	52	100	52			100	52			100	52	100	52		100	100		
		Delegate		1.3	CH										100	26	100	26			100	26			100	26	100	26		100	96	1	1
Bombala		**Total/Weighted Average[1,3]**		**4.5**		**290**									**100**	**78**	**100**	**78**			**100**	**78**			**100**	**78**	**100**	**78**	**2.3**	**100**	**98**	**0**	**0**
Boorowa		**Boorowa**	**1993**	**3.0**	**L**		**100**	**33**	**5**	**5**	**122**	**21**	**1**	**1.1**											**99**	**25**	**75**	**25**		**100**	**97**		
Bourke	*Dual Supply*	**Bourke**	**1988**	**3.3**	**C**	**900**			**7**	**5**			**50**	**8.0**					**75**	**12**	**100**	**49**	**100**	**12**	**94**	**49**	**65**	**49**	**4.7**	**83**	**85**		
		Brewarrina	1990	0.8	C	274									100	46	100	46	100	46	100	46	100	46	100	46	98	46			100		
	Dual Supply	Goodooga	1996	0.5	A	100	1	1	1	1	0	0	0	0	100	20	100	20	100	20	100	20	100	20	100	20	95	20			100		
Brewarrina		**Total/Weighted Average[1,3]**		**1.3**		**374**									**100**	**66**	**100**	**66**	**100**	**66**	**100**	**66**	**100**	**66**	**100**	**66**	**97**	**66**	**33.8**		**100**		
Byron (Reticulator)	*Bulk Supply from Rous Water*	**Mullumbimby**	**1996**	**2.9**	**C**	**429**	**60**	**13**	**2**	**0**	**123**	**14**	**16**	**3.4**	**100**	**53**	**99**	**53**	**100**	**53**	**100**	**53**	**100**	**52**	**100**	**53**	**100**	**53**		**100**	**100**		
		Molong	1986	2.3	D	235	10	10	10	10	5	5	5	5	100	2	100	2	100	2	100	2	100	2	100	52				100	100		
	Non-Potable Groundwater	Cumnock		2.0	CH	34									100	2	100	2	100	2	100	2	100	2	100	12	100	12		100	100	2	2
	Non-Potable Groundwater	Yeoval	1964	0.8	CH										100	2	100	2	100	2	100	2	100	2	100	2				100	92		
	Non-Potable Groundwater	Delgany			CH																												
Cabonne		**Total/Weighted Average[1,3]**		**5.1**		**269**	**10**	**10**	**10**	**10**	**5**	**5**	**5**	**5**	**100**	**6**	**100**	**6**	**100**	**6**	**100**	**6**	**100**	**6**	**100**	**16**	**100**	**64**	**19.5**	**100**	**98**	**1**	**1**
		Hillston		5.6	CH	510			1	1			0	0	100	2	100	2	100	2	100	2	100	2	100	51	98	51		100	100		
	Groundwater	Rankins Springs		3.0	CH																				100	22	77	22			100		7
	Groundwater	Goolgowi / Merriwagga		2.0	UV																				100	24	96	24			100		
		Carrathool			CH																				90	21	71	21			91	7	
	Groundwater	Melbergen			CH																												
Carrathool		**Total/Weighted Average[1,3]**		**10.6**		**510**			**1**	**1**			**0**	**0**	**100**	**2**	**100**	**2**	**100**	**2**	**100**	**2**	**100**	**2**	**98**	**118**	**89**	**118**	**1.9**	**100**	**98**		**2**
	Dual Supply	Ivanhoe	1985	0.6	C	40									100	26	100	2	100	26	100	26	100	26	100	26	100	26			100		
	Dual Supply	Wilcannia		0.5	C	51									100	50	100	50	100	50	100	50	100	50	100	50	100	50		100	100		
		White Cliffs		0.2	C	43												2													100		
Central Darling		**Total/Weighted Average[1,3]**		**1.3**		**134**									**100**	**76**	**100**	**52**	**100**	**76**	**100**	**76**	**100**	**76**	**100**	**76**	**100**	**76**		**100**	**100**		
		Carcoar		9.0	DAF	1,459	160	15	5	1	150	8	3	1	100	24	100	24	100	365	100	365	100	365	100	154	98	154		100	**99**		
		Blayney	1977	6.0	C	510	160	15	5	1	150	8	3	1	100	2	100	2	100	365	100	365	100	365	100	52	98	52		100	100		
	Non-Potable Groundwater	Quandialla																												100	100		
Central Tablelands		**Total/Weighted Average[1,3]**		**15.0**		**1,969**	**160**	**15**	**5**	**1**	**150**	**8**	**3.0**	**1.0**	**100**	**26**	**100**	**26**	**100**	**730**	**100**	**730**	**100**	**730**	**100**	**206**	**98**	**206**		**100**	**100**		
		Rushforth Road		37.8	CH	7,612	40	15	40	15	5	2	5	2	83	12	83	12	100	298	100	12	88	298	98	298				100	100			
		Wooli			CH	127																									100		
		Coutts Crossing			CH	78																									100		
		Minnie Water			CH	64																									77		
		Glenreagh			CH	53																									100		
Clarence Valley		**Total/Weighted Average[1,3]**		**37.8**		**7,934**	**40**	**15**	**40**	**15**	**5**	**2**	**5**	**2**	**83**	**12**	**83**	**12**	**100**	**298**	**100**	**12**	**88**	**298**	**98**	**298**				**100**	**96**		
		Fort Bourke Hill	1983	7.0	C	1,311	100	40			6	2			100	260	100	260	100	260	100	260	100	260	100	104	100	104		100	100		
	Non-Potable	Euabalong Village			CH																												
	Non-Potable	Euabalong West			CH																												
	Non-Potable	Nymagee Village																															
	Non-Potable	Mt Hope			CH																												
Cobar		**Total/Weighted Average[1,3]**		**7.0**		**1,311**	**100**	**40**			**6**	**2**				**260**		**260**		**260**		**260**		**260**		**104**		**104**		**100**	**100**		
Cobar WB	*Bulk Supplier*																																

Appendix D1 - 2004/05 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	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*
	Unfiltered	Karangi		60.0	C	5,810	62	29	2	1	5	2	2	0.9	100	14	100	14	100	14	100	14	100	14	100	465	91	465		100	100		
	Unfiltered	Nana Glen	1996	0.6	C																								100	100		
	Unfiltered	Coramba																											100	100		
Coffs Harbour City		**Total/Weighted Average1,3**		**60.6**		**5,810**			**2**	**1**	**5**	**2**	**2**	**0.9**	**100**	**14**	**100**	**14**	**100**	**14**	**100**	**14**	**100**	**14**	**100**	**465**	**91**	**465**		**100**	**100**		
Coolamon (NO WS)	*Bulk Supply from Goldenfields*																															
		Cooma	1985	15.4	C																								100	100		
		Nimmitabel			CH																								100	100		
		Bredbo			CH																								100	100		
Cooma-Monaro		**Total/Weighted Average[1,3]**																											**100**	**100**		
	Good Quality Untreated Groundwater	Coonamble Bores				1,263									50	2	50	2	50	2	100	2			100	50	95	56		100	100	15	
	Groundwater	Gulargambone Bores				290									100	2		2	100	2	100	2			100	53	92	53		100	100		
	Groundwater	Quambone Village													75	4		4	75	4	100	4			100	10	90	10		100	100		
Coonamble		**Total/Weighted Average[1,3]**				**1,553**									**75**	**8**	**50**	**2**	**75**	**8**	**100**	**8**			**100**	**113**	**93**	**119**	**18.4**	**100**	**100**	**12**	
Cootamundra (Reticulator)	*Bulk Supply from Goldenfields*					**899**																								**99**	**100**		
		Corowa		15.0	CH	1,555	175	42			80.0	20.0	1.3	0.5	100	365			100	365	100	180	100	180	100	52	100	52		100	100		
		Mulwala	1944	13.0	C	1,581					34	10	1	0.5	100	365			100	365	100	365			100	12	100	12			100		
		Howlong	1989	5.2	L																											
		Balldale																														
Corowa		**Total/Weighted Average[1,3]**		**33.2**		**3,136**	**175**	**42**			**57**	**15**	**1**	**0**	**100**	**730**			**100**	**730**	**100**	**545**	**100**	**180**	**100**	**64**	**100**	**64**	**5.9**	**100**	**100**		
		Mica Street	1981	36.0	C	5,184	38	12	12	1	124	477	2	0	98	3,285	100	312	100	365	100	365	100	365	99	127	97	127		100	99		
		Menindee	1986	1.1	C	161	38	12	2	2	619	167	6	3.0	100	1,095	100	52	100	365	100	365	100	260	100	51	100	51		100	100		
Country Energy		**Total/Weighted Average[1,3]**		**37.1**		**5,345**									**99**	**4,380**	**100**	**364**	**100**	**730**	**100**	**730**	**100**	**625**	**99**	**178**	**98**	**178**		**100**	**100**		
Cowra		**Cowra**	**1987**	**28.0**	**C**	**2,063**					**49**	**7**	**2**	**0.8**	**97**	**65**	**96**	**364**	**100**	**13**	**100**	**13**	**100**	**13**	**98**	**126**	**87**	**126**	**95.8**	**100**	**90**		
Deniliquin		**Deniliquin**	**1986**	**26.0**	**F**	**2,284**	**180**	**61**	**25**	**3**	**48**	**33**	**1**	**0.1**	**100**	**13**	**100**	**13**	**100**	**13**	**77**	**13**	**100**	**13**	**98**	**65**	**95**	**65**	**4.3**	**100**	**98**		
Dubbo City		**John Gilbert**		**55.0**	**C**	**10,588**	**81**	**25**	**16**	**1**	**31**	**5**	**5**	**0.3**	**99**	**111**	**100**	**101**	**100**	**111**	**93**	**111**	**100**	**111**	**100**	**111**	**100**	**111**	**0.8**	**100**	**97**		
	Bulk Supply from Hunter Water	Dungog																											100	100		
	Bulk Supply from Hunter Water	Paterson District																														
	Bulk Supply from Hunter Water	Clarence Town																														
		Gresford		0.4	M	41									100	26	100	2		26	100	26		26	100	26	90	26		100	92	2	
Dungog (Reticulator)		**Total/Weighted Average[1,3]**		**0.4**		**41**									**100**	**26**	**100**	**2**		**26**	**100**	**26**		**26**	**100**	**26**	**90**	**26**		**100**	**96**	**2**	
Eurobodalla	*Unfiltered*	**Eurobodalla**			**CH**	**4,293**	**94**	**28**							**88**	**410**	**98**	**406**	**93**	**14**	**79**	**14**	**100**	**14**	**100**	**410**	**89**	**410**	**17.5**	**100**	**100**	**2**	**2**
Fish River WS	*Unfiltered, Bulk Supplier*	**Duckmaloi Weir**		**11.0**	**M**	**897**	**10**	**5**	**8**	**3**	**5**	**2**	**1**	**0.5**	**100**		**100**	**256**	**100**	**528**	**100**	**528**	**100**	**528**	**100**	**156**				**100**				
Forbes		**Forbes**	**1987**	**26.0**	**D**	**2,165**	**50**	**23**	**8**	**3**	**30**	**16**	**5**	**1.2**	**100**	**12**	**100**	**12**	**100**	**12**	**100**	**12**	**100**	**12**	**100**	**60**	**78**	**60**		**100**	**73**		
Gilgandra	*Groundwater*	**Gilgandra**	**1984**	**5.5**	**D**	**950**	**3**	**2**	**1**	**0**	**40**	**10**	**2**	**0.5**	**100**	**2**	**100**	**2**	**100**	**2**	**100**	**2**	**100**	**2**	**100**	**2**	**100**	**2**	**4.5**	**100**	**100**		
		Glen Innes - Martins Lookout		12.0	C	716	772	71	16	1	144	9	1	1	100	365	100	12	100	365	100	365	100	365	100	24	100	24		A			
		Deepwater		12.0	CH	33																								**A**			
Glen Innes Severn		**Total/Weighted Average[1,3]**		**24.0**		**749**	**772**	**71**	**16**	**1**	**144**	**9**	**1**	**1**	**100**	**365**	**100**	**12**	**100**	**365**	**100**	**365**	**100**	**365**	**100**	**24**	**100**	**24**	**3.0**	**100**	**99**		
		Gloucester	1981	4.5	C	450	500	39	5	5	253	8	3	0	100	2	100	2	100	2	100	2	100	2	98	52	92	52		100	96		2
		Barrington		0.7	CH	27	500	39			253	8	20	2.0											94	52	80	52		100	94		5
Gloucester		**Total/Weighted Average[1,3]**		**5.2**		**477**	**500**	**39**	**5**	**5**	**253**	**8**	**4**	**0**	**100**	**2**	**100**	**2**	**100**	**2**	**100**	**2**	**100**	**2**	**96**	**104**	**86**	**104**		**100**	**95**		**2**
	Bulk Supplier, Retailer	Jugiong	1991	40.0	C	4,067	500	42	10	5	470	18	0	0	100	1,461	99	854	100	365	99	364	100	365	99	72	92	72		100			
	Bulk Supplier, Retailer	Oura - Bore		26.0	A	4,342									97	682	92	1,528	100	376	93	318	100	12	99	276	98	276		100	99		51
	Bulk Supplier, Retailer	Mount Arthur - Bore		4.3	CH	607									100	2	100	2	100	2	100	2	100	2	99	67	88	67		100	99		
	Bulk Supplier, Retailer	Mount Daylight - Bore		1.3	CH	224									100	1		1	100	1			100	1	100	24	83	24		100	100		
	Bulk Supplier, Retailer	Hylands Bridge - Canal		0.8	CH	181																										
Goldenfields		**Total/Weighted Average[1,3]**		**72.4**		**9,421**	**500**	**42**	**10**	**5**	**470**	**18**	**0**	**0**	**99**	**2,146**	**95**	**2,385**	**100**	**744**	**96**	**684**	**100**	**380**	**99**	**439**	**95**	**439**		**100**	**99**		**24**
Gosford City		**Somersby**		**140.0**	**C**	**17,355**	**550**	**82**	**10**	**10**	**110**	**9**	**1**	**0.3**	**100**	**300**	**100**	**300**	**100**	**300**	**100**	**300**	**100**	**300**	**100**	**300**	**100**	**300**	**13.1**	**100**	**100**		
		Goulburn	1985	34.0	D	2,343	5,500	122	3	0	1,695	15	11	3.9	100	1,068	96	171	100	353	99	358	100	357	100	115	100	115					
		Marulan	2002	1.4	L																											
Goulburn Mulwaree		**Total/Weighted Average1,3**		**35.4**		**2,343**	**5,500**	**122**	**3**	**0**	**1,695**	**15**	**11**	**3.9**	**100**	**1,068**	**96**	**171**	**100**	**353**	**99**	**358**	**100**	**357**	**100**	**115**	**100**	**115**		**A**			
	Bulk Supply from Albury City	Village			CH																											
	Groundwater	Culcairn		2.2		203							0		100		100	4	100		100	85	100		100		100	53		100	100		
Greater Hume		**Total/Weighted Average[1,3]**		**2.2**		**203**											**100**	**4**			**100**	**85**					**100**	**53**	**2.1**	**100**	**100**		
		Griffith	1987	60.0	DAF	7,624	80	30	3	3	50	15			100	12	100	12	100	12	95	12	100	12	100	52	100	52		100	100		
		Yenda	1935	2.5	M	330	50	30	5	5	50	20	0	0.2	100	12	100	2	100	12	100	365	100	12	100	52	100	52		100	100		
Griffith City		**Total/Weighted Average[1,3]**		**62.5**		**7,954**	**79**	**30**	**3**	**3**	**50**	**15**	**0.0**	**0.0**	**100**	**24**	**100**	**14**	**100**	**24**	**100**	**377**	**100**	**24**	**100**	**104**	**100**	**104**		**100**	**100**		
Gundagai		**Gundagai**	**1988**	**5.0**	**C**	**600**	**140**	**40**	**10**	**5**	**230**	**12**	**2**	**0.4**	**100**	**2**	**100**	**2**	**100**	**2**	**100**	**2**	**100**	**2**	**100**	**52**	**100**	**300**	**9.8**	**100**	**100**		
	Good Quality Untreated Groundwater	Gunnedah																												100	80		
	Good Quality Untreated Groundwater	Curlewis																												100	72		
	Good Quality Untreated Groundwater	Tambar Springs																												100	72		
	Good Quality Untreated Groundwater	Mullaley																												100	83		
Gunnedah		**Total/Weighted Average[1,3]**																												**100**	**77**		
Guyra		**Guyra**	**1983**	**3.0**	**C**	**313**	**200**	**110**	**10**	**4**	**8**	**3**	**1**	**0.4**	**100**	**170**	**100**	**170**	**100**	**170**	**100**	**170**	**100**	**170**	**100**	**12**	**100**	**12**	**0.9**	**100**	**90**		
	Good Quality Untreated Groundwater	NORTH STAR		9.0	CH	43	1	1			13	8				2	100	2	50	2	100	2	100	2	100	13	92	13		100	96		
		BINGARA		4.0		377	195	15			33	14			80	3	100	3	33	3	100	3	67	3	89	54	44	54		33	89	5	
		WARIALDA		4.0	A	419	5	1	5	1	1	0	0	0	100	2	100	2	100	2	100	2	100	2	96	53	89	53		100	46		
	Non-Potable	GRAVESEND		1.4	CH	87	5	1	3	2	5	1	2	1	75	2	100	2	100	2	100	2	100	2	46	35	37	35		100	100	60	
Gwydir		**Total/Weighted Average[1,3]**		**18.4**		**926**	**82**	**7**	**5**	**1**	**15**	**6**			**66**	**9**	**100**	**9**	**67**	**9**	**100**	**9**	**89**	**9**	**83**	**155**	**62**	**155**		**83**	**83**	**8**	
Harden (Reticulator)	*Bulk Supply from Goldenfields*				CH	794																							**14.6**	**100**			

Appendix D1 - 2004/05 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	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*
	Unfiltered	Hastings District		218.0	CH	7,180									93	1,487	100	53	99	1,495	74	1,487	100	4	99	654	99	654					
	Unfiltered	Long Flat		1.6	M	6	142	25	41	8	7	2	4	1			100	1	100	16	100	16	75	16	100	1	100	1		100			
	Unfiltered	Comboyne		1.0	M	14	60	29	25	6	5	3	3.4	0.6	50	2	100	31	100	15	100	15	87	31	100	2	50	1		100			
	Unfiltered	Telegraph Point		0.6	M	35	111	20	88	7	15	9	1	0	100	2	100	3	100	19	100	17	86	23	100	3	100	3		100			
Port Macquarie-Hastings		**Total/Weighted Average[1,3]**		**221.2**		**7,235**									**93**	**1,491**	**100**	**88**	**99**	**1,545**	**74**	**1,535**	**85**	**74**	**99**	**660**	**99**	**659**		**100**			
Hawkesbury City (NO WS)																																
Hay		**Hay**		**2.1**	**C**	**342**	**70**	**20**	**3**	**2**	**82**	**20**	**0**	**0.2**	**100**				**100**				**100**		**100**				**100**	**100**		
Hunter Water	*Metropolitan Utility*					**71,600**				**5**				**0.5**	**100**		**100**								**100**		**99**		**6.3**				
		Copeton	1982	18.0	C	2,095	168	70	12	3	6	2	2	0	100	360	100	14	99	360	100	360	99	360	100	12	100	12		100	100		
		Ashford	1984	1.2	D	134	250	50			163	4	3	0	100	360	100	14	99	360	99	360	99	360	100	360	100	14		100	100		
	Groundwater	Yetman		0.5	CH	33									100	12	100	2							100	12	100	12		100	100		
Inverell		**Total/Weighted Average[1,3]**		**19.7**		**2,262**	**173**	**69**	**11**	**3**	**15**	**2**	**2**	**0**	**100**	**732**	**100**	**30**	**99**	**720**	**100**	**720**	**99**	**720**	**100**	**384**	**100**	**38**	**4.5**	**100**	**100**		
Jerilderie	*Dual Supply*	**Jerilderie**		**0.8**	**C**	**110**	**500**	**350**	**4**	**2**	**100**	**33**	**4**	**0.6**	**100**	**2**	**100**	**2**	**100**	**365**	**100**	**365**	**100**	**365**	**100**	**52**	**100**	**52**	**4.4**		**91**	**1**	**1**
Junee (NO WS)																																
	Groundwater	Sherwood		38.0	CH	3,954			2	1			5.9	1.2	97	193	100	444	92	12	97	145	100	12	99	138	88	138		100	99	4	
		Belgrave Falls		5.8	CH				1	1			2	1	100	61	100	102	100	2	100	53	100	2	100	52	96	52		100	100		
	Groundwater	South West Rocks		5.3	A	556			9	8			1	0.8	100	61	97	103	100	2	100	53	100	2	100	52	92	52		100	100		
	Groundwater	Stuarts Point		2.7	D	179			1	1			0	0	100	62	100	103	100	2	100	54	100	2	100	52	94	52		100	100		
	Groundwater	Crescent Head		2.6	A	210			7	6			4	3	94	60	95	107	100	2	94	52	100	2	100	52	88	52		100	100		
	Groundwater	Bellbrook		2.2	CH	12			12	6			1	1	100	37	95	83	100	2	100	29	100	2	96	27	89	27		100	96		
	Groundwater	Willawarrin		2.2	CH	13			1	1			0	0	100	36	100	78	100	2	100	2	100	2	100	26	96	26		100	100		
	Groundwater	Kinchela		2.2	CH																											
	Groundwater	Hat Head		1.3	A	70			6	6			0	0.3	100	35	94	54	100	2	100	27	100	2	100	26	88	26		100	100		
Kempsey		**Total/Weighted Average[1,3]**		**60.1**		**4,994**			**12**	**8**			**4**	**3.4**	**98**	**545**	**98**	**1,074**	**96**	**26**	**98**	**415**	**100**	**26**	**99**	**425**	**91**	**425**		**100**	**99**		
		Kyogle	1988	3.0	C	343	225	15	10	1	11	2	1.9	0.8	100	2	100	2	100	2	100	2	100	2	91	109	64	109		100	90		
	Non-Potable Supply from Tenterfield	Woodenbong			CH										50	2	50	2	50	2	100	2	50	2	89	151	64	151				10	
	Non-Potable	Bonalbo			CH		147	35			13	3			100	2	100	2	100	2	100	2	100	2	98	53	44	54		100	98		
Kyogle		**Total/Weighted Average[1,3]**		**3.0**		**343**	**225**	**15**	**10**	**1**	**11**	**2**	**2**	**0.8**	**83**	**6**	**83**	**6**	**83**	**6**	**100**	**6**	**83**	**6**	**91**	**313**	**61**	**314**	**3.9**	**100**	**92**		
		Condobolin	1941	7.5	C	894			6	2	72	26	1	1	100	12	100	12	100	12	100	12	100	12	98	52	96	52			98		
		Lake Cargelligo	1930	4.5	M	489			5	3	982	89	1	0.3	100	3	100	3	100	3	100	3	100	3	100	53	94	53		100	100		109
		Tottenham	1994	1.1	L,D	16			1	1	32	19	1	0.8	100	1	100	1	100	1	100	1	100	1	100	37	86	37		100	100		
Lachlan		**Total/Weighted Average[1,3]**		**13.1**		**1,399**			**6**	**2**	**390**	**48**	**1**	**0.6**	**100**	**16**	**100**	**16**	**100**	**16**	**100**	**16**	**100**	**16**	**99**	**142**	**93**	**142**		**100**	**99**		**38**
		Leeton	1993	25.0	C	2,997	240	75	2	1	120	29	6	3.0	100	4	100	4	100	300	100	300	100	300	100	300	100	50		100	100		
		Whitton		0.9	C	125	140	60	2	1	100	43	1	0	100	4	100	4	100	300	100	300	100	300	100	27	100	27		100	100		
		Yanco	1993	0.8	L,D																											
		Murrami	1993	0.3	C	16	98	32	3	1	96	24	2	0.5	100	4	100	4	100	300		300	100	300	100	26	100	26		100	100		
Leeton		**Total/Weighted Average[1,3]**		**27.0**		**3,138**	**235**	**74**	**2**	**1**	**119**	**30**	**6**	**2.9**	**100**	**12**	**100**	**12**	**100**	**900**	**67**	**900**	**100**	**900**	**100**	**353**	**100**	**103**		**100**	**100**		
	Bulk Supply from Rous Water	Lismore		60.0	CH										100	13	100	13	100	13	100	13	100	13	99	150	91	152		100			
	Unfiltered	Nimbin			CH	136	49	36			4	3			100	12	98	81	100	3	67	3	100	3	100	29	90	29		100	100		
Lismore City (Reticulator)		**Total/Weighted Average[1,3]**		**60.0**		**136**									**100**	**25**	**98**	**94**	**100**	**16**	**94**	**16**	**100**	**16**	**99**	**179**	**91**	**181**		**100**	**100**		
Lithgow		**Oakey Park**	**1985**	**15.0**	**C**																								**100**	**100**		
		Werris Creek	1991	2.9	CH	296																										
	Good Quality Untreated Groundwater	Quirindi													100	4	100	4	100	4	100	4	100	4	100	36	95	36					
	Groundwater	Willow Creek			CH																				90	12	90	12				2	2
Liverpool Plains		**Total/Weighted Average[1,3]**		**2.9**		**296**	**172**	**83**	**5**	**5**	**67**	**16**	**2**	**0**	**100**	**4**	**100**	**4**	**100**	**4**	**100**	**4**	**100**	**4**	**98**	**48**	**94**	**48**					
Lockhart (NO WS)																																
	Unfiltered	Bootawa Dam		70.0	CH	9,389	28	11	9	4	4	2	13	1	98	4,162	99	3,734	100	1,042	96	1,043	100	1,043	98	1,462	79	1,462					**3**
	Groundwater	Tea Gardens		4.0	A	673	18	12	20	11	9	1	3	0	91	535	60	376	100	155	81	155	96	155	99	205	78	205				**1**	**5**
		Bulahdelah	1995	2.0	C	203	160	86	9	3	50	16	5	1	98	455	80	418	100	131	95	131	100	131	100	181	95	181		100	100		
		Stroud	1997	2.0	C	143	92	31	3	2	24	6	1	0.4	100	518	100	414	100	146	99	149	100	149	100	205	98	205		100	100		
MidCoast		**Total/Weighted Average[1,3]**		**78.0**		**10,408**	**31**	**13**	**10**	**4**	**5**	**2**	**12**	**1**	**98**	**5,670**	**95**	**4,942**	**100**	**1,474**	**95**	**1,478**	**100**	**1,478**	**98**	**2,053**	**82**	**2,053**		**100**	**99**	**0**	**3**
		Mudgee	2005	10.0	C	1,300	5	5	5	5	10	1	0	0	75	12	50	4	75	12	83	12	100	12	97	12	90	68		100	100		
		Rylstone	1971	5.0	C	485	72	37	43	11	59	5	18	2.0	61	62	100	2	100	2	100	2	100	2	100	60	60	60		100	100		
		Gulgong	2005	4.0	C	270	5	5	5	5	10	1	0	0	67	3	50	4	67	3	100	3	100	3	100	53	87	53		100	97		
Mid-Western Regional		**Total/Weighted Average[1,3]**		**19.0**		**2,055**	**21**	**13**	**14**	**6**	**22**	**2**	**4**	**0.5**	**63**	**77**	**60**	**10**	**77**	**17**	**88**	**17**	**100**	**17**	**100**	**125**	**79**	**181**		**100**	**99**		
	Groundwater	Broadwater Creek	1986	16.0	CH																						100	25			100	1	1
	Groundwater	Mash		5.1	C																									100	8		
	Groundwater	Industrial Drive		3.4	CH																										87		
	Dual Supply	Boggabilla		1.5	C	**108**																											**24**
		Mungindi	1974	0.8	C	246																								100	100		14
	Groundwater	Pallamallawa			CH	72																								100	98		
Moree Plains		**Total/Weighted Average[1,3]**		**18.3**		**426**																					**100**	**25**		**100**	**72**	**1**	**24**
		Moama	1991	6.0	DAF	579	200	126	5	5	92	13	2	0																100		
	Dual Supply	Mathoura	1989	2.6	C	173	80	39	6	5	46	20	4	0.3																100		
Murray		**Total/Weighted Average[1,3]**		**8.6**		**752**																								**100**		
	Groundwater	Coleambally		5.0	A	546																								100		
	Groundwater	Darlington Point																												98		
Murrumbidgee		**Total/Weighted Average[1,3]**		**5.0**		**546**																							**8.8**	**99**		

Appendix D1 - 2004/05 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	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		37b	38a	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
		Muswellbrook	1975	16.0	C	2,349	1				33	12	0	0.2	100	1,081	98	184	98	328	100	369	100	4	100	115	100	115		100	100		
		Denman		4.5	CH						116	25	57	8.7	65	252	94	116		52	70	50	100	3	96	102	96	102		100	96		
	Non-Potable	Sandy Hollow		0.3	L	30			1				6	1.0	47	241	89	112	73	52	69	52	100	1	99	73	93	75		100	96		
Muswellbrook		**Total/Weighted Average[1,3]**		**20.8**		**2,379**					**33**	**12**	**0**	**0.2**	**86**	**1,574**	**94**	**412**	**83**	**432**	**93**	**471**	**100**	**8**	**98**	**290**	**97**	**292**		**100**	**97**		
Nambucca		**Nambucca**		**23.3**	**CH**	**1,879**							**1**	**0.4**	**100**	**12**	**100**	**12**	**100**	**12**	**100**	**12**	**100**	**12**	**100**	**114**	**97**	**114**	**1.0**	**100**	**100**		
	Groundwater	Narrabri		19.0	CH																									100	98		
	Groundwater	Wee Waa		8.7	CH																									100	96		
	Groundwater	Boggabri		3.3	CH																									**100**	**100**		
	Groundwater	Pilliga		1.2	CH																									100	96		
	Groundwater	Bellata		0.4	CH																									100	98		
	Groundwater	Gwabegar		0.4	CH																									**100**	**100**		
Narrabri		**Total/Weighted Average[1,3]**		**33.0**																										**100**	**98**		
Narrandera	*Groundwater*	**No WTWs**		**21.8**	**CH**	**1,390**									**100**	**11**	**80**	**11**	**100**	**11**	**100**	**11**	**100**	**11**	**100**	**72**	**100**	**72**	**10.0**	**100**	**100**		
Narromine	*Groundwater*	**Narromine**			**A**	**1,436**																									**100**		
Oberon (Reticulator)	*Bulk Supply from Fish River*	**Oberon**	**2001**	**6.5**	**M**	**694**	**26**	**20**			**3**	**2**	**0**	**0.0**																**100**	**100**		
		Icely Road		38.0	C, OZ	5,020	9	8			12	3	0	0.2	100	11	100	11	100	11	100	11	100	11	100	127	98	127		100	100		
		Spring Creek	1931	12.0	C																												
	Groundwater	Spring Hill/Lucknow		0.4	CH	66									100	1	100	1	100	1	100	1	100	1	98	47	96	47		100	98		
Orange City		**Total/Weighted Average[1,3]**		**50.4**		**5,086**	**9**	**8**			**12**	**3**	**0**	**0.2**	**100**	**12**	**100**	**12**	**100**	**12**	**100**	**12**	**100**	**12**	**99**	**174**	**97**	**174**		**100**	**99**		
		Braidwood		10.0	CH	157													100	2	6	49			94	49	76	49		100	94	4	
	Groundwater	Bungendore		1.7	CH	265			1	0			1	1					100	1	100	1			100	49	100	49		100	100		
		Captains Flat		0.7	CH	48	42	38	7	6	16	8	1	0.5					100	1	100	1			100	25	80	25		100	100		
Palerang		**Total/Weighted Average[1,3]**		**12.4**		**469**													**100**	**4**	**10**	**51**			**98**	**123**	**86**	**123**		**100**	**98**	**3**	
Parkes		**Parkes**	**1981**	**8.6**	**C**	**6,138**	**70**	**20**	**3**	**1**	**80**	**10**	**1**	**0.2**	**100**	**14**	**93**	**14**	**100**	**14**	**100**	**14**	**100**	**14**	**99**	**109**	**96**	**109**	**2.1**	**100**	**100**		
Queanbeyan City	*Bulk Supply from ACTEW*	**No WTWs**				**4,014**									**100**	**10**	**100**	**10**	**100**	**10**	**60**	**10**	**100**	**10**	**100**	**204**	**98**	**204**	**1.7**	**100**	**100**		
		Casino	1985	23.0	C	2,437	175	28	5	2	143	4	0	0.2																100	100		
	Bulk Supply from Rous Water	Broadwater		19.0	C																												
Richmond Valley		**Total/Weighted Average[1,3]**		**42.0**		**2,437**	**175**	**28**	**5**	**2**	**143**	**4**	**0**	**0**																**100**	**100**		
		Wagga Wagga		44.0	A,D	5,975	410	52	67	8	84	20	12	1.6	98	234	100	513	99	76	99	108	92	25	100	104	99	104		100	99		
	Groundwater	North Wagga Wagga		25.0	A	2,658	15	6	18	4	3	1	3	0.6	98	186	100	430	98	51	99	84	92	26	100	78	100	78					
	Groundwater	West Wagga Wagga		22.0	A	6,081	28	9	86	8	5	3	12	1.3	98	240	98	488	99	81	99	108	85	26	100	103	98	103					
	Groundwater	Ralvona		4.0	A	295	22	11	56	7	3	2	5	0.7	89	73	100	192	100	19	88	24	74	19	97	38	95	38		100	98	3	
	Groundwater	Bulgary		3.0	A	529	44	20	20	5	9	4	1	0.7	85	170	100	248	98	50	71	82	96	25	100	80	100	80		100	100		
		Rand		1.5	D	140	28	9	2	4	2	2	9	1.1	100	37	99	94	100	9	100	11	100	9	100	9	100	9		100	96		
	Groundwater	Collingullie		1.1	D	45	300	140	21	5	180	120	1	0.7	83	48	100	128	90	10	73	22	89	9	95	20	100	20		100	100	1	
		Walbundrie/Rand (new plant)		1.0	A	6	1	1	29	11	1	0	2	0.8	86	22	100	32	100	8	100	6	94	18	100	6	100	6					
	Groundwater	Tarcutta		0.8	A,D	51	20	10	24	7	1	4	5	1.2	97	79	85	88	100	23	100	22	96	23	100	25	52	25		100	100		
	Groundwater	Oura		0.6	A,D	82	45	12	60	8	8	2	1	0.8	93	92	98	166	88	25	100	27	89	27	100	25	100	25		100	100		
	Groundwater	Gardiners Crossing		0.6	A	39	34	11	30	6	8	3	16	1.0	95	86	99	166	96	25	96	25	92	25	100	26	96	26		100	100		
		Morundah		0.2	D	16			124	11			168	7.5	84	74	98	150	94	18	96	25	78	18	96	23	65	23		100	93		
	Groundwater	Urana		0.2	D	8			66	12	260	20	3	0.8	89	81	99	164	94	18	96	25	87	23	92	25	100	25		100	98	3	7
	Groundwater	Woomargama		0.2	CH	14	38	13	32	7	7	3	3	1.2	97	74	94	134	100	19	100	25	89	19	100	25	100	25		100	100		
		Walbundrie		0.2	C	16			41	5			1	0.5	85	74	93	148	100	18	92	25	94	18	100	23	74	23		100	100		
	Groundwater	Humula		0.2	CH																									100	100		
Riverina		**Total/Weighted Average[1,3]**		**104.6**		**15,955**	**170**	**25**	**63**	**7**	**35**	**9**	**10**	**1.3**	**93**	**1,570**	**98**	**3,141**	**98**	**450**	**93**	**619**	**90**	**310**	**99**	**610**	**95**	**610**		**100**	**99**	**0**	**0**
	Bulk Supplier	Nightcap	1991	70.0	DAF,D	11,232	121	54	10	4	7	4	0	0.2	100	52	100	52	100	52	100	52	100	52	100	52	100	52					
	Bulk Supplier	Knockrow	1977	6.0	D	244	84	47	4	2	12	4	0	0.1	100	16	100	16	100	16	100	16	100	16	100	16	100	16					
Rous		**Total/Weighted Average[1,3]**		**76.0**		**11,476**	**120**	**54**	**10**	**4**	**7**	**4**	**0**	**0.2**	**100**	**68**	**100**	**68**	**100**	**68**	**100**	**68**	**100**	**68**	**100**	**68**	**100**	**68**			**100**		
		Bamarang	1984	75.0	C	8,652	30	18	8	3	2	1	1	0.3	98	94	100	752	99	91	98	94	100	13	98	591	98	591		100	98		
		Flatrock		28.0	C	2,382	30	18	3	3	2	1	1	0.3	100	37	100	442	100	37	100	37	100	11	100	63	100	63		100	100		
		Milton		10.5	D	1,536	70	52	5	3	5	3	1	0.3	98	56	99	616	98	56	96	56	98	14	100	131	100	131			100		
		Kangaroo Valley	1993	1.3	M	75	60	37	10	4	8	3	0	0.1	95	22	100	312	100	22	77	22	100	10	98	55	96	55		100	98		
Shoalhaven City		**Total/Weighted Average[1,3]**		**114.8**		**12,645**	**35**	**22**	**6**	**3**	**3**	**1**	**1**	**0.3**	**98**	**209**	**100**	**2,122**	**99**	**206**	**96**	**209**	**99**	**48**	**98**	**840**	**98**	**840**		**100**	**99**		
Singleton		**Obanvale**		**30.0**	**D**	**2,719**	**5**	**5**	**5**	**5**	**2**	**1**	**1**	**0.2**	**100**	**600**	**100**	**600**	**100**	**600**	**100**	**600**	**100**	**600**	**100**	**135**	**99**	**135**	**1.9**	**100**	**99**		
	Unfiltered	East Jindabyne Chlorinator		8.6	CH	272			3						75	4	100	173	50	2	50	2	100	2	96	52	92	52		100	100		
	Unfiltered	Berridale Chlorinator		8.6	CH	180			3	3			6	4	75	4	101	173	50	2	50	2	100	2	96	52	92	52		100	96		
	Unfiltered	Jindabyne		8.0	CH	160			5	5			8	7.5	96	26	99	377	100	13	100	13	100	13	100	81	94	81				**1**	
	Unfiltered	Kalkite		1.8	CH	19			3	3			2	2.3	100	4	100	124	100	2	100	2	100	2	100	33	88	33		100	100		
	Unfiltered	Adaminaby		1.1	CH	45			19	16			5	5	50	4	96	112	50	2			50	2	96	27	48	27		100	96		
	Unfiltered	Dalgety		0.7	CH	20		36	9			8	0		100	6	98	141	100	3	100	3	100	3	100	3	89	27		100	100		
Snowy River		**Total/Weighted Average[1,3]**		**28.9**		**696**		**2**	**10**	**7**		**1**	**8.1**	**7.2**	**90**	**48**	**99**	**1,100**	**88**	**24**	**91**	**22**	**96**	**24**	**98**	**248**	**87**	**272**	**8.0**	**100**	**99**	**0**	
Sydney Water	*Metropolitan Utility*					**526,367**				**2**				**0.1**	**100**		**100**		**100**	**7,806**	**100**	**7,806**	**100**	**324**	**100**	**8,310**	**99**	**8,310**	**1.1**				
		Calala	1991	80.0	C	9,376	34	10	2	1	20	4	1	0	100	24	98	934	100	12	92	12	100	12	97	130	94	130		100	97		
		Manilla	1990	4.6	C	409	200	11	5	3	28	6	2	0.7	100	16	100	59	100	4	100	4	100	4	100	54	87	54		100	100		
	Groundwater	Kootingal			C	307	2	2	2	2	0	0	0	0.3	100	9	100	29	100	3	100	3	100	3	100	23	91	23		100	100		
		Barraba	1995	3.6	DAF	177			1	1			1.2	0.7	100	9	100	48	100	3	100	3	100	3	100	48	98	48		100	100		
	Groundwater	Nundle	1995	0.9	L	136			1	1			2	1.0	100	10	100	26	100	3	100	4	100	3	96	28	79	28		100	96		
	Groundwater	Attunga			CH	70			1	1			7	1.7	92	12	100	28	75	4	100	4	100	4	96	25	96	25		**100**	**96**		
		Bendemeer			CH	40	90	35	29	**17**	26	6	10	5.2	67	9	100	31	67	3	100	3	33	3	90	30	63	30		100	90		
Tamworth Regional		**Total/Weighted Average[1,3]**		**89.1**		**10,515**	**41**	**10**	**2**	**1**	**20**	**4**	**1.1**	**0.3**	**96**	**89**	**98**	**1,155**	**94**	**32**	**97**	**33**	**94**	**32**	**97**	**338**	**89**	**338**	**0.6**	**100**	**97**		

Appendix D1 - 2004/05 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	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*
		Tenterfield	1986	5.5	C	353	110	75	16	6	22	8	1	0.2	100	4	100	2	100	6	100	6	100	6	100	25	100	25			100	2	
		Urbenville		1.8	CH	103																			100	34	100	34		100	89	2	
		Jennings			CH																				100	25	100	25			95		
Tenterfield		**Total/Weighted Average[1,3]**		**7.3**		**456**	**110**	**75**	**16**	**6**	**22**	**8**	**1**	**0**	**100**	**4**	**100**	**2**	**100**	**6**	**100**	**6**	**100**	**6**	**100**	**84**	**100**	**84**	**21.1**		**98**	**2**	
		Tumbarumba		4.0	CH	318																								100	100	1	1
		Khancoban		2.5	CH	92																								100	92		
Tumbarumba		**Total/Weighted Average[1,3]**		**6.5**		**410**																								**100**	**96**	**1**	**1**
		Tumut	1987	16.0	C	1,265	250	15	5	5	75	5	3	0.3	99	365	99	365	100	365	96	365	100	365	100	64	98	64		100	100		
		Adelong	1996	2.7	L,D	160	550	99	18	1	140	12	2	0.2	100	365	100	365	100	365	100	365	100	365	100	48	98	48		100	100		
		Batlow		2.1	M	257	250	62	0	0	9	3	1	0.2	94	365	94	365	100	365	100	365	83	365	100	42	98	42		100	100		
		Talbingo		2.1	D	65	60	21	5	5	15	1	2	0.1	100	365	100	365	100	365	99	365	100	365	96	27	96	27		100	96		
		Brungle		0.3	M	16	250	22	10	5	22	11	1	0.3	100	94	100	94	100	94	100	94	100	94	100	11	100	11		100	100		
Tumut		**Total/Weighted Average[1,3]**		**23.2**		**1,763**	**270**	**30**	**6**	**4**	**68**	**5**	**3**	**0.2**	**98**	**1,554**	**98**	**1,554**	**100**	**1,554**	**99**	**1,554**	**96**	**1,554**	**99**	**192**	**98**	**192**		**100**	**99**		
		Bray Park	1983	60.0	C	9,917	40	12	7	1	127	7	0	0.1	100	2,926	93	7,419	100	475	54	1,201	100	482	100	411	98	463		100	100		1
		Uki		0.4	DAF,D	43	120	32	17	2	250	5	0	0.2	99	949	99	1,161	100	51	93	152	98	51	100	102	92	104		100	100		
		Tyalgum		0.3	C	21	35	10	19	4	12	3	16	1.1	100	944	97	1,040	98	48	86	148	96	49	100	100	100	102		100	100		
Tweed		**Total/Weighted Average[1,3]**		**60.7**		**9,981**	**40**	**12**	**7**	**1**	**127**	**7**	**0**	**0.1**	**100**	**4,819**	**94**	**9,620**	**100**	**574**	**61**	**1,501**	**99**	**582**	**100**	**613**	**97**	**669**		**100**	**100**		**1**
		Scone/Aberdeen			CH										100	15	100	15	100	15	100	15	100	15	100	176	99	176		100	100		
		Murrurundi	1990	2.5	L	150									100	1	100	1	100	1		1	100	1	91	34	82	34		100	91		
	Groundwater	Merriwa	1980	2.3	A	314			1	1			0.2	0.2	100	2	100	2	100	2	100	2	100	2	100	51	96	51		100	100	3	3
	Groundwater	Casilliis		0.6	CH	15			2	1			0	2	50	2	100	2	100	2	100	2	100	2	100	26	100	26			100	14	14
Upper Hunter		**Total/Weighted Average[1,3]**		**5.4**		**479**			**1**	**1**			**0**	**0.2**	**95**	**20**	**100**	**20**	**100**	**20**	**95**	**20**	**100**	**20**	**99**	**287**	**97**	**287**	**0.2**	**100**	**98**	**3**	**3**
		Crookwell	1990	3.0	C	280	68	50	5	4	4	3	1	0.2	100	100	100	1	100	100	100	100	100	100	95	39	64	39		100	95		
	Groundwater	Gunning		2.0	CH	50									100	2	100	2	100	2	100	2	100	2	100	30	60	30		100	95		
		Taralga		2.0	D,UV	39									100	2	100	2	100	2		1	100	2	89	19	26	19		100	100		
		Dalton		1.0	UV	30									100	2		2	100	2	100	2	100	2	95	21	71	21		100	89		
Upper Lachlan		**Total/Weighted Average[1,3]**		**8.0**		**399**	**68**	**50**	**5**	**4**	**4**	**3**	**1**	**0.2**	**100**	**106**	**71**	**7**	**100**	**106**	**99**	**105**	**100**	**106**	**95**	**109**	**58**	**109**		**100**	**95**		
		Kentucky Creek	1994	5.0	C	325	200	18	5	3	12	5	2	0.6	100	14	100	14	100	14	100	14	100	14	100	14	100	14		100	91		
		Bundarra	1992	0.8	L																									100	96		
Uralla		**Total/Weighted Average1,3**		**5.8**		**325**									**100**	**14**	**100**	**14**	**100**	**14**	**100**	**14**	**100**	**14**	**100**	**14**	**100**	**14**		**100**	**94**		
Urana (NO WS)																																
Wagga Wagga (NO WS)																																
	Dual Supply	Barham	1993	2.0	D																									100	100		
	Unfiltered	Wakool		1.2	M								0																	100	100		
		Lower Murray - Swanhill		1.0	L																									100	100		
		Murray Downs		1.0	D																												
		Moulamein		0.5	D																									100	100		
	Unfiltered	Koraleigh		0.1	M																									100	94		
		Tooleybuc		0.3	M						100	30																		100	96		
Wakool		**Total/Weighted Average[1,3]**		**6.1**																										**100**	**98**		
Walcha		**Walcha**	**1985**	**4.8**	**C**	**228**	**350**	**60**	**20**	**0**	**38**	**6**	**6**	**0.2**	**100**	**64**	**100**	**1**	**100**	**156**	**100**	**156**	**100**	**156**	**100**	**36**	**100**	**36**	**1.2**	**100**	**100**		
	Untreated Artesian Bore	Lightning Ridge		3.1			1	1			0	1				2		2	100	2		2	100	2	100	57	93	57		100	100		
	Dual Supply	Walgett	1964	1.4	M	331			2	2			0.2	0.2	50	2	100	2	100	2	100	2	100	2	100	52	85	52		100	100		
	Dual Supply	Collarenebri	1996	0.5	M	337			7	7			0	0	100	1	100	1	100	1	100	1	100	1	100	53	70	53		100	100		
	Non-Potable Artesian Bore	Carinda		0.08			3	3			1	1				2		2	100	2	100	2	100	2	59	41	37	41		100	59		
Walgett		**Total/Weighted Average[1,3]**		**5.1**		**668**									**67**	**3**	**100**	**3**	**100**	**7**	**100**	**5**	**100**	**7**	**92**	**203**	**74**	**203**	**0.7**	**86**	**92**		
	Dual Supply	Warren		3.5	CH	310									100	1		1	100	1	100	1	100	1	97	35	77	35		100	97		
	Groundwater	Nevertire		0.3	CH	30									100	1		1	100	1		1	100	1	100	16	50	16		100	100		
	Groundwater	Collie		0.0	CH	8																			100	10	90	10			100		
Warren		**Total/Weighted Average[1,3]**		**3.8**		**348**									**100**	**2**		**2**	**100**	**2**	**50**	**2**	**100**	**2**	**98**	**61**	**72**	**61**		**100**	**74**		
		Coonabarabran	1993	7.5	D,L	539	130	41	3		45	13	2	0.4	100	365	100	365	100	365	100	365	100	365							100		
	Groundwater	Dunedoo		1.5	CH	250									100	2	100	2	100	2	100	2	100	2	100	50					100	2	
		Binnaway	1993	1.3	D,L	106	50	15	3		21	11	1	0.4	100	365	100	365	100	365	100	365	100	365							100		
	Groundwater	Coolah		1.0	CH	145									100	2	100	2	100	2	100	2	100	2	100	50	100	50			100		
	Groundwater	Baradine	1974	1.0	L																										100		
		Mendooran		0.3	CH	83									50	2	50	2	50	2	50	2	50	2	40	35	40	35			83	20	20
	Groundwater	Bulgadie			CH																										100		
	Groundwater	Kenebri			CH																										100		
Warrumbungle		**Total/Weighted Average[1,3]**		**12.6**		**1,123**	**301**	**95**	**6**		**106**	**33**	**4**	**1.0**	**100**	**736**	**100**	**736**	**100**	**736**	**100**	**736**	**100**	**736**	**84**	**135**	**75**	**85**			**98**	**2**	**1**
Weddin (NO WS)		**No WTWs**																														
		Wellington	1993	14.6	L	1,023	7	5	2	1	9	5	3	1.5			100	12		365	100	365	100	365	100	52	90	52		100	100		
		Geurie	1994	1.5	L																									100	100		
Wellington		**Total/Weighted Average1,3**		**16.1**		**1,023**	**7**	**5**	**2**	**1**	**9**	**5**	**3**	**1.5**			**100**	**12**		**365**	**100**	**365**	**100**	**365**	**100**	**52**	**90**	**52**		**100**	**100**		
		Wentworth	1991	1.4	L	238	250	10	15	2	60	10	5		100	2	100	2	100	158	100	3	100	159	91	54	81	54		100	91		
		Gol Gol		3.7	L	224	60	29	3	0	32	17	2	0.6	100	2	100	2	100	159		159	100	159	100	74	93	74		100	100		
	Dual Supply	Pooncarie	1994	0.2	L	9	500	120	5		250	35	15		100	2	100	2	100	158	100	2	100	158	91	23	48	23		100	91		
Wentworth		**Total/Weighted Average[1,3]**		**5.3**		**471**	**164**	**21**	**9**	**1**	**50**	**14**	**4**	**0.3**	**100**	**6**	**100**	**6**	**100**	**475**	**52**	**164**	**100**	**476**	**95**	**151**	**86**	**151**		**100**	**94**		

Appendix D1 - 2004/05 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	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*
		Wingecarribee	1989	40.0	DAF	3,662	55	29	3	3	23	4	1	0.4	100	12	100	12	100	12	92	12	100	12	100	269	86	269		100	100		
		Bundanoon Creek	1988	10.0	C,DAF	836	50	32	3	3	3	1	2	1.0	100	2	100	2	100	2	100	2	100	2	100	52	96	52		100	100		1
		Medway Dam	1980	8.0	C,DAF	653	20	12	3	3	2	1	1	0.4	100	2	99	13	100	2	92	13	100	2	99	90	87	12		100	99		
Wingecarribee		**Total/Weighted Average[1,3]**		**58.0**		**5,151**	**50**	**27**	**3**	**3**	**17**	**3**	**1**	**0.4**	**100**	**28**	**100**	**39**	**100**	**966**	**33**	**355**	**100**	**968**	**98**	**713**	**86**	**635**		**100**	**100**		**0**
Wyong		**Mardi**	**1994**	**160.0**	**C**	**10,370**	**70**	**56**	**10**	**4**	**4**	**2**	**1**	**0.4**	**100**	**481**	**100**	**545**	**100**	**481**	**94**	**481**	**100**	**469**	**100**	**423**	**80**	**423**	**6.2**	**100**	**100**		
		Yass	1990	13.0	DAF	838	120	40	10	5	31	12	2	0.5	100	365	100	12	100	365	100	365	100	365	95	78	77	78		100	95		
	Non-Potable Bore	Murrumbateman		0.3		47											100	2			100	2			100	26	65	26		100	100		
Yass Valley		**Total/Weighted Average[1,3]**		**13.3**		**885**	**120**	**40**	**10**	**5**	**31**	**12**	**2**	**0.5**	**100**	**365**	**100**	**14**	**100**	**365**	**100**	**367**	**100**	**365**	**96**	**104**	**74**	**104**		**100**	**98**		
Young (Reticulator)	*Bulk Supply from Goldenfields*	**No WTWs**				**1,502**																										

Supplementary Notes:

1. Chemical, Turbidity, pH, E. coli or Total coliforms results are from the NSW Health Drinking Water Monitoring Program and NSW Performance reporting except for for the following LWUs which are only from NSW Health:
   Cootamundra, Gunnedah, Lithgow, Moree Plains, Narromine, Wakool, Walcha, Wentworth, Wingecaribee, Yass Valley and Young.
2. The additional Chemical, Turbidity, pH, E. coli or Total coliforms results from NSW Health Drinking Water Monitoring Program have also been 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 column 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

2004/05 SEWAGE TREATMENT PERFORMANCE

APPENDIX D2 – 2004/05 Sewage Treatment Performance

Blank Page

Appendix D2 - 2004/05 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 Nutri
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*	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 Processe *days* *53*
											BOD		SS		Total N		NH_3N		Oil & Grease		Total P		Faecal Coliforms				
											mg/L *50a*	*%* *51a*	*mg/L* *50b*	*%* *51b*	*mg/L* *50c*	*%* *51c*	*mg/L* *50d*	*%* *51d*	*mg/L* *50e*	*%* *51e*	*mg/L* *50f*	*%* *51f*	*cfu /100mL* *50g*	*%* *51g*			
		Kremur Street	1992	40,000	AT	CEA,BNR	YES	YES	2,643	2,643	15	85	20	95	15	100	5	100	10	95	1	100	N/A	N/A	0	13	
		Waterview	1999	26,500	AT	CEA,BNR	YES	YES	1,823	1,823	12	77	15	100	15	85	5	77	2	77	1	92	300	92	0.2	13	
		Hume	1998	500	AS	IEA	NO	NO	18	18	20	85	30	87					10	100						13	
		Lara Lakes		200	S	A	NO	NO	4	4																	
Albury City		***Total/Weighted Average*** [1,3]		**67,200**					**4,488**	**4,488**	**15**	**82**	**20**	**94**	**15**	**92**	**5**	**88**	**10**	**91**	**1**	**96**		**31**	**0**	**39**	
Armidale Dumaresq		**Armidale**	**1989**	**22,000**	**S**	**TF**	**NO**	**NO**	**1,919**	**1,919**	**20**	**100**	**30**	**100**					**10**	**100**					**1**	**68**	
	100% Limits	Ballina	1998	12,000	AS	TF,IEA	YES	NO	1,627	1,627	20	100	105	100					10	100			300	92	1	28	
	100% Limits	Lennox	1998	8,000	AS	TF,IEA	YES	NO	1,725	1,715	20	100	30	100					10	96			600	100	2	28	
	100% Limits	Alstonville	1986	4,000	AS	IEA	YES	YES	441	441	20	100	30	100		100			10		1	100			2	15	
	100% Limits	Wardell		1,750	AS	IEA	YES	NO	127	127	15	100	20	100					10	90			200	97	4	28	
Ballina		***Total/Weighted Average*** [1,3]		**25,750**					**3,920**	**3,910**	**20**	**100**	**30**	**100**		**100**			**10**	**95**		**100**		**82**	**1**	**99**	
	No Discharge Licence	Balranald		2,000	S	A	NO	NO	146	146																	
		Euston		1,100	S	A	NO	NO	104	104																2	
Balranald		***Total/Weighted Average*** [1,3]		**3,100**					**250**	**250**																**2**	
Bathurst Regional		**Bathurst**	**1992**	**55,000**	**AS**	**IEA,BNR**	**YES**	**YES**	**3,334**	**3,334**	**20**	**100**	**25**	**90**	**15**	**98**			**10**	**100**	**1**	**88**	**200**	**96**	**0**	**53**	
		Merimbula	1992	15,500	AS	IEA	NO	NO	658	658	20	100	30	100					10	100					3	12	
		Eden	1998	8,000	AS	IEA	NO	NO	354	354	20	100	30	100					10	100					1	12	
		Bega		4,000	S	TF	NO	NO	400	400	20	100	30	100					10	100					2	13	
		Tathra		6,200	AS	IEA	YES	YES	181	181	15	100	20	100					10	100					1	12	60
		Bermagui		2,000	AS	IEA	NO	NO	129	129	20	100	30	100					10	100					9	12	1
		Tura Beach		2,000	AS	IEA	NO	NO	218	218	20	92	30	92					10	100					2	12	
Bega Valley		***Total/Weighted Average*** [1,3]		**37,700**					**1,940**	**1,940**	**20**	**99**	**30**	**99**					**10**	**100**					**3**	**73**	**61**
		Urunga		6,650	AS	IEA	YES	YES	308	308	10	100	15	88	10	85	2	92	2	100	0	70	200	100	1	26	
		Bellingen		4,000	AS	IEA	YES	YES	395	395	10	100	15	100	10	96	2	93	2	100	0	100	200	100		26	1
		Dorrigo		1,500	S	TF	NO	NO	98	98	20	62	30	77					10	100						13	
Bellingen		***Total/Weighted Average*** [1,3]		**12,150**					**801**	**801**	**10**	**92**	**15**	**91**	**10**	**91**	**2**	**92**	**2**	**100**		**85**		**100**	**1**	**65**	**1**
		Tocumwal	1944	4,000	S	TF	NO	NO	202	202	30	100	30	100												6	2
	No Licence Limits	Finley	1967	3,200	S	TF	NO	NO	189	189	30	100	30	100											2	6	2
		Barooga	1992	3,000	S	A	NO	NO	61	61	30	100	30	100												6	2
		Berrigan	1996	1,500	S	TF	NO	NO	71	71	30	100	30	100											2	6	2
Berrigan		***Total/Weighted Average*** [1,3]		**11,700**					**523**	**523**	**30**	**100**	**30**	**100**											**1**	**24**	**8**
		West Wyalong	1986	7,200	AS	TF,IEA	NO	NO	227	227	20	92	30	95											1	14	
		Ungarie	1961	600	AS	IEA	NO	NO	30	30																2	
		Barmedman	1940	400	S	TF	NO	NO	20	20																2	
Bland		***Total/Weighted Average*** [1,3]		**8,200**					**277**	**277**	**20**	**92**	**30**	**95**											**2**	**18**	
Blayney		**Blayney**	**1991**	**7,000**	**AS**	**IEA**	**YES**	**YES**	**301**	**301**	**30**	**100**	**30**	**100**	**15**	**100**	**2**	**100**	**10**	**100**	**1**	**100**	**600**	**100**	**1**	**260**	
Bogan	*No Discharge Licence*	**Bogan**		**3,735**	**AS**	**A**			**339**	**339**																**4**	
		Bombala		3,000	S	TF,AN	NO	No	135	135	20	100	30	100	N/A		N/A		10	100	N/A		N/A			8	
	No Licence Limits	Delegate	1992	680	AS	IEA	NO	NO	36	36	N/A		N/A		N/A		N/A		N/A		N/A		N/A				
Bombala		***Total/Weighted Average*** [1,3]		**3,680**					**171**	**171**	**20**	**100**	**30**	**100**					**10**	**100**						**8**	
Boorowa		**Boorowa**		**3,430**	**S**	**TF**			**90**	**90**																**7**	
Bourke	*No Discharge Licence*	**Bourke**		**5,000**	**S**	**A**	**NO**	**NO**	**300**	**300**	**15**	**41.6**	**20**	**8.3**	**15**	**100**	**15**	**100**	**10**	**100**	**10**	**100**			**5**	**12**	
		Brewarrina	1971	1,600	S	TF	NO	NO	213	213	20	100	30	100	15	100			10	100	10	100				3	30
	No Discharge Licence	Goodooga		1,600	S	A	NO	NO																			
Brewarrina		***Total/Weighted Average*** [1,3]		**3,200**					**213**	**213**	**20**		**30**		**15**				**10**							**3**	**30**
		West Byron	1990	11,000	AS	IEA	YES	YES	758	758	20	100	25	100	15	100	5	100	10	100	1	96			1	53	
		Ocean Shores	1980	8,000	AS	IEA	YES	YES	469	469	15	100	20	100	15	100	5	94	10	100	1	100	200	96	2	53	
		South Byron	1973	4,700	S	TF	YES	YES	600	600	15	100	20	100	30	100	10	90	10	100	1	100	200	100	1	53	
		Mullumbimby	1976	3,200	S	TF	YES	YES	419	419	15	100	20	94	NA	100		100	10	100	1	96	200	98	2	53	
		Brunswick Heads	1980	1,600	S	TF	YES	YES	264	264	30	98	30	100		100		100	10	100		100	200	100		53	
		Bangalow	1990	1,400	AS	IEA	YES	YES	120	120	20	100	20	100	15	100			10	100	1	100	200	94	5	52	
Byron		***Total/Weighted Average*** [1,3]		**29,900**					**2,630**	**2,630**	**15**	**100**	**20**	**99**	**15**	**100**	**5**	**97**	**10**	**100**	**1**	**99**		**81**	**2**	**317**	
		Canowindra	1978	2,500	S	TF	NO	NO	159	159	30	100	30	100	15	100			10	100	10	100				7	
		Molong	1979	2,000	AS	IEA	YES	NO	120	120	30	100	30	100	15	100	3	100	10	100	10	100	600	100		15	
		Eugowra	1999	550	S	A	NO	NO	36	36																	4
Cabonne		***Total/Weighted Average*** [1,3]		**5,050**					**315**	**315**	**30**	**100**	**30**	**100**	**15**	**100**	**3**	**100**	**10**	**100**	**10**	**100**		**100**		**22**	**4**
	No Discharge Licence	Hillston	1978	1,000	AS	IEA	NO	NO	127	127																	2
	No Discharge Licence	Goolgowi	1973	400	S	A																					
	No Discharge Licence	Rankins Spring	1986	100	S	A																					1
Carrathool		***Total/Weighted Average*** [1,3]		**1,500**					**127**	**127**																	**3**
Central Darling	*No Discharge Licence*	**Wilcannia**		**1,510**	**S**	**A**	**NO**	**NO**																	**15**	**4**	
Central Tablelands	*NO SGE*																										

Appendix D2 - 2004/05 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 Nutri
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*	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 Processe *days* *53*
											BOD *mg/L* *50a*	BOD *%* *51a*	SS *mg/L* *50b*	SS *%* *51b*	Total N *mg/L* *50c*	Total N *%* *51c*	NH_3N *mg/L* *50d*	NH_3N *%* *51d*	Oil & Grease *mg/L* *50e*	Oil & Grease *%* *51e*	Total P *mg/L* *50f*	Total P *%* *51f*	Faecal Coliforms *cfu /100mL* *50g*	Faecal Coliforms *%* *51g*			
		North Grafton	1989	14,700	S	TF	NO	NO	807	807	20	100	30	92					10	96					1	25	
		Yamba	1978	7,500	AS	IEA	YES	YES	666	666	15	100	20	100	15	90	5	90	10	50	1	90	200	90	2	14	
		South Grafton	1989	6,400	S	TF	NO	NO	279	279	20	96	30	44					10	92					4	25	
		Clarenza	1988	5,000	AS	IEA	NO	NO	256	256	20	100	30	76					10	96						25	
		Maclean	1976	3,000	S	TF	NO	NO	203	203	20	80	30	40					10	80						14	
		Coutts Crossing		1,000	AS	IEA	NO	NO	32	32	20	100	80	100					10	100						5	
		Plant 3 Junction Hill	1982	600	AS	IEA	NO	NO	38	38	20	100	30	56					10	100						9	
		Plant 2 Junction Hill	1982	500	S	TF	NO	NO	28	28	20	100	30	100					10	100						9	
		Townsend	1983	500	S	A	NO	NO	47	48	50	80	50	80					10	80					13	14	
		Plant 1 Junction Hill	1998	450	S	TF	NO	NO	29	29	20	100	30	77					10	100						9	
		Illarwil		160	S	A	NO	NO	8	8	50	90	50	40					10	80						14	
Clarence Valley		***Total/Weighted Average*** [1,3]		**39,810**					**2,392**	**2,394**	**20**	**95**	**30**	**71**	**15**	**90**	**5**	**90**	**10**	**88**		**90**		**90**	**1**	**163**	
Cobar	*No Discharge Licence*	**Cobar**		**8,000**	**S**	**AL**	**NO**	**NO**	**466**	**466**	**10**	**100**	**15**	**100**	**10**	**100**			**5**	**100**	**5**	**100**		**100**		**12**	
		Coffs Harbour	1986	42,000	AS	TF,IEA	YES	NO	3,015	3,015	50	100	50	100					10	100					0	49	
		Sawtell	1999	18,000	AS	IEA	YES	NO	1,365	1,365	20	100	20	100					10	100						52	
		Woolgoolga	1998	10,000	AS	IEA	YES	YES	629	629	20	100	30	100	15	96			10	100	1	75	1000	86		52	
		Moonee		7,000	AT	BNR	YES	YES	150	150	20	100	30	100	15	88			10	98	1	94	1000	98	0	52	
		Corindi	1986	1,500	AS	IEA	YES	YES	70	70	15	92	20	70	15	100	5	100	10	100	5	100	200	77		13	3
Coffs Harbour		***Total/Weighted Average*** [1,3]		**78,500**					**5,229**	**5,229**	**50**	**100**	**50**	**98**		**93**		**100**	**10**	**100**		**86**		**90**	**0**	**218**	**3**
		Coolamon		1,200	S	TF	NO	NO	65	65																12	NIL
	No Discharge Licence	Ganmain		1,000	S	AL	NO	NO	30	30																	
Coolamon		***Total/Weighted Average*** [1,3]		**2,200**					**95**	**95**																**12**	
		Cooma		15,000	S	TF	YES	YES	468	468	10	100	15	100	10	100	2	100	2	100	0	100	200	100		15	
		Nimmitabel		500	AS	IEA	NO	YES	11	11	20	100	30	100					10	100						15	
Cooma-Monaro		***Total/Weighted Average*** [1,3]		**15,000**					**479**	**479**															**2**		
		Coonamble	1988	4,000	S	TF	NO	NO	251	251	20	84	50	16	20	100			10	84	10	100				12	3
		Gulargambone	1968	750	AS	IEA	NO	NO	41	41	30	100	30	66	15	100			10	100	15	100	600	100		12	
Coonamble		***Total/Weighted Average*** [1,3]		**4,750**					**292**	**292**	**20**	**92**	**50**	**41**	**20**	**100**			**10**	**92**	**10**	**100**		**100**		**24**	**3**
Cootamundra		**Cootamundra**		**14,000**	**AT**	**IEA**	**YES**	**YES**	**630**	**630**	**30**	**100**	**40**	**85**	**20**	**100**			**10**	**100**	**1**	**100**	**200**	**100**		**6**	
		Corowa	1988	7,600	S	TF	NO	NO	431	461																13	2
		Mulwala		1,200	S		NO	NO	267		20	80	30	32	40				10	100	10					13	2
		Howlong	1968	2,500	S	TF	NO	NO		#VALUE!																	
Corowa		***Total/Weighted Average*** [1,3]		**11,300**					**698**	**733**	**20**		**30**		**40**				**10**		**10**				**2**	**26**	**4**
		Wills Street	1988		S	TF	NO	NO	1,065	1,065	40	100	45	100					10	92						26	
		South	1968		S	TF	NO	NO	289	289	50	100	50	100					10	100						26	
Country Energy		***Total/Weighted Average*** [1,3]							**1,354**	**1,354**	**40**	**100**	**45**	**100**					**10**	**96**					**0**	**52**	
Cowra		**Cowra**	**1977**	**10,000**	**S**	**TF**	**NO**	**NO**	**771**	**771**	**20**	**100**	**30**	**75**					**10**	**100**					**1**	**12**	
Deniliquin		**Deniliquin**		**11,500**	**S**	**TF,A**	**YES**	**YES**	**666**	**666**	**20**	**85**	**30**	**100**	**40**	**100**			**10**	**100**	**10**	**100**	**200**	**69**		**13**	**15**
Dubbo		**Troy Junction**	**1985**	**40,000**	**AS**	**IEA**	**YES**	**NO**	**2,849**	**2,849**	**30**	**92**	**30**	**92**	**15**	**100**	**5**	**100**	**10**	**100**	**10**	**100**	**200**	**75**	**0**	**12**	
Dungog	*No Discharge Licence*	**Dungog**		**2,000**	**S**	**TF**	**N**	**N**	**273**	**274**															**1**	**20**	
		Batemans Bay (Surfbeach)	1991	15,000	AS	CEA	YES	NO	1,580	1,580	20	100	30	100					10	100					6	30	2
		Narooma (Kianga)		12,000	AS	CEA	YES	NO	649	649	20	100	30	100					10	100					2	30	
		Moruya		8,000	AS	CEA	YES	YES	341	341	20	100	30	100	15	100			10	100	1	31			2	30	
		Tomakin		8,000	AS	CEA	YES	NO	326	326	20	100	30	100					10	100					2	30	
		Tuross (Bingi)		4,000	AS	IEA	YES	NO	218	210	20	92	30	100					10	100					1	30	3
Eurobodalla		***Total/Weighted Average*** [1,3]		**47,000**					**3,114**	**3,106**	**20**	**98**	**30**	**100**		**100**			**10**	**100**					**3**	**150**	**5**
Fish River	*NO SGE*																										
Forbes		**Forbes**	**1987**	**12,000**	**S**	**TF**	**NO**	**NO**	**622**	**619**	**20**	**31**	**30**	**92**					**10**	**92**					**0**	**13**	
Gilgandra		**Gilgandra**		**3,000**	**S**	**TF,A**	**NO**	**NO**	**290**	**320**	**20**	**100**	**50**	**100**	**10**	**50**			**10**	**100**	**10**	**100**			**5**	**5**	**1**
		Glen Innes	1930	500	S	TF	YES	YES	576	576	20	100	30	100					10	100						12	
		Deepwater		500		A	NO	NO	13	13																12	
Glen Innes Severn		***Total/Weighted Average*** [1,3]		**1,000**					**589**	**589**	**20**	**100**	**30**	**100**					**10**	**100**						**12**	
Gloucester		**Gloucester**	**1988**	**3,000**	**S**	**TF**	**YES**	**YES**	**234**	**234**	**30**	**100**	**40**	**85**	**40**	**100**	**10**	**100**							**3**	**17**	
Goldenfields	*NO SGE*																										
		Kincumber		180,000	AS	CEA	YES	NO	10,848	10,848	30	100	50	100					10	100					1	65	
		Woy Woy	1989	50,000	AS	CEA	YES	NO	4,116	4,116	30	100	50	100					10	100						65	
Gosford		***Total/Weighted Average*** [1,3]		**230,000**					**14,964**	**14,964**	**30**	**100**	**50**	**100**					**10**	**100**					**1**	**130**	
		Goulburn		31,500		TF	NO	YES	1,587	1,587	20	100	30	100					10	100					2	26	
		Marulan		500	S	AL	NO	NO																			
Goulburn Mulwaree		***Total/Weighted Average*** [1,3]		**32,000**					**1,587**	**1,587**	**20**	**100**	**30**	**100**					**10**	**100**					**1**	**26**	
		Holbrook		1,600	S	TF	NO	NO	163	163	20	100	30						10	100						5	
	No Licence Limits	Henty	1971	1,000	AS	IEA	NO	NO	62	62	20	100	30	100	20	100			10	100	10	100				5	
	No Licence Limits	Culcairn	1971	1,000	AS	IEA	NO	NO	127	127	20	100	30	100	20	100			10	100	10	100				5	
	No Discharge Licence	Jindera	1986	1,000	S	A	NO	NO	51	51																6	
		Burrumbuttock		100	AS	A	NO	NO	4	4																6	
		Walla Walla	1981	580	AS	IEA	NO	NO	73	73	20	100	30	100					10	100						5	
Greater Hume		***Total/Weighted Average*** [1,3]		**5,280**					**479**	**479**	**20**	**100**	**30**	**100**	**20**	**100**			**10**	**100**	**10**	**100**				**20**	

Appendix D2 - 2004/05 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 Nutri
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	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 Processe
											BOD		SS		Total N		NH_3N		Oil & Grease		Total P		Faecal Coliforms				
		Name		EP			Yes/No	Yes/No	ML	ML	mg/L	%	mg/L	%	mg/L	%	mg/L	%	mg/L	%	mg/L	%	cfu /100mL	%		days	days
				37b			38b	38c	41c	41c	50a	51a	50b	51b	50c	51c	50d	51d	50e	51e	50f	51f	50g	51g	54	52	53
		Griffith	1992	65,000	S	TF,A	NO	YES	2,256	2,251	30	27	30	27					10	73			600	91	1	15	
		Yenda	1981	34,000	S	AL	NO	NO	120	137	50	100	50	75									600	100		9	
		Bilbul	1990	310	S	A	NO	NO	27	27																	
Griffith		***Total/Weighted Average*** [1,3]		**99,310**					**2,403**	**2,415**	**30**	**54**	**30**	**45**					**10**	**73**				**94**	**2**	**24**	
Gundagai		**Gundagai**	**1972**	**2,400**	**S**	**TF**	**NO**	**NO**																			
		Gunnedah	1969	11,000	S	TF	NO	NO	559	653	20	100	30	75					10	100						14	
	No Discharge Licence	Curlewis		1,650	S	A	NO	NO				100		100		100		100		100		100		100		2	
Gunnedah		***Total/Weighted Average*** [1,3]		**12,650**					**559**	**653**	**20**	**100**	**30**	**78**	**20**	**13**		**100**	**10**	**100**		**100**		**100**	**0**	**16**	
Guyra		**Guyra**	**1968**	**3,300**	**AS**	**IEA**	**YES**	**YES**	**164**	**164**	**15**	**100**	**20**	**83**	**15**	**100**	**5**	**100**	**10**	**100**	**1**	**67**			**1**	**12**	
		Bingara	1970	2,000	S	TF	YES	YES	63	60	20	93	30	71					10	100					3	14	
		Warialda	1969	1,500	S	TF	NO	NO	200	190	20	94	30	20					10	100					4	14	
Gwydir		***Total/Weighted Average*** [1,3]		**3,500**					**263**	**250**	**20**	**94**	**30**	**46**					**10**	**100**					**4**	**28**	
Harden		**Harden**		**4,000**	**S**	**TF,AN**	**NO**	**NO**	**186**	**186**	**20**	**90**	**30**	**90**											**7**	**12**	
		Port Macquarie	1993	52,000	AT	IEA,BNR	YES	YES	5,053	5,038	10	100	15	90	20	100	5	100	10	100	1	35	200	100		20	
		Camden Haven	1991	9,000	S	TF	NO	NO	812	812	20	22	30	75					10	100						50	
		Wauchope		8,000	AS	IEA	YES	NO	923	923	30	100	30	96					10	100						50	
		Lake Cathie Bonny Hills	1989	6,000	AS	IEA	YES	NO	621	621	20	100	30	100					10	100						50	
		Kew Kendall		2,200	AS	IEA	YES	NO	80	80	30		20										500				
Port Macquarie-Hastings		***Total/Weighted Average*** [1,3]		**77,200**					**7,489**	**7,474**	**10**	**77**	**15**	**90**	**20**	**100**	**5**	**100**	**10**	**100**	**1**	**35**		**12**		**170**	
		South Windsor		14,000	AS	IEA	YES	YES																			
		Mcgraths Hill		9,500	AS	TF	NO	YES																			
Hawkesbury		***Total/Weighted Average*** [1,3]		**23,500**																							
Hay		**Hay**		**3,000**	**S**	**TF**	**YES**	**YES**			**30**	**100**	**40**	**90**	**40**	**100**			**10**	**90**	**10**	**100**				**8**	
Hunter Water	*Metropolitan*								**65,139**																**1**		
		Inverell		12,000	AS	IEA	NO	NO	632	632	20	100	30	100					10	100						14	
		Ashford		1,000	AS	IEA	NO	NO	35	35	20	100	30	70					10	100						14	
	No Licence Limits	Gilgai		500	S	A	NO	NO	30	30																10	
		Delungra		500	AS	IEA	NO	NO	25	25	20	100	30	90					10	100						14	
Inverell		***Total/Weighted Average*** [1,3]		**14,000**					**722**	**722**	**20**	**100**	**30**	**87**					**10**	**100**					**0**	**42**	
Jerilderie		**Jerilderie**		**2,000**	**S**		**NO**	**NO**	**88**	**88**	**20**	**100**	**30**	**75**					**10**	**100**						**4**	
Junee		**Junee**	**1992**	**7,000**	**AS**	**TF,IEA**	**NO**	**NO**	**280**	**280**	**30**	**100**	**30**	**100**		**100**		**100**	**10**	**100**		**100**	**600**	**100**		**16**	
		West Kempsey	1991	12,000	S	TF,A	YES	YES	880	880	15	96	20	88	15	69	5	100	10	100	1	100	600	100		26	
		South West Rocks	1991	6,000	AS	IEA	YES	NO	403	403	20	100	30	100					10	100					1	12	
		South Kempsey		5,400	AS	TF,IEA	YES	YES	329	329	20	100	30	100					10	100						26	
		Smithtown - Gladstone		2,000	AS	IEA	YES	NO	118	118	20	100	30	100					10	100						12	
		Crescent Head		2,000	AS	IEA	YES	YES	139	139	15	100	20	100	15	100	5	100	10	100	1	100	200	92		26	
		Frederickton		1,000	AS	IEA	YES	NO	71	71	20	100	30	92					10	100						12	
Kempsey		***Total/Weighted Average*** [1,3]		**28,400**					**1,940**	**1,940**	**15**	**99**	**20**	**96**	**15**	**85**	**5**	**100**	**10**	**100**	**1**	**100**		**96**	**0**	**114**	
		Kyogle		3,500	AS	TF	NO	YES	231	200	20	57	30	36					10	100						14	
		Woodenbong		500	S	IEA	YES	NO	39	39	20	75	30	25					10	100						12	1
		Bonalbo		500	AS	IEA	YES	NO	23	23	20	67	30	50					10	100						12	
Kyogle		***Total/Weighted Average*** [1,3]		**1,000**					**293**	**262**	**20**	**66**	**30**	**37**					**10**	**100**					**5**	**38**	**1**
		Condobolin	1982	4,000	AS	TF,IEA	NO	NO	329	329	20	100	30	60					10	100			1500	100		16	
	No Discharge Licence	Tottenham	1981	1,000	AS	IEA	NO	NO	58	58																3	
	No Discharge Licence	Lake Cargelligo	1979	2,000	AS	IEA	NO	NO	172	172																3	
Lachlan		***Total/Weighted Average*** [1,3]		**7,000**					**559**	**559**	**20**	**100**	**30**	**60**					**10**	**100**						**22**	
		Leeton	1987	27,000	AS	TF,IEA	NO	NO	870	870	50	100	50	100											1	7	
		Yanco	1980	1,000	AS	IEA	NO	NO	130	130	20	100	30	100												14	
		Whitton		500		A	NO	NO	10	10																	
Leeton		***Total/Weighted Average*** [1,3]		**28,500**					**1,010**	**1,010**	**50**	**100**	**50**	**100**											**3.7**	**21**	
		East Lismore	1993	30,500	AT	IEA,BNR	YES	YES	2,047	2,047	15	100	20	100	15	100	5	100	10	100	1	100	200	96		52	
		South Lismore	1978	22,500	S	TF	YES	YES	1,469	1,469	15	100	20	100	15	99	5	100	10	100	1	99			0	52	
		Nimbin	1977	600	AS	IEA	YES	YES	37	37	20	100	30	100	15	100	5	100	10	100	3	100				14	3
Lismore		***Total/Weighted Average*** [1,3]		**53,600**					**3,553**	**3,553**	**15**	**100**	**20**	**100**	**15**	**100**	**5**	**100**	**10**	**100**	**1**	**99**		**96**	**0**	**118**	**3**
		Lithgow	1987	23,000	S	TF	NO	NO																			
		Wallerwang	1990	2,500	S	TF	NO	NO																			
		Portland	1990	2,500	S	TF	NO	NO																			
Lithgow		***Total/Weighted Average*** [1,3]		**28,000**			**NO**	**NO**																			
		Quirindi		7,000	AS	IEA,BNR	NO	NO	226	226	20	100	30	46					10	100						27	
		Werris Creek		3,200		A,BNR	NO	NO	142	142	20	75	30	16					10	100						12	
Liverpool Plains		***Total/Weighted Average*** [1,3]		**10,200**					**368**	**368**	**20**	**92**	**30**	**37**					**10**	**100**						**39**	
		Lockhart	1967	3,000	S	TF	NO	YES	75	75	20	100	30	100					10	100					7	4	
		The Rock	1979	700	AS	IEA	YES	YES	62	62	20	100	30	100					10	100					14	56	
	No licence required	Yerong Creek		250	S	A	NO	NO	2	2																4	
Lockhart		***Total/Weighted Average*** [1,3]		**3,950**					**139**	**139**	**20**	**100**	**30**	**100**					**10**	**100**					**13**	**60**	

Appendix D2 - 2004/05 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 Nutri
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	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 Processe
											BOD		SS		Total N		NH_3N		Oil & Grease		Total P		Faecal Coliforms				
		Name		EP			Yes/No	Yes/No	ML	ML	mg/L	%	mg/L	%	mg/L	%	mg/L	%	mg/L	%	mg/L	%	cfu /100mL	%			
				37b			38b	38c	41c	41c	50a	51a	50b	51b	50c	51c	50d	51d	50e	51e	50f	51f	50g	51g	54	52	53
		Forster	1995	32,000	AS	IEA	YES	YES	2,305	2,305	30	100	30	100					10	100					2	26	
		Dawson	1998	30,000	AS	CEA	YES	NO	2,326	2,326	30	100	30	100			5	96							3	52	
		Hawks Nest	1991	14,000	AS	IEA	YES	YES	389	389	10	92	15	89	10	84	2	84	5	100	1	23			0	26	2
		Tuncurry	1995	10,000	S	TF	NO	NO	1,109	1,109	25	92	25	69	30	85	20	100	12	100	8	100			1.3	13	
		Harrington	1991	8,000	AS	CEA	YES	NO	203	203	20	100	30	100											2	17	
		Wingham	1995	7,100	AS	TF,IEA	YES	NO	446	446	30	100	30	100			10	100							1	26	
		Old Bar	1997	7,000	AS	CEA	YES	YES	377	377	20	100	30	100					10	100					2	13	1
	No Discharge Licence	Hallidays Point	2005	5,000	AS	IEA	YES	YES	433	433	30	100	20	92					10	100					4	13	
		Bulahdelah	1968	3,000	AS	IEA	YES	YES	192	192	10	96	15	92			1	68	10	100	1	96			1	26	
		Stroud	2002	1,000	AS	IEA	NO	NO	80	80	15	100	30	100	15	85			10	100						13	
		Coopernook	1980	600	AS	IEA	YES	NO	31	31															5		
		Lansdowne	2003	600	AS	IEA	YES	NO	28	28																	
		Manning Point	2002	600	AS	IEA	YES	YES	41	41															5		
MidCoast (Combined)		***Total/Weighted Average*** [1,3]		**118,900**					**7,960**	**7,960**	**30**	**98**	**30**	**96**		**84**		**93**	**10**	**100**	**1**	**66**			**2**	**225**	**3**
		Mudgee		10,000	S	TF,A	YES	NO	1,050	1,050	20	100	30	92					10	100						14	
	No Discharge Licence	Gulgong	1970	3,000	AS	IEA	YES	NO	90	90																14	
		Rylstone	1972	1,250	S	TF	NO	NO	132	132	20	58	30	42	15	42			10	100						12	
		Rylstone	1972	1,250	S	TF	NO	NO	132	132	20	58	30	42	15	42			10	100						12	
Mid-Western Regional		***Total/Weighted Average*** [1,3]		**16,750**					**1,339**	**1,339**	**20**	**100**	**30**	**92**		**92**			**10**	**100**						**52**	
		Boundary St	1986	14,000	AS	IEA	NO	NO	1,436	1,500	13	58	57	92	66	100			2	100	13	100			1	26	4
		Mungindi	1974	700	AS	IEA	NO	NO	47	47																	
Moree Plains		***Total/Weighted Average*** [1,3]		**14,700**					**1,483**	**1,547**	**13**	**58**	**57**	**92**											**1**	**26**	**4**
	No Discharge Licence	Moama		10,000	S	A	NO	NO	482	482																13	
	No Discharge Licence	Mathoura		1,600	S	A	NO	NO	54	54																	
Murray		***Total/Weighted Average*** [1,3]		**10,000**					**536**	**536**																	
		Darlington Point		1,000	AS	IEA	NO	NO	83	83	10	9	15	17	10	2					10	3	1000			7	
		Coleambally		600	S	A	NO	NO	78	78																	
Murrumbidgee		***Total/Weighted Average*** [1,3]		**1,600**					**161**	**161**	**10**	**9**	**15**	**17**	**10**	**2**					**10**	**3**				**7**	
		Muswellbrook	1986	20,000	S	TF	NO	NO	1,173	1,173	20	100	30	100					10	100					0	50	
	No Licence Limits	Denman		2,000	AS	IEA	NO	NO	127	127	20		30						10								
Muswellbrook		***Total/Weighted Average*** [1,3]		**22,000**					**1,300**	**1,300**	**20**	**100**	**30**	**100**					**10**	**100**					**1**	**50**	
		Nambucca Heads	1986	10,000	AS	TF,IEA	YES	YES	891	891	20	92	30	100					10	100					2	26	
		Macksville	1998	5,500	AS	IEA	YES	YES	266	366	15	100	20	89	15	96	5	92	10	100	1	85				26	
		Scotts Head	1968	2,000	AS	IEA	YES	NO	87	87	20	100	30	100					10	100						12	
		Bowraville	1985	1,200	S	TF	NO	NO	126	126	20	54	30	100					10	100						13	
Nambucca		***Total/Weighted Average*** [1,3]		**18,700**					**1,369**	**1,469**	**20**	**90**	**30**	**96**	**15**	**96**	**5**	**92**	**10**	**100**	**1**	**85**			**1**	**77**	
		Narrabri	1969	8,300	S	TF	NO	NO																			
		Wee Waa	1972	1,600	S	TF	NO	NO																			
		Boggabri	1956	1,000	S	TF	NO	NO																			
Narrabri		***Total/Weighted Average*** [1,3]		**10,900**																							
Narrandera		**Narrandera**	**1977**	**6,000**	**AS**	**IEA**	**NO**	**YES**	**524**	**524**	**15**	**100**	**20**	**33**					**10**	**100**			**600**	**83**		**14**	
	No Discharge Licence	Narromine	1959	2,500	S	A	NO	NO																			
	No Discharge Licence	Trangie	1979	1,500	AS	IEA	NO	NO																			
Narromine		***Total/Weighted Average*** [1,3]		**4,000**																							
Oberon		**Oberon**	**1989**	**7,000**	**S**	**TF**	**NO**	**YES**	**326**		**20**	**92**	**25**	**50**	**15**	**75**			**10**	**100**	**1**	**75**	**600**	**100**	**1**	**16**	
		Orange	1988	60,000	AS	TF,CEA	YES	YES	4,445	4,445	20	100	25	100	15	53			10	100	1	100	400	94		18	
		Spring Hill	1990	1,000	AS	CEA,A	NO	NO	30	30	20	100	50	100												16	
Orange		***Total/Weighted Average*** [1,3]		**61,000**					**4,475**	**4,475**	**20**	**100**	**25**	**100**	**15**	**53**			**10**	**100**	**1**	**100**		**94**		**34**	
		Braidwood		3,000	S	TF	NO	NO	79	79	20	100	30	86					10	100						14	
		Bungendore		2,000	AS	IEA	YES	NO	143	143	10	100	15	100					10	100						4	
		Captains Flat		500	AS	IEA	YES	NO	33	33	20	75	30	75					10	100						4	
Palerang		***Total/Weighted Average*** [1,3]		**5,500**					**254**	**254**	**20**	**95**	**30**	**87**					**10**	**100**						**22**	
		Parkes	1959	14,000	AS	IEA	NO	NO	765	765	20	66	25	42	15	75			10	100	1				1	12	1
	No Discharge Licence	Peak Hill	1983	2,000	AS	IEA	NO	NO	120	129																	
Parkes		***Total/Weighted Average*** [1,3]		**16,000**					**885**	**894**	**20**	**66**	**25**	**42**	**15**	**75**			**10**	**100**	**1**				**1**	**12**	**1**
Queanbeyan		**Queanbeyan**	**1986**	**34,500**	**AS**	**TF,IEA**	**YES**	**YES**	**3,400**	**3,400**	**10**	**100**	**20**	**100**	**35**	**100**		**100**			**0.3**	**100**	**1000**	**100**	**0**	**365**	
		Casino	1986	13,300	AS	TF,IEA	YES	NO	1,073	1,073	20	100	30	100					10	100						26	
		Evans Head	1984	3,700	AS	TF	NO	NO	627	627	35	100	35	85												27	
		Coraki		1,200	S	TF	NO	NO	98	98	20	100	30	50					10	100						13	
		Rileys Hill		200	S	IEA	YES	YES	6	6	15	100	20	100	15	93	5	100			1	50	200	100		14	
Richmond Valley		***Total/Weighted Average*** [1,3]		**18,400**					**1,804**	**1,804**	**20**	**100**	**20**	**87**	**15**	**93**	**5**	**100**	**10**	**100**	**1**	**50**			**2**	**80**	
Riverina	*NO SGE*																										
Rous	*NO SGE*																										

Appendix D2 - 2004/05 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 Nutri
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	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 Processe
											BOD		SS		Total N		NH_3N		Oil & Grease		Total P		Faecal Coliforms				
		Name		EP			Yes/No	Yes/No	ML	ML	mg/L	%	mg/L	%	mg/L	%	mg/L	%	mg/L	%	mg/L	%	cfu /100mL	%		days	days
				37b			38b	38c	41c	41c	50a	51a	50b	51b	50c	51c	50d	51d	50e	51e	50f	51f	50g	51g	54	52	53
		Nowra	1989	21,000	AS	TF,CEA	YES	NO	1,705	1,705	40	100	40	83					10	100					1	14	
		St Georges Basin	1992	16,000	AS	IEA	YES	YES	940	940	10	100	15	100	15	100	5	100	2	100			200	92	1	12	
		Vincentia	1992	14,000	AS	IEA	YES	YES	551	551	10	100	15	100	15	100	5	100	2	100			200	92		12	
		Bomaderry	1990	12,500	AS	TF,IEA	YES	NO	658	673	20	100	40	75					10	100					1	14	
		Ulladulla	1981	12,500	AS	TF,IEA	YES	NO	964	984	50	100	50	100					10	100					8	14	
		Culburra Beach	1982	10,500	AS	IEA	YES	NO	663	664	10	100	15	100	15	100	5	100	2	100			200	92		12	
		Sussex Inlet	1990	8,000	AS	IEA	YES	YES	417	442	20	100	30	100					10	10					1	14	
		Callala	2000	6,000	AS	IEA	YES	YES	202	209	10	100	15	100	15	100	5	100	2	100			200	92	1	12	
		Shoalhaven Heads	1983	4,000	AS	IEA	YES	NO	276	276	30	100	30	100					10	1						14	
		Berry		2,000	AS	IEA	YES	NO	155	155	20	92	30	92					10	100					2	14	
Shoalhaven		***Total/Weighted Average*** [1,3]		**106,500**					**6,530**	**6,598**	**10**	**100**	**15**	**95**	**15**	**100**	**5**	**100**	**2**	**100**				**92**	**1**	**118**	
Singleton		**Singleton**		**20,000**	**AS**	**IEA**	**YES**	**NO**	**1,278**	**1,278**	**30**	**100**	**30**	**100**	**15**	**83**			**10**	**92**	**10**	**92**			**0**	**14**	
		Jindabyne		2,900	AS	IEA	YES	YES	342	342	10	100	15	100	10	84	2		2	100	0	100	200	5	3	20	
		Berridale		750	AS	IEA	NO	NO		102	20	60	30	46					10	100			100	70	4	15	
		Adaminaby		750	S	TF	YES	YES		198	20	85	30	77					10	100			100	39		15	2
	No Licence Limits	Kalkite		200	AS	IEA	YES	YES																			
Snowy River		***Total/Weighted Average*** [1,3]		**4,600**					**342**	**642**	**10**	**84**	**15**	**77**	**15**	**84**	**2**		**2**	**100**		**100**			**1**	**50**	**2**
Sydney Water	*Metropolitan*								454,262																		
		Westdale	1983	33,000	AS	TF,IEA	YES	YES	2,826	2,826	30	100	25	92												90	
	No Licence Limits	Swan St	1968	15000	S	TF	NO	YES	1,311	1,311																90	
		Manilla	1955	2,850	S	TF	YES	YES	250	250	20	100	30	100												3	
		Kootingal	1992	2,000	S	A	NO	NO	157	157																na	
		Barraba	1956	1,500	S	TF	NO	NO	168	168	20	90	30	90												12	
Tamworth		***Total/Weighted Average*** [1,3]		**39,350**					**4,712**	**4,712**	**30**	**99**	**25**	**92**												**105**	
Temora		**Temora**		**4,300**	**S**	**AL**	**NO**	**NO**	**350**	**350**	**20**	**100**	**30**	**90**					**10**	**100**			**600**	**75**	**1**	**13**	**2**
		Tenterfield	1983	2,750	S	TF	NO	NO	273	273	40	90	45	60												15	5
		Urbenville	1988	500	AS	IEA	NO	NO	16	16	20	100	30	25					10	100						15	1
Tenterfield		***Total/Weighted Average*** [1,3]		**3,250**					**289**	**289**	**40**	**95**	**45**	**43**					**10**	**100**						**30**	**6**
		Khancoban	1998	5,000	S	TF	NO	NO	59	59																4	
		Tumbarumba	1998	3,500	S	TF	NO	NO	205	205																4	
Tumbarumba		***Total/Weighted Average*** [1,3]		**8,500**					**264**	**264**																**8**	
		Tumut	1994	7,500	S	TF,A	NO	YES	717	717	40	92	45	100					10	100	2	100				12	3
		Batlow	1966	1,400	S	TF,A	NO	NO	257	257	40	67	45	92					10	100						12	
		Talbingo	1995	1,100	AT	CEA,BNR	YES	YES	40	40	25	100	35	100	25	100	10	100	10	100	2	100				4	
		Adelong	1967	1,000	AS	IEA	YES	YES	83	83	80	100	40	100	30	100	10	100	10	100	2	100				12	
Tumut		***Total/Weighted Average*** [1,3]		**11,000**					**1,097**	**1,097**	**40**	**88**	**45**	**98**	**25**	**100**	**10**	**100**	**10**	**100**	**2**	**100**				**40**	**3**
		Banora Point	1985	62,500	AT	CEA,BNR	YES	YES	4,325	4,325	15	100	20	100					10	100			10000	100	1	56	
		Murwillumbah	2000	16,000	AS	IEA	YES	YES	931	931	10	100	20	96	10	100	2	100	10	100	1	100	200	100	1	30	
		Kingscliff	1994	14,000	AS	IEA	YES	YES	1,008	1,011	25	100	25	100					10	96					1	30	
		Tweed Heads	1991	12,000	S	TF	YES	NO	868	868	25	64	25	72					10	96					3	30	1
		Hastings Point	1990	8,000	AS	IEA	YES	NO	700	703	25	100	25	100					10	100					1	30	
		Tumbulgum	2000	700	AS	IEA	YES	YES	31	31	15	100	20	100	15	88	5	65	10	100	1	88	200	100		30	
		Uki	2003	600	AT	BNR	YES	YES	10	10	15	86	20	46	15	100	5	100	10	100	1	4	600	53		30	1
		Tyalgum	1990	500	AS	IEA,A	YES	NO	18	18	25	100	50	73					10	100						30	
Tweed		***Total/Weighted Average*** [1,3]		**114,300**					**7,891**	**7,897**	**15**	**94**	**20**	**87**	**10**	**94**	**2**	**83**	**10**	**99**	**1**	**64**		**90**	**1**	**266**	**2**
		Scone	1988	7,000	AS	TF,IEA	NO	NO	508	508	20	100	30	92					10	100						16	
		Aberdeen		4,000	S	IEA	NO	NO	270	270	20	100	30	100					10	100					6	16	
		Merriwa		1,600	S	TF	NO	YES	50	50	20	100	30	50					10	100						6	5
		Murrurundi		1,000	AS	IEA	NO	NO	45	50																1	1
Upper Hunter		***Total/Weighted Average*** [1,3]		**13,600**					**873**	**878**	**20**	**100**	**30**	**89**					**10**	**100**					**1.2**	**38**	**6**
		Crookwell		5,000	AS	TF,IEA	YES	YES	219	219	100	30	100	15	15	92	5	92	10	100	1	83				14	
		Gunning		1,000	AS	IEA	NO	YES	81	81	100	30	100						10	100						14	
Upper Lachlan		***Total/Weighted Average*** [1,3]		**6,000**					**300**	**300**	**100**	**30**	**100**	**15**	**15**	**92**	**5**	**92**	**10**	**100**	**1**	**83**				**28**	
Uralla		**Uralla**	**1995**	**3,960**	**AS**	**IEA**	**YES**	**YES**	**145**	**145**	**15**	**100**	**20**	**100**	**10**	**100**	**1**	**60**	**10**	**100**	**1**	**100**	**200**	**100**	**1**	**14**	
		Urana		754	S	A			55	55																	
		Oaklands		520	S	A			33	33																	
Urana		***Total/Weighted Average*** [1,3]		**1,274**					**88**	**88**															**27**		
	100% Limits	Narrung Street (Incl. Bistf)	1992	67,200	AS	TF,CEA	YES	YES	3,856	3,856	95	30	83						10	100					0	13	2
	100% Limits	Kooringal	1992	20,000	AS	TF,CEA	NO	YES	1,523	1,523	100	30	100	40	40	100			10	100	10	100			0	13	
	100% Limits	Forest Hill	1974	3,500	AS	IEA,AL	NO	NO	343	343	100	30	100						10	100						5	
	No Discharge Licence	Uranquinty		1,000	S	A	NO	NO	95	95																	
	No Discharge Licence	Tarcutta		500	S	A	NO	NO	33	33																	
Wagga Wagga		***Total/Weighted Average*** [1,3]		**92,200**					**5,850**	**5,850**	**98**	**30**	**93**	**40**	**40**	**100**			**10**	**100**	**10**	**100**			**0**	**31**	**2**
	No Discharge Licence	Barham		1,600	S	TF,A	NO		1	1																	
	No Discharge Licence	Moulamein	1967	700	AS	IEA			73	73																	
	No Discharge Licence	Murray Downs	1979	260	S	A	NO		73	73																	
Wakool		***Total/Weighted Average*** [1,3]		**2,560**					**147**	**147**																	
Walcha		**Walcha**	**1971**	**2,400**	**S**	**TF**	**NO**	**NO**	**172**	**172**	**20**	**92**	**30**	**58**					**10**	**100**					**4**	**12**	**0**

Appendix D2 - 2004/05 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 Nutri
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*	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 Processe *days* *53*
											BOD		SS		Total N		NH_3N		Oil & Grease		Total P		Faecal Coliforms					
											mg/L *50a*	*%* *51a*	*mg/L* *50b*	*%* *51b*	*mg/L* *50c*	*%* *51c*	*mg/L* *50d*	*%* *51d*	*mg/L* *50e*	*%* *51e*	*mg/L* *50f*	*%* *51f*	*cfu /100mL* *50g*	*%* *51g*			
		Walgett	1958	3,200	S	TF	NO	NO																			
		Lightning Ridge	1979	1,000	S	A	NO	NO																			
		Collarenebri	1970	600	S	A	NO	NO																			
Walgett		***Total/Weighted Average*** [1,3]		**4,800**																							
	No Licence Limits	Warren	1958	2,180	S	TF	NO	NO	167	167	20		65	100	15				10	100	10	100				4	
	No Licence Limits	Nevertire		200	S	A	NO	NO	5	5																	
Warren		***Total/Weighted Average*** [1,3]		**2,380**					**172**	**172**	**20**		**65**	**100**	**15**											**4**	
		Coonabarabran	1964	3,200	S	TF,A	NO	NO	322	322																12	
		Dunedoo	1970	1,000	AS	IEA	NO	NO	73	73	20		30		15	100			10	100	1					1	
	No Licence Limits	Coolah	1970	1,000	S	A	NO	NO	120	69	40	100	150	100	15	100			3	100	3	90				1	
		Baradine		800	S	A,AN	NO	NO	50	50																	
Warrumbungle		***Total/Weighted Average*** [1,3]		**6,000**			**NO**	**NO**	**565**	**514**	**20**		**30**		**15**	**100**			**10**	**100**	**1**	**90**				**14**	
Weddin		**Grenfell**	**1943**	**2,500**	**S**	**TF**	**NO**	**NO**	**162**	**162**															**4**	**3**	
Wellington		**Wellington**		**8,000**	**S**	**TF**	**NO**	**NO**	**411**	**411**	**15**	**100**	**30**	**50**	**15**	**100**	**2**	**90**	**10**	**100**	**1**		**600**	**100**		**12**	
		Buronga / Gol Gol		5,000	S	A	NO	NO	225	225	50	100	50	100						100						6	
		Wentworth	1991	3,500	S	TF	NO	NO	209	209	30	100	45	100									600	100		6	
		Dareton		2,000	S	TF	NO	NO	60	60	30	100	45	100									600	100	2	6	
		Namaṭjira		1,200	S	A	NO	NO	24	24																	
		East Wentworth		600	S	A	NO	NO	31	32	40	100	40	100									200	100		6	
Wentworth		***Total/Weighted Average*** [1,3]		**12,300**					**549**	**550**	**30**	**100**	**45**	**100**											**3**	**24**	
		Mittagong	1974	14,000	AS	IEA	YES	YES	771	771	10	100	15	100	10	100	2	100	10	100	0	100	200	100	0	30	
		Bowral	1994	10,500	AS	TF,IEA	YES	YES	1,124	1,124	20	96	30	92	45	100					2	96			2	30	5
		Moss Vale	1995	9,000	AS	IEA	YES	YES	577	577	20	100	30	100	15	100	2	100			1	100	200	96		30	
		Bundanoon	1990	2,000	AS	IEA	YES	YES	187	187	20	100	30	100	15	100	2	100			2	100				30	
		Berrima	1982	2,000	AS	IEA	YES	YES	57	57	20	100	30	100	15	100	2	100			1	100				30	
Wingecarribee		***Total/Weighted Average*** [1,3]		**37,500**					**2,716**	**2,716**	**10**	**99**	**15**	**98**	**10**	**100**	**2**	**100**	**10**	**100**		**99**			**1**	**150**	**5**
		Bateau Bay		58,000	AS	TF,IEA	NO	NO	2,583	2,583			35	100					10	100					0	31	
		Wyong South		48,000	AS	IEA	NO	NO	2,986	2,986															1	52	
	Discharge to Toukley	Toukley		40,000	S	TF	NO	NO	2,722	2,722			35	100					10	100					2	31	
	Discharge to Toukley	Charmhaven		40,000	AS	IEA	NO	NO	1,932	1,932															1	52	
	Discharge to Toukley	Mannering Park		12,000	AS	IEA	NO	NO	878	878															2	52	
		Gwandalan		12,000	AS	IEA	NO	NO	263	263															1	52	
Wyong		***Total/Weighted Average*** [1,3]		**210,000**					**11,365**	**11,365**		**100**	**35**	**100**					**10**	**100**					**1**	**270**	
		Yass Pasveer		4,000	AS	IEA	NO	NO	300	300	30	100	30	100	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A		8	
		Yass Trickling Filter		3,500	S	TF	NO	NO	94	94	30	100	30	100	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1	8	
Yass Valley		***Total/Weighted Average*** [1,3]		**7,500**					**394**	**394**	**30**	**100**	**30**	**100**											**1**	**16**	
Young		**Young**		**7,000**	**S**	**TF,A**	**NO**	**NO**	**736**	**736**	**30**	**100**	**30**	**92**					**10**	**100**					**1**	**12**