2006-07

NSW WATER SUPPLY AND SEWERAGE

BENCHMARKING REPORT

Local Government Association of NSW

Shires Association of NSW

NSW Government

Department of Water & Energy

Department of Water and Energy

NSW Department of Water and Energy
Level 17, 227 Elizabeth Street
GPO Box 3889
Sydney NSW 2001

T 02 8281 7777 **F** 02 8281 7799

information@dwe.nsw.gov.au

www.dwe.nsw.gov.au

Sam Samra, Senior Manager, Water Utility Performance
Colin McLean, Director, Water Utilities

BEST PRACTICE MANAGEMENT

2006-07 NSW WATER SUPPLY AND SEWERAGE
BENCHMARKING REPORT

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Foreword

Performance monitoring and benchmarking are becoming increasingly important tools for the efficient and effective management of water supply and sewerage utilities. The National Water Initiative has extended the 1994 *Strategic Framework for Water Reform* to provide for national performance reporting of pricing and service quality for water delivery. It commits water utilities to effective, efficient and accountable water management.

In line with the National Water Initiative, the NSW government has developed the *Best-Practice Management of Water Supply and Sewerage Guidelines.*[1] These guidelines, which were updated in 2007, are the key driver for reform of planning and management and for continuing improvement by each utility. The guidelines require local water utilities (LWUs) to undertake annual performance monitoring in accordance with the National Water Initiative,[2] with the aim of improving the quality and efficiency of services to all NSW residents. Performance monitoring is also important for public accountability and has been strongly endorsed by the Independent Pricing and Regulatory Tribunal.[3]

This *2006-07 NSW Water Supply and Sewerage Benchmarking Report* discloses the full suite of NSW water supply and sewerage performance indicators for all NSW water utilities including Sydney and Hunter Water Corporations over the past six years, enabling 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 urban water utilities, together with the statewide performance of the NSW non-metropolitan water utilities and interstate comparisons, are provided in the companion report *2006-07 NSW Water Supply and Sewerage Performance Monitoring Report*.

The Benchmarking Report has been prepared by the Department of Water and Energy (DWE) since 1986. To facilitate comparisons, the Minister for Water has made both the performance monitoring report and the benchmarking report available on the DWE website (*www.dwe.nsw.gov.au*).

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] *Best-Practice Management of Water Supply and Sewerage Guidelines*, Department of Water and Energy, August 2007.
[2] *National Performance Framework – 2006-07 Urban Performance Reporting Indicators and Definitions*, National Water Commission/Water Services Association of Australia, May 2007.
[3] *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 monitoring 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 NSW Local Government Water Directorate is also acknowledged for its support and significant contributions.

The success of the NSW performance monitoring system is contingent on full participation by all NSW local water utilities (LWUs). The continuing participation of each LWU in the performance monitoring system and each LWU's significant efforts in providing current, accurate and timely data on its performance for each of the past six years are therefore particularly acknowledged.

Contents

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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 urban water utilities over the past six years. The data is presented in the form of figures and tables and provides comparative information to enable each LWU to benchmark its performance against that of similar LWUs. A companion report, the *2006-07 NSW Water Supply and Sewerage Performance Monitoring Report*, provides 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, interstate comparisons and the NSW component of the *National Performance report 2006-07 for Urban water Utilities* (shown in Appendix G of the *NSW Performance Monitoring Report*), are not repeated in this *Benchmarking Report*. To view the interstate comparisons refer to Appendix A of this report and also to page 9 of the Performance Monitoring Report.

This Benchmarking Report discloses the NSW results for all 82 NWI Performance Indicators as shown in Note 20 on page 28.

2. NSW water utilities

This report discloses performance indicators for all NSW urban water utilities, comprising the 107 non-metropolitan LWUs together with four metropolitan utilities (Sydney Water Corporation, Hunter Water, Sydney Catchment Authority 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 beside each utility in the table below 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 and metropolitan) 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 Catchment Authority
100	Balranald (DS)	15	Eurobodalla	61	Liverpool Plains		Sydney Water
21	Bathurst Regional			102	Lockhart (NO WS)		
23	Bega Valley	12	Fish River WS (BS)			13	Tamworth Regional
47	Bellingen	51	Forbes	5	MidCoast	69	Temora (NO WS)
53	Berrigan (DS)			32	Mid-Western Regional	68	Tenterfield
72	Bland (NO WS)	84	Gilgandra	38	Moree Plains	93	Tumbarumba
78	Blayney (NO WS)	60	Glen Innes Severn	65	Murray (DS)	43	Tumut
89	Bogan	82	Gloucester	101	Murrumbidgee	6	Tweed
97	Bombala	28	Goldenfields (NO SGE)	41	Muswellbrook		
104	Boorowa	1	Gosford			45	Upper Hunter
87	Bourke (DS)	20	Goulburn Mulwaree	34	Nambucca	73	Upper Lachlan
105	Brewarrina	80	Greater Hume	46	Narrabri	85	Uralla
27	Byron (R)	30	Griffith	63	Narrandera	107	Urana (NO WS)
		94	Gundagai	62	Narromine		
91	Cabonne	44	Gunnedah			9	Wagga Wagga (NO WS)
92	Carrathool	90	Guyra	83	Oberon (R)	88	Wakool (DS)
103	Central Darling (DS)	81	Gwydir	19	Orange	98	Walcha
40	Central Tablelands					79	Walgett (DS)
	(NO SGE)	76	Harden (R)	71	Palerang	96	Warren (DS)
14	Clarence Valley	30A	Hawkesbury (NO WS)	36	Parkes	55	Warrumbungle
67	Cobar (R)	86	Hay (DS)	7	Port Macquarie-Hastings	95	Weddin (NO WS)
66	Cobar WB (BS)		Hunter Water			57	Wellington
10	Coffs Harbour			17	Queanbeyan (R)	74	Wentworth (DS)
99	Coolamon (NO WS)	37	Inverell			16	Wingecarribee
50	Cooma-Monaro			33	Richmond Valley	2	Wyong
75	Coonamble	106	Jerilderie (DS)	8	Riverina (NO SGE)		
58	Cootamundra (R)	77	Junee (NO WS)	4	Rous (BS) (NO SGE)	56	Yass Valley
42	Corowa					49	Young (R)
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. Performance monitoring

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 (IPART).

The State Government promotes continuous performance improvement to improve the quality and efficiency of services to the NSW community. Performance benchmarking provides valuable comparative data which enables each 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 by each LWU on the NSW Performance Monitoring Database by 15 September each year in order to comply with the *Best-Practice Management of Water Supply and Sewerage Guidelines*. Financial data was obtained through the Department of Local Government from each LWU's Special Schedule Nos 3 to 6 and Notes 2 and 3 of the Special Purpose Financial Reports. DWE obtained the charging schedules on water supply, sewerage and trade waste fees and charges directly from each LWU.

3.2. 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 one or two 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. DWE will be working with LWUs to facilitate appropriate syndicate benchmarking projects and will disseminate the results.

3.3 TBL performance reports

DWE provides each utility and also IPART with an annual TBL Performance Report for each utility's water supply and sewerage businesses. Each LWU should review its performance using the TBL Report as the basis for preparing its Action Plan as set out in section 5.3 on page 16.

The 2006-07 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 per cent of LWUs for each indicator being ranked one and the bottom 20 per cent being ranked five (LWUs in the range 40 per cent to 60 per cent are ranked three). In addition, rankings are provided for each LWU's performance relative to all LWUs (third shaded column).

LWUs will appreciate that **each performance indicator 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 in section 5.2 on page 13. 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. It should also be noted that a low ranking for some performance indicators does not necessarily mean an LWU is not performing well as there are a number of factors that can impact performance as shown in section 5.2 on page 13. For example, the rankings take no account of the impact of utility characteristics (e.g. whether the water supply is fully filtered, whether the utility provides a bulk storage dam, whether the supply is a good quality groundwater or whether the LWU is a reticulator etc.).

4. Best-practice management

4.1 Regulatory framework

Through *the* Country Towns Water Supply and Sewerage Program, the *Local Government Act 1993* and *the Water Management Act 2000*, the Minister for Water is responsible for overseeing and monitoring the performance of NSW country 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.

The State Government provides assistance to country towns in NSW through the Country Towns Water Supply and Sewerage Program, which is administered by the Department of Water and Energy (DWE). The program provides leadership, guidance and technical assistance in best practice management, operation and maintenance for LWUs, as well as financial assistance towards the capital cost of backlog water and sewerage infrastructure.

The program was revised in 1996 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 is a pre-requisite for financial assistance.
- Financial assistance will be directed towards the capital cost of backlog infrastructure.
- Government expects LWUs to put into place appropriate strategies to ensure that capital works needed to meet growth or renewal are self funded.

Subsequently, the Minister for Water published the Best-Practice Management of Water Supply and Sewerage Guidelines in 2004. These guidelines are the key driver for reform of planning and management and for continuing performance improvement by each utility. Compliance with the guidelines is a requirement for the eligibility of LWUs for:

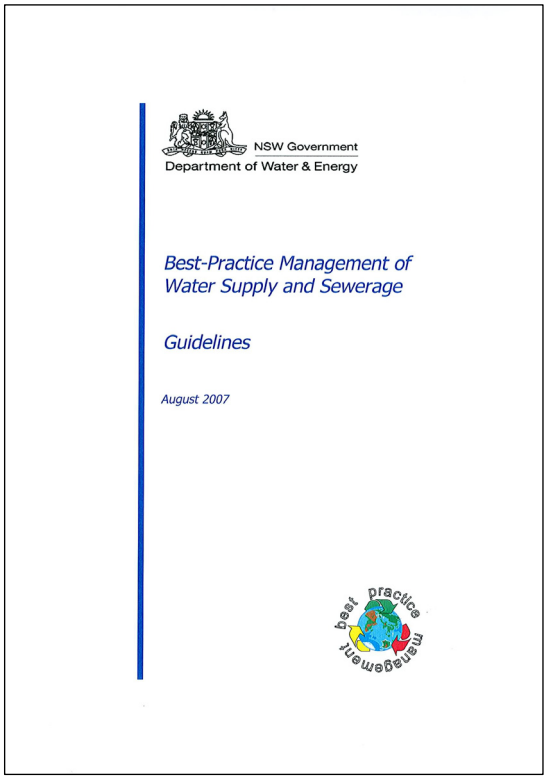
1. the payment of a dividend from their water and sewerage businesses to the Council's general revenue
2. financial assistance towards the capital cost of backlog infrastructure.

The Minister for Water published revised *Best-Practice Management Guidelines* in August 2007 in order to update the Guidelines and address the requirements of the National Water Initiative.

4.2 Best-practice management guidelines

The *Best-Practice Management of Water supply and Sewerage Guidelines* encourage continuing improvement in performance of water and sewerage businesses in NSW and for compliance with the Australian Government's National Water Initiative. The guidelines identify the key elements in the delivery of water supply and sewerage services to the community and are available on the DWE website (www.dwe.nsw.gov.au).

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 to 30 years and to establish an appropriate level of annual revenue from water supply, sewerage and trade waste charges. In addition to levying commercial water supply and sewerage developer charges and trade waste fees and 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. Eighty-three per cent of LWUs have prepared sound strategic business plans and financial plans [Table 5 on page 120].



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 regulation)
- water conservation and demand management
- drought management
- performance monitoring
- integrated water cycle management.

The reported LWU compliance with the Guidelines is shown in Table 3 on page 115 of this report. A summary of LWU compliance is provided on page 13 and Figures 21, 22 and 23 of the 2006-07 NSW Performance Monitoring Report. All LWUs should address these criteria. Particular attention is required for strategic business planning and financial planning, full cost recovery, residential water supply revenue from usage charges [column 13 of Table 6 on page 127], non-residential sewer usage charges [column 3a of Table 7 on page 144], liquid trade waste fees and charges [column 2 of Table 7D on page 155], trade waste approvals and policy [columns (3) and (1) of Table 7D on page 155], and an IWCM evaluation [column 20 of Table 8C on page 165].

Software and Guidelines to assist LWUs in developing appropriate water supply and sewerage financial plans, tariffs, liquid trade waste fees and charges, developer charges and capital works plans are available from DWE (Dilip Dutta on tel: (02) 8281 7372, fax: (02) 8281 7351, email: Dilip.Dutta@dwe.nsw.gov.au).

4.3 Managing drinking water quality

Risk based drinking water quality management plan

A safe and reliable drinking water supply is the most essential and critical public health service provided by a Local Water Utility (LWU) to its community. Although 99 per cent of the 18,700 non-metropolitan NSW samples tested for E. coli in 2006-07 complied with the *Australian Drinking Water Guidelines 2004* (ADWG), 17 per cent of LWUs did not comply with the guidelines (Column 71 of Table 12 on page 177). The risk of contamination of water supplies due to system failures therefore remains significant, as can be seen in the table on the facing page, which indicates 22 boil water alerts were issued by LWUs over the period May 2006 to June 2008.

ADWG recommends a preventative management approach for assuring drinking water quality and protecting public health. This approach encompasses all steps in water production from catchments to the consumer and is set out in the *Framework for Management of Drinking Water Quality*, which includes development of a risk based drinking water quality management plan (refer to page 2-1 of the Guidelines). **Developing a risk based drinking water quality management plan is a high priority for each LWU** and is recommended in the *Best-Practice Management of Water Supply and Sewerage Guidelines*, 2007. NWI Indicator H6 reports on whether the utility has such a plan. It is disappointing to note that only five LWUs have developed such a plan (column 69a of Table 12 on page 177) and that only Riverina Water has obtained an external third party accreditation of its plan (NWI Indicator H5 in column 69b of Table 12 on page 177). It is therefore strongly recommended that all LWUs develop a risk based drinking water quality management plan as a matter of priority. In addition, LWUs with over 10,000 properties should obtain third party accreditation of their plan.

Developing a risk based drinking water quality management plan

Chapter 3 of ADWG sets out the *Framework for Management of Drinking Water Quality*. The Framework involves 12 elements, based on a preventative risk management approach containing elements of ISO 9001 (Quality Management), AS/NZS 4360 (Risk Management) and the HACCP (Hazard Analysis and Critical Control Point) systems, which is applied in a drinking water supply context.

For small water supplies, Chapter 4 of ADWG sets out how a range of basic measures can be implemented by the water utility to provide reasonable assurance of safety.

The National Health and Medical Research Council has developed a tool (software), called *'Community Water Planner – A tool for small communities to develop drinking water management plans'.* A risk based management plan for small water supplies can be prepared by using this tool. This tool can also be used to quickly produce a 'first cut' risk management plan for larger water supplies.

This tool and user assistance is available from the web link:
http://www.nhmrc.gov.au/publications/synopses/eh39.htm

The management plan produced using this tool identifies:

- potential hazards associated with each element of the water supply that can represent public health risk
- preventative measures to protect water quality
- operational monitoring and verification monitoring requirements.

Worked examples on hazard analysis and mitigation of risks for simple water supply systems are being developed in order to assist LWUs to analyse their system. In addition, assistance for developing a risk based drinking water quality management plan is available from the Department of Water and Energy (Bill Ho on tel: 8281 7326, fax: 8281 7351, email: Bill.Ho@dwe.nsw.gov.au).

Boil water alerts and lessons learnt

Information provided by the Water Unit of NSW Health has revealed that 22 boil water alerts were issued by LWUs over the period May 2006 to June 2008 (refer to the table below). These alerts were imposed due to the failure of the water utility to meet the microbiological water quality requirements of AWDG. The alerts were issued by LWUs of all sizes, with ten alerts issued by LWUs with over 10,000 connected properties, three by utilities with 3,001 to 10,000 properties and nine by utilities with under 3,000 properties. A total of 24,500 people (1.4 per cent of the 1.8 million people served) were affected by these boil water alerts.

These incidents highlight that a number of LWUs have been using reactive measures to protect public health. However, preventive management on the basis of a sound risk management plan, with associated work procedures and process controls would have avoided the need for the bulk of these boil water alerts.

Summary of boil water alerts in non-metropolitan NSW – May 2006 to June 2008

No. of alerts	Reason for alert
9	Inadequate chlorine residual in the distribution system.
8	Gap in the reservoir roof enabling bird entry and contamination of the treated water.
3	Highly turbid raw water, no filtration plant, ineffective disinfection.[4]
1	Failure to properly clean and disinfect the main after replacement of valves and fittings.
1	Backflow in the mains due to inadequate backflow prevention device.

Notes:

1 The information in the above table was provided by NSW Health's Water Unit or obtained by the Department of Water and Energy (DWE) from the relevant LWU.

2 Duration of boil water alerts generally ranged from two days to 25 days with a median of nine days.

3 Total population affected by the 22 boil water alerts was 24,500.

[4] Guidance on maintaining effective disinfection of a water supply distribution system is provided in Appendix E.

A number of important lessons have been learnt from the above boil water alerts as tabulated below:

Lessons learnt from the boil water alerts

Practices	Lessons
Management	• Carry out regular preventative maintenance and calibration of chlorinators and associated equipment.
Disinfection	• Maintain a minimum free chlorine residual of about 0.2 mg/L throughout the water supply system[5] (including extremities).
	• Conti nuous monitoring[6] of the chlorination system to warn of any interruptions/failures of the chlorinator.
	• Chlorine demand tests should be carried out on a regular basis.
Storage (service reservoirs/tanks)	• Ensure entry hatches to service reservoirs are secure and that hatches are not left open; particular care is required if third parties (eg. telephone companies) have been given access to your LWU's reservoirs.
	• Regular inspection to ensure the roof and the bird proofing of each reservoir is effective and has not been damaged.
Backflow prevention	• Ensure appropriate backflow prevention devices are installed and are properly maintained (including any rain water tanks used for toilet flushing).
Source monitoring	• Monitor the raw water regularly and after storm events, for evidence of changes in colour or turbidity.
	• Chlorine demand tests should be carried out on a regular basis.
	• Adjust chlorine dosing as necessary.

Each LWU should learn from the above valuable lessons in order to minimise the risk of contamination of its drinking water supply. In addition, each LWU should develop and implement a sound risk based drinking water quality management plan.

4.4 Managing water use

Achieving efficient water use is a key responsibility for each water utility. As shown on graph 12 on page 201 and Figure 28 on page 60, the non-metropolitan NSW utilities have reduced the average annual residential water supplied per property by 44 per cent over the past 16 years.

Many LWUs have reduced their average annual residential water supplied per property by over 50 per cent over this period through community education, water conservation, water efficient appliances and providing appropriate pricing signals to encourage efficient water use. In particular, as shown on graph 3 on page 199 and Figure 11 on page 42, the median water usage charge/kL of 124 c/kL provides a strong pricing signal and is higher than almost all the other Australian utilities. The median revenue from residential water usage charges was 67 per cent (Figure 33 on page 64). However, affordability was maintained through the typical residential bill for water supply and sewerage remaining relatively constant in current dollars over the last 12 years (graph 6 on page 199).

The strong pricing signals provided have enabled the NSW LWUs to avoid over $1B in capital expenditure over the last decade for augmenting water supply headworks and treatment capacity and the associated increases in their typical residential bills.

[5] Maintaining such a chlorine residual is a key element in the recommended multi-barrier approach for assuring drinking water quality. Refer to the example in Table A10 on page A-21 of ADWG.
[6] Monitoring requirements must be clearly documented with appropriate responsibility and authority assigned to suitably trained officers.

Any LWU which is not achieving the required revenue from residential water usage charges or full cost recovery should develop complying tariffs in order to provide the necessary pricing signals to its customers and achieve the benefits of efficient water use in its area.

4.5 Asset management

Renewals

Renewals programs for LWUs vary in complexity from a reactive approach (no renewals, repairs (maintenance) undertaken as required) to development of a comprehensive asset management plan. An asset management plan is essential as it forms the foundation for an LWU's strategic business plan. LWUs are therefore strongly encouraged to develop such a plan.

The asset management plan comprises an operation plan, maintenance plan and a capital works plan (involving works for improved levels of service, works to service growth and works for renewals of existing assets).

For a distribution system, for example, an operation plan would be required as part of the LWU's risk management. The operations review would include:

- **An economic analysis** – identifies pipelines where renewal is more economic than continuing with repairs. Takes 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 required for reliability (to ensure performance requirements with regard to supply interruptions can be achieved).
- **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 the ability to meet the LWU's performance requirements, i.e. **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.

For water supply and sewerage, it is misleading to measure annual renewals expenditure on the basis of a percentage (say one or two per cent) of the current replacement cost of assets. Renewals expenditure will be required towards the end of the economic life of an asset (e.g. a new water main with an economic life of 80 years would be expected to have minimal renewal expenditure before year 80). Therefore, LWUs should ensure that their financial plan includes capital expenditure, including renewals, identified in a soundly based asset management plan. They should ensure their **Typical Residential Bill** is in accordance with the projection in their adopted Strategic Business Plan. They should also annually monitor income and expenditure and update the financial plan. Funding in the financial plan involves an appropriate mix of the utility's annual income, accumulated cash and investments and borrowings.

Further information on the development of a cost-effective asset renewal program can be obtained from DWE (Dilip Dutta tel: (02) 8281 7372, fax: (02) 8281 7351, email: dilip.dutta@dwe.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'*, updated August 2007 and guidance on asset management is provided in the *'Asset Management Guidelines for Water Supply and Sewerage'* Public Works NSW 1991.

Leakage

Water leakage and apparent losses 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 (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. Recent LWU results are shown in column 41e of Table 10 on page 171.
- **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 worn customer meters), incorrect assumptions of unmeasured use or unauthorised consumption (illegal use).
- **Water losses** are the combination of Real Losses (leakage) plus Apparent Losses (meter errors, illegal uses).
- **Non-revenue water** consists of Water Losses plus unbilled authorised consumption. Unbilled authorised consumption may or may not be metered and may include fire fighting, mains flushing and 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 water losses 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 traditional basic technical indicator 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.

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 significant 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.

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 recommended by the International Water Association for international comparisons of water utilities. The *National Performance Framework*[7] has adopted the ILI as a measure of leakage and DWE has reported the ILI for each LWU commencing in 2005/06 [column 41b of Table 10 on page 171]. DWE will also continue to report leakage as L/d per connection and kL/km of water main/d [columns 41 and 41a of Table 10 on page 171, Figure 29 on page 61], which are better measures for tracking an LWU's leakage performance over time. These indicators are also preferred in the National Performance Framework.

Previous leakage studies for over 40 NSW water utilities found an average leakage of 17 per cent of annual consumption (range six per cent to 35 per cent). 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, detailed waste metering or night flow analysis of district meter areas. As noted above, recent LWU results are shown in column 41e of Table 10 on page 171 and it is strongly recommended that each LWU undertake such a program of testing, with the assistance of a specialist in leakage control, such as the LGA and SA and Water Directorate, Water Loss Management Program (Ian Maggs on tel: (02) 9242 4127). Refer also to note 14 on page 27.

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.
- Manufa cturing processes.
- Transportation of materials, products, waste and people.
- Fugitive emissions (e.g. Intentional or unintentional emissions from natural gas leaks, joints and seals).
- 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.

Emission factors for calculating direct emissions are generally expressed in the form of the quantity of GHG emitted per unit of energy (kg CO_2/GJ). Emission factors are used to calculate GHG emissions by multiplying the factor (e.g. kg CO_2/GJ energy in petrol) with activity data (e.g. 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 Department of Climate Change – National Greenhouse Accounts (NGA) Factors (www.climatechange.gov.au/workbook/pubs/workbook-feb2008.pdf).

It should be noted that many opportunities for reducing greenhouse gas emissions are missed because their financial attractiveness is masked by not considering their full costs and benefits.

[7] *National Performance Framework – 2006-07 Urban Performance Reporting Indicators and Definitions*, National Water Commission/Water Services Association of Australia, May 2007.

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.

The **typical residential bill** is the **principal indicator of the overall cost** of a water supply or sewerage system [column 13b of Table 5 on page 120, Figure 1 on page 31, column 8 of Table 6 on page 127, Figure 10 on page 41, column 8 of Table 7 on page 144, Figure 50 on page 81] and is the annual bill paid by a residential customer using the utility's average annual residential water supplied [column 14 of Table 6 on page 127, Figure 28 on page 60]. 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) [column 67 of Table 11 on page 174, Figures 37, 38, 39 on pages 68, 69, 70] is efficient.

To assess performance, you should:

1. review your performance and produce an Action Plan to Council using your *2006-07 TBL Performance Report* for each of water supply and sewerage [see section 5.3 on page 16]
2. compare selected performance indicators with those of similar sized utilities using the Figures showing performance trends for four utility size ranges over the past six years [e.g. Figure 28 on page 60]
3. undertake process benchmarking for selected indicators for areas of apparent under performance, e.g. where the LWU has a ranking of three to five relative to LWUs with similar characteristics [Table 13 on page 180].

5.2 Factors impacting performance

When comparing reported performance, utilities should take account of the wide range of factors which can impact on their performance. 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 (e.g. reticulation or bulk supply). Other 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. Each utility can improve its performance by taking account of such factors and comparing its performance with utilities having similar characteristics (refer to pages 13 to 15).

The most meaningful performance 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.

Some of the factors which can affect 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 operation and maintenance costs.
2. **Geography** – geology, geography and topography can significantly affect water transportation costs.
3. **Asset life cycle** – recently constructed systems have much lower maintenance and renewals costs compared to older systems. They also have higher Typical Residential Bills and loan payments.
4. **Development density** – distribution networks are a major investment component of a water supply system. The density of urban development has a large effect on the infrastructure cost (e.g. the number of properties served per km of main has a Statewide median of 33, but has a range of 2 to 90 [column 26 of Table 9 on page 169, Figure 6 on page 37]).
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 17 on page 27].
6. **Size of LWU** – there are significant economies of scale for large utilities, particularly the capital cost of infrastructure and the operation and maintenance costs of water treatment works [Figure 41 on page 72].

Social – levels of service

7. **Service standards** – increasingly stringent standards for water quality and environmental health may result in additional capital and operation and maintenance 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 per cent of their water supply) [note 18 on page 28].

Environmental

9. **High average annual residential water supplied per property** [column 56a of Table 10 on page 171, Figure 28 on page 60] – such utilities should examine opportunities for reducing the water supplied through water conservation and implementation of best-practice water pricing. Achieving efficient water use is a key responsibility for a water utility. As shown on Figure 28, the non-metropolitan NSW utilities have reduced the average annual residential water supplied per property by 44 per cent over the past 16 years.

Economic

10. **High pumping cost** [columns 94 to 99 of Table 13 on page 180, Figure 42 on page 73] – is influenced mainly by topography and geography. As noted on page 12, the LWU may be able to achieve significant savings in energy 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 economic efficiency indicators for four sizes of LWUs – Water Supply 2006/07

Size of LWU	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
Performance indicator	**(25 LWUs)**	**(23 LWUs)**	**(16 LWUs)**	**(25 LWUs)**
Operating cost/property ($)	282	390	368	378
Operating cost (c/kL)	93	75	98	78
Operating cost/100 km ($'000)	974	833	895	698
Management cost/property ($)	113	128	103	86
Treatment cost[1]/property ($)	23	89	85	100
Pumping cost/property ($)	19	29	29	62
Energy cost[2]/property ($)	13	19	21	16
Water Main cost/property ($)	45	58	66	68
No. of employees/1,000 properties	1.3	1.7	2.0	2.4

Notes:

1. Only LWUs with a treatment works with at least filtration and disinfection for over 50 per cent of supply have been considered.
2. A component of pumping cost.

Median economic efficiency indicators for four sizes of LWUs – Sewerage 2006/07

Size of LWU	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
Performance indicator	**(19 LWUs)**	**(24 LWUs)**	**(18 LWUs)**	**(32 LWUs)**
Operating cost/property ($)	331	298	237	266
Operating cost (c/kL)	126	140	117	148
Operating cost/100 km ($'000)	1297	1118	827	754
Management cost/property ($)	103	102	87	72
Treatment cost/property ($)	92	106	91	117
Pumping cost/property ($)	42	50	30	44
Energy cost[1]/property ($)	21	18	18	16
Sewer main cost/property ($)	38	52	35	29
No. of employees/1,000 properties	1.5	1.8	1.6	2.1

Note:

1. A component of pumping and treatment costs.

5.3 Action plan

Each LWU should review its performance using its *TBL Report*, as well as items (2) and (3) in Section 5.1. LWUs should then develop an Action Plan to Council to address any areas of under-performance identified. The TBL Report and the Action Plan should form the basis of a management report to Council. An example Action Plan is shown on page 22 and an example *TBL Performance Report* is shown on pages 23 and 24. The Action Plan should also document the target date for completion of any unmet Best Practice Management requirements and should also include the key actions in a LWU's Strategic Business Plan that are to be completed in the next financial year.

Compliance with best practice management guidelines

Compliance with each of the key requirements [Table 3 on page 115] of the guidelines is shown on the *TBL Report* (page 23). LWUs should review these results and address any areas of non-compliance. For each instance of non compliance, the Action Plan should briefly outline the strategy and target date for achieving compliance. LWUs that achieve the outcomes required by the guidelines will have effective and sustainable water supply and sewerage businesses and will comply with the National Water Initiative. Compliance with the guidelines is also a pre-requisite for payment of a dividend from the surplus of the LWU's water supply or sewerage business and for financial assistance under the Country Towns Water Supply and Sewerage Program.

Performance based on triple bottom line

LWUs should review the TBL indicators shown in the *TBL Report* and investigate those indicators where performance is below the median. In particular, for those indicators with a ranking of four or five, LWUs should investigate the reasons for the ranking and if appropriate, develop a strategy for improvement. It should be noted that a low ranking does not necessarily imply poor performance as there are a number of factors that can impact performance as shown in Section 5.2. For example, the rankings take no account of the impact of utility characteristics (e.g. whether the water supply is fully filtered or whether it is a good quality groundwater, whether the LWU is a reticulator etc). The Action Plan should take account of these characteristics.

As noted above, the rankings are based on statewide medians. While all LWUs should strive to raise their performance to at least the statewide 80 percentile [Tables 1 and 2 on pages 113 and 114], it is also useful to compare your LWU's performance with LWUs of a similar size. To assist LWUs in such comparisons, the medians for the relevant indicators have been shown in Tables 5 to 18 for each LWU size grouping. In addition, LWUs may benchmark their performance against LWUs with similar characteristics.

Of particular importance is for the Action Plan to identify trends in a LWU's performance indicators over the past 10 years (using the second page of the TBL Performance Report). This analysis of the trends in a utility's performance indicators is a powerful tool for monitoring and improving performance.

Further factors that may assist LWUs in their assessment of performance are listed below.

Utility characteristics

- **Renewals** – LWUs should ensure that their typical residential bill (TRB) in current dollars (i.e. adjusted for inflation) is consistent with the projection in its 30 year financial plan in order to ensure it is raising sufficient revenue for the required infrastructure. LWUs should also examine their asset management policy and ensure that the necessary funds are directed to maintenance and renewals.
- **Employees** – the number of employees per 1,000 properties is a good indicator of operating and management costs [column 32 of Table 9 on page 169, Figure 9 on page 40, column 14 of Table 14 on page 183, Figure 48 on page 79]. If the number of employees per 1,000 properties is significantly higher than the median shown in the tables above for the size of LWU, the LWU should examine their management structure and identify the reasons for the difference and provide a brief explanation or proposed remedial action in the Action Plan. Refer also to the comment on management cost on page 20.
- **Properties served per km** – the density of urban development has a large effect on the infrastructure cost. For LWUs with >10,000 properties the median is 35 properties per km (range 13 to 70), while for LWUs with 200 to 1,500 properties the median is 16 (range 2 to 38) [column 26 of Table 9 on page 168, Figure 6 on page 37, column 9 of Table 14 on page 183, Figure 47 on page 78].

Social factors

Affordability

- **Typical residential bill (TRB)** – as noted on page 8, this is the principal indicator of the overall cost of a water supply or sewerage system (it is the annual bill paid by a residential customer using the utility's average annual residential water supplied). A critical element of the TRB is the operating cost (OMA – operation, maintenance and administration) [column 67 of Table 11 on page 174, Figures 37, 38, 39 on pages 68, 69, 70] as noted on the facing page under Economic Factors – Efficiency. The Action Plan should report on whether the TRB is consistent with the projection in a LWU's 30 year financial plan and on any warranted corrective action.
- **Residential Water Usage Charge (c/kL)** – Higher usage charges have been ranked '1' because they provide a strong pricing signal, while lower charges have been ranked '5'. However, this indicator should be viewed in conjunction with the TRB and whether the LWU is achieving full cost recovery, in which case a lower water usage charge may be a good result.

Health

- **Microbiological water quality compliance (per cent)** – This is the most important water supply health indicator and all LWUs should aim for a value of 100 per cent. As shown in Figure 16 on page 47, 83 per cent of LWUs complied with the microbiological water quality requirements in 2006-07 [also refer to column 8 of Table 5 on page 120]. LWUs with less than 98 per cent do not comply with the Australian Drinking Water Guidelines, 2004 and should identify the reasons for the lower value. Provide a brief explanation together with proposed remedial action in the Action Plan.

  As indicated in section 4.3 on page 7, each LWU should develop a sound risk based drinking water quality management plan as a matter of priority.
- **Public health incidents** – where this indicator is significantly higher than the statewide median, the Action Plan should provide a brief explanation together with proposed remedial action if appropriate.
- **Capital investment on improving public health** – If a LWU reported zero for this indicator, investigate to ensure that this indicator is not under reported.

Customer service

- **Water quality complaints** – LWUs with a high number of complaints (in the bottom 20 per cent of LWUs) should investigate the reasons for the complaints, including past performance and trends indicated in page two of the *TBL Report*. Provide a brief explanation together with proposed remedial action in the Action Plan. Note that the result for this indicator will be influenced by the type of business (e.g. Unfiltered supply, groundwater etc) [column 8b of Table 5 on page 120, Figure 21 on page 52].
- **Odour complaints** – This is a critical indicator for providing appropriate sewerage levels of service. LWUs with a high number of complaints (in the bottom 20 per cent of LWUs) should investigate the reasons for the complaints, including past performance and trends indicated in page two of the *TBL Report.* Provide a brief explanation together with proposed remedial action in the Action Plan [column 11 of Table 5 on page 120, Figure 54 on page 85].
- **Number of main breaks** – 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 10 breaks/100 km). LWUs with a high incidence of breaks should investigate the likely reasons for the breaks, including the past performance and trends indicated in page two of the *TBL Report.* Provide a brief explanation together with proposed remedial action in the Action Plan [column 3a of Table 5 on page 120, Figure 23 on page 55].
- **Average duration of unplanned interruptions (water)** – where this indicator is significantly higher than the statewide median, the Action Plan should provide a brief explanation together with proposed remedial action if appropriate [column 3b of Table 5 on page 120].
- **Average break/choke repair time (sewerage)** – where this indicator is significantly higher than the statewide median, the Action Plan should provide a brief explanation together with proposed remedial action if appropriate [column 65 of Table 17 on page 192].

Environmental factors

- **Average annual residential water supplied** – this indicator is heavily influenced by the location and type of LWU (e.g. an inland LWU would expect to have a high residential water supplied while an LWU with a dual supply would expect to have a very high value) and also due to the presence of water restrictions. Inland LWUs have a significantly higher residential water supplied due to their hotter and drier climate and the use of evaporative coolers. Note that the median residential water supplied for inland LWUs in 2006-07 was 305 kL/property compared to 165 kL/property for coastal LWUs [column 14 of Table 6 on page 127, Figure 28 on page 60].
- **Water Losses (ILI)** – ILI values of less than about 1.5 indicate excellent management of real losses, while an ILI close to 1.0 means that the real losses are close to the unavoidable or technical minimum losses. Such low ILI values are only likely to be economically justified where marginal costs of water supply are relatively high (e.g. desalination) or where water is scarce. An ILI of less than 1.0 is meaningless and may indicate errors in the input data. An ILI greater than three may indicate old or poor infrastructure or a relatively relaxed active leakage control policy [column 41b of Table 10 on page 171].
- **Recycled water** – The volume of recycled water use includes effluent reuse for town water and for agricultural uses. The volume reported for town water should equal the recycled volume shown in the water supply report. In 2006-07 20 per cent of LWUs reused over 50 per cent of their effluent [columns 13 to 14b of Table 8 on page 157 and Figures 65 and 66 on pages 97 and 98]. As shown on Figure 65 on page 97, the highest volume recycled by a utility was 4,470 ML (Albury) and a further five utilities (Orange, Dubbo, Shoalhaven, Tamworth Regional and Wyong), each recycled over 1,000 ML.

- **Compliance with BOD in licence** – where compliance is low (e.g. below 90 per cent), provide a brief explanation together with proposed remedial action in the Action Plan [column 55 of Table 17 on page 192, Figure 57 on page 89].
- **Compliance with SS in licence** – where compliance is low (e.g. in the bottom 20 per cent of LWUs), provide a brief explanation together with proposed remedial action in the Action Plan if appropriate [column 57 of Table 17 on page 192, Figure 58 on page 90].
- **Sewer main chokes and collapses** – sections of sewer main with a high incidence of chokes and collapses (say treble the statewide median of 49 per 1,000 connected properties) warrant close attention. Provide a brief explanation together with proposed remedial action in the Action Plan [column 59 of Table 17 on page 192, Figure 62 on page 94].
- **Sewer overflows to the environment** – where this indicator is significantly higher than the statewide median, provide a brief explanation together with proposed remedial action in the Action Plan [column 60 of Table 17 on page 192, Figure 64 on page 96].
- **Environmental incidents** – where this indicator is significantly higher than the statewide median, provide a brief explanation together with proposed remedial action in the Action Plan.

Economic factors

Financial

- **Residential revenue from usage charge (per cent)** – The revised Best Practice Management Guidelines require LWUs with greater than 4,000 properties to have at least 75 per cent of residential revenue generated through usage charges by June 2008, while LWUs with less than 4,000 properties, including LWUs with a dual supply must have at least 50 per cent of residential revenue generated through usage charges. This is a key demand management measure to ensure customers receive a sufficiently high pricing signal to encourage careful water use [column 13 of Table 6 on page 127, Figure 33 on page 64]. Refer also to item 9 on page 14.
- **Economic real rate of return (ERRR)** – this reflects the rate of return generated from operating activities (ie. excluding interest income, grants for acquisition of assets and gain/loss on disposal of assets). Water and sewerage charges should be sufficiently high to ensure continuing financial viability and provide for asset renewals and a positive rate of return, but not so high that they generate excessive monopoly profits. The ERRR is a good indicator of the financial health of a business [column 12 of Table 6 on page 127, Figure 34 on page 65, column 11 of Table 7 on page 144, Figure 71 on page 102]. The recent drought has had a significant effect on the rate of return for many LWUs, a reduced volume of water supplied has reduced their income from water usage charges and these LWUs have not set their tariff taking in to account this reduced volume. **LWUs should set each year's tariff to raise the required revenue on the basis of the estimated volume of water supplied in the next financial year.** This is particularly important during drought periods.
- **Return on assets** – this ratio is similar to the ERRR. It indicates the earnings generated before interest and tax (EBIT) for the assets controlled by the business. It is calculated as the operating profit before dividends divided by the difference between total assets and total liabilities. All LWUs should aim to achieve a positive return on assets [column 11 of Table 6 on page 127, Figure 35 on page 66, column 9 of Table 7 on page 144, Figure 72 on page 103, column 24c of Table 5A on page 124]. Refer also to Figures 13 and 14 of the *2006-07 NSW Performance Monitoring Report.*
- **Net Debt to equity** – net debt is the sum of long and short term borrowings less cash and investments. Equity is the total assets less total liabilities. In 2006-07 the NSW median net debt to equity for water supply and sewerage was -3 per cent [column 19a of Table 5 on page 120]. LWUs facing significant capital investment are encouraged to make greater use of borrowings to reduce their TRB and avoid unfairly burdening their existing customers and facilitate inter-generational equity.

- **Loan payment ($/property)** – this indicator shows the component of the TRB applied to meet debt payments. A high loan payment per property indicates a relatively high capital cost per property, recent construction of significant capital works or use of short-term loans [Figure 36 on page 67, Figure 73 on page 104]. The median loan payment in 2006-07 for water supply was only $15 per connected property.
- **Interest cover** – this ratio provides an indicator of the LWU's ability to meet interest commitments. It is calculated as the earnings before interest and tax (EBIT) divided by net interest (interest expense less interest income). The interest cover is nil for a loss making business [column 27 of Table 5A on page 124, Figure 35 on page 66, Figure 72 on page 103]. As a general guide, an interest cover >2 is a good interest cover position. For 2006-07, the median interest cover for water supply was >100.

Efficiency

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 [column 67 of Table 11 on page 174, Figure 37 on page 68]. The components of operating cost are:

- **Management cost** – this includes administration, engineering and supervision and is typically almost 40 per cent of the total operating cost [column 68a of Table 11 on page 174, Figure 40 on page 71]. The number of employees per 1,000 properties can be a good indicator of the operating and management costs and hence the efficiency of an LWU. However, LWUs with a number of non-contiguous (i.e. separate) water supply systems and those with small water treatment works or small sewage treatment works will need a higher level of employees/1,000 properties in order to effectively manage their systems [refer also to the top of page 17]. Similarly, LWUs with a low development density, under about 20 properties served/km of water main [column 26 of Table 9 on page 169] will need a higher level of employees.
- **Treatment cost (water)** [columns 104 to 107 of Table 13 on page 180, Figure 41 on page 72] – this is dependent on the type and quality of the water source and the extent of treatment provided. In addition, as shown in the Table on page 10, there are great economies of scale for the operation of water treatment works (i.e. facilities involving at least filtration and disinfection).
- **Treatment cost (sewage)** [columns 90 to 92 of Table 18 on page 195, Figure 78 on page 109] – 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 as shown in the Table on page 15.
- **Pumping cost (water)** [columns 94 to 99 of Table 13 on page 180, Figure 42 on page 73] – 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.

- **Energy cost** [columns 98 and 99 of Table 13 on page 180] – this is mainly a consequence of pumping requirements and is a component of pumping cost for water supply. Energy cost may be reduced by maximising pumping in off peak periods or by obtaining a competitive energy rate from the energy supplier (eg. maximising off peak pumping has provided annual savings in energy costs of over $200,000 for a number of large water supplies).

  For sewerage, energy cost is a component of pumping and treatment costs [columns 83 and 84 of Table 18 on page 195]. Significant cost savings may be available by optimising energy use in the treatment process (e.g. such optimising of energy use has provided annual savings of over $100,000 for a number of large sewage treatment works).
- **Water and Sewerage mains cost** [column 84 of Table 13 on page 180, Figure 43 on page 74, column 70 of Table 18 on page 195, Figure 80 on page 111] – this is dependent on the age and condition of the mains, the ground conditions and the number of connected properties per km of main.

5.4 Example action plan Dubbo City Council

An example Performance Report is shown on pages 23 and 24 for Dubbo City Council which has one sewage treatment works providing advanced secondary treatment. The system comprises 40,000 EP treatment capacity (Intermittent Extended Aeration [Activated Sludge]) with 55 km of rising mains and 308 km of gravity trunk mains and reticulation. Treated effluent is discharged to land and river. An example analysis and Action Plan are shown below.

Summary

Residential growth for Dubbo for 2006-07 was 1.1 per cent (similar to the statewide median). Council has achieved full compliance with the Best-Practice Management Guidelines. It has also achieved 100 per cent compliance with 90 percentile licence limits for effluent discharge for BOD and SS. Council will review its management cost to identify options for improvement.

Indicator		Result	Analysis/Action plan
	Best-Practice Management Guidelines	Complied with all the required criteria.	Full compliance – excellent.
	Revenue from non-residential sewerage and trade waste charges compared to total value of sewerage collected.	Recovered 31 per cent of revenue but comprised 54 per cent of the total volume of sewage collected.	Reduce cross subsidy to non-residential and trade waste customers (refer to Indicators 14, 43).
Characteristics			
7	Renewals expenditure.	0.0 per cent of CRC. Ranking# of 3(2).	Ranking at Statewide median. However, maintenance and renewals expenditures are low. *Council to examine its asset management plan and ensure that sufficient funds are directed to maintenance and renewals.*
8	Employees/1,000 properties.	1.0, High ranking of 2(1).	Good. This has remained at about the same level over the past 10 years.
Social – Charges			
12	Typical residential bill (TRB).	$455, Ranking of 3(4).	The TRB is in accordance with Council's Strategic Business Plan. The TRB is satisfactory, although it is higher than the statewide median of $405.
13	Typical developer charges.	$4,200, Ranking of 3(2).	Satisfactory.
14	Non-residential sewer usage charge (c/kL).	130c/kL, High ranking of 2(2).	Disparity exists where the non-residential sewage and trade waste volume was 53 per cent of total sewage collected, but provided only 31 per cent of total revenue. *Increase charge to at least match the operating cost of 172c/kL.*
Social – Health			
16	Urban properties without reticulated sewerage service.	2.5%, High ranking of 3(1).	Good, although it is only at the median of similar sized LWUs.
Social – Levels of service			
21	Odour complaints.	0, High ranking of 1(1).	Excellent.
22	Service complaints/1,000 properties.	16, Ranking of 3(3).	Higher than the Statewide median. *Examine options for improvement.*
23a	Average break/choke repair time.	1, Ranking of 3(2).	Satisfactory.
25	Total days lost (%).	2.6, Ranking of 3(3).	This has remained at about the Statewide median over the last 10 years. *Examine options for targeted improvement.*
Environmental			
27	Percentage effluent reclaimed.	97%, High ranking of 1(1).	Excellent.
28	Biosolids reuse.	100%, High ranking of 1(1).	Excellent.
3435	Compliance with BOD and SS in licence.	100%, High ranking of 1(1).	Excellent.
36	Sewer main chokes and collapses.	65, Low ranking of 5(3).	The high number of chokes was adversely affected by drought conditions. Review and identify options for improvement.
37	Sewer overflows to the environment.	13, Ranking of 3(3).	Satisfactory. Examine options for improvement.
Economic			
43	Non-residential revenue.	31%, High ranking of 1(1).	Good but sewer usage charges should be increased (refer to Indicator 13).
46	Economic real rate of return.	1.4%, Ranking of 3(2).	Rate of return is at about the Statewide median. The 2006-07 result is about half the 2005-06 value and may have been affected by the drought. *Review sewerage and trade waste charges and OMA costs to ensure full cost recovery (refer to Indicators 13 and 43).*
50	Operating cost (OMA)/ property.	$324, Ranking of 2(4).	Satisfactory. At about the statewide median and is reducing over the last four years.
52	Management cost per property.	$145, Low ranking of 5(5).	Management cost is high, with an increasing trend over the last 10 years. *Review to identify options for improvement.*
56	Sewer main cost per property.	$7, High ranking of 1(1).	Excellent. *Review need for additional maintenance expenditure.*

The ranking relative to similar size LWUs is shown first, followed by the ranking relative to all LWUs within brackets).

Dubbo City Council sewerage (TBL performance report page 1)

Dubbo City Council | **TBL Sewerage Performance** | **2006/07**

SEWERAGE SYSTEM - Dubbo Council has 1 sewage treatment works providing advanced secondary treatment. The system comprises 40,000 EP treatment capacity (Intermittent Extended Aeration (Activated Sludge)), 10 pumping stations (57 ML/d), 55 km of rising mains and 308 km of gravity trunk mains and reticulation. Treated effluent is discharged to land and river.

PERFORMANCE - Residential growth for 2006/07 was 1.1% which is similar to the statewide median. Dubbo City Council complied with all 4 out of 4 Best Practice Criteria. The typical residential bill was $455 which was above the statewide median of $405 (Indicator 12). The economic real rate of return was equal to the statewide median (indicator 46). The operating cost per property (OMA) was $324 which was close to the statewide median of $320 (Indicator 50). Sewage odour complaints were less than the statewide median (Indicator 21). Dubbo Council reported 48 Category 2 environmental incidents (limited impact). Council did not comply with the environmental regulator for effluent discharge. The current replacement cost of system assets was $152M ($11,700 per assessment), cash and investments were $9M, debt was $3.9M and revenue was $8.7M (excluding capital works grants).

COMPLIANCE WITH BEST-PRACTICE MANAGEMENT GUIDELINES CRITERIA

(1) Complete current strategic business plan & financial plan	YES	**(2e) Pricing** - DSP with commercial developer charges	Yes
(2) **(2a) Pricing** - full cost-recovery, without significant cross subsidies	Yes	**(2f) Pricing** - Liquid trade waste approvals & policy	Yes
(2c) Pricing - Complying Residential Charges	Yes	**(3) Complete performance reporting form (by 15 September)**	YES
(2c) Pricing - Complying non-Residential Charges	Yes	**(4) Integrated water cycle management strategy commenced**	YES
(2d) Pricing - Complying Trade Waste Fees and Charges	Yes	**COMPLIANCE WITH ALL REQUIRED CRITERIA**	YES

TRIPLE BOTTOM LINE (TBL) PERFORMANCE INDICATORS

					LWU RESULT	RANKING >10,000 properties	RANKING All LWUs	STATEWIDE MEDIAN
		NWI	No.			Note 1	Note 2	Note 3
UTILITY	CHARACTERISTICS		1	**Population served: 32900**				
		C2	2	**Number of connected properties: 14420** Number of assessments: 12990	Col 1	Col 2	Col 3	Col 4
			3	**Number of residential connected properties: 13100**				
			4	**New residences connected to sewerage** (%)	1.1	2	3	1.2
		A5	5	**Properties served per kilometre of main**	40			40
			6	**Volume of sewage collected** (ML)	2,720			3,600
			7	**Renewals expenditure** (% of current replacement cost of system assets)	0.0	3	2	0.0
			8	**Employees per 1000 properties**	1.0	2	1	1.6
SOCIAL	CHARGES & BILLS - 2007/08	P3		**Description of residential tariff structure:** access charge per property; independent of land value (Note 5)				
		P3.3	11	**Residential access charge / assessment** ($)	455	3	4	405
		P4	12	**Typical residential bill / assessment** ($) (2006/07 values in Table 7)	455	3	4	405
			13	**Typical developer charge / equivalent tenement** ($)	4,230	3	2	3,900
			14	**Non-residential sewer usage charge** (c/kL)	130	2	2	90
	HEALTH		16	**Urban properties without reticulated sewerage service** (%)	2.5	3	1	3.7
		E3	17	**Percent of sewage treated to a tertiary level** (%)	100	1	1	82
		E4	18	**Percent of sewage volume treated that was compliant** (%)	57	5	5	93
		E5	19	**Sewage treatment works compliant at all times**	0 of 1			
	SERVICE LEVELS	C4	21	**Odour complaints per 1000 properties**	0.0	1	1	0.4
		C7	22	**Service complaints per 1000 properties**	16	3	3	9
			23	**Customer interruption frequency per 1000 properties**	18	5	5	0
		C11	23a	**Average break/choke repair time** (hours)	1	2	2	2
			25	**Total days lost** (%)	2.6	2	4	3.2
ENVIRONMENTAL	NATURAL RESOURCE MANAGEMENT	W12	26	**Volume of sewage collected per property** (kL)	188	5	5	230
		W14	26a	**Total recycled water supplied** (ML)	2660	1	1	460
		W15	27	**Recycled water** (% recycled)	97	1	1	10
		E8	28	**Biosolids reuse** (%)	100	1	1	100
			30	**Energy consumption per Megalitre** (kiloWatt hours)	1023	4	5	780
			31	**Renewable energy consumption** (% of total energy consumption)	0	2	1	0
		E9	32	**Net greenhouse gas emissions - WS & Sge** (net tonnes CO2 equivalents per 1000 properties)	650	5	5	230
	ENVIRONMENTAL PERFORMANCE		33	**90 Percentile licence limits for effluent discharge:** BOD 30 mg/l; SS 30 mg/l; Total N 15 mg/l; Total P 10 mg/l				
			34	**Compliance with BOD in licence** (%)	100	1	1	100
			35	**Compliance with SS in licence** (%)	100	1	1	100
		A10	36	**Sewer main chokes and collapses per 100 km of main**	65	3	3	46
		E10	37	**Sewer overflows to the environment per 100 km of main**	13	2	4	18
		E4	38	**Sewage treated that was compliant** (%)	57	5	5	94
ECONOMIC	FINANCE	F2	42	**Total revenue - Sge** ($'000)	8680			10500
			43	**Revenue from non-residential plus trade waste charges** (% of total revenue)	31	1	1	16
			44	**Revenue from trade waste charges** (% of total revenue)	3.2	2	1	1.1
			45	**Current replacement cost per assessment ($)**	11,730	2	2	10,900
		F14	46	**Economic real rate of return** (%)	1.4	2	3	1.4
			46a	**Return on assets** (%)	1.6	4	3	1.4
		F16	47	**Net Debt to equity** (%)	4	2	1	-7
		F17	48	**Interest cover**	>100	1	1	>100
			48a	**Loan payment per property** ($)	28	3	2	28
		F18	48b	**Net profit after tax ratio - water supply & sewerage** (%)	15	4	3	16
	EFFICIENCY		49	**Operating cost (OMA) per 100 km of main** ($'000)	1290	3	4	1290
		F7	50	**Operating cost (OMA) per property** ($) Note 8	324	2	4	320
			51	**Operating cost (OMA) per kilolitre** (cents)	172	4	4	129
			52	**Management cost per property** ($)	145	5	5	110
			53	**Treatment cost per property** ($)	124	4	4	104
			54	**Pumping cost per property** ($)	24	2	1	44
			55	**Energy cost per property** ($)	29	4	4	21
			56	**Sewer main cost per property** ($)	7	1	1	39
		F11	57	**Capital Expenditure per property** ($)	266	3	2	193

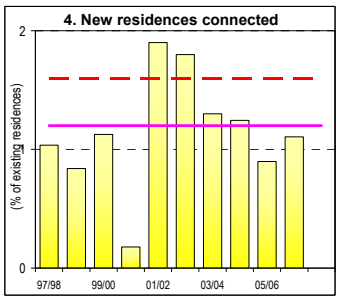
NOTES :

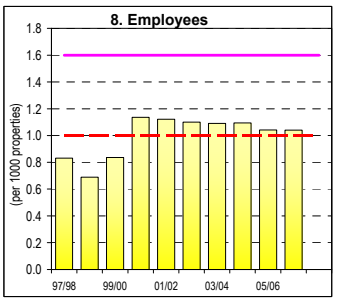
1 The ranking compared with LWUs with >10,000 properties connected properties (Col 2) is on a % of LWUs basis - relevant for comparing performance with similar sized LWUs - see attachment.
2 The ranking compared with all LWUs (Col 3) is on a % of LWUs basis - relevant for comparing performance with all other LWUs - see attachment.
3 The Statewide Median (Col 4) is on a % of connected properties basis. It best reveals statewide performance giving due weight to larger LWUs & reducing the effect of smaller LWUs- see attachment.
4 Annual review of the key projections & actions in LWU's Strategic Business Plan (SBP) are required, together with annual updating of LWU's Financial Plan. The SBP should be updated after 3 years.
5 Non-residential: Access Charge based on square of size of service connection, sewer usage charge - 130c/kL.
6 Non-residential & trade waste volume was 53% of total sewage collected; these customers only provided 31% of the revenue from annual charges, usage and trade waste charges.
7 Compliance with Total N in Licence was 100%. Compliance with Total P in Licence was 100%.
8 The operating cost (OMA)/property was $324. The components of operating cost/property were: management ($145), operation ($114), maintenance ($32), energy ($26) and chemical ($7).

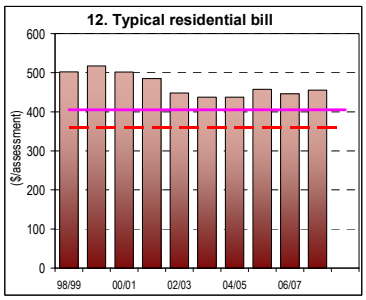
Dubbo City Council sewerage (TBL performance report page 2)

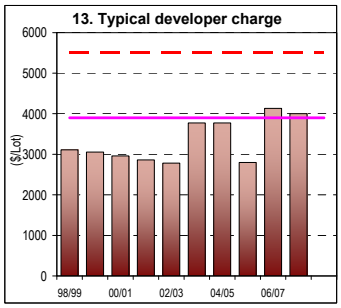
Dubbo City Council | **TBL Sewerage Performance (page 2)** | **2006/07**

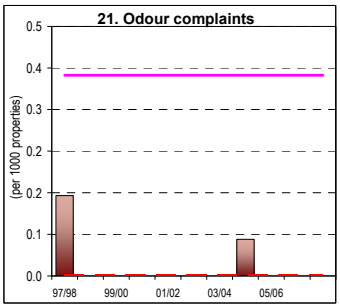
(Results shown for 10 years together with 2006/07 Statewide Median and Top 20%)

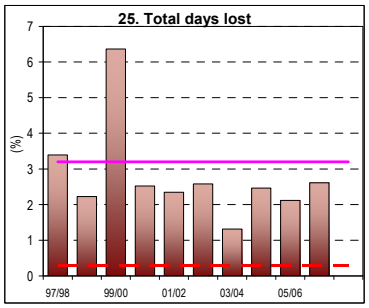


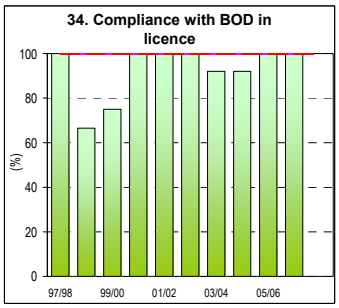


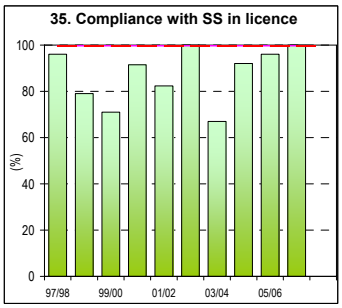


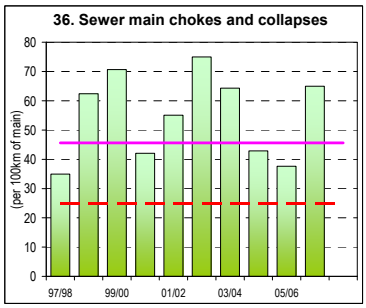


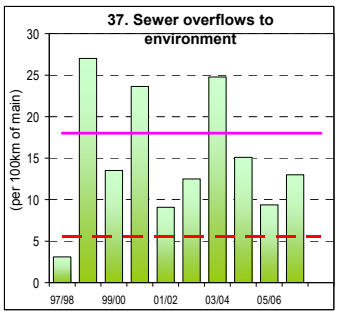


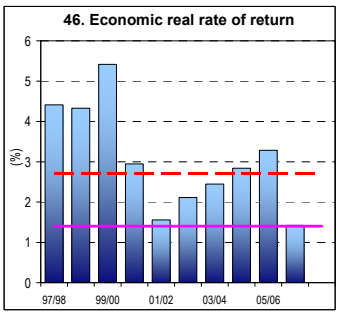


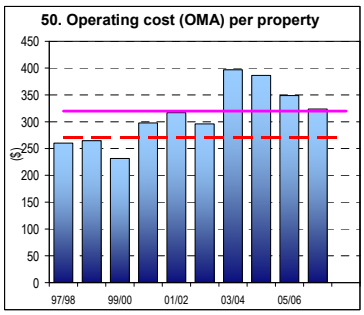


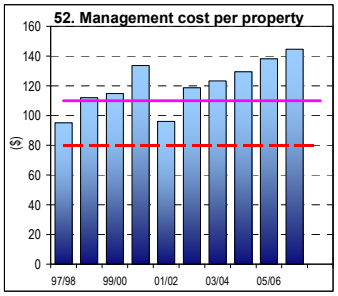


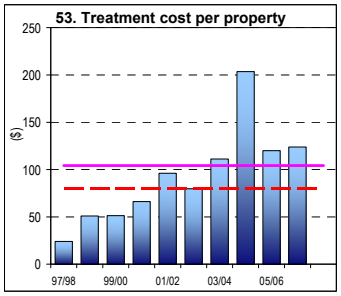


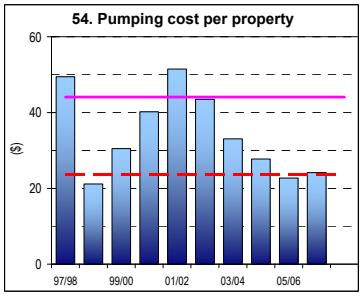












NOTES:

1. Costs are in Jan 2007$.

LEGEND

2006/07 State Median

2006/07 Top 20%

6. General notes

This 2006-07 NSW Water Supply and Sewerage Benchmarking Report provides the full suite of performance indicators and benchmarking data to enable each LWU to benchmark its performance against that of similar LWUs. The benchmarking report is available on the DWE website (www.dwe.nsw.gov.au)

To provide a balanced view of the long-term sustainability of NSW LWUs, a TBL accounting focus has been adopted, with performance reported on the basis of social, environmental and economic performance indicators.

Statewide performance indicators are calculated on a 'percentage of connected properties basis'. This best reveals 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.

6.1 Figures and tables

Most of the figures in this report show performance indicators for each of the last six years to enable review of trends and to facilitate benchmarking and 'yardstick' comparisons. The figures show ranked results for LWUs grouped into four 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.

Table 5 and Tables 6 to 18 show water supply and sewerage performance indicators for each of the 111 NSW water utilities (107 LWUs plus Sydney Water Corporation and Hunter Water Corporations, Sydney Catchment Authority and Hawkesbury Council).

As noted on page 2, 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 2 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 four size ranges as for the figures. Also, the median for many of the indicators are shown for each size grouping.

6.2 General notes

1. **TBL Focus –** To provide a balanced view of the long-term sustainability of LWUs, a TBL accounting focus has been adopted, with performance reported on the basis of **Social, Environmental** and **Economic** indicators.
2. **Data not reported** – Where an LWU has not reported an item for 2006-07, the value previously reported has been used where appropriate. Such values are shown in ***italics bold*** in Tables 5 to 18. These values are also shown in the relevant figures.
3. **Properties vs assessments** – 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 water supply or sewerage 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 (e.g. blocks of flats or units) with a single assessment [column 18 to 22 of Table 9 on page 169, columns 1 to 5a of Table 14 on page 183, Figure 4 on page 35, Figure 45 on page 76].

4. **Calculation of connected properties** – The number of connected properties is calculated as the product of the number of assessments times the ratio of the number of connected properties per assessment for each of water supply and sewerage. For any utility there is minimal change in this ratio of the number of connected properties per assessment from year to year. DWE has worked with LWUs to establish these ratios. Where warranted for a particular LWU, these ratios are updated from time to time.
5. **Statewide medians** – This report refers to statewide medians which are calculated on a 'percentage of connected properties' basis rather than a 'percentage of LWUs' basis. This is a weighted median on the basis of connected properties, which best reveals statewide performance by giving due weight to larger LWUs and reducing the effect of smaller LWUs. LWU rankings on a 'percentage of LWUs' basis are also provided where appropriate (e.g. for comparison of LWUs in the 'Ranking' columns of the 2 page TBL Performance Report for each utility (examples on page 23 and in Appendix C). The statewide medians are shown in Tables 1 and 2 on pages 113 and 114.
6. **Aggregated businesses** – To facilitate comparisons, the performance indicators in this report have been prepared for each LWU's aggregated water supply or sewerage businesses, rather than for individual water supply or sewerage schemes.
7. **Typical residential bill (TRB)** – The typical residential bill per assessment is the annual bill paid by a residential customer using the LWU's average annual residential water supplied 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 [column 13 of Table 5 on page 120, column 8 of Table 5 on page 120, column 8 of Table 6 on page 127, Figure 1 on page 31, Figure 10 on page 41, Figure 50 on page 81].
8. **Calculation of TRB** – The 2007-08 typical residential bill is based on a customer of the LWU's principal water supply or sewerage system using the LWU's 2006-07 average annual residential water supplied. These bills and tariff details are shown in Tables 6 and 7 on pages 127 and 144. The typical residential bill for 2006-07 and previous years is based on the reported average annual residential water supplied for that year [column 3 of Table 5 on page 120].
9. **Drinking Water Quality Guidelines** – Drinking water quality guidelines have become more stringent. This report discloses compliance with the *2004 NHMRC/NRMMC Australian Drinking Water Guidelines (*National Health and Medical Research Council/National Resource Management Ministerial Council).

   As noted on page 7, it is a matter of concern that 17 per cent of LWUs did not comply with the Guidelines for this key indicator. In addition, all LWUs should develop a risk based drinking water quality management plan as a matter of priority.

   An LWU has complied with the guidelines for microbiological water quality (i.e. it had 100 per cent compliance) if the required number of samples was tested and at least 98 per cent of the samples contained no E. coli. For LWUs which did not comply, the percentage of samples complying is reported [column 8 of Table 5 on page 120, column 71 of Table 12 on page 177, Figure 16 on page 47, Figure 17 on page 48].
10. **Total water supplied** – Total annual water supplied comprises the sum of the potable water supplied plus the non potable water supplied. Recycled water is a component of the non-potable supply which also includes raw water [column 12 of Table 8 on page 157, Figure 8 on page 39].
11. **Average annual residential water supplied** – The average annual residential water supplied per connected property includes both potable and non-potable water supplied [column 3 of Table 5 on

page 120, column 14 of Table 6 on page 127, Figure 28 on page 60]. Where an LWU has not separately reported its residential water supplied, such volume has been estimated using the Statewide average of 58 per cent of the LWU's total potable water supplied [column 1 of Table 8 on page 157]. As indicated in Note 12 below, the potable water supplied and the total water supplied (potable + non-potable) have been separately reported for the 11 LWUs with a dual water supply.

12. **Dual supplies** – Eleven LWUs had a dual water supply to over 50 per cent of their residential customers in June 2006 (i.e. with a potable supply for indoor use and a non potable supply for outdoor use).

    The total annual residential water supplied (i.e. potable + non-potable) kL/property for those LWUs with a dual water supply is shown below, together with their potable residential water supplied in brackets. These volumes were: *Balranald 1080 (226), Berrigan 465 (236), Bourke 2,820 (412), Central Darling 470 (96), Hay 1,290 (181), Jerilderie 886 (231), Murray 439 (233), Wakool 1,260 (373), Walgett 935 (189), Warren 415 (178) and Wentworth 560 (83).*

    The typical residential bill has been calculated for those LWUs with a dual supply using the above volumes.

13. **Water losses** – For consistency with national performance reporting, water losses comprise real losses (leakage) plus apparent losses (unauthorised consumption and under-registration of customer meters). Unbilled water supplied (fire fighting and mains flushing) is not a water loss but is a component of non revenue water [columns 41 to 41e of Table 10 on page 171, columns 1 to 14 of Table 8A on page 161].

14. **Minimum real losses** – Leakage studies for over 40 NSW LWUs indicate an average leakage from water supply distribution systems of 17 per cent of annual consumption (range six per cent to 35 per cent). Therefore, a minimum real loss (i.e. leakage) of six per cent of the potable water supplied has been adopted for this report. Reported real losses of less than six per cent have therefore not been accepted, unless the utility has provided evidence to support the adoption of a lower value. Such evidence includes the results of a reservoir drop test or waste metering, which are shown in column 41e of Table 10 on page 171.

    Minimum non-revenue water – Similarly, statewide analysis of non revenue water (water losses plus unbilled consumption) for NSW water utilities other than bulk water suppliers, indicates a minimum of 10 per cent of annual water supplied. Reported non revenue water of less than 10 per cent of total water supplied has therefore not been accepted, unless the utility has provided evidence to support the adoption of a lesser value. Where the reported non revenue water has not been accepted, the reported values of total potable town water supplied have been increased as a result of increasing the reported non revenue water component to 10 per cent. These adjusted values are shown in italics bold in column 10 of Table 8 on page 157 [refer also to columns 13 and 14 of Table 8A on page 161].

15. **OMA costs for reticulators** – 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 $310/property comprises $217/property for the bulk supply from Goldenfields (bulk supplier) plus $93 for the reticulator (Cootamundra).

16. **Sydney Water, Hunter Water and Sydney Catchment Authority** – The performance indicators for Sydney Water Corporation, Hunter Water Corporation and Sydney Catchment Authority were obtained from *the National Performance Report 2006-07 for Urban Water Utilities.* The typical developer charges reported for Sydney Water Corporation and Hunter Water Corporation are for new release areas.

17. **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 item 5 of 5.2 on page 14). The following non-metropolitan 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, Leeton, 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.

18. **Unfiltered** – a utility with over 50 per cent of its supply comprising an unfiltered surface water supply, i.e. the utility does not have a water treatment works providing filtration and disinfection for >50 per cent of its supply.

    Groundwater – a utility with >50 per cent of its supply comprising good quality unfiltered groundwater.

    Reticulator – a utility which purchases >70 per cent of its source water from a bulk supplier and reticulates water to householders in its area.

    Bulk supplier – a utility which provides a bulk water supply to other utilities, rather than reticulating water to householders.

    Dual supply – a utility with a potable reticulated water supply for indoor uses and a separate non-potable supply reticulated for outdoor uses to over 50 per cent of its residential customers (refer to Note 12 on page 27).

19. **National Water Initiative (NWI) Indicators** – There are 30 NSW water supply utilities with over 10,000 connected properties including three metropolitan utilities and 27 non-metropolitan utilities. All 30 eligible NSW utilities have reported their performance in the *National Performance Report 2006-07* based on a nationally agreed framework of indicator definitions. The reported NWI performance indicators (including key financial performance indicators) have been independently audited. The results that met the rigorous NWI reporting and auditing requirements have been published in the *National Performance Report 2006-07* and are shown in Appendix G of the *2006-07 NSW Water Supply and Sewerage Performance Monitoring Report*. In addition, the reported 21 NWI financial performance indicators for all the 111 NSW utilities have been independently audited and have met the NWI auditing requirements.

    Some of the reported non-financial performance indicators failed to meet the NWI auditing requirements. These results have been excluded from both the *National Performance Report 2006-07* and Appendix G of the Performance Monitoring Report. However they have been included in the Figures and Tables of this Benchmarking Report as indicated in Note 20 below.

20. **Reported NWI Indicators** – This report discloses the NSW results for all 82 NWI performance indicators as shown below.

    Table 5 on page 120 reports the results for NWI indicators C1, W8, W9, A6, C10, F1, H3, C3, F2, E4, E10, C4, W15, W14, F18, P5, F8, F12, F16 and F11.

    Table 5A on page 124 reports the results for NWI indicators C6, C9, E9, F3, F11, F12, F16, F17, F15, F19, F5, and F18.

    Table 6 on page 127 reports the results for NWI indicators P1, P2, F13, F14, W9 and C1.

    Table 7 on page 144 reports the results for NWI indicators P3, F14 and C2.

    Table 8 on page 157 reports the results for NWI indicators W8, W10, W4, W14, W1, W2, W5 and W7.

    Table 9 on page 168 reports the results for NWI indicators C1, A2, A3, A1, F11 and F2.

    Table 10 on page 171 reports the results for NWI indicators A8, A9, A7, A6, C12, W8 and W9.

Table 11 on page 174 reports the results for NWI indicators F1, F4, F13, F6 and F9.

Table 12 on page 177 reports the results for NWI indicators H6, H5, H4, H2, H3, C3, C5, C13, C12 and C10.

Table 14 on page 183 reports the results for NWI indicators C2, A4, A5, F11 and F21.

Table 15 on page 186 reports the results for NWI indicators A10, E10, E4, E5, E1, E2, W12, E8, W14 and W15.

Table 16 on page 189 reports the results for NWI indicators F2, F16, F14, F7 and F10.

Table 17 on page 192 reports the results for NWI indicators E7, A10, E10, C4, C7 and C11.

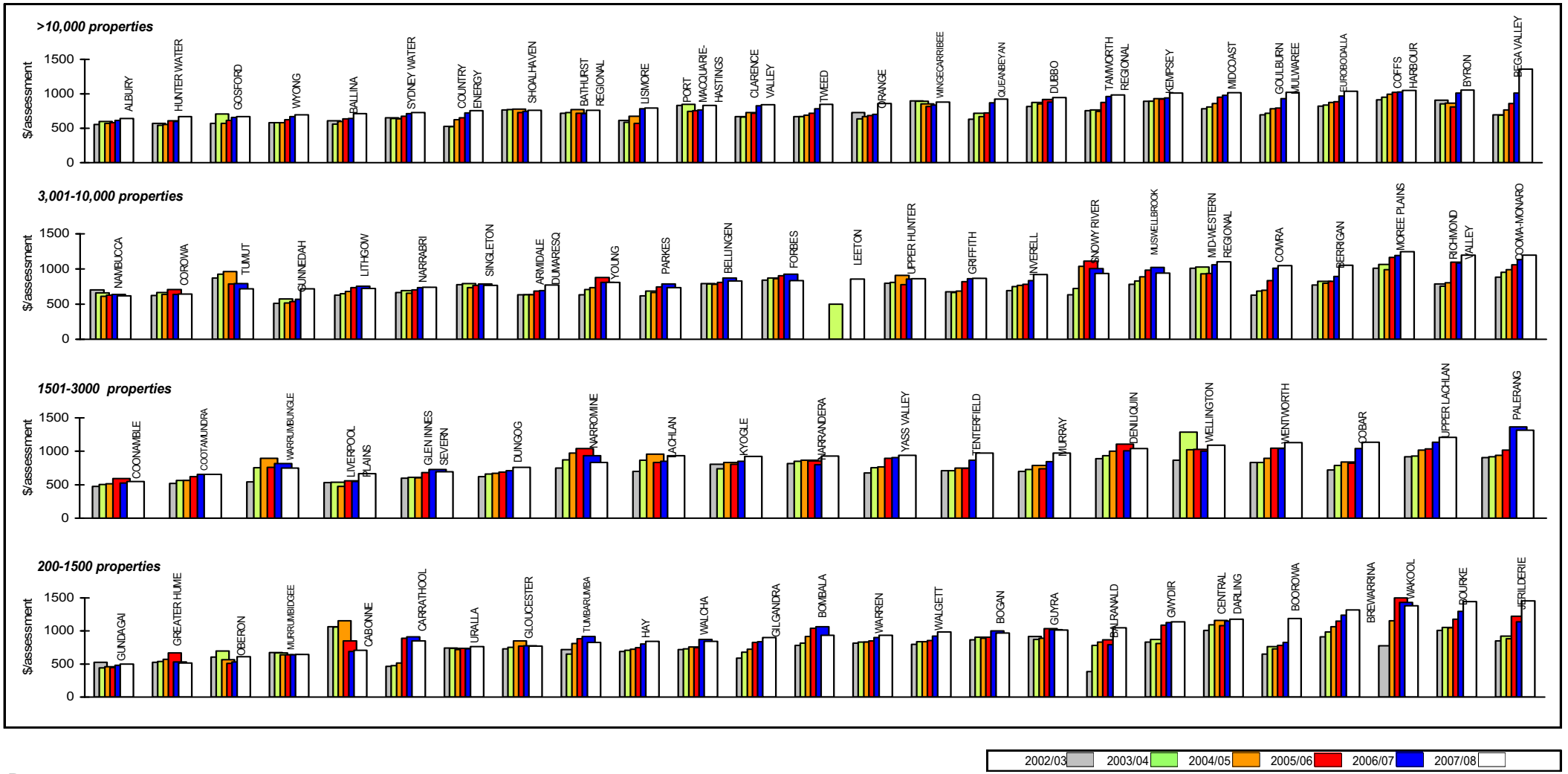
The results for NWI indicators P5; F3, F11 and F12; A3 and A4 and A2; W8; P2; C3; A6; W9; A8; F4; F13; F7; F6; A5; P3; C4; A10; E10; F14; F17 and F7 are shown on Figure 1, 2, 6, 8, 10, 21, 23, 28, 29, 33, 34, 35, 37, 47, 50, 54, 62, 64, 71, 72 and 74 respectively.

6.3 Contents of tables 5 to 18

Table 5	**2006-07 NSW water utility performance summary** – Overview of each water utility's key water supply and sewerage performance indicators.
Table 5A	**Water supply and sewerage** – Levels of service, financial – combined water supply and sewerage indicators.
Table 6	**Water supply** – Residential charges, bills, cost recovery – type of tariff, residential charges, bills, cost recovery, average annual residential water supplied and number of connected properties.
Tables 6A to 6C	**Water supply – 2007-08 residential inclining block or multiple tariffs, non-residential, non-rateable tariffs.**
Table 7	**Sewerage – Residential charges, bills, cost recovery** – residential charges, bills, non-residential sewer usage charge, cost recovery and number of connected properties for each water utility's sewerage business.
Tables 7A to 7D	**Sewerage – 2007-08 residential multiple tariffs, non-residential, non-rateable tariffs, liquid trade waste fees and charges.**
Table 8	**2006-07 NSW urban water supplied** – Water supplied by customer category, water losses, leakage, total potable and non-potable water supplied, recycled water use and surface and groundwater use.
Table 8A	**2006-07 Water losses and non-revenue water**
Table 8B	**2006-07 Water consumptions from source catchments in non-metropolitan NSW** – Shows details of water consumptions by customer category for each source catchment.
Table 8C	**2006-07 Water conservation initiatives.**
Table 9	**Water supply – Utility characteristics** – Population, no. of assessments, connected properties, assets employed, capital investment, workforce employed, outsourcing, days lost.
Table 10	**Water supply – Asset management, water resource management** – Leakage, main breaks, interruptions to supply, rehabilitations, renewals and maintenance expenditure, total annual and average residential water supplied, recycled water use, drought and demand management policies.
Table 11	**Water supply – Financial, efficiency** – Revenue, residential revenue and water supplied, current replacement cost, debt to equity, cross subsidies, operating result, externalities, operating cost (OMA) and management cost.
Table 12	**Water supply – Health, levels of service** – Physical, chemical and E. coli water quality compliance, water quality complaints, water service complaints, customer interruption frequency and drought water restrictions.
Table 13	**Water supply – Benchmarking cost data** – Disaggregated benchmarking cost data including operating cost, management cost, retail/wholesale cost, pumping cost, treatment cost and water main cost
Table 14	**Sewerage – Utility characteristics** – Population, no. of assessments, connected properties, assets employed, capital investment, workforce employed, outsourcing, days lost.
Table 15	**Sewerage – Asset management, resource management** – Infiltration, interruptions to service, rehabilitations, renewals, maintenance expenditures, volume of sewage collected, treated, biosolids reused, per cent effluent reclaimed.
Table 16	**Sewerage – Financial, efficiency** – Revenue, current replacement cost, debt to equity, cross subsidies, operating result, externalities, operating cost (OMA) and management cost.
Table 17	**Sewerage – Environmental, levels of service** – BOD and SS compliance, sewer main chokes and collapses, sewer overflows to the environment, odour complaints, service complaints and customer interruption frequency.
Table 18	**Sewerage – Benchmarking cost data** – Disaggregated benchmarking cost data including operating cost, management cost, retail/wholesale cost, pumping cost, treatment cost and sewer main cost.

7. Water supply and sewerage figures

Figure 1: Typical residential bill – water supply and sewerage



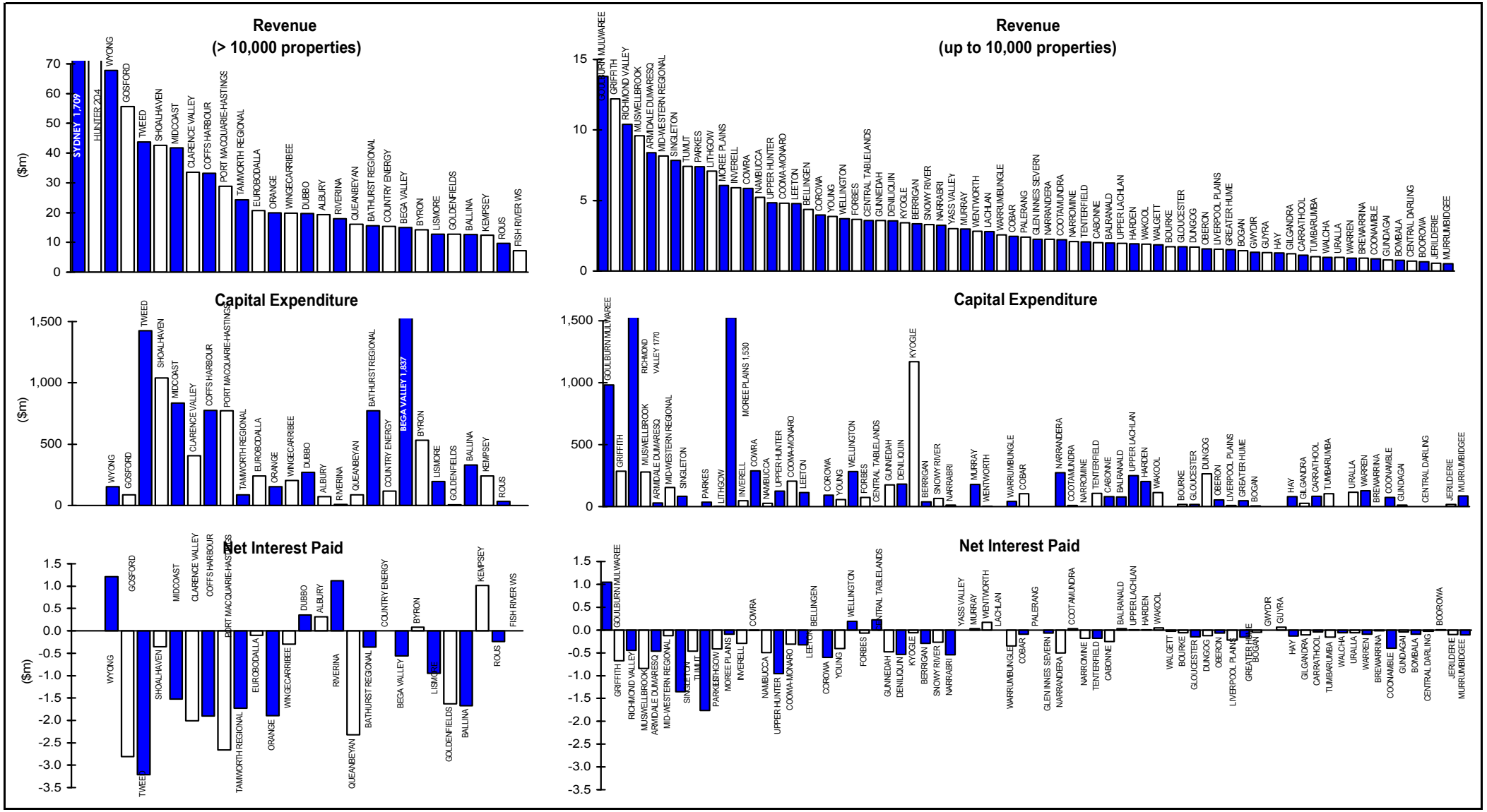
Parameter:

(2006/07 Average Residential Water Supplied x 2007/08 Water Usage Charge) + 2007/08 Water and Sewerage Access Charges

Notes:

1. This figure shows ranked values of the 2007/08 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 2007/08 typical residential water bill for water and sewerage supply for the 24 LWUs shown ranges from $617 to $1250. Results for the previous 5 years are also shown in Jan 2008$.
2. The 2007/08 Statewide median typical residential bill for water supply and sewerage is $765 per assessment.
3. For general notes see page 25.

Figure 2: Revenue, capital expenditure, net interest paid – water supply and sewerage



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

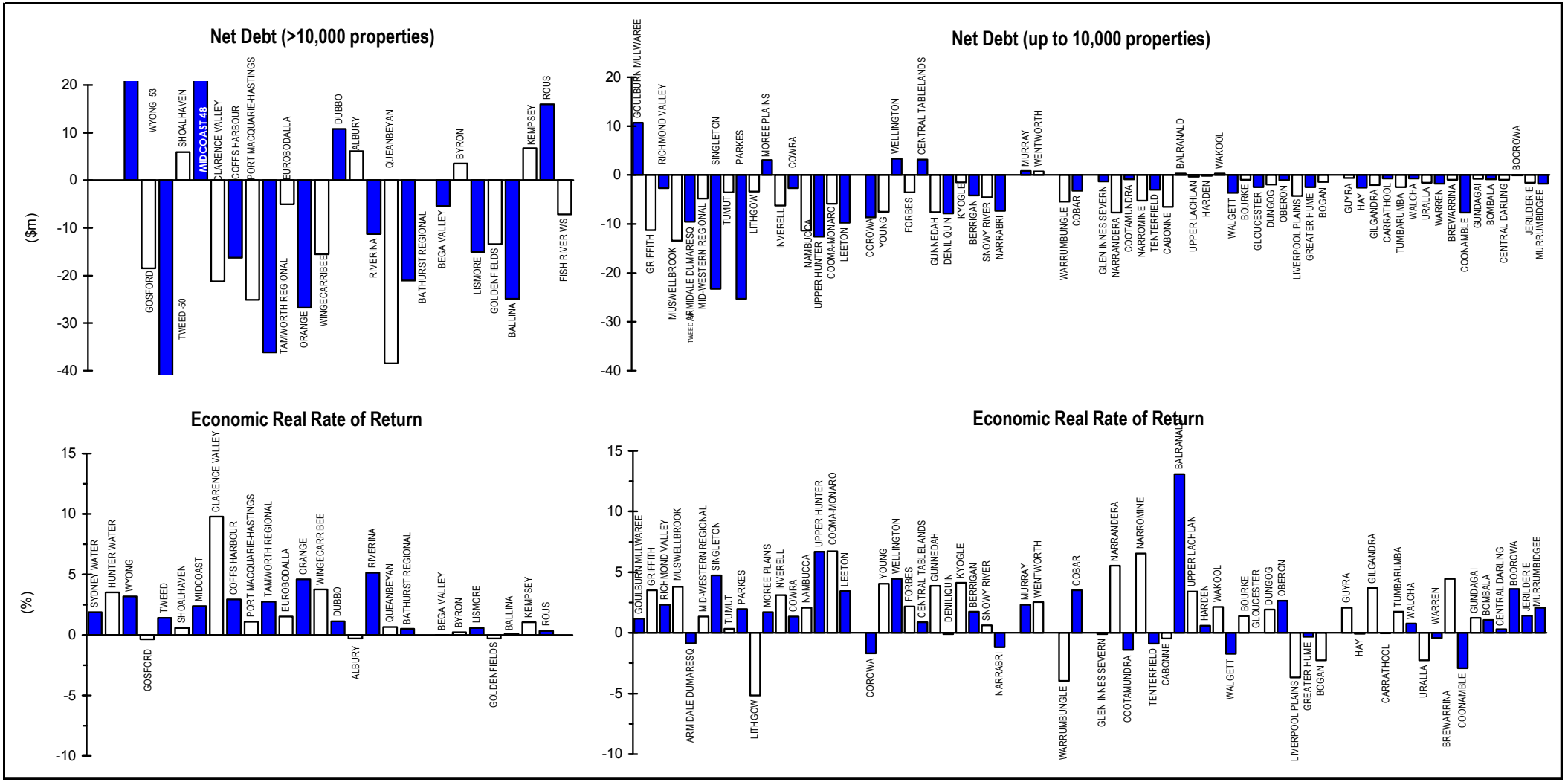
Parameter: Acquisition of Fixed Assets (W16 + S17)

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

Notes:

1. Utilities are ranked on the basis of revenue (see the top graph). Revenue for Sydney Water and Hunter Water was $1,688M and $200M respectively.
2. For general notes see page 25.

Figure 2: Revenue, capital expenditure, net interest paid – water supply and sewerage (continued)



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

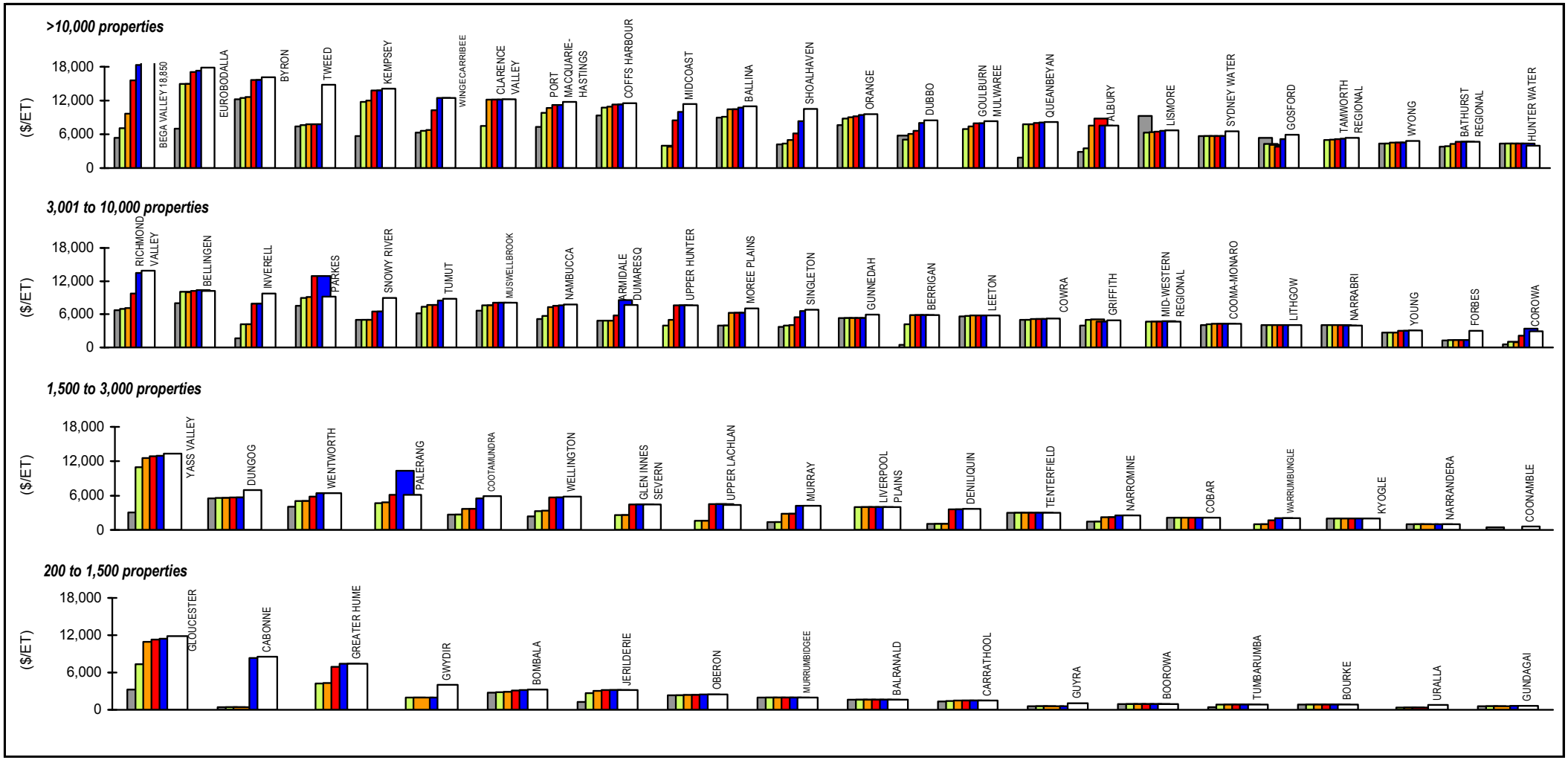
Parameter:

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

Notes:

1. Utilities are ranked on the basis of revenue (see the top graph). Revenue for Sydney Water and Hunter Water was $1,688M and $200M respectively.
2. For general notes see page 25.

Figure 3: Typical developer charge – water supply and sewerage



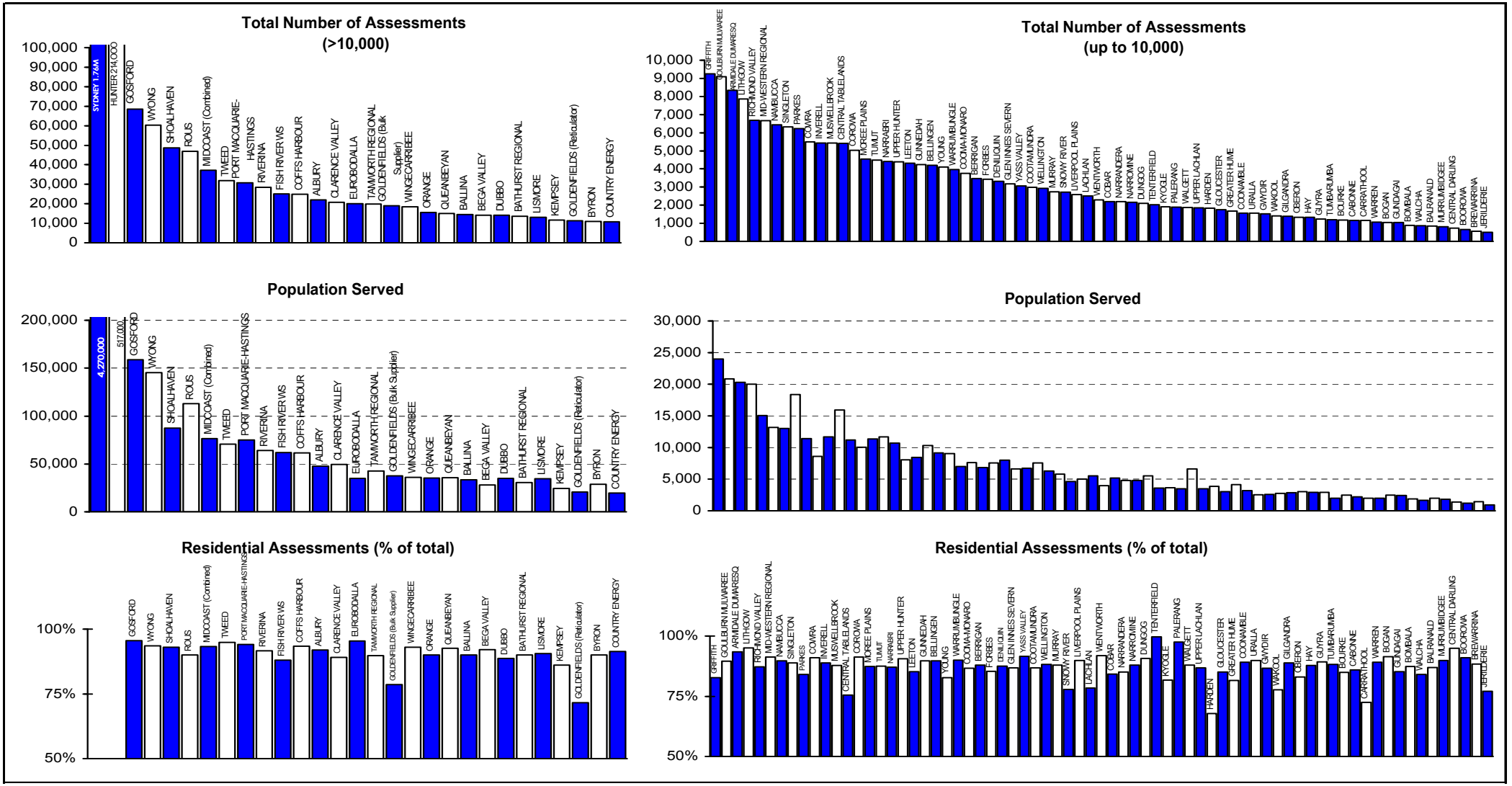
Parameter: Typical Water Supply Developer Charge (Q36) + Typical Sewerage Developer Charge (Q36)

Notes:

1. This figure shows ranked values of the 2007/08 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 $13900 to $2900. Results for the previous 5 years are also shown in Jan 2008$.
2. The Statewide median typical developer charge for water supply and sewerage Is about $7900 per Equivalent Tenement (ET).
3. For general notes see page 25.

8. Water supply figures

Figure 4: Population, assessments served – water supply



Parameter: No. of Residential Assessments (Q34) + No. of Non-Residential Assessments (Q35)

Parameter: Population Served (Q1)

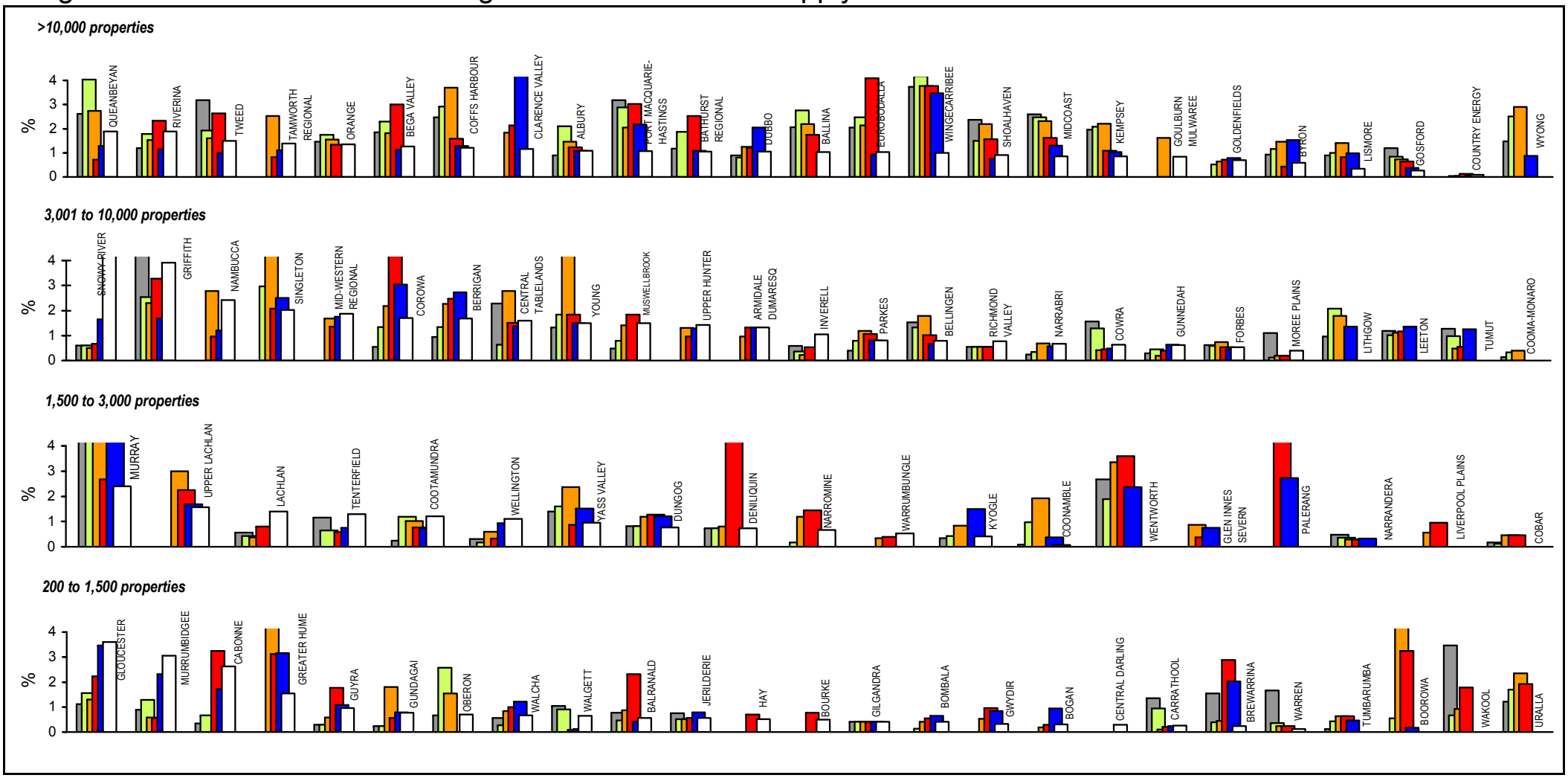
Parameter:

$$\frac{\text{No. of Residential Assessments (Q34)} \times 100}{\text{No. of Residential Assessments (Q34) + No. of Non-Residential Assessments (Q35)}}$$

Note:

1. For general notes see page 25.

Figure 5: New residential dwellings connected – water supply



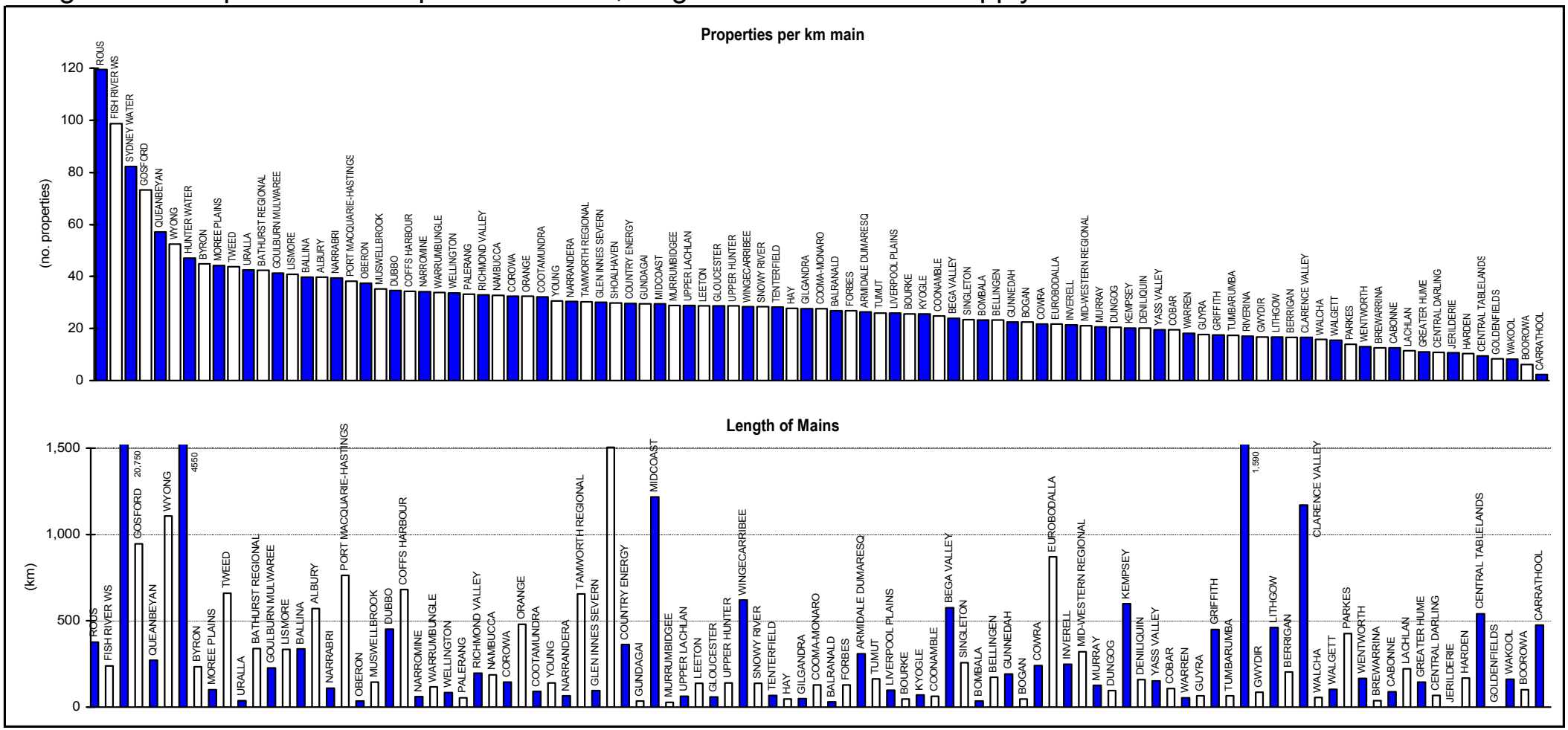
Parameter:

$$\frac{\text{No. of New Residential Dwellings Connected in Year (Q31) x 100}}{\text{No. of Residential Assessments (Q34) x No. of Connected Residential Properties per Residential Assessment}}$$

Notes:

1. This figure shows ranked values of the 2006/07 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 5.6% to 0%. Results for the previous 5 years are also shown.
2. The Statewide median percentage of new residential dwellings connected to water supply is 1.0% of the existing number of residential properties.
3. For general notes see page 25.

Figure 6: Properties served per km of main, length of mains – water supply



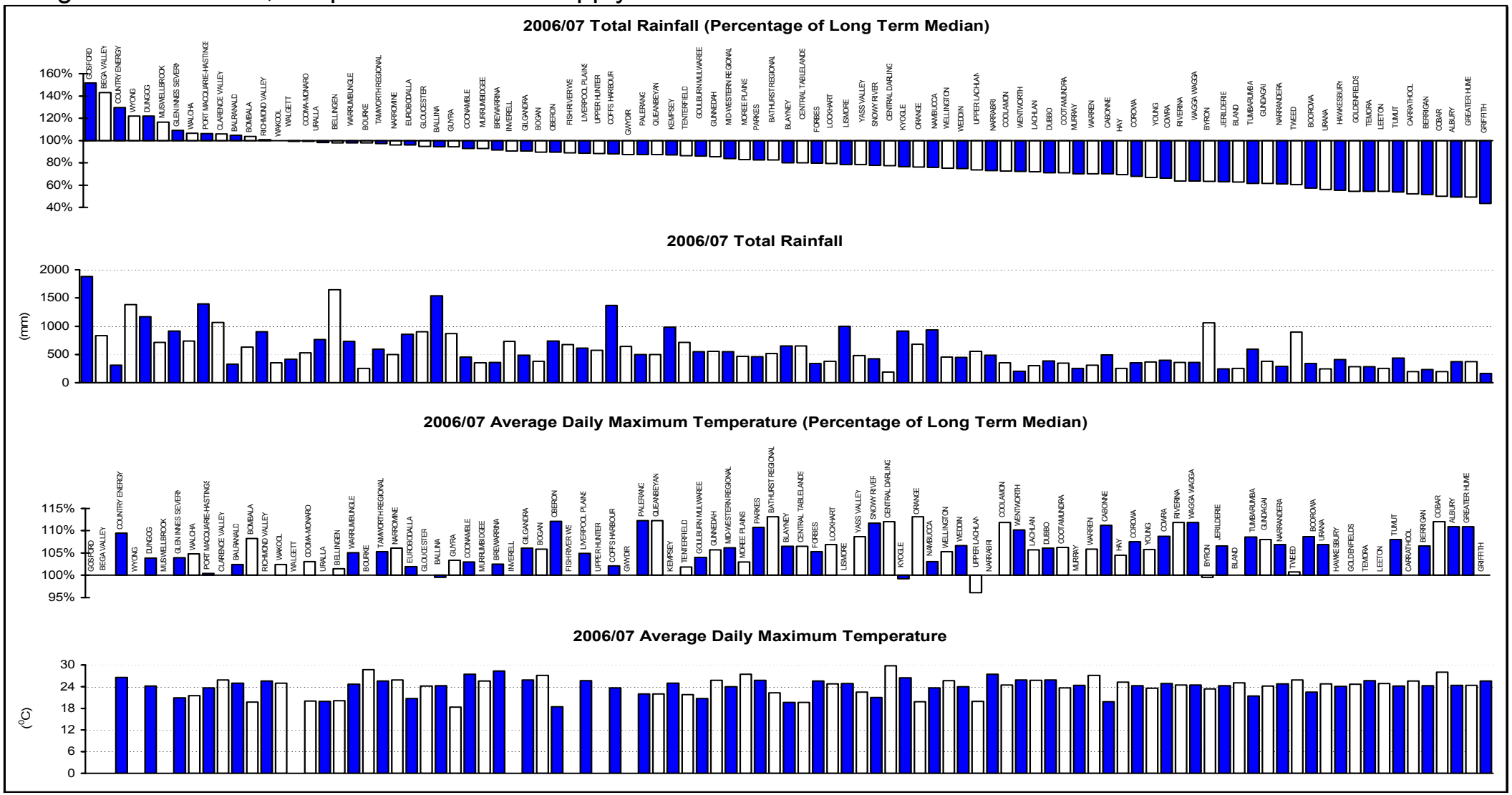
Parameter: $$\frac{\text{No. of Residential Assessments (Q34) + No. of Non-Residential Assessments (Q35) x No. of Connected Properties per Assessment}}{\text{Length of Trunk Mains (Q20) + Length of Reticulation Mains (Q21)}}$$

Parameter: Length of Trunk Mains (Q20) + Length of Reticulation Mains (Q21)

Notes:

1. The top graph shows the ranked values of number of connected properties per km of water main for each Local Water Utility (LWU). Each bar represents one LWU. The bottom graph of this figure shows the total length of mains for the corresponding LWUs.
2. The Statewide median water supply connected properties per km of main is 33.
3. For general notes see page 25.

Figure 7: Rainfall, temperature – water supply



Parameter: $\frac{\text{2006/07 Total Rainfall x 100}}{\text{Long Term Median Annual Rainfall}}$

Parameter: 2006/07 Total Rainfall

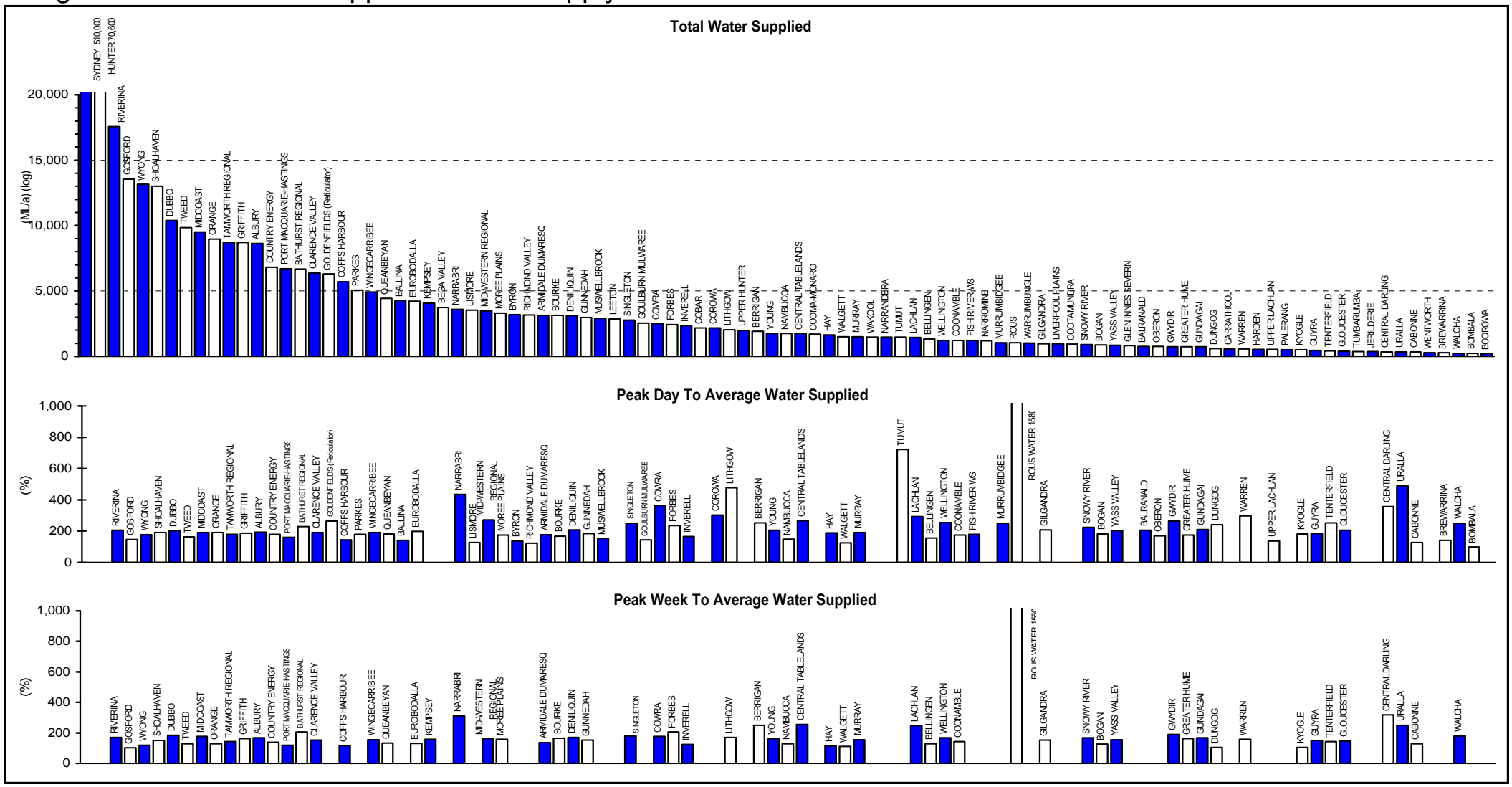
Parameter: $\frac{\text{2006/07 Average Daily Maximum Temperature x 100}}{\text{Long Term Median Daily Maximum Temperature}}$

Parameter: 2006/07 Average Daily Maximum Temperature

Notes:

1. Data provided by the Bureau of Meteorology. Averages and long term medians not available for some localities.
2. For general notes see page 25.

Figure 8: Total water supplied – water supply



Parameter: Total Potable Water Supplied (Q71) + Non-Potable Water Supplied (Q72) + Recycled Water (STW Q25) - Bulk Water Supplied (Q12a)

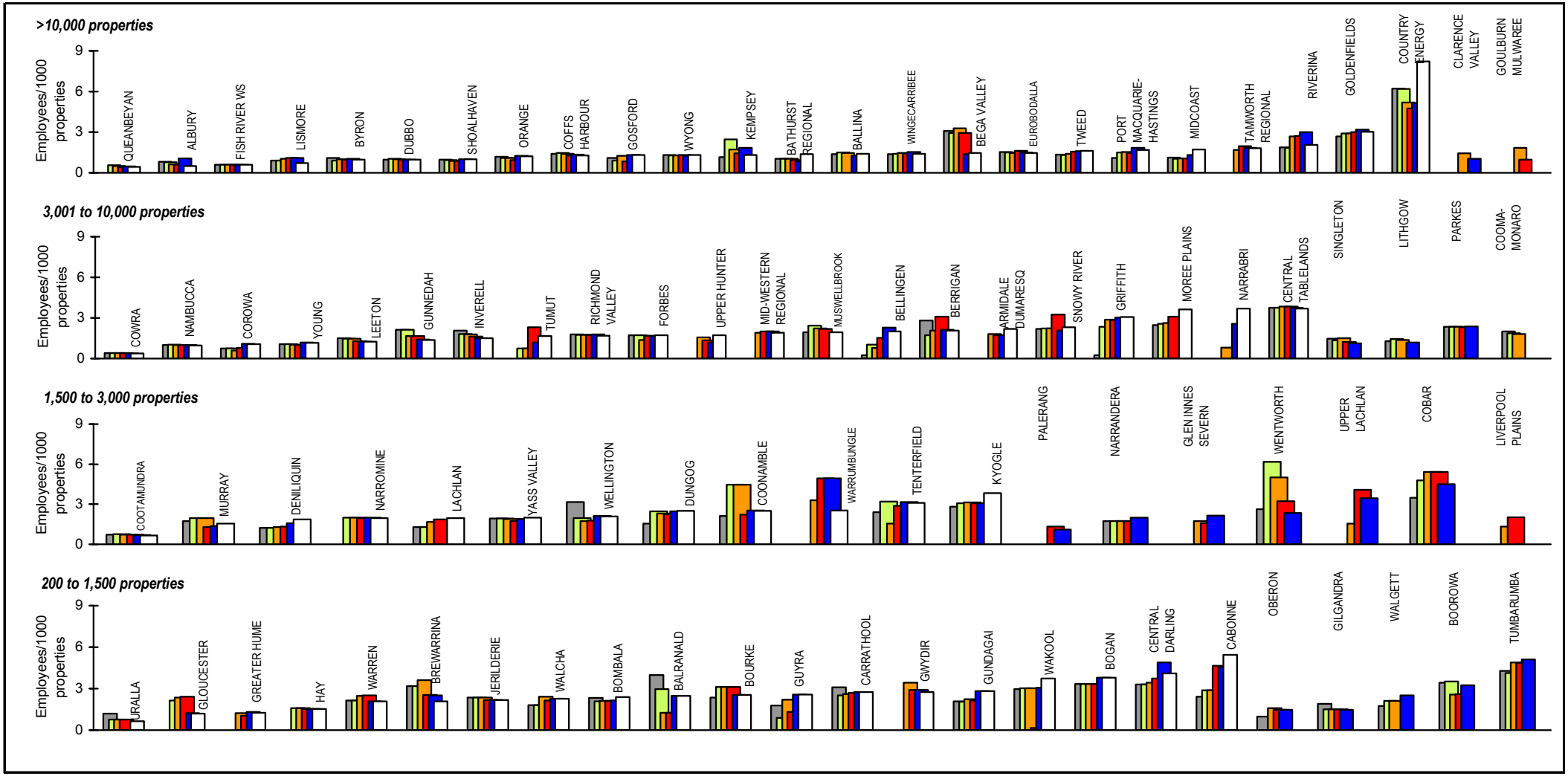
Parameter:
$$\frac{\text{Peak Day Water Supplied (Q82)} \times 365 \times 10}{\text{Total Potable Water Supplied (Q71)}}$$

Parameter:
$$\frac{\text{Peak Week Water Supplied (Q83)} \times 365 \times 10}{\text{Total Potable Water Supplied (Q71)}}$$

Notes:

1. The top graph shows the total town water supplied (potable and non-potable). The second graph shows the percentage of peak to day average potable water supplied for each Local Water Utility (LWU). Each bar represents one LWU. The third graph shows the percentage peak week to average potable water supplied.
2. For general notes see page 25.

Figure 9: Properties served per km of main, length of mains – water supply



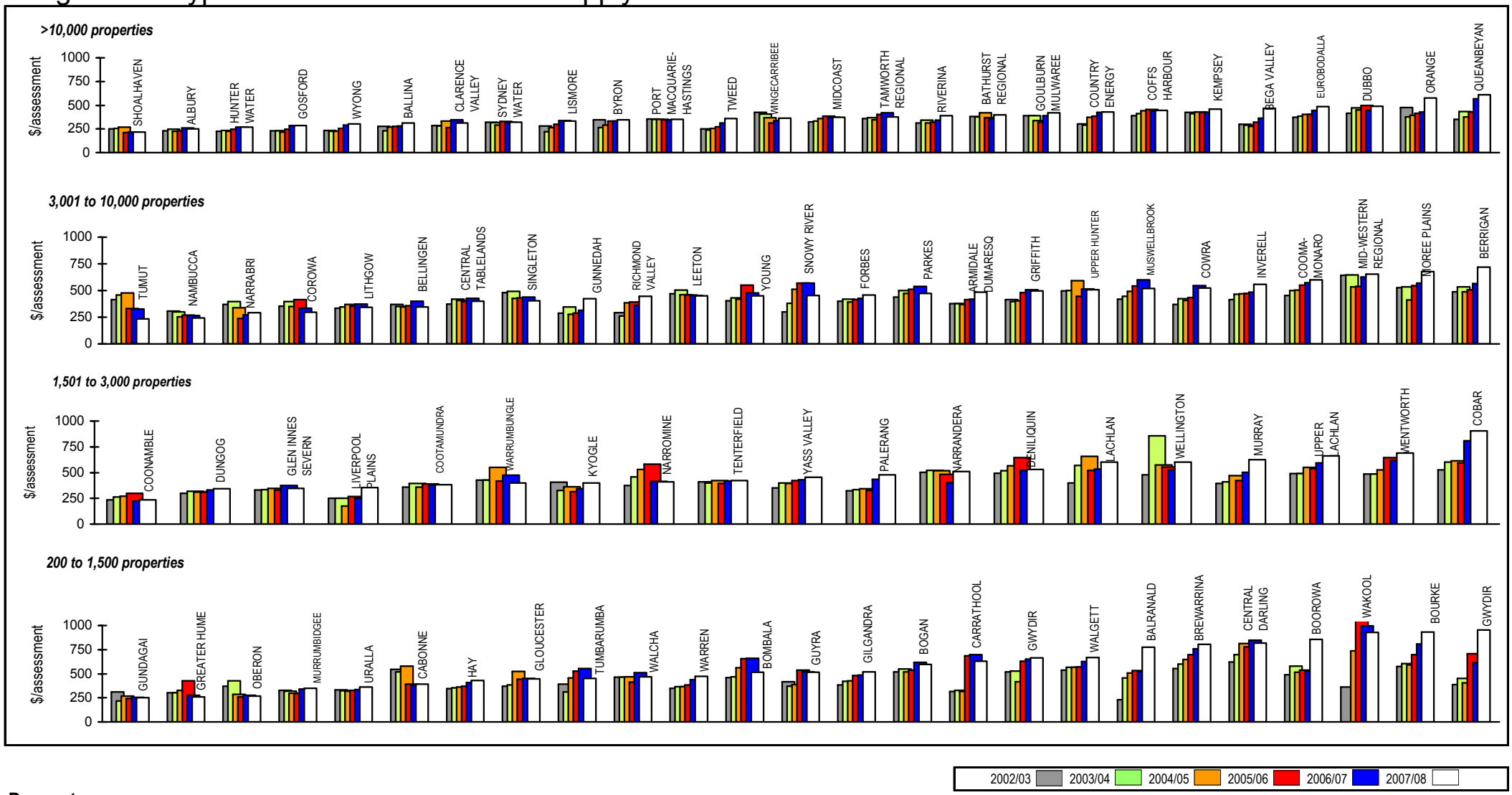
Parameter:

$$\frac{\text{Equivalent Full-time Employees (Q120) x 1000}}{\text{[No. of Residential Assessments (Q34) + No. of Non-Residential Assessments (Q35) x No. of Connected Properties per Assessment}}$$

Notes:

1. This figure shows ranked values of the 2006/07 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 21 LWUs shown ranges from 0.4 to 3.7. The 4 utilities on the right did not report this indicator for 2006/07. Results for the previous 5 years are also shown.
2. The Statewide median number of water supply employees is 1.3 per 1000 connected properties.
3. For general notes see page 25.

Figure 10: Typical residential bill – water supply

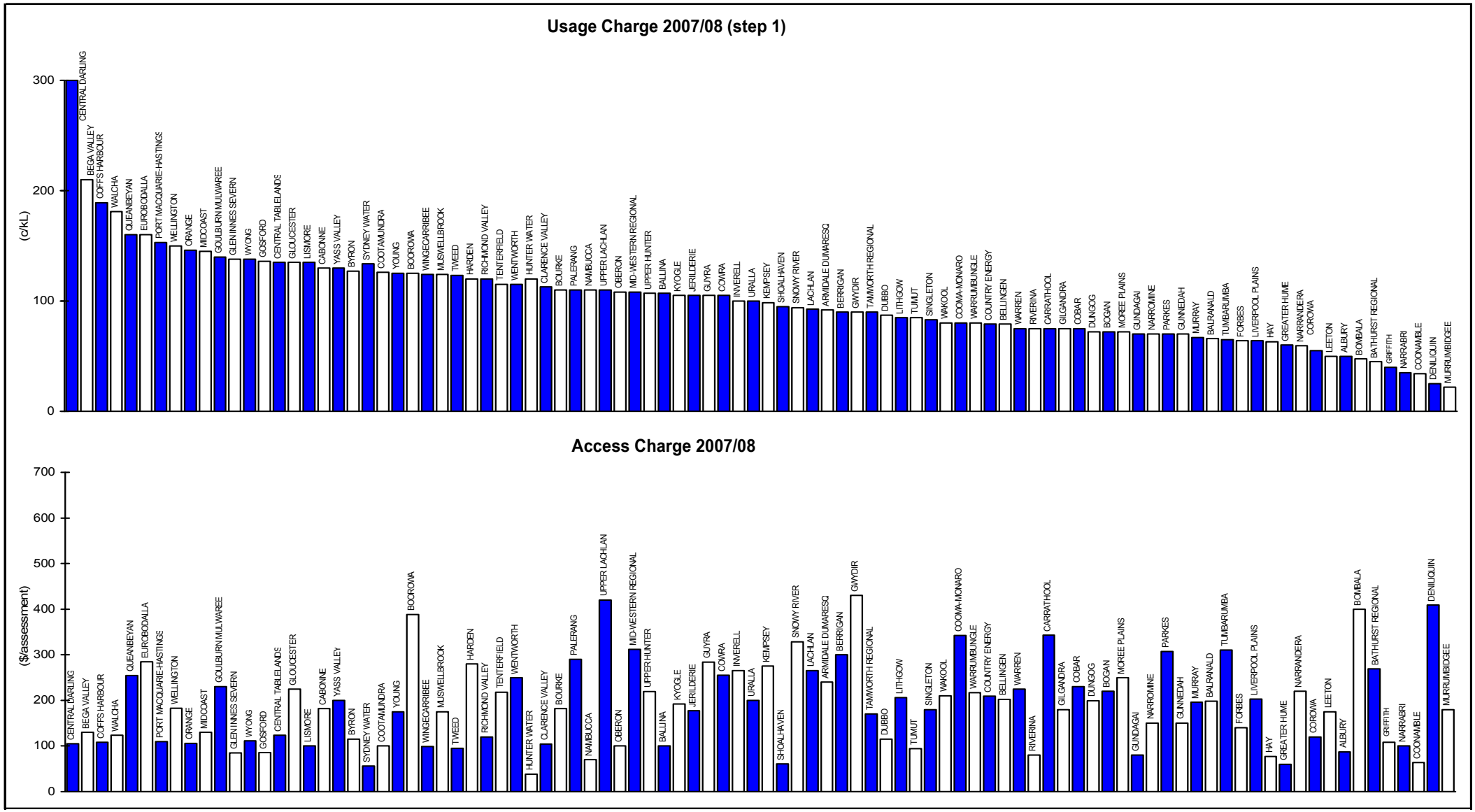


Parameter: (2005/06 Average Residential Water Supplied x 2006/07 Water Usage Charges) + 2006/07 Access Charge

Notes:

1. This figure shows ranked values of the 2007/08 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 2007/08 for the 25 LWUs shown ranges from $270 to $630 per assessment. Results for the previous 5 years are also shown in Jan 2008$.
2. The 2007/08 Statewide median typical residential bill for water supply is $360 per assessment.
3. For general notes see page 25.

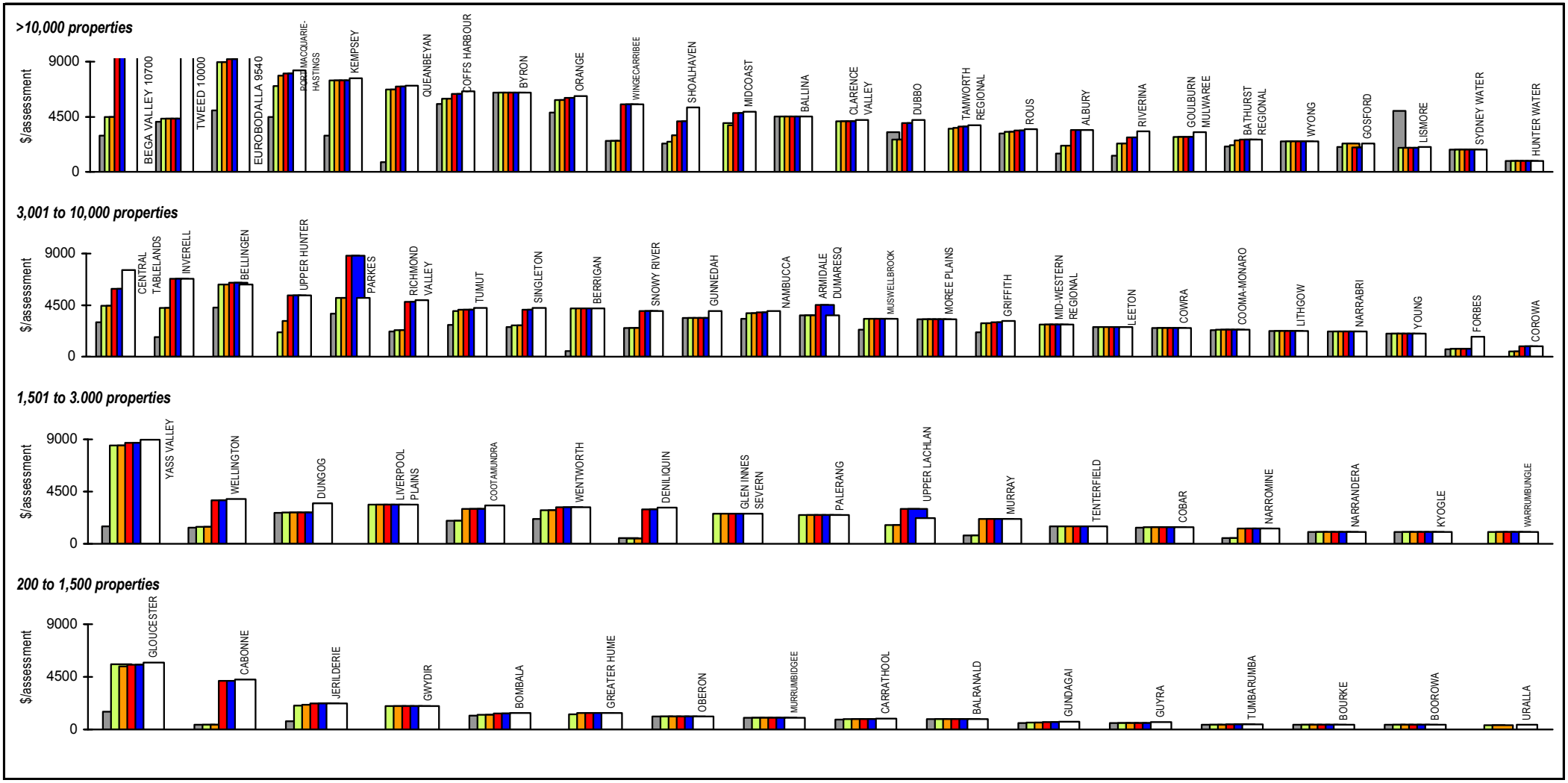
Figure 11: Residential usage charge and access charge – water supply



Notes:

1. ALL LWUs have now abolished their free water allowance for potable water supply. 2 LWUs did not have domestic water metering.
2. The residential water usage charge shown is for usage at the lowest rate of the charging scale. Further information on water supply tariff structures is shown in Tables 6, 6A, 6B and 6C.
3. The Statewide median water usage charge was 124 c/kL. 20% of LWUs had a usage charge greater than 146 c/kL. 80 % of LWUs had a usage charge greater than 80 c/kL. 62% of LWUs had step pricing in place for discretionary water use, with a higher charge per kL for usage over 200 to 450 kL/a (Table 6).
4. For general notes see page 25.

Figure 12: Typical developer charge – water supply

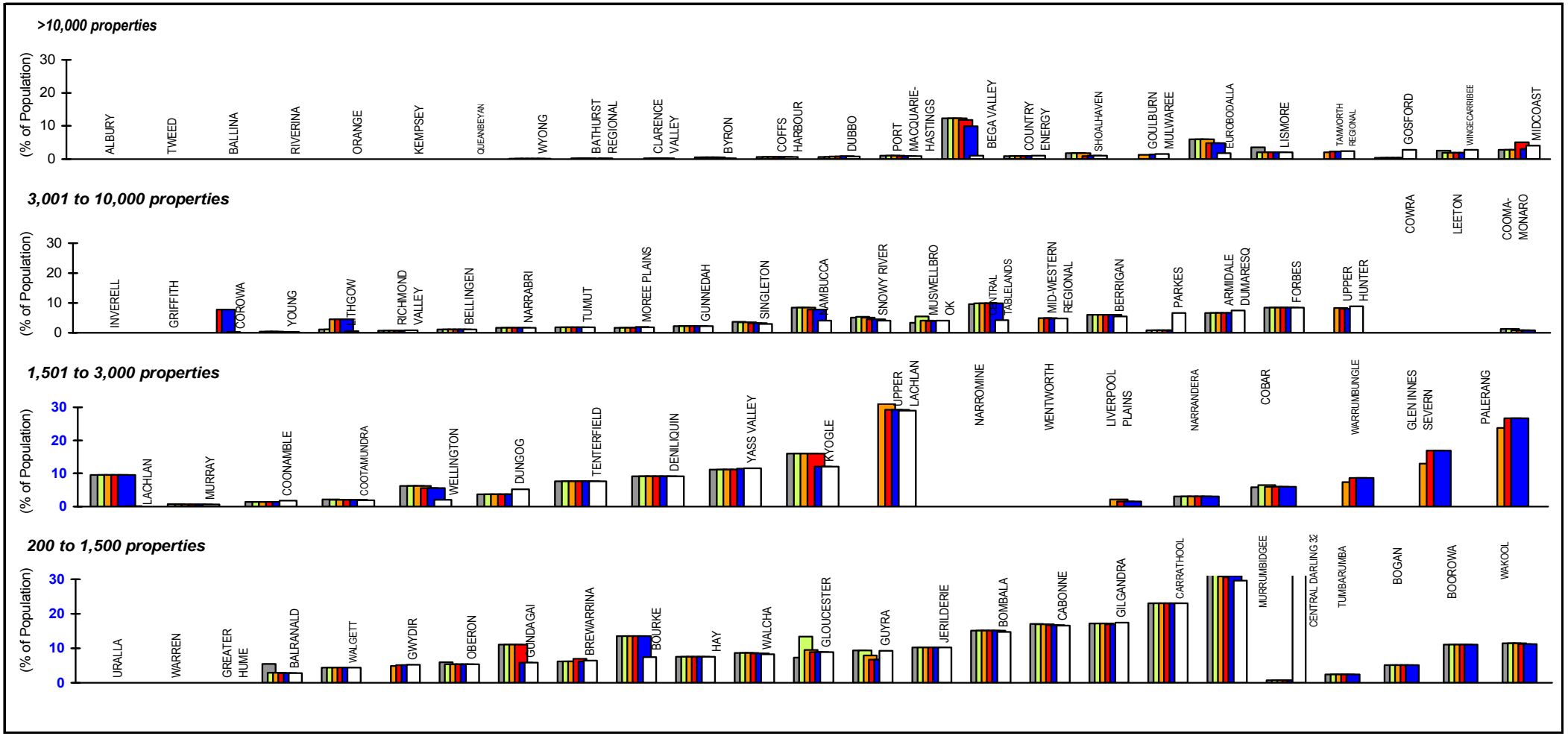


Parameter: Typical Water Supply Developer Charge (Q136)

Notes:

1. This figure shows ranked values of the 2007/08 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 $7600 to $900. Results for the previous 5 years are also shown in Jan 2008$.
2. The Statewide median typical developer charge for water supply is $4000 per equivalent tenement (ET).
3. 83 LWUs levied water supply developer charges.
4. For general notes see page 25.

Figure 13: Urban population without water supply – water supply



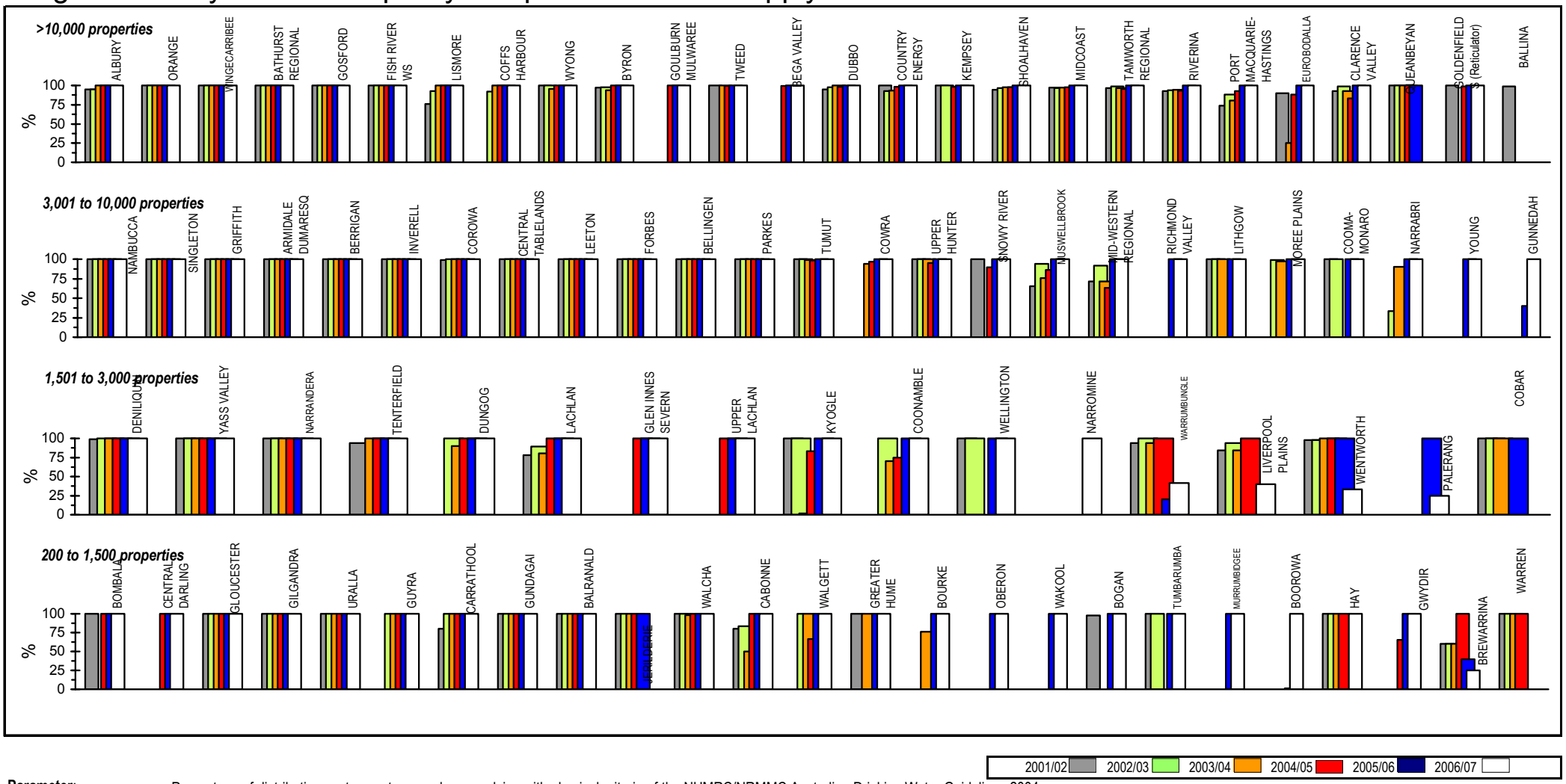
Parameter:

$$\frac{\text{Unserved Urban Population in LWU Area (Q40)} \times 100}{\text{Population Served (Q1)} + \text{Unserved Population (Q40)}}$$

Notes:

1. This figure shows ranked values of the 2006/07 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 9%. Results for the previous 5 years are also shown.
2. The statewide median urban population without a reticulated public water supply was 0.8%.
3. 25% of LWUs had an urban population of at least 500 without a reticulated water supply. 8% 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 2.4%.
5. 87% 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 (97.8% coverage) received a reticulated public water supply service.
6. For general notes see page 25.

Figure 14: Physical water quality compliance – water supply

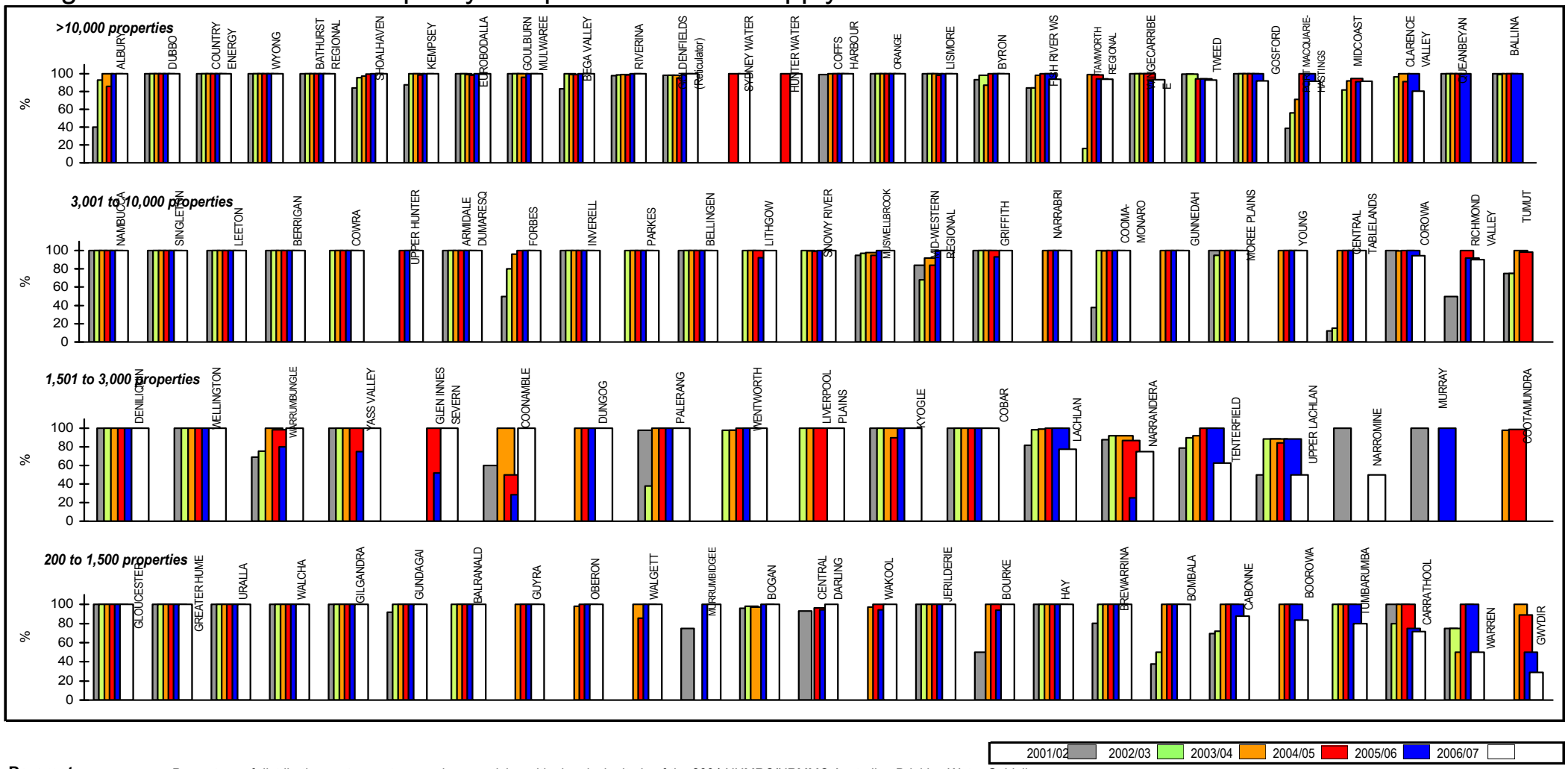


Parameter: Percentage of distribution system water samples complying with physical criteria of the NHMRC/NRMMC Australian Drinking Water Guidelines 2004.

Notes:

1. This figure shows ranked values of the 2006/07 distribution system compliance with the NHRMC/NRMMC Australian Drinking Water Guidelines 2004 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 are all 100%. Results for the previous 5 years are also shown. The results for 2001/02 to 2003/04 are based on the 1996 NHMRC/ARMCANZ Australian Drinking Water Guidelines.
2. For an LWU to comply with the 2004 Australian Drinking Water Guidelines for physical water quality, the required number of samples must be tested and at least 50% of samples (not health related) must comply with the guideline limits. Non-potable water supplies are excluded.
3. 96% of the 25,130 samples tested in 2006/07 achieved 100% compliance with these guidelines. 86 % of LWUs complied with the guidelines in 2006/07.
4. 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. Appendix D1 provides the 2006/07 results for each treatment works.
5. The Statewide median physical water quality compliance is 100%.
6. For general notes see page 25.

Figure 15: Chemical water quality compliance – water supply

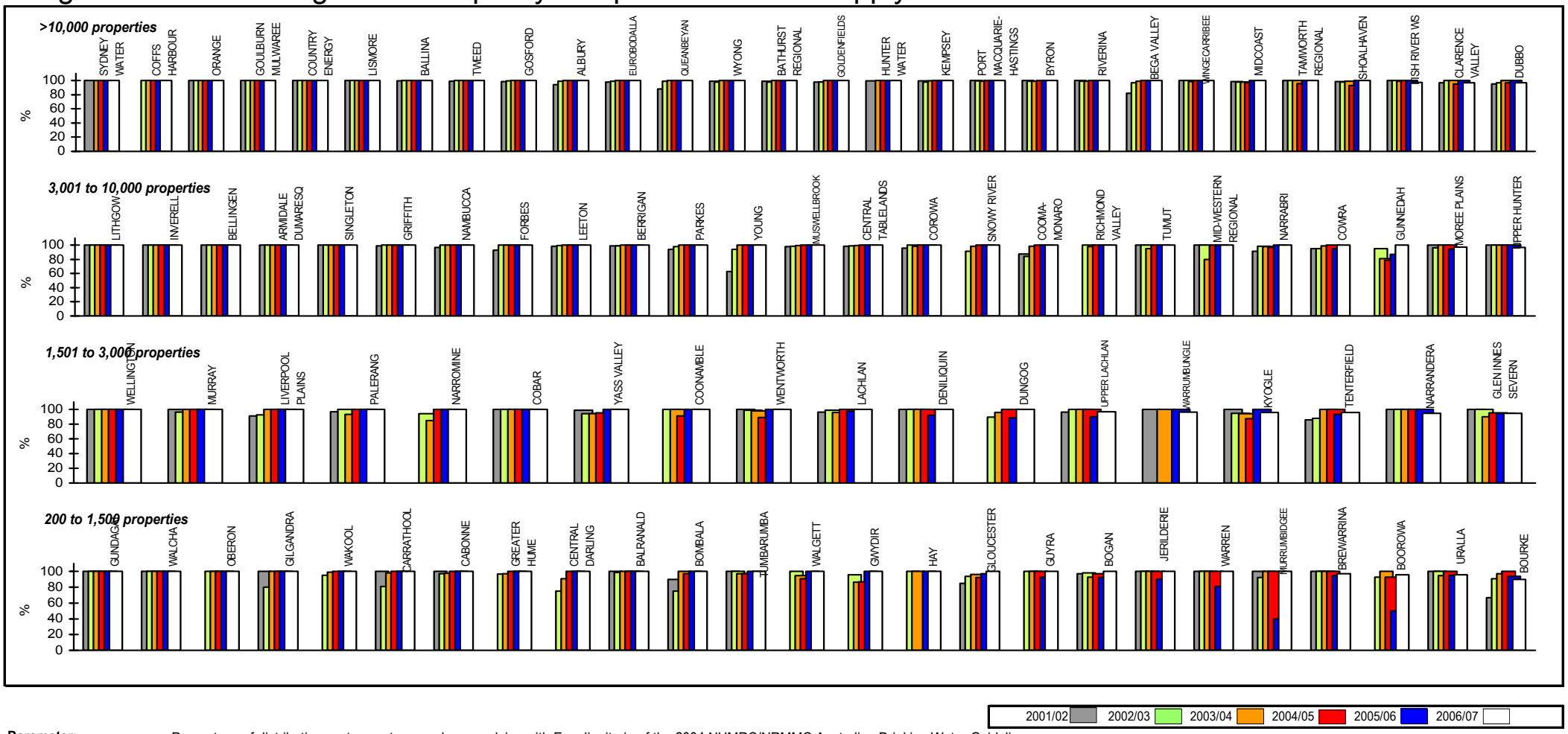


Parameter: Percentage of distribution system water samples complying with chemical criteria of the 2004 NHMRC/NRMMC Australian Drinking Water Guidelines.

Notes:

1. This figure shows ranked values of the 2006/07 distribution system compliance with the 2004 NHRMC/NRMMC 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 24 LWUs shown ranges from 100% to 90%. The utility on the right did not report on this indicator for 2006/07. Results for the previous 5 years are also shown. The results for 2001/02 to 2003/04 are based on the 1996 NHMRC/ARMCANZ Australian Drinking Water Guidelines.
2. 95% of the 29,140 samples tested in 2006/07 achieved 100% compliance with 2004 Guidelines. 71% of the LWUs complied with the Guidelines in 2006/07.
3. For an LWU to comply with the 2004 Australian Drinking Water Guidelines for chemical water quality, the required number of samples must be tested and at least 95% of samples (health related) must comply with the guideline limits. Non-potable water supplies are excluded.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. Appendix D1 provides the 2006/07 results for each treatment works.
4. The Statewide median chemical water quality compliance is 100%.
5. For general notes see page 25.

Figure 16: Microbiological water quality compliance – water supply

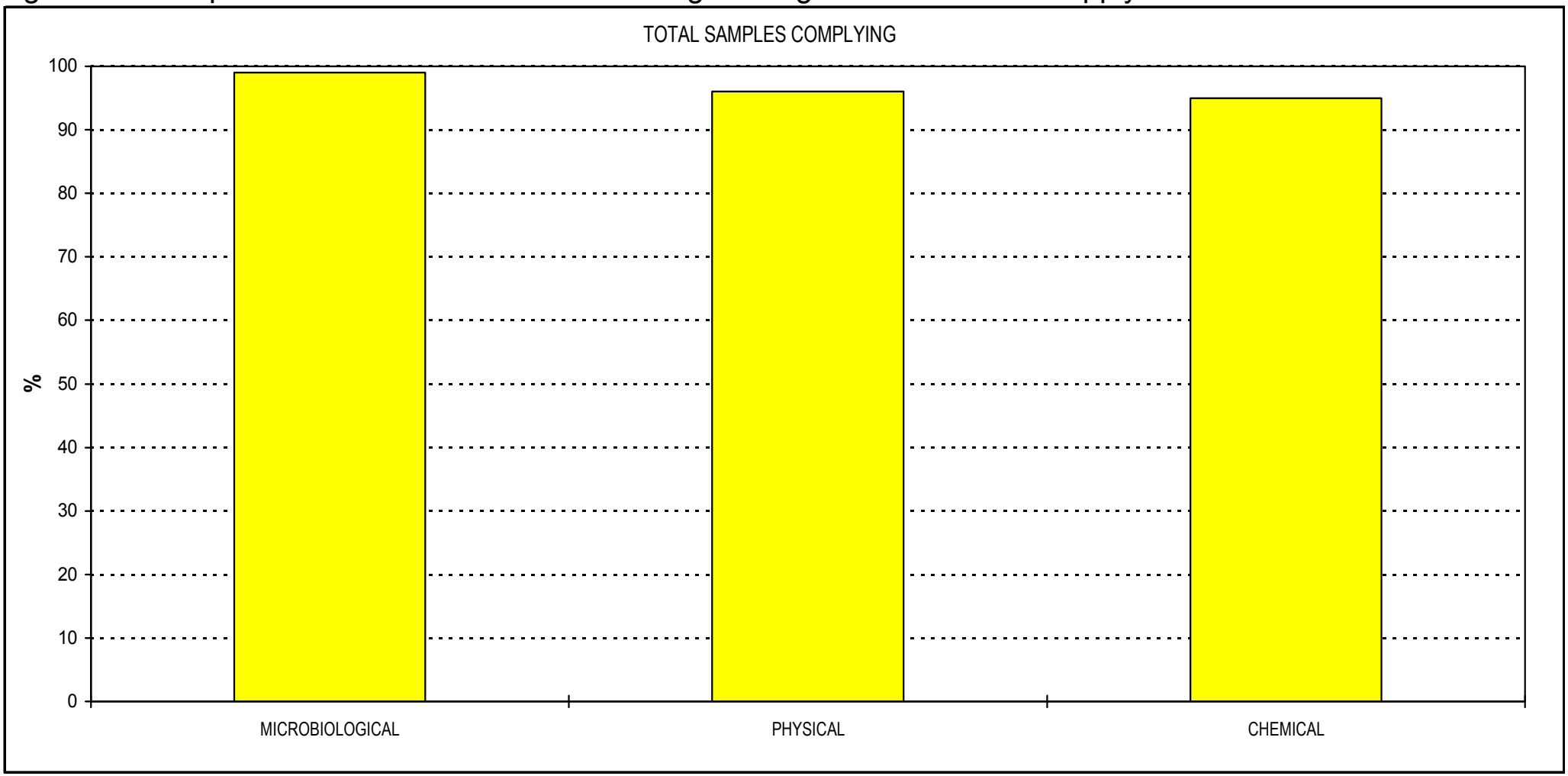


Parameter: Percentage of distribution system water samples complying with E. coli criteria of the 2004 NHMRC/NRMMC Australian Drinking Water Guidelines

Notes:

1. This figure shows ranked values of the 2006/07 distribution system compliance with the 2004 NHRMC/NRMMC 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 microbiological water quality compliance for the 25 LWUs shown ranges from 100% to 97%. Results for the previous 5 years are also shown. The results for 2001/02 to 2003/04 are based on the 1996 NHMRC/ARMCANZ Australian Drinking Water Guidelines.
2. For an LWU to comply with the 2004 Australian Drinking Water Guidelines for microbiological water quality, the required number of samples must be tested and at least 98% of the samples must contain no E.coli. Non-potable water supplies are excluded. 99% of the 18,700 samples tested in 2006/07 contained no E. coli. 83% of the LWUs complied with the 2004 Guidelines for E. coli in 2006/07.
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. Cootamundra and Harden councils receive a fully treated bulk water supply from Goldenfields Water's Jugiong treatment works, which had 99% compliance for microbiological water quality in 2006/07. Appendix D1 provides the 2006/07 results for each treatment works.
5. The Statewide median microbiological water quality compliance is 100%.
6. For general notes see page 25.

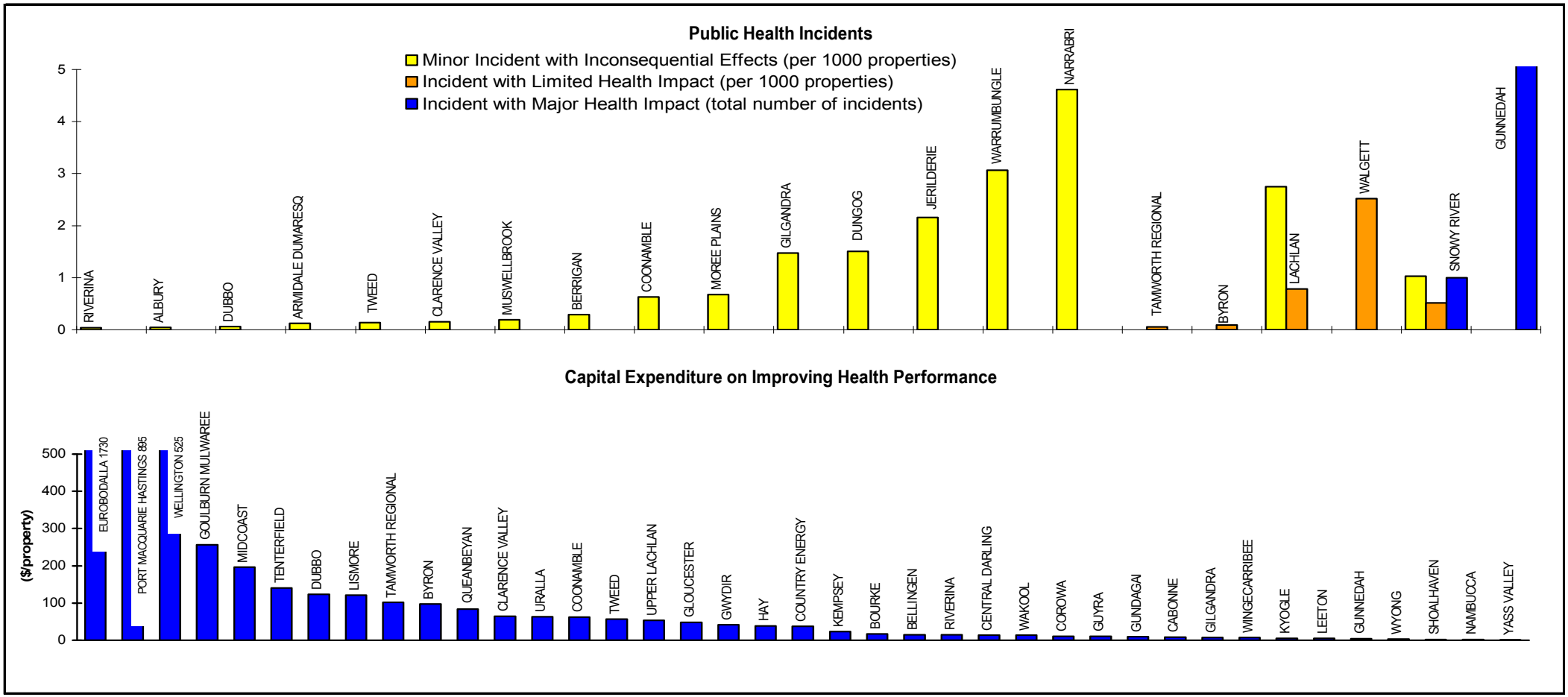
Figure 17: Compliance with 2004 Australian drinking water guidelines – water supply



Notes:

1. E.coli Water Quality Guidelines (health related) - 99% of the 18,700 samples tested for non-metropolitan NSW contained no E.coli. 83% of Local Water Utilities (LWUs) complied with the 2004 NHMRC/NRMMC Australian Drinking Water Guidelines for E.coli.
2. Physical Water Quality Guidelines (health related) - 96% of the 25,130 samples tested for non-metropolitan NSW achieved 100% physical compliance. 86% of Local Water Utilities (LWUs) complied with the 2004 NHMRC/NRMMC Australian Drinking Water Guidelines for physical water quality.
3. Chemical Water Quality Guidelines (health related) - 95% of the 29,140 samples tested for non-metropolitan NSW achieved 100% chemical compliance. 71% of Local Water Utilities (LWUs) complied with the 2004 NHMRC/NRMMC Australian Drinking Water Guidelines for chemical water quality.
4. For general notes see page 25. Refer also to Figures 14 to 16.

Figure 18: Public health incidents, capital investment – water supply



Parameter: $\frac{\text{Total No. of Minor Incidents with Inconsequential Effects (Q115)}}{\text{[No. of Residential Assessments (Q34) + No. of Non-Residential Assessments (Q35)] x No. of Connected Properties per Assessment}}$

Parameter: $\frac{\text{Total No. of Minor Incidents with Limited Health Impacts (Q116)}}{\text{[No. of Residential Assessments (Q34) + No. of Non-Residential Assessments (Q35)] x No. of Connected Properties per Assessment}}$

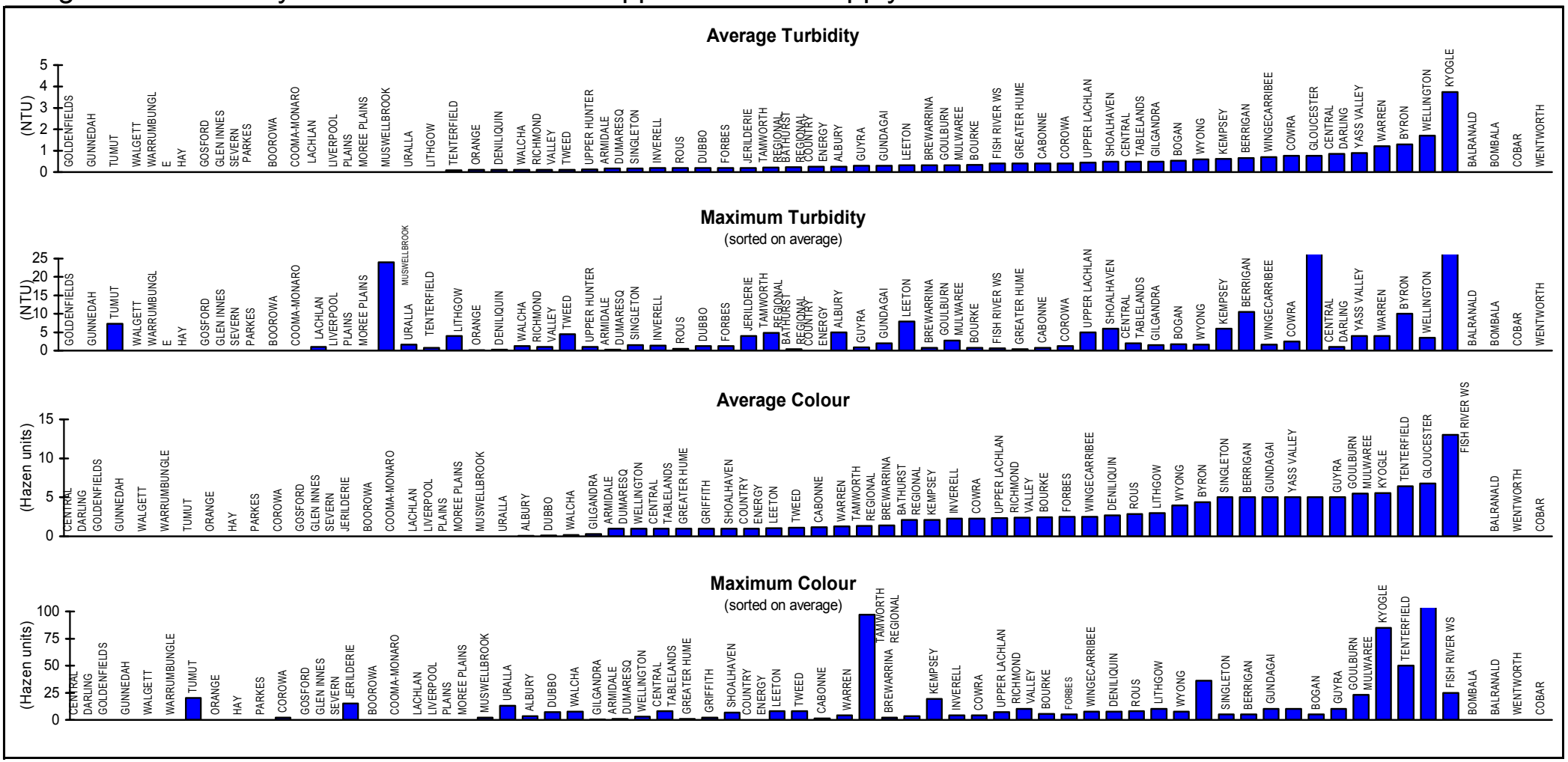
Parameter: $\frac{\text{Total No. of Major Incidents with Major Health Impacts (Q117)}}{\text{[No. of Residential Assessments (Q34) + No. of Non-Residential Assessments (Q35)] x No. of Connected Properties per Assessment}}$

Parameter: $\frac{\text{Capital Expenditure on Improving Health Performance (\$) x (Q119)}}{\text{[No. of Residential Assessments (Q34) + No. of Non-Residential Assessments (Q35)] x No. of Connected Properties per Assessment}}$

Note:

1. The following 15 utilities did not report for public health incidents: Bogan, Boorowa, Cobar, Cobar Water Board, Cooma-Monaro, Glen Innes-Severn, Liverpool Plains, Midwestern Regional, Narrabri, Narrandera, Narromine, Palerang, Tumbarumba, Tumut and Wentworth. 21 Utilities are shown in the figure above, while 62 utilities reported zero public health incidents.
2. For general notes see page 25.

Figure 19: Turbidity and colour for filtered supplies – water supply

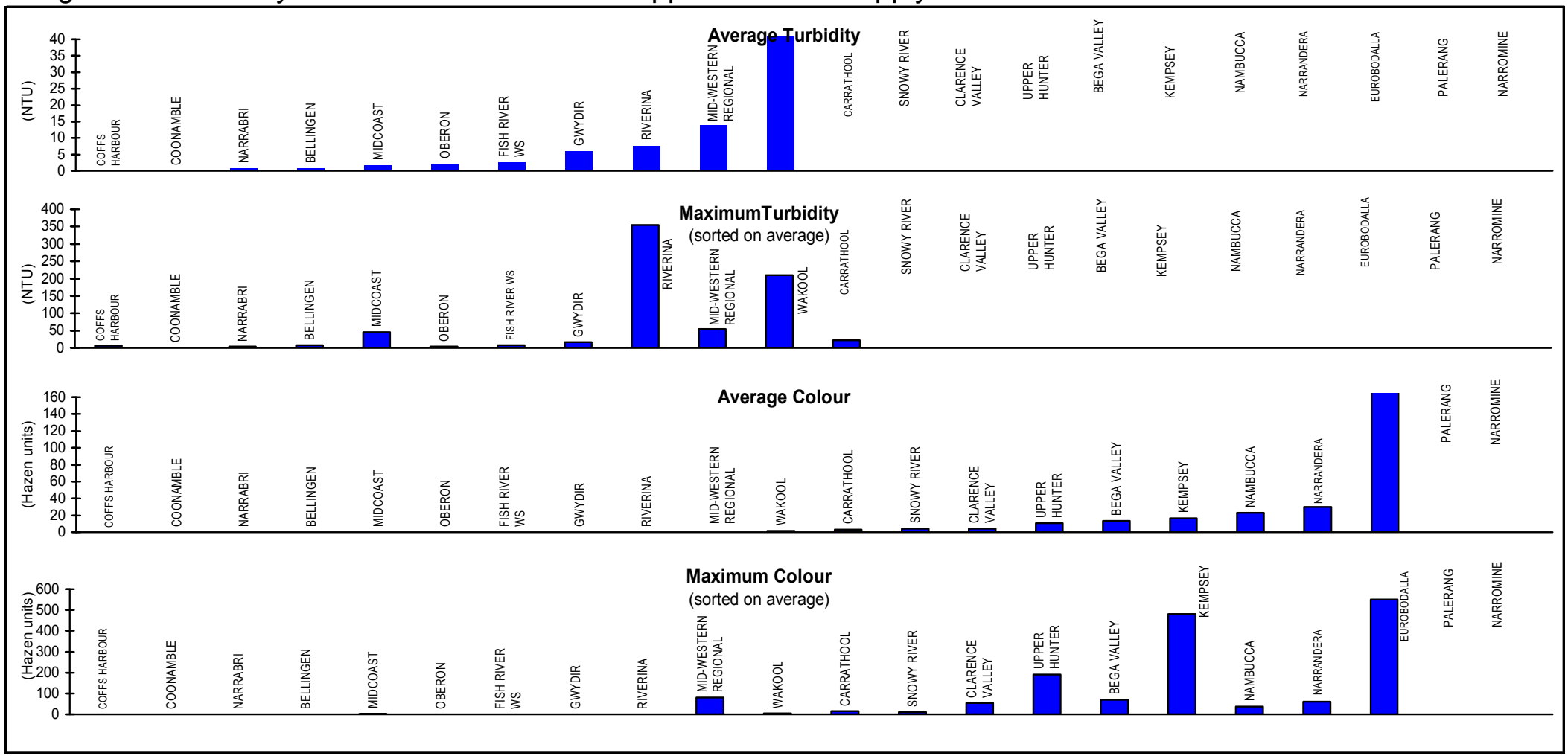


Parameter: Treated Water Average Turbidity (WTW Q15), Maximum Turbidity (WTW Q14), Treated Water Average Colour (WTW Q11), Maximum Colour (WTW Q10)

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. 100% of the 58 reporting LWUs had average turbidity not exceeding 2 turbidity units. 100% of these LWUs had average turbidity not exceeding 1 turbidity unit.
3. 100% of the 57 reporting LWUs had average colour not exceeding 8 colour units. 89% of these LWUs had average colour exceeding 5 colour units.
4. 21% 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 25.

Figure 20: Turbidity and colour for unfiltered supplies – water supply

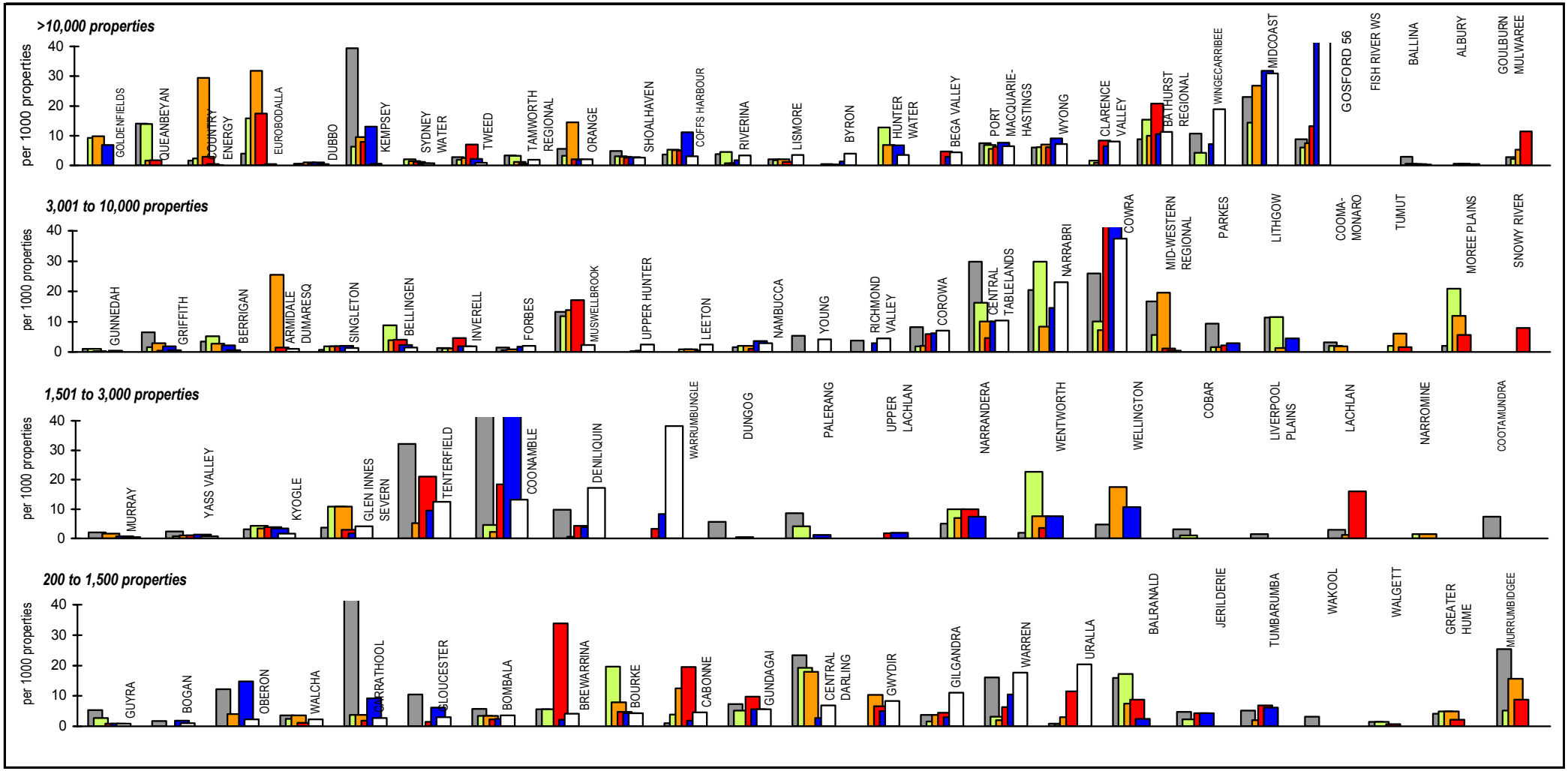


Parameter: Raw Water Average Turbidity (WTW Q13), Maximum Turbidity (WTW Q12), Raw Water Average Colour (WTW Q9), Maximum Colour (WTW Q8)

Notes:

1. Only unfiltered reporting supplies have been considered
2. 45% of the 11 reporting LWUs had average turbidity not exceeding 2 turbidity units. 80% of these LWUs had average turbidity not exceeding 1 turbidity unit.
3. 95% of the reporting LWUs had average colour not exceeding 15 colour units. 93% of these LWUs had average colour not exceeding 5 colour units.
4. For general notes see page 25.

Figure 21: Water quality complaints – water supply



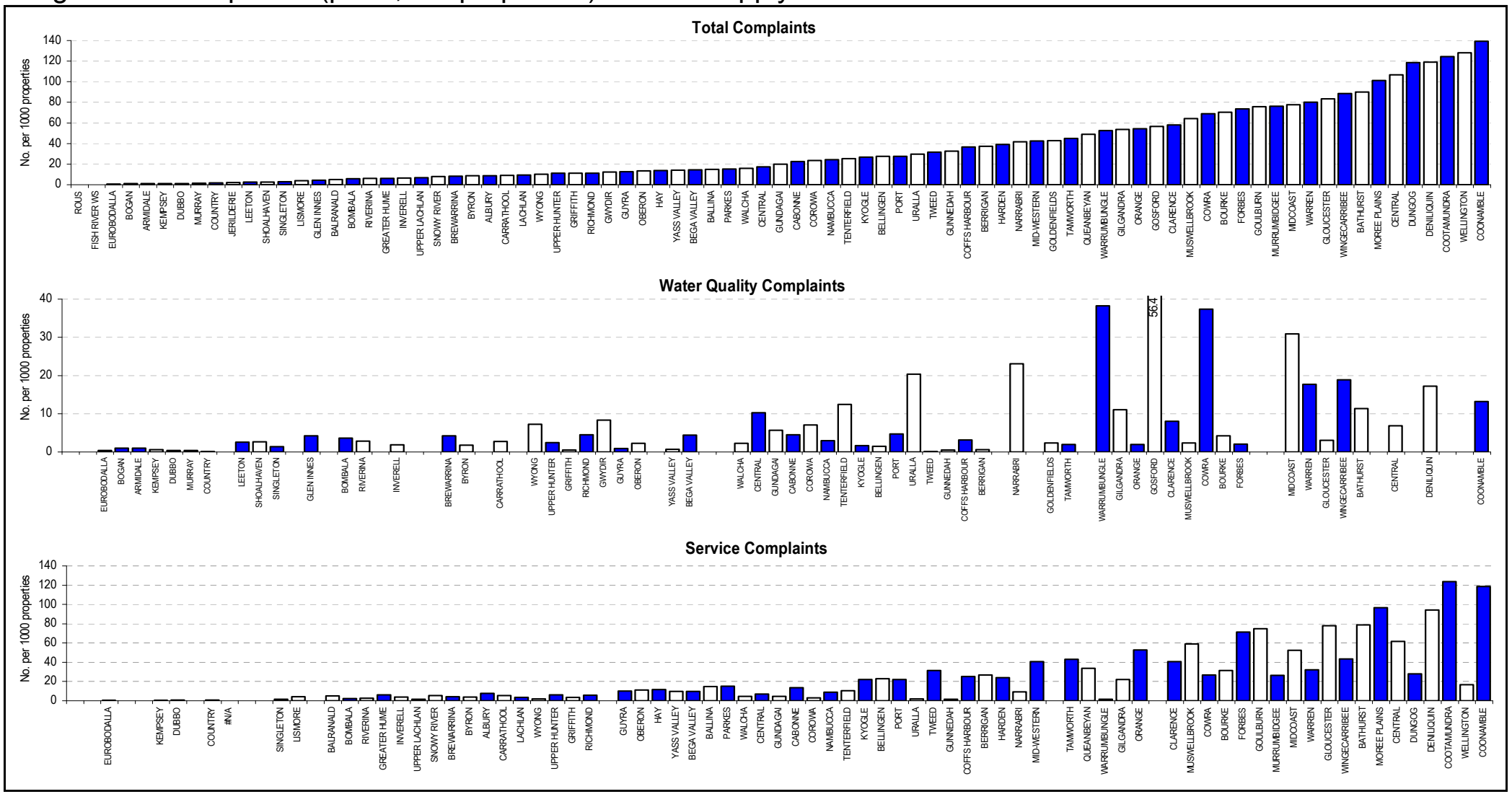
Parameter: No. of Water Quality Complaints (Q101) x 1000

[No. of Residential Assessments (Q34) + No. of Non-Residential Assessments (Q35)] x No. of Connected Properties per Assessment

Notes:

1. This figure shows ranked values of the 2006/07 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 18 LWUs shown ranges from nil to 37 per 1000 connected properties. The 7 LWUs on the right did not report this indicator for 2006/07. Results for the previous 5 years are also shown.
2. The Statewide median number of water quality complaints is 3 per 1000 properties.
3. For general notes see page 25.

Figure 22: Complaints (per 1,000 properties) – water supply



Parameter:

$$\frac{\text{Total No. of Complaints [(Q96)+(Q99)+(Q100)+(Q101)] x 1000}}{\text{[No. of Residential Assessments (Q34) + No. of Non-Residential Assessments (Q35)] x No. of Connected Properties per Assessment}}$$

Parameter:

$$\frac{\text{No. of Water Quality Complaints (Q42a) x 1000}}{\text{[No. of Residential Assessments (Q34) + No. of Non-Residential Assessments (Q35)] x No. of Connected Properties per Assessment}}$$

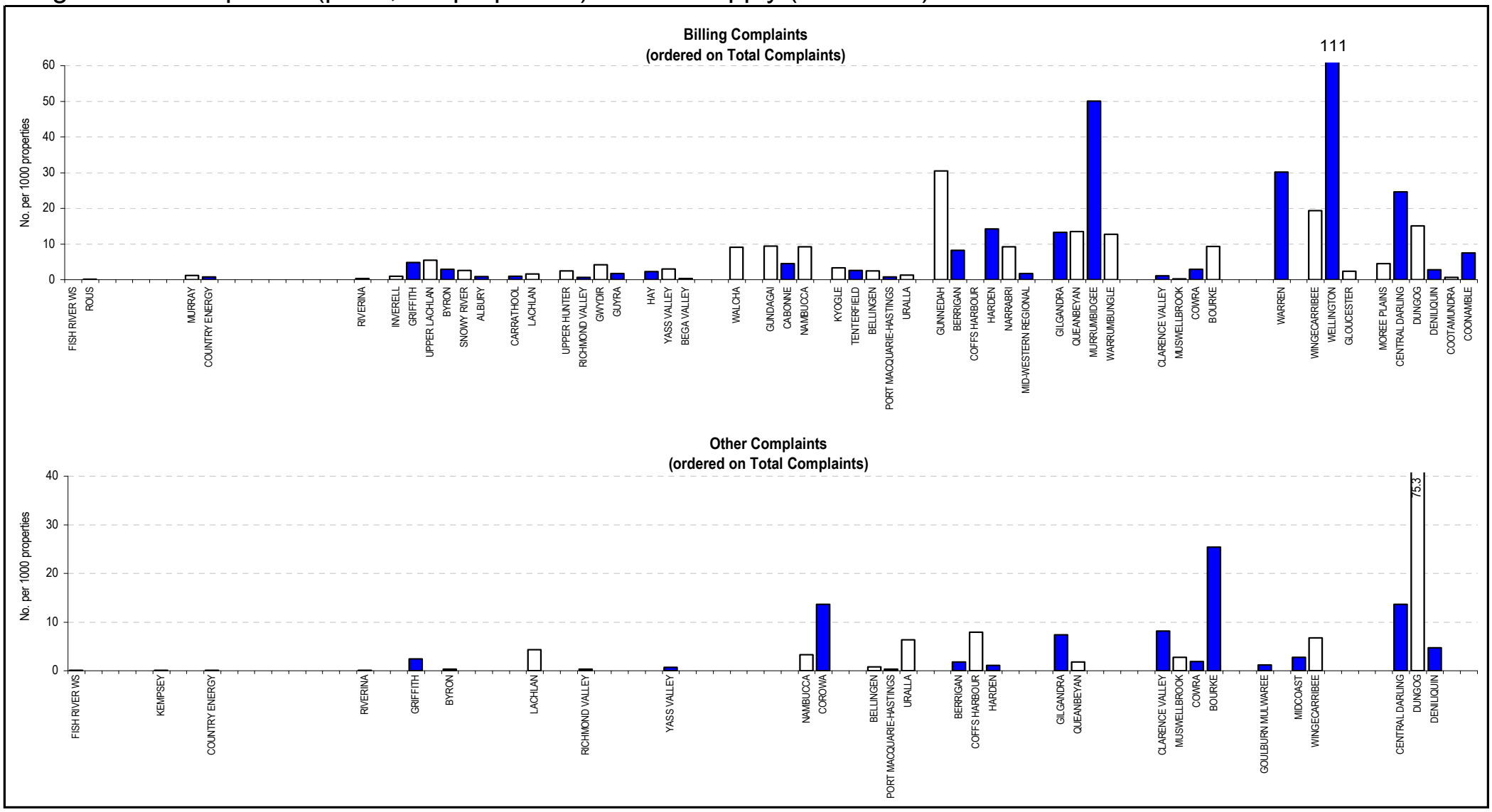
Parameter:

$$\frac{\text{No. of Water Service Complaints (Q19a) x 1000}}{\text{[No. of Residential Assessments (Q34) + No. of Non-Residential Assessments (Q35)] x No. of Connected Properties per Assessment}}$$

Note:

1. For general notes see page 25.

Figure 22: Complaints (per 1,000 properties) – water supply (continued)



Parameter:

$$\frac{\text{No. of Billing Complaints (Q99)+ x 1000}}{\text{[No. of Residential Assessments (Q34) + No. of Non-Residential Assessments (Q35)] x No. of Connected Properties per Assessment}}$$

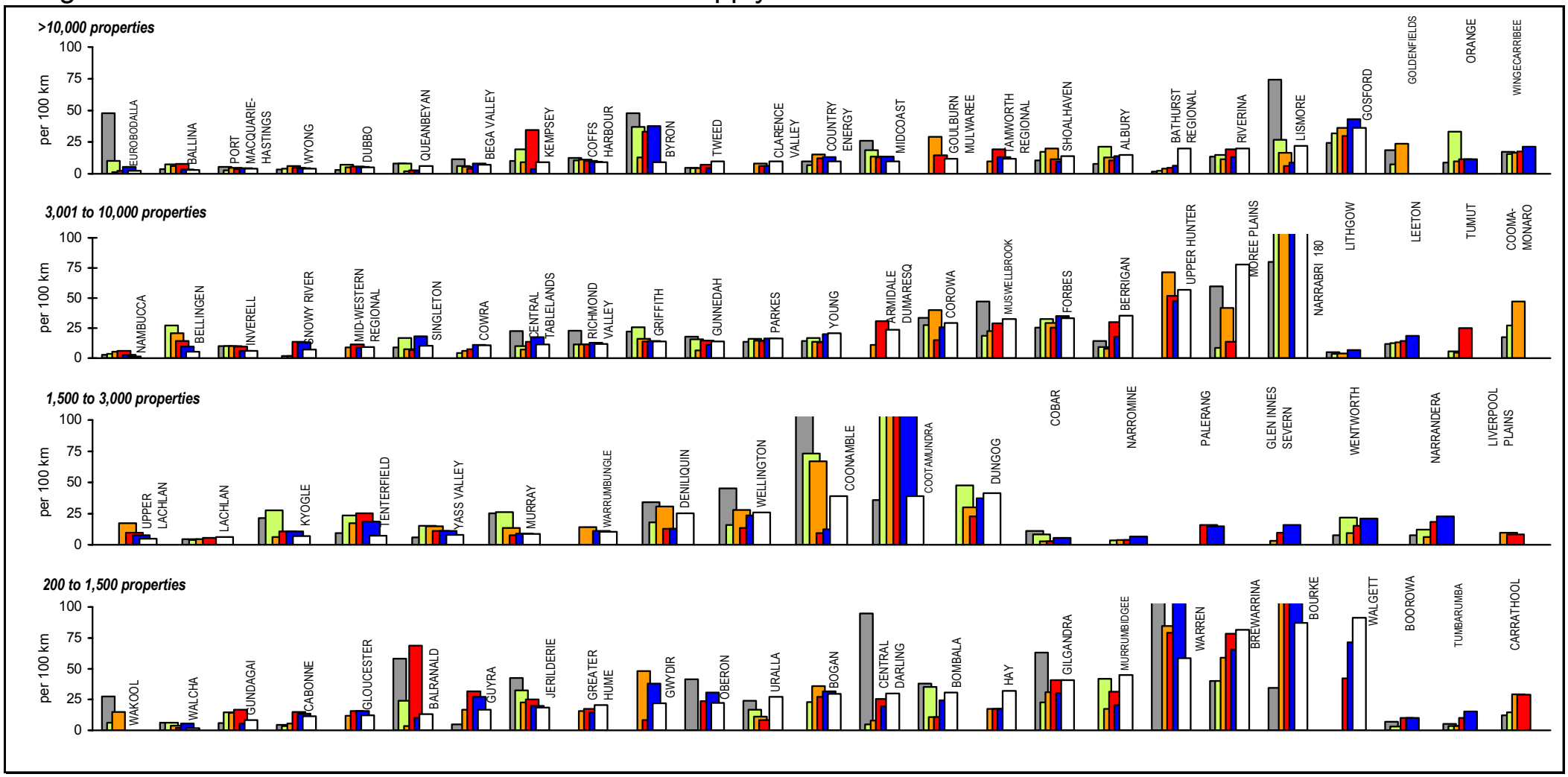
Parameter:

$$\frac{\text{No. of Other Complaints (Q100) x 1000}}{\text{[No. of Residential Assessments (Q34) + No. of Non-Residential Assessments (Q35)] x No. of Connected Properties per Assessment}}$$

Note:

1. For general notes see page 25.

Figure 23: Number of water main breaks – water supply



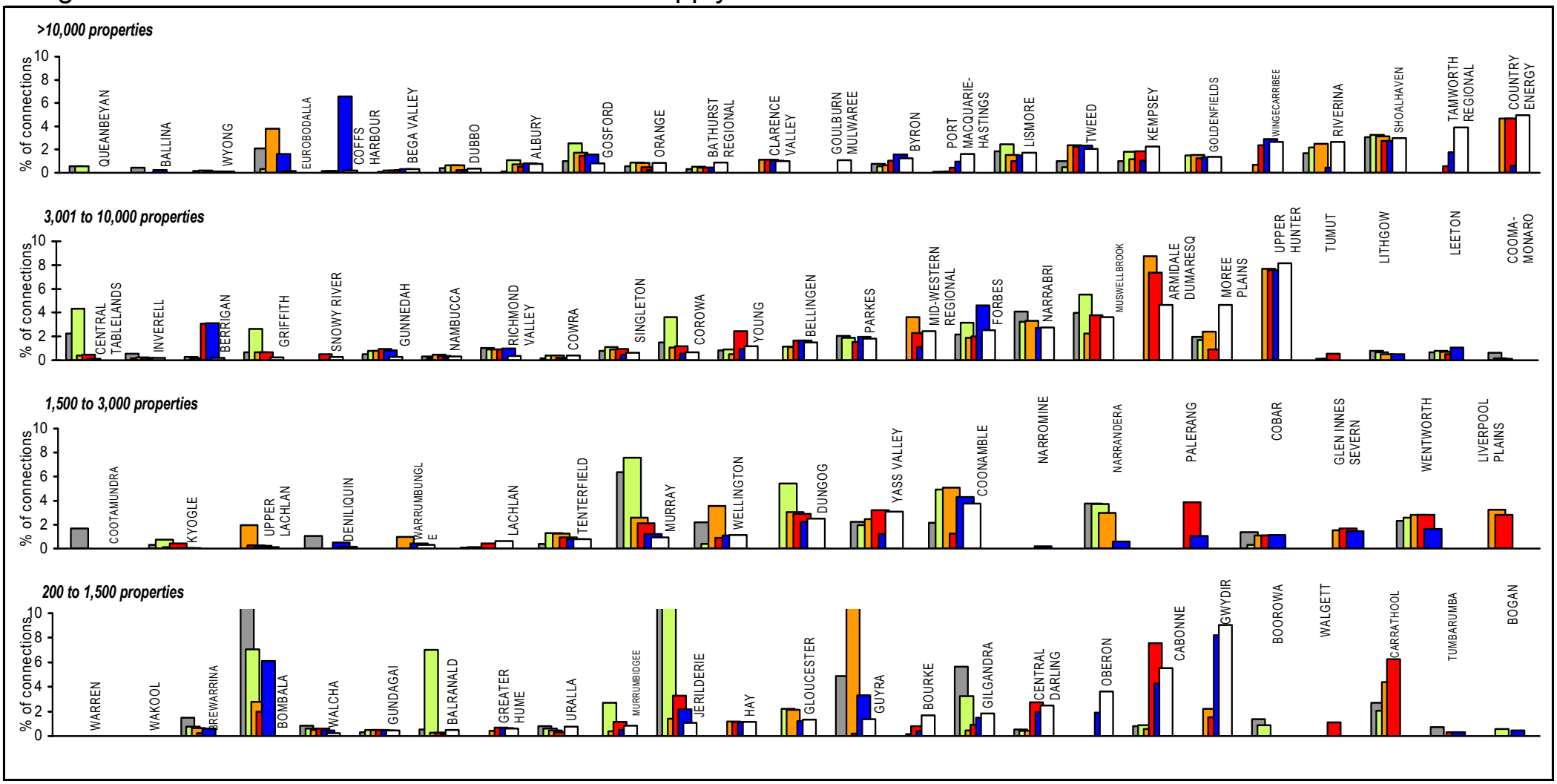
Parameter:

$$\frac{\text{No. of Pipeline Breaks (Q104) x 100}}{\text{Length of Distribution and Trunk Mains (Q22)}}$$

Notes:

1. This figure shows ranked values of the 2006/07 water 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 21 LWUs shown ranges from 1.6 to 180 per 100km of water mains.The 4 LWUs on the right did not report this indicator for 2006/07 . Results for the previous 5 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 25.

Figure 24: Service connection failures – water supply

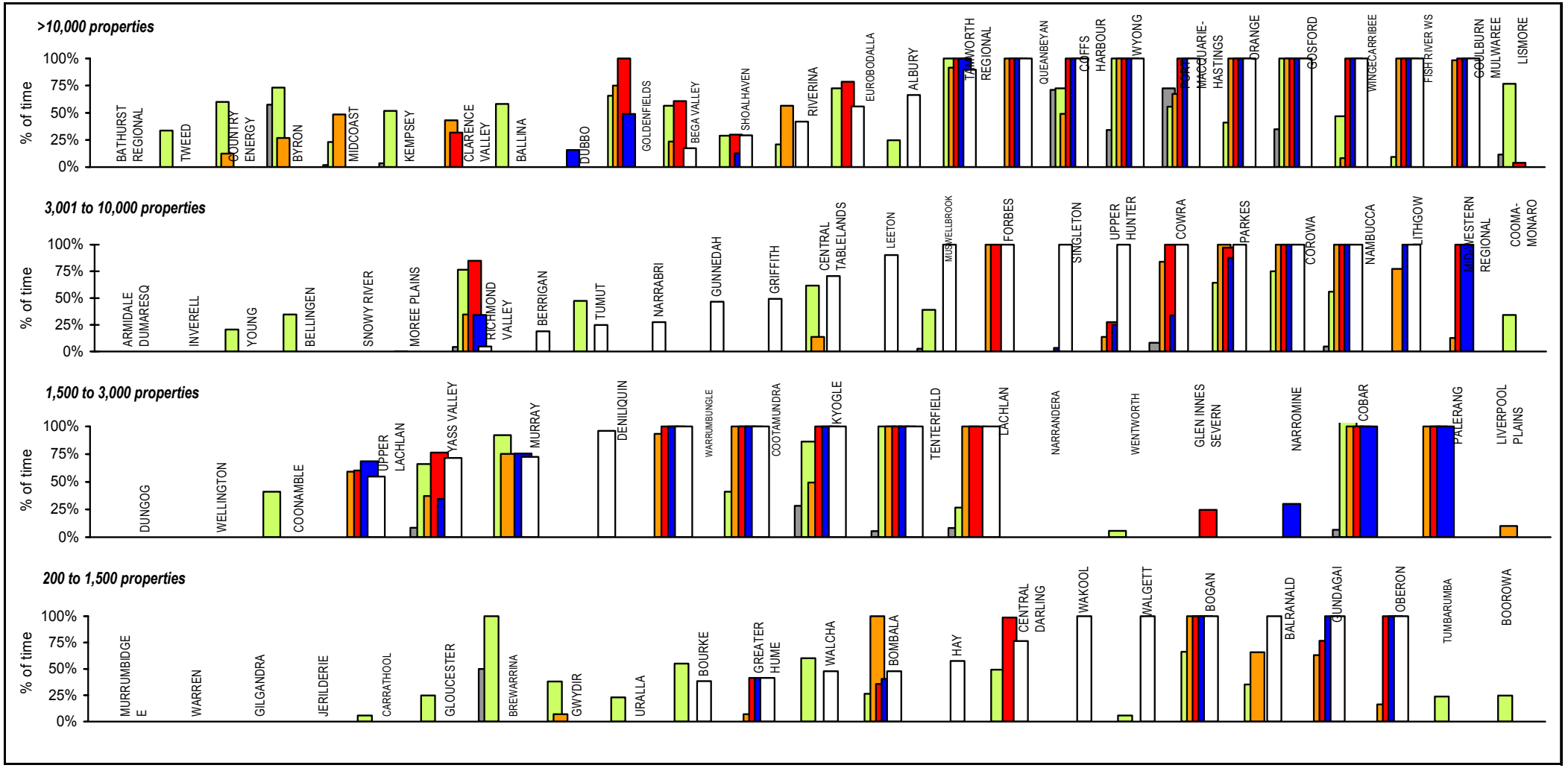


Parameter: $\frac{\text{No. of Service Connection Failures (Q105) x 100}}{\text{[No. of Residential Assessments (Q34) + No. of Non-Residential Assessments (Q35)] x No. of Connected Properties per Assessment}}$

Notes:

1. This figure shows ranked values of the 2006/07 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 21 LWUs shown ranges from nil to 8 %. The 2 LWUs on the right did not report this indicator for 2006/07. Results for the previous 5 years are also shown.
2. For general notes see page 25.

Figure 25: Drought water restrictions – water supply

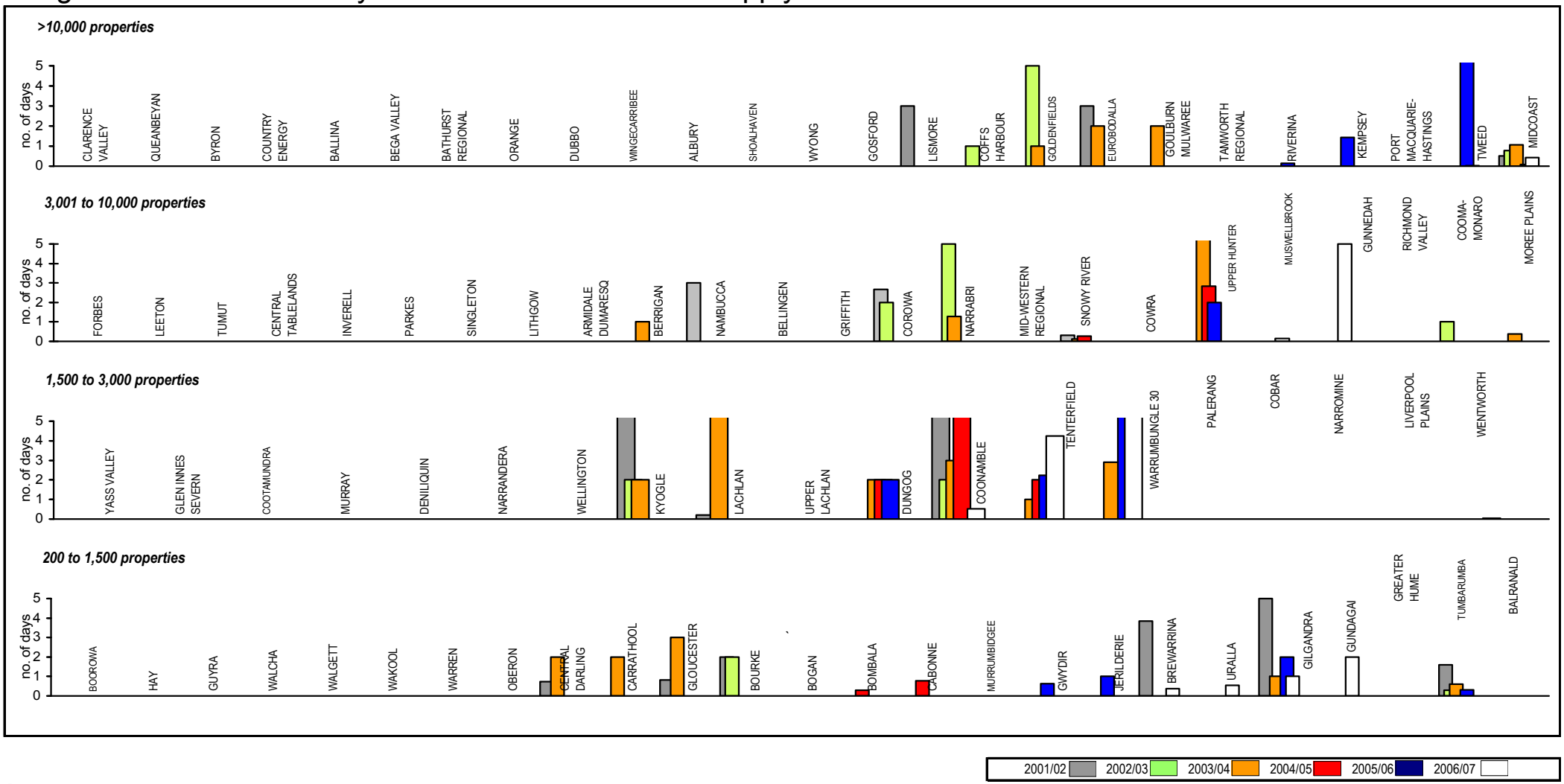


Parameter: $\frac{\text{No. of Days of Water Restrictions Due to Drought (Q95)} \times 100}{\text{365 Days}}$

Notes:

1. This figure shows ranked values of the 2006/07 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), 17 of the 23 reporting LWUs reported restrictions ranging from 0% of the time to 100% of the time. 6 LWUs reported no restrictions. The 2 LWUs on the right did not report on this indicator for 2006/07. Results for the previous 5 years are also shown.
2. For general notes see page 25.

Figure 26: Chlorination system malfunction – water supply

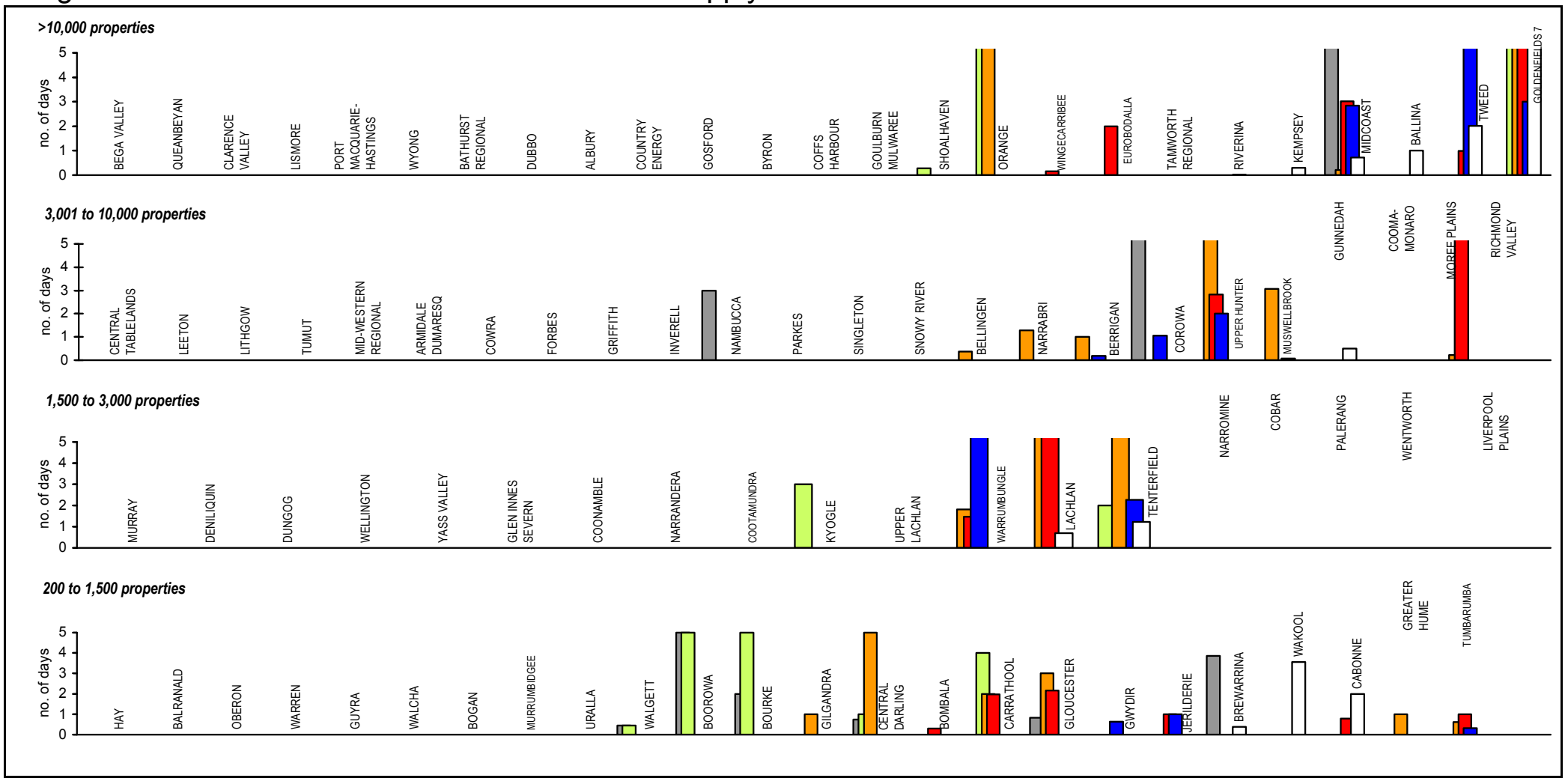


Parameter: Number of Days Chlorination System failed to Operate (Q44)

Notes:

1. The figure shows the 2006/07 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 21 LWUs shown ranges from nil to 0 days. The 3 LWUs on the right did not report this indicator for 2006/07. Results for the previous 5 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 25.

Figure 27: Treatment works malfunction – water supply

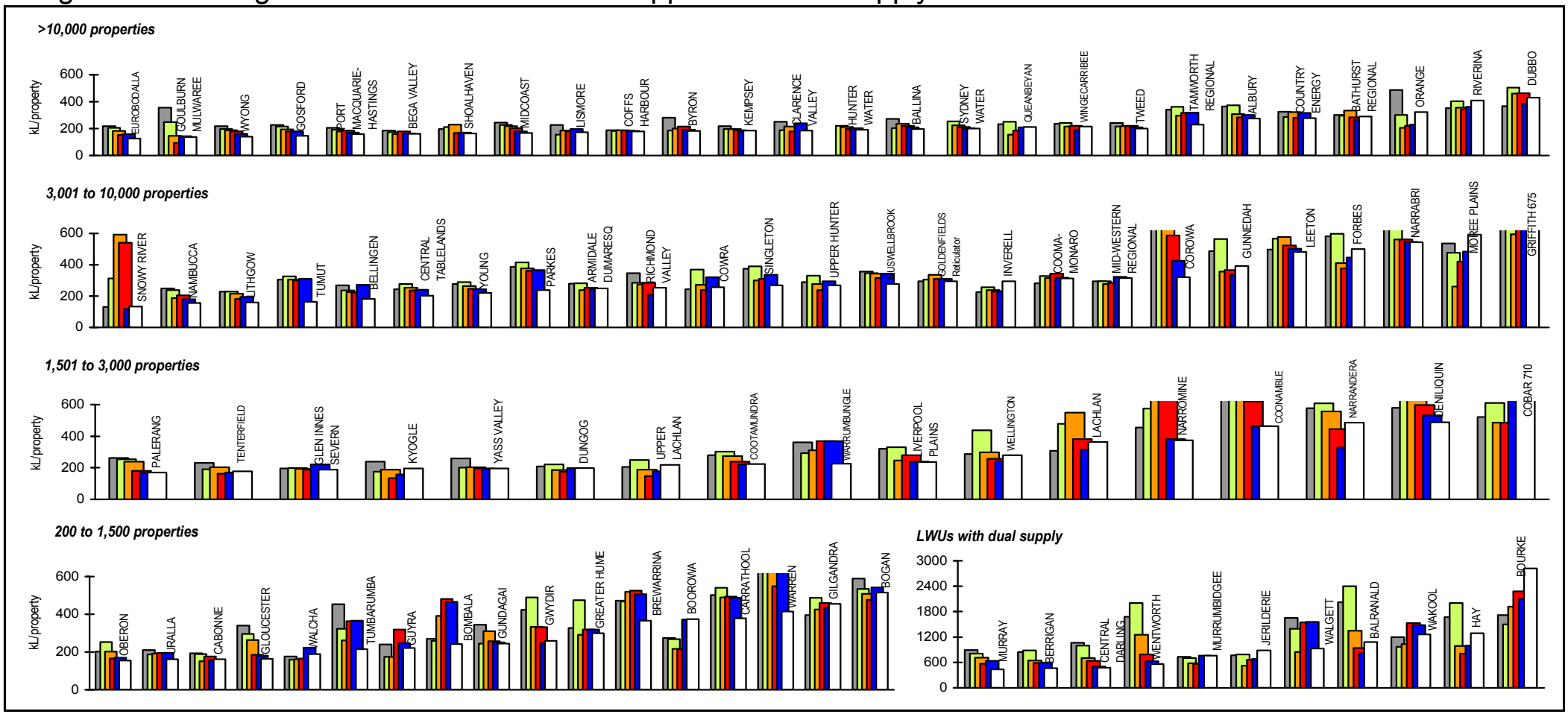


Parameter: Number of Days of major Malfunction of Treatment Processes (Q45)

Notes:

1. The figure shows the 2006/07 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 21 LWUs shown ranges from nil to 1 days.The 3 LWUs on the right did not report this indicator for 2006/07. Results for the previous 5 years are also shown.
2. For LWUs with more than one treatment works, the weighted average days of malfunction (based on treatment works capacity) was used.
3. For general notes see page 25.

Figure 28: Average annual residential water supplied – water supply



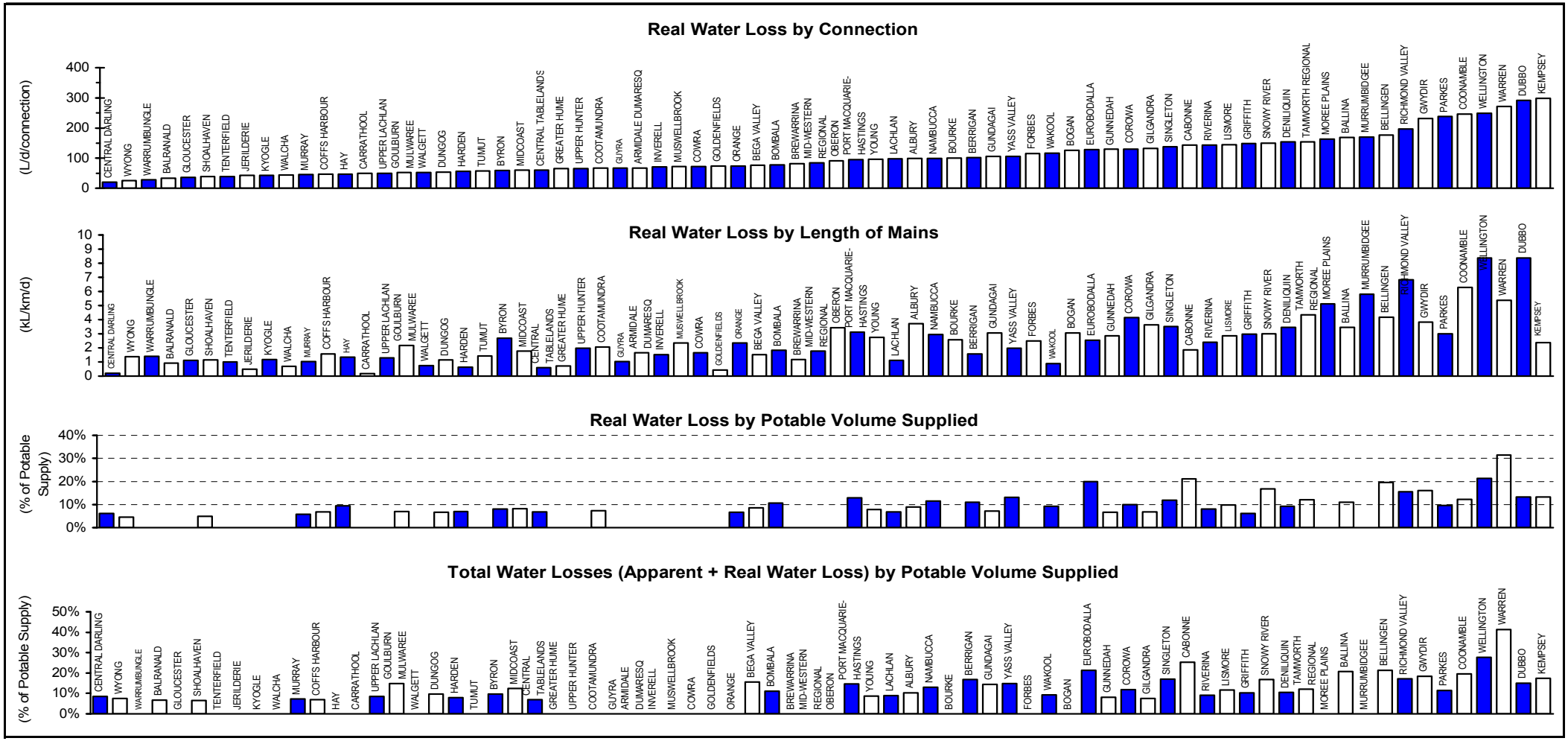
Parameter:

$$\frac{\text{Annual Residential Potable Supplied (Q54)} \times 1000}{\text{No. of Residential Assessments (Q34)} \times \text{No. of Connected Residential Properties per Residential Assessment}}$$

Notes:

1. This figure shows ranked values of the 2006/07 average annual residential water supplied 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 2006/07 annual residential water supplied for the 25 LWUs shown ranges from 130 to 675 kL/a per connected property. Results for the previous 5 years are also shown. Results for the 11 LWUs with a dual watr supply (ie. A potable supply for indoor use and a non-potable supply for outdoor use) are shown as a separate group in the bottom right hand corner. All these LWUs have fewer than 3,000 properties. Refer to Note 12 on page 19 for further information.
2. Results for the 11 LWUs with a dual watr supply (ie. A potable supply for indoor use and a non-potable supply for outdoor use) are shown as a separate group in the bottom right hand corner. All these LWUs have fewer than 3,000 properties. Refer to Note 12 on page 27 for further information.
3. The 2005/06 result has been adopted for those LWUs that did not report in 2006/07. These LWUs are shown in italics bold.
4. The Statewide median annual residential water supplied is 185 kL/a per connected property. The median residential water supplied for coastal and inland LWUs is 165 and 305kL/connected property repectively.
5. 56% of the LWUs needed to apply drought water restrictions in 2006/07.
6. For general notes see page 25.

Figure 29: Water losses (real loss [leakage] and apparent loss) – water supply



Parameter:

$$\frac{\text{Real Water Losses (Q68) x 1000}}{\text{[No. of Residential Assessments (Q34) + No. of Non-Residential Assessments (Q35) x No. of Connected Properties per Assessment}}$$

Parameter:

$$\frac{\text{Real Water Losses (Q68) x 100}}{\text{Length of Mains (Q22)}}$$

Parameter:

$$\frac{\text{Real Water Losses (Q68) x 100}}{\text{Total Potable Water Supplied (Q12i)}}$$

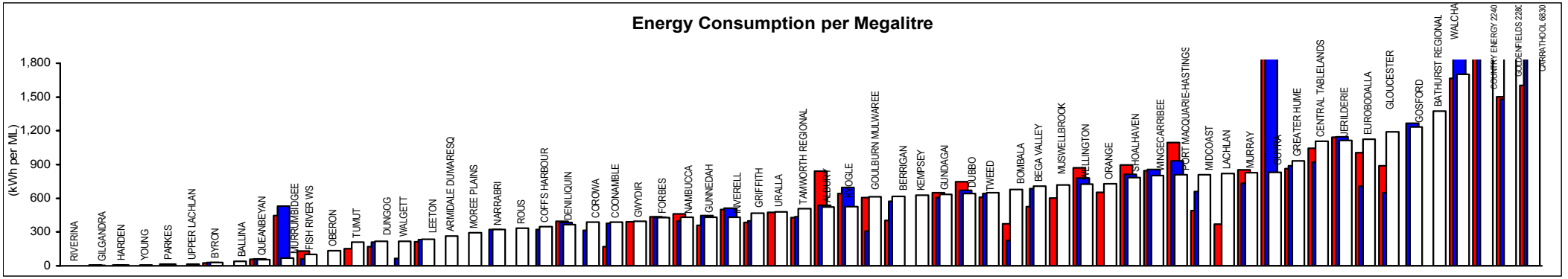
Parameter:

$$\frac{\text{Apparent \& Real Water Losses (Q69) x 100}}{\text{Total Potable Water Supplied (Q62)}}$$

Notes:

1. Refer to Note 13 of General Notes on page 19 for water losses.
2. For general notes see page 25.

Figure 30: Energy consumption per ML – water supply



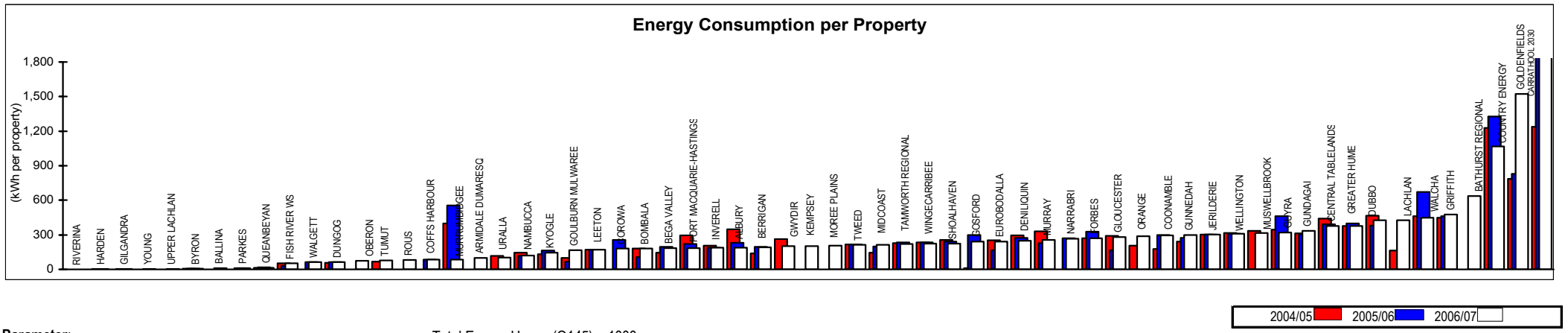
Parameter:

$$\frac{\text{Total Energy Usage (Q145) x 1000}}{\text{Total Potable Water Consumption ((Q62)}}$$

Notes:

1. This figure shows ranked values of the 2006/07 total energy consumption per ML. The energy consumption per ML for the 56 Local Water Utilitites (LWUs) shown range from about 5 to 1190kWh per connected property. Results for the previous 2 years are also shown.
2. For general notes see page 18.

Figure 31: Energy consumption per property – water supply



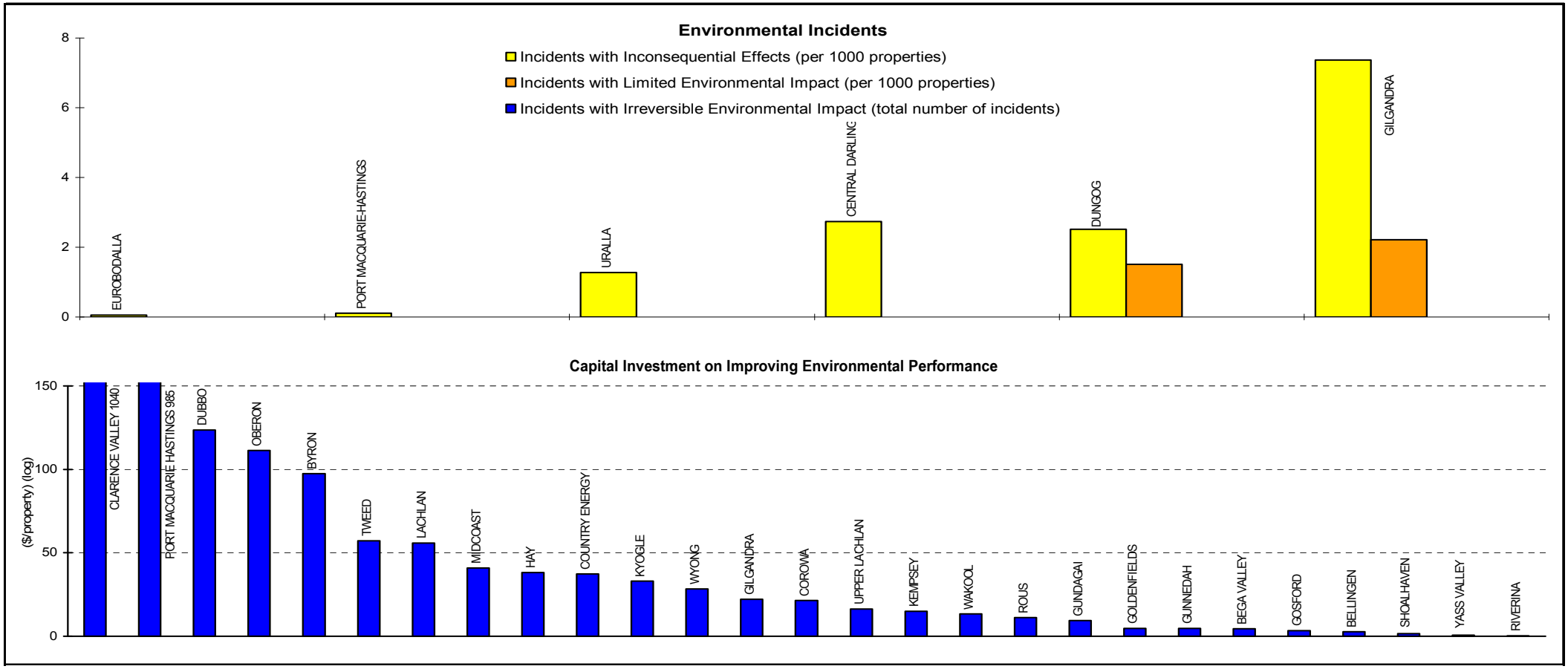
Parameter:

$$\frac{\text{Total Energy Usage (Q145) x 1000}}{\text{[No. of Residential Assessments (Q34) + No. of Non-Residential Assessments (Q35) x No. of Connected Properties per Assessment}}$$

Notes:

1. This figure shows ranked values of the 2006/07 total energy consumption per connected property. The energy usage per connected property for the 23 Local Water Utilitites (LWUs) shown range from about 250 to 2030kWh per connected property. Results for the previous 2 years are also shown.
2. For general notes see page 25.

Figure 32: Environmental incidents, management systems and capital investment – water supply



Parameter:

$$\frac{\text{Total Number of Minor Incidents with Inconsequential Effects (Q137)}}{\text{[No. of Residential Assessments (Q34) + No. of Non-Residential Assessments (Q35) x No. of Connected Properties per Assessment}}$$

Parameter:

$$\frac{\text{Total Number of Incidents with Limited Enviromental Impacts (Q138)}}{\text{[No. of Residential Assessments (Q34) + No. of Non-Residential Assessments (Q35) x No. of Connected Properties per Assessment}}$$

Parameter:

$$\frac{\text{Total Number of Incidents with Irreversible Enviromental Impacts (Q139)}}{\text{[No. of Residential Assessments (Q34) + No. of Non-Residential Assessments (Q35) x No. of Connected Properties per Assessment}}$$

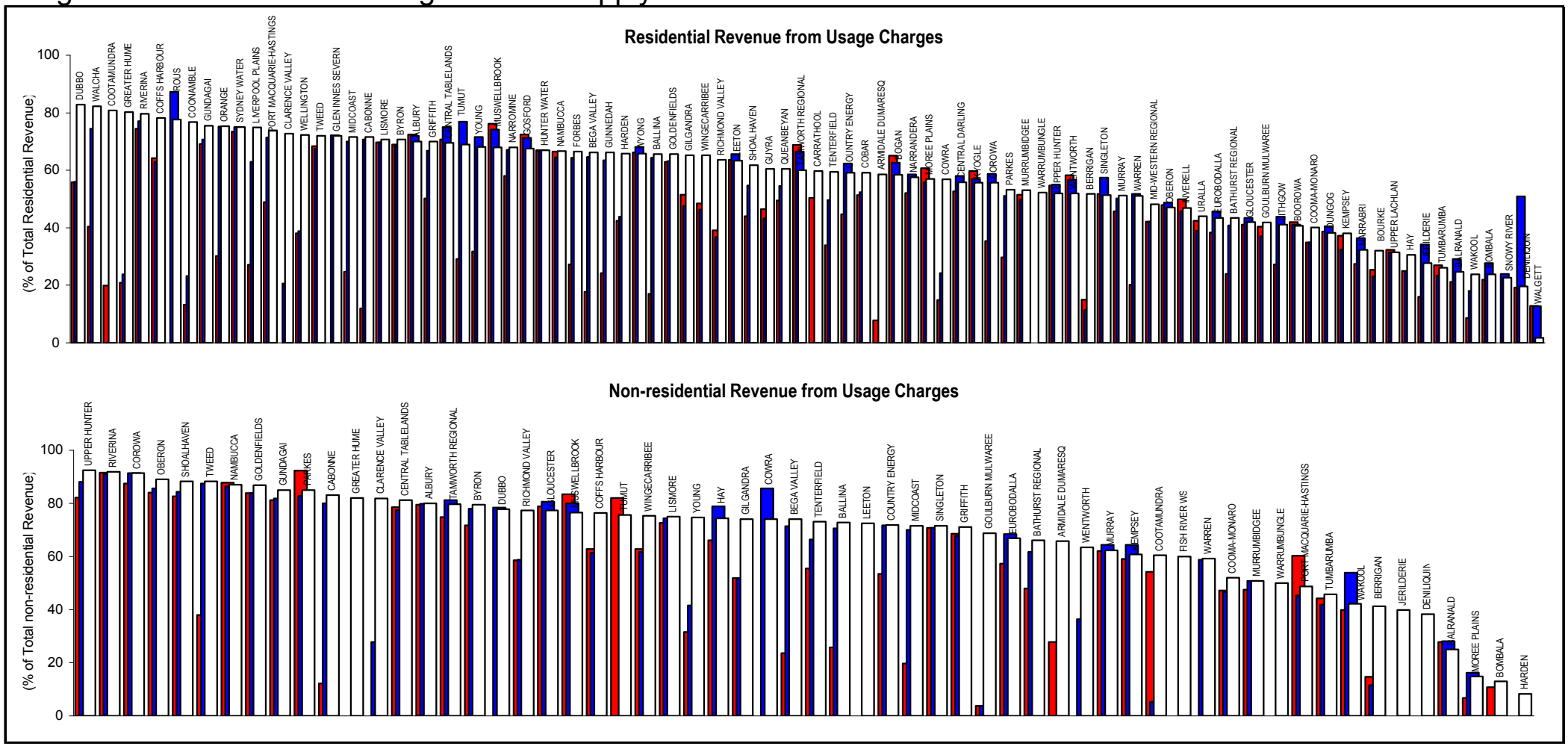
Parameter:

$$\frac{\text{Capital Expenditure on Improving Environmental Performance ($) (Q144)}}{\text{[No. of Residential Assessments (Q34) + No. of Non-Residential Assessments (Q35) x No. of Connected Properties per Assessment}}$$

Notes:

1. The following 17 utilities did not report for environmental incidents: Bogan, Boorowa, Cobar, Cobar Water Board, Cooma-Monaro, Glen Innes-Severn, Goldenfields, Lithgow, Liverpool Plains, Midwestern Regional, Narrandera, Palerang, Tumbarumba, Tumut, Walgett, Warrumbungle and Wentworth. 6 Utilities reported and are shown in the figure above, while 75 utilities reported zero environmental incidents.
2. The following 43 LWUs have prepared a water supply Environmental Management Plan:
   Albury, Ballina, Bombala, Bogan, Byron, Brewarrina, Cabonne, Carrathool, Central Darling, Clarence Valley, Coffs Harbour, Coonamble, Cootamundra, Corowa, Country Energy, Dubbo, Eurobodalla, Fish River, Glen Innes, Gosford, Greater Hume, Griffith, Guyra, Kempsey, Kyogle, Lachlan, Lismore, MidCoast Water, Murray, Murrumbidgee, Nambucca, Narromine, Orange, Port Macquarie-Hastings, Riverina Water, Shoalhaven, Tenterfield, Tumut, Upper Hunter, Uralla, Wakool, Walcha, Wyong
3. For general notes see page 25.

Figure 33: Revenue from usage – water supply



Parameter:

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

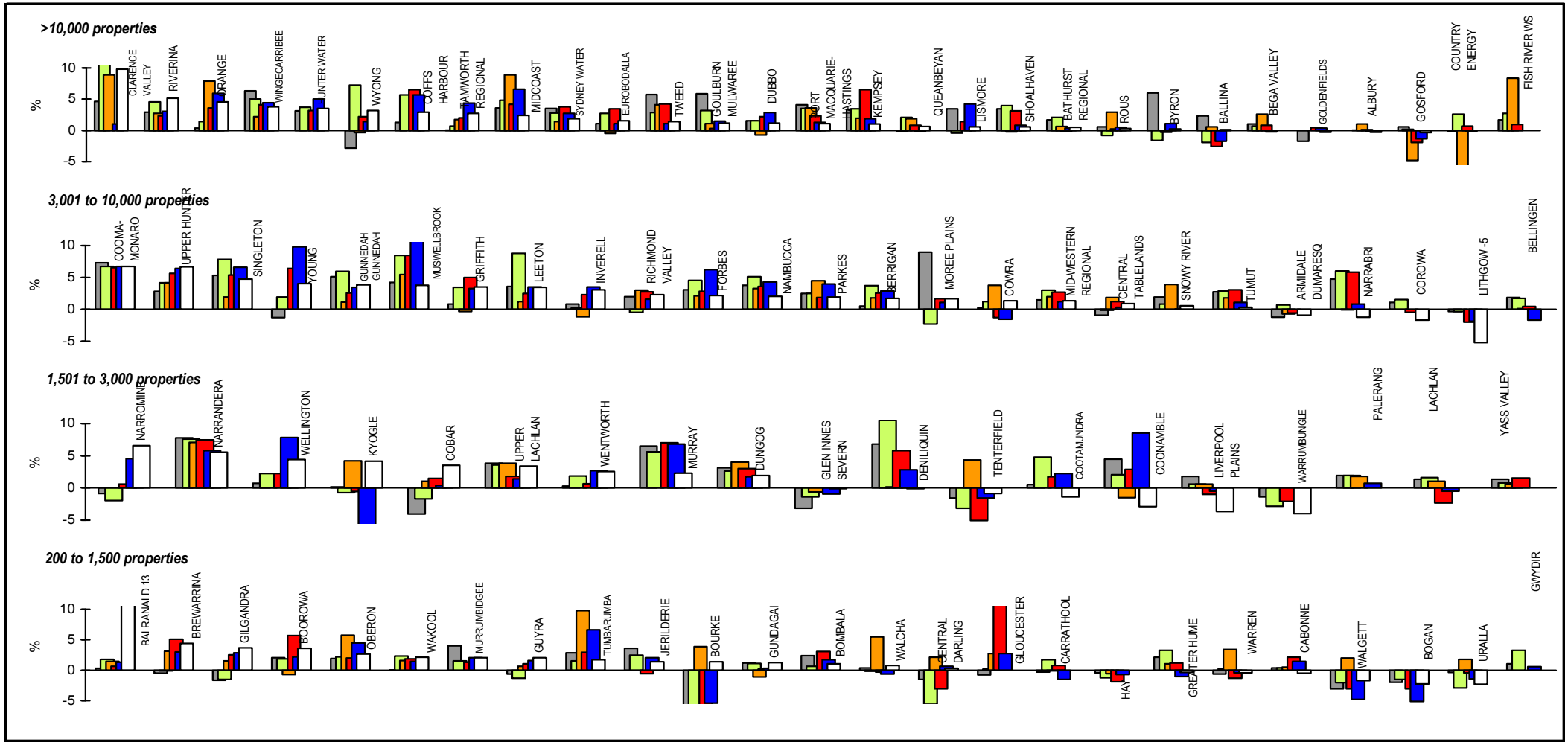
Parameter:

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

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 67%.
3. For general notes see page 25.

Figure 34: Economic real rate of return – water supply



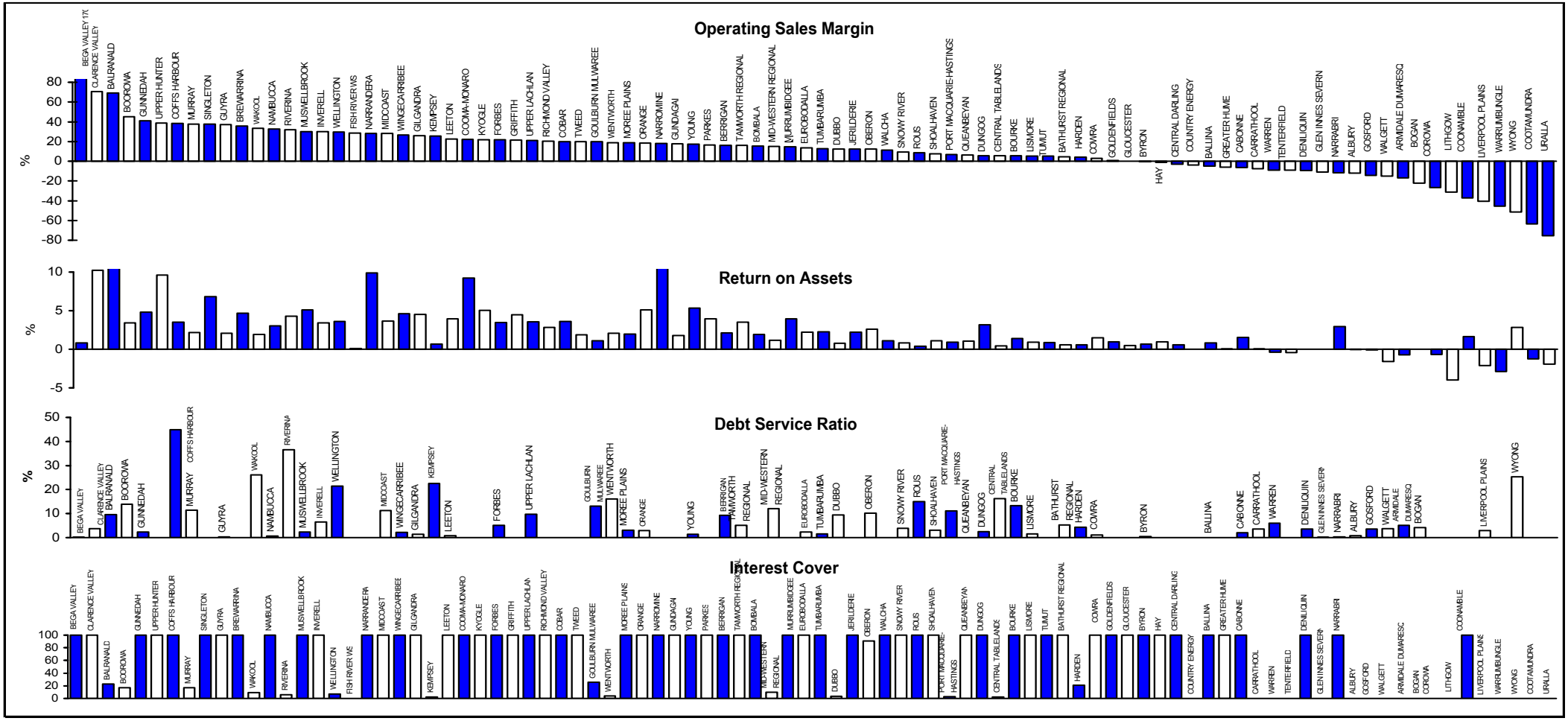
Parameter:

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

Notes:

1. This figure shows ranked values of the 2006/07 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 2006/07 water supply real rate of return for the 24 LWUs shown ranges from 7% to -5%. The LWU on the right did not report this indicator for 2006/07. Results for the previous 5 years are also shown.
2. The statewide median water supply ERRR is 1.4%.
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 25.

Figure 35: Operating sales margin, return on assets, debt service ration and 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)

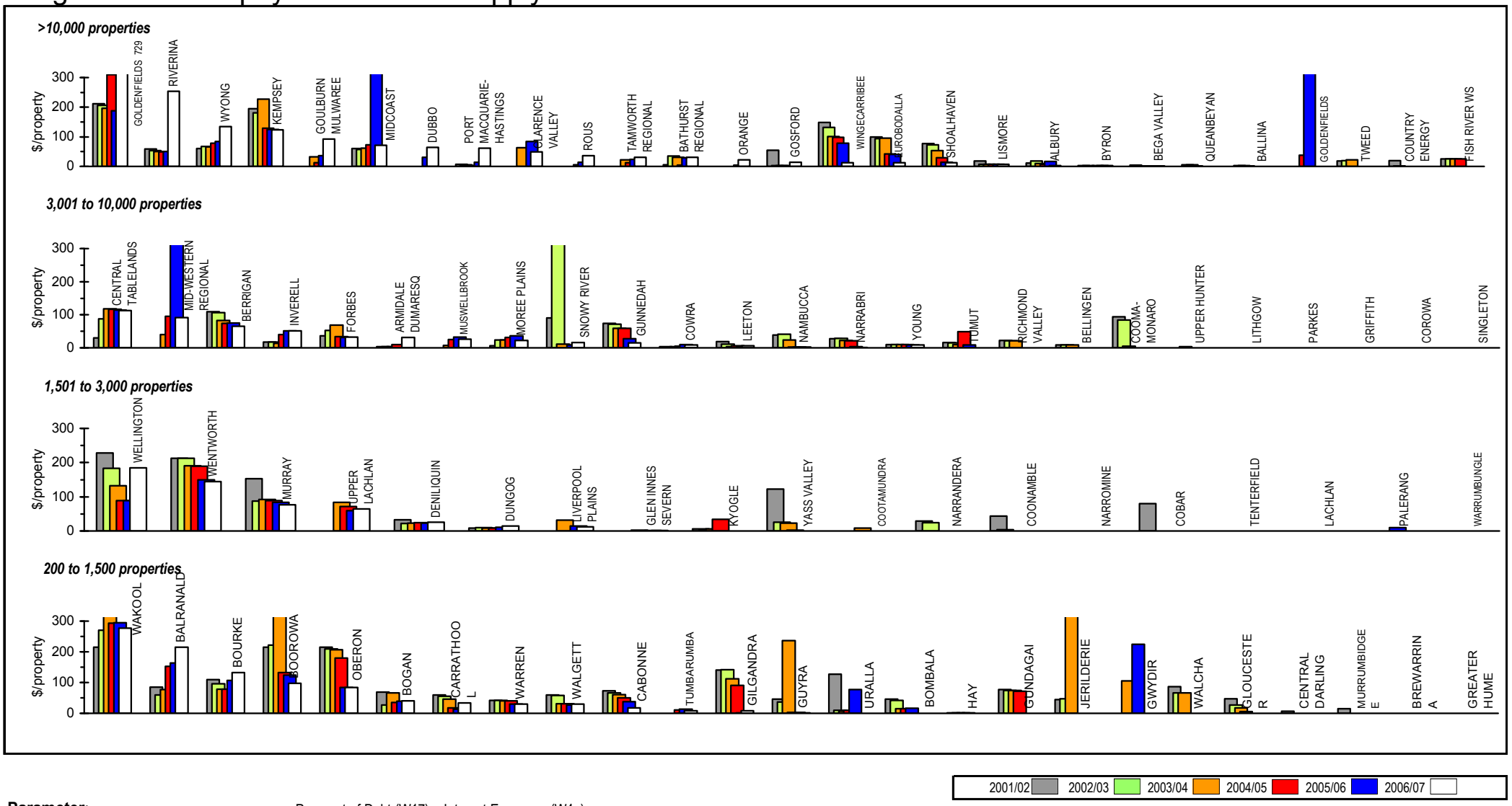
Parameter: [Internal Expenses (W4a) + Payment of Debt (W17)] x 100
Total Revenue (W13) - Grants for Capital Works (W11a) - Developer Provided Assets (W12b)

Parameter: [Operating Result (W15) + Interest Expenses (W4a) - Grants for Capital Works (W11a)]
Interest Expenses (W4a) - Interest Income (W9)

Notes:

1. Values of interest cover >100 are reported as 100 in accordance with the *National Performance Framework - 2006/07*.
2. For general notes see page 25.

Figure 36: Loan payment – water supply



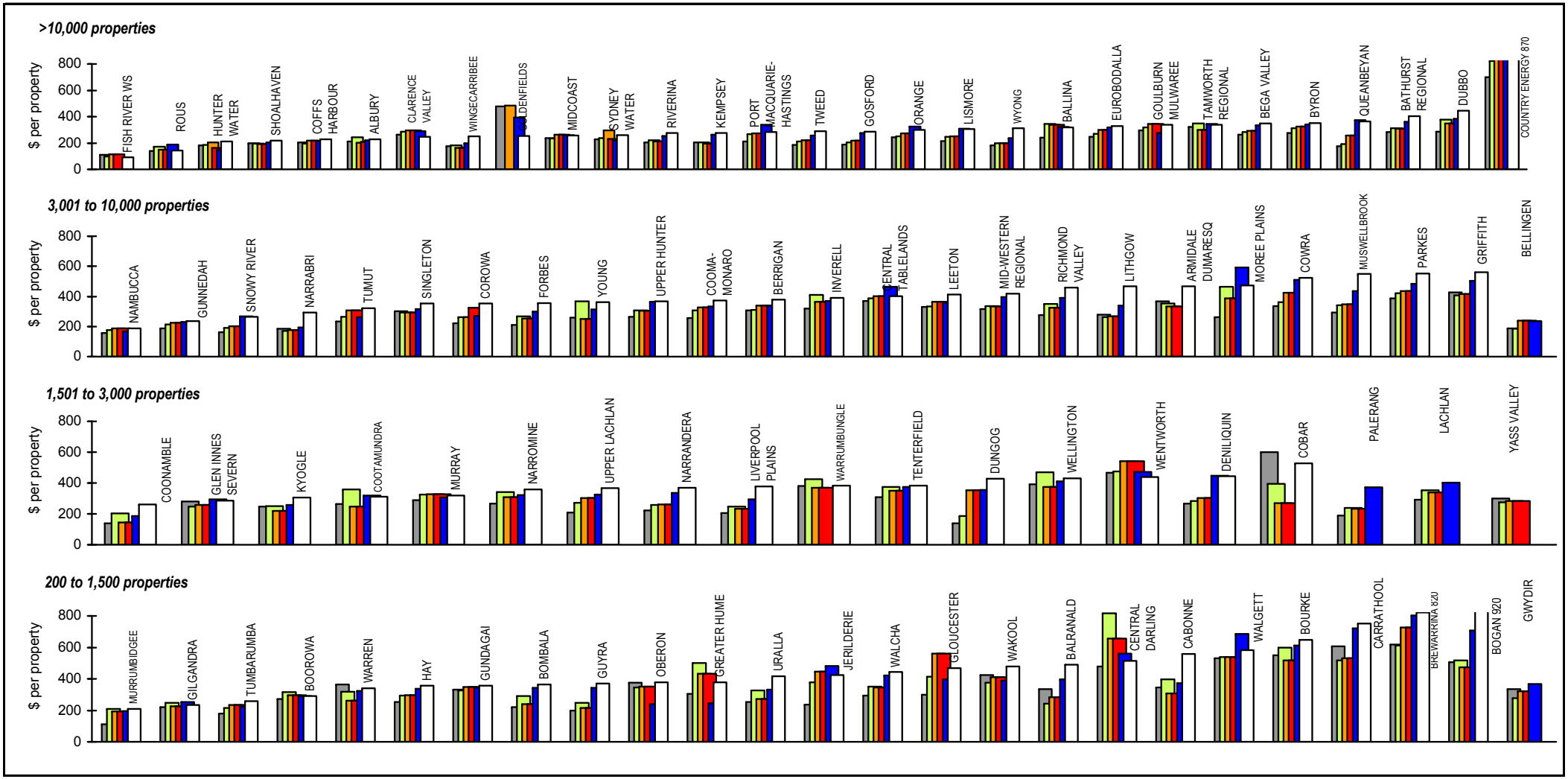
Parameter: Payment of Debt (W17) + Interest Expenses (W4a)

[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 2006/07 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 2006/07 water supply loan payments for the 25 LWUs shown ranges from $113 to $0 per connected property. Results for the previous 5 years are also shown in Jan 2007$.
2. The Statewide median water supply loan payment is $15 per connected property.
3. For general notes see page 25.

Figure 37: Operating cost (OMA) per property – water supply



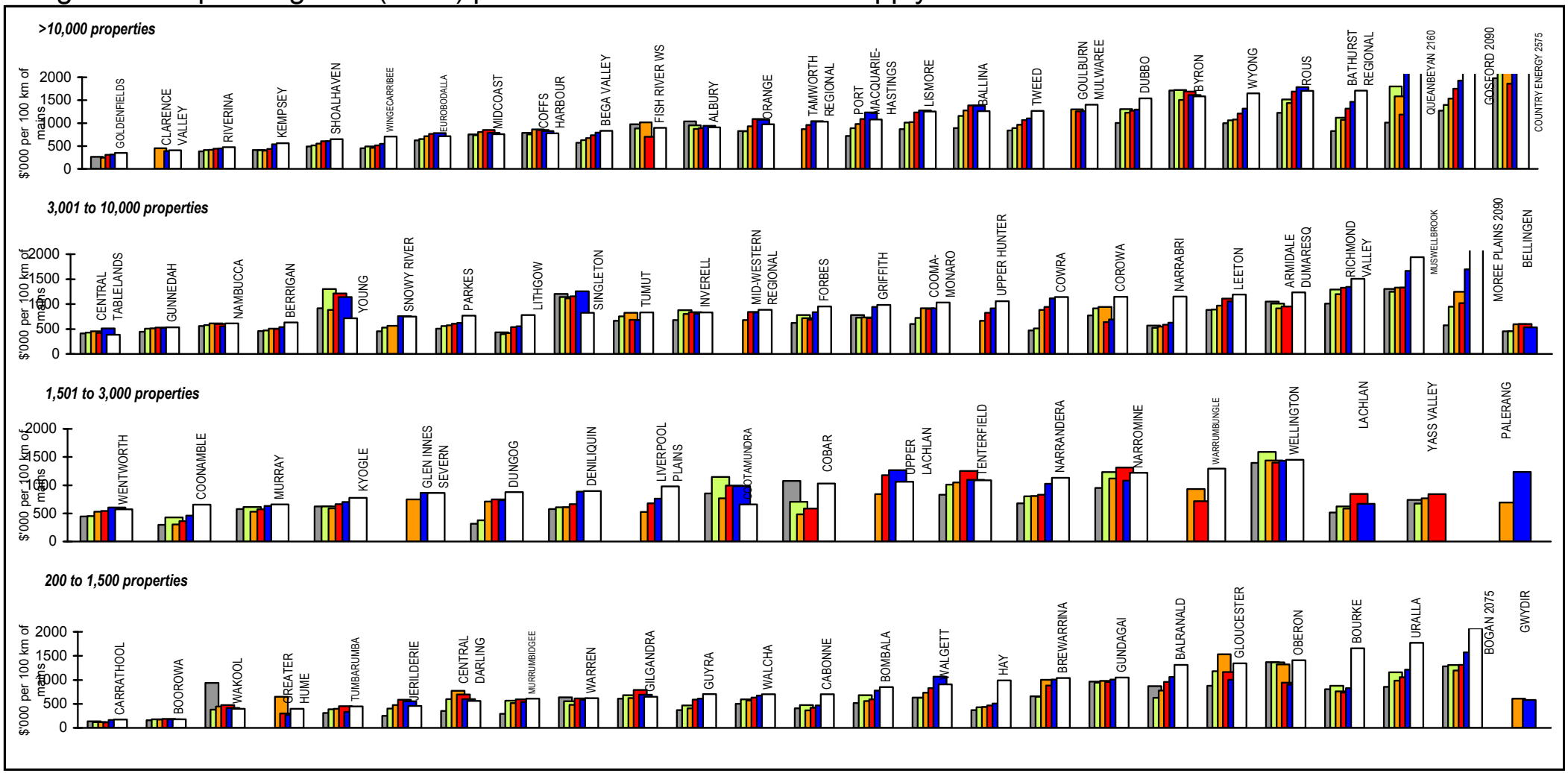
Parameter:

$$\frac{\text{Management Expenses (W1) + Total Operations Expenses (W2) - Purchase of Water + prorata Bulk Supplier's OMA}}{\text{[No. of Residential Assessments (Q34) + No. of Non-Residential Assessments (Q35)] x No. of Connected Properties per Assessment}}$$

Notes:

1. This figure shows ranked values of the 2006/07 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 2006/07 water supply operating costs for the 24 LWUs shown ranges from $185 to $550 per connected property.The LWU on the right did not report this indicator for 2006/07. Results for the previous 5 years are also shown in Jan 2007$.
2. The Statewide median operating cost per connected property is $290.
3. For general notes see page 25.

Figure 38: Operating cost (OMA) per 100 km of main – water supply



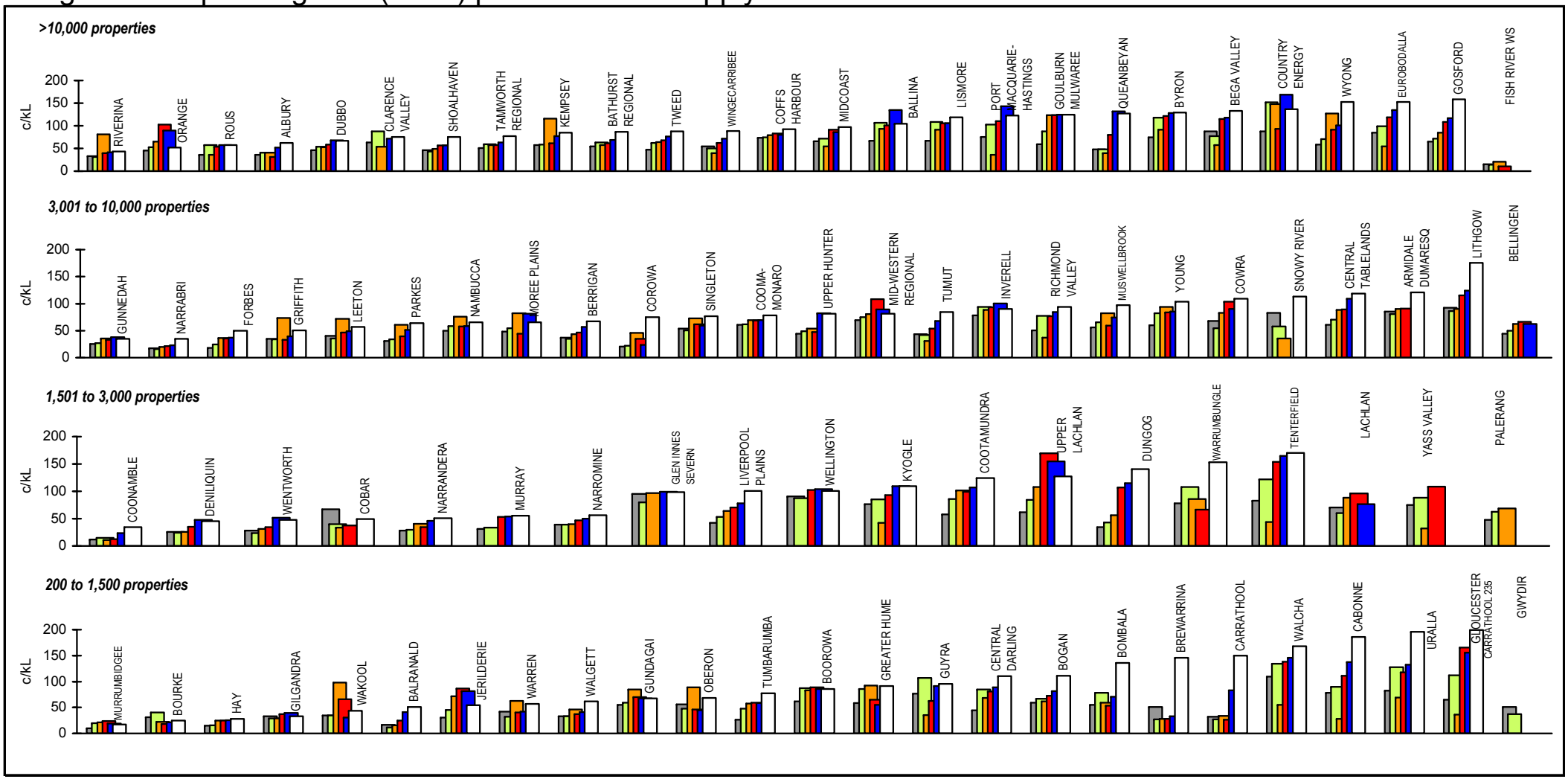
Parameter:

$$\frac{\text{Water Main Operation Expenses (W2c) + Water Main Maintenance Costs (W2d)}}{\text{Length of Distribution Mains (Q22) x 100}}$$

Notes:

1. This figure shows ranked values of the 2006/07 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 2006/07 operating costs for the 24 LWUs shown ranges from $512,000 to $1,697,000 per 100km of main. Results for the previous 5 years are also shown. The LWU on the right did not report this indicator for 2006/07. Results for the previous 5 years are also shown in Jan 2007$.
2. The Statewide median operating cost is $1.03M per 100 km of Water Main.
3. For general notes see page 25.

Figure 39: Operating cost (OMA) per kL – water supply



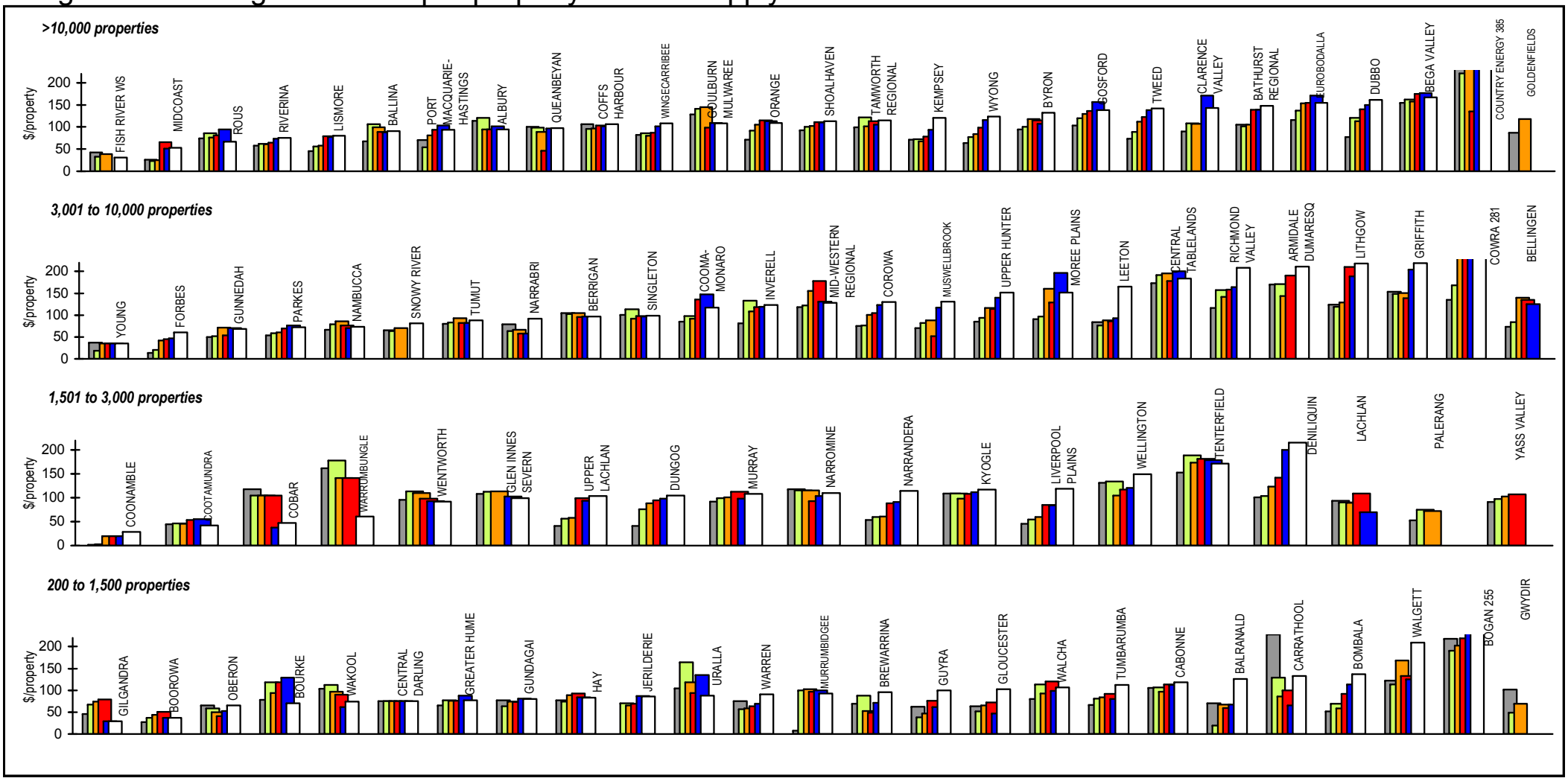
Parameter:

$$\frac{\text{Management Expenses (W1) + Total Operations Expenses (W2) - Purchase of Water (W2o)}}{\text{Total Potable Water Supplied (Q62)}}$$

Notes:

1. This figure shows ranked values of the 2006/07 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 2006/07 operating costs per kL for the 24 LWUs shown ranges from 34 to 176 c/kL. The LWU on the right did not report this indicator for 2006/07. Results for the previous 5 years are also shown in Jan 2007$.
2. The Statewide median operating cost is 90c/kL.
3. For general notes see page 25.

Figure 40: Management cost per property – water supply



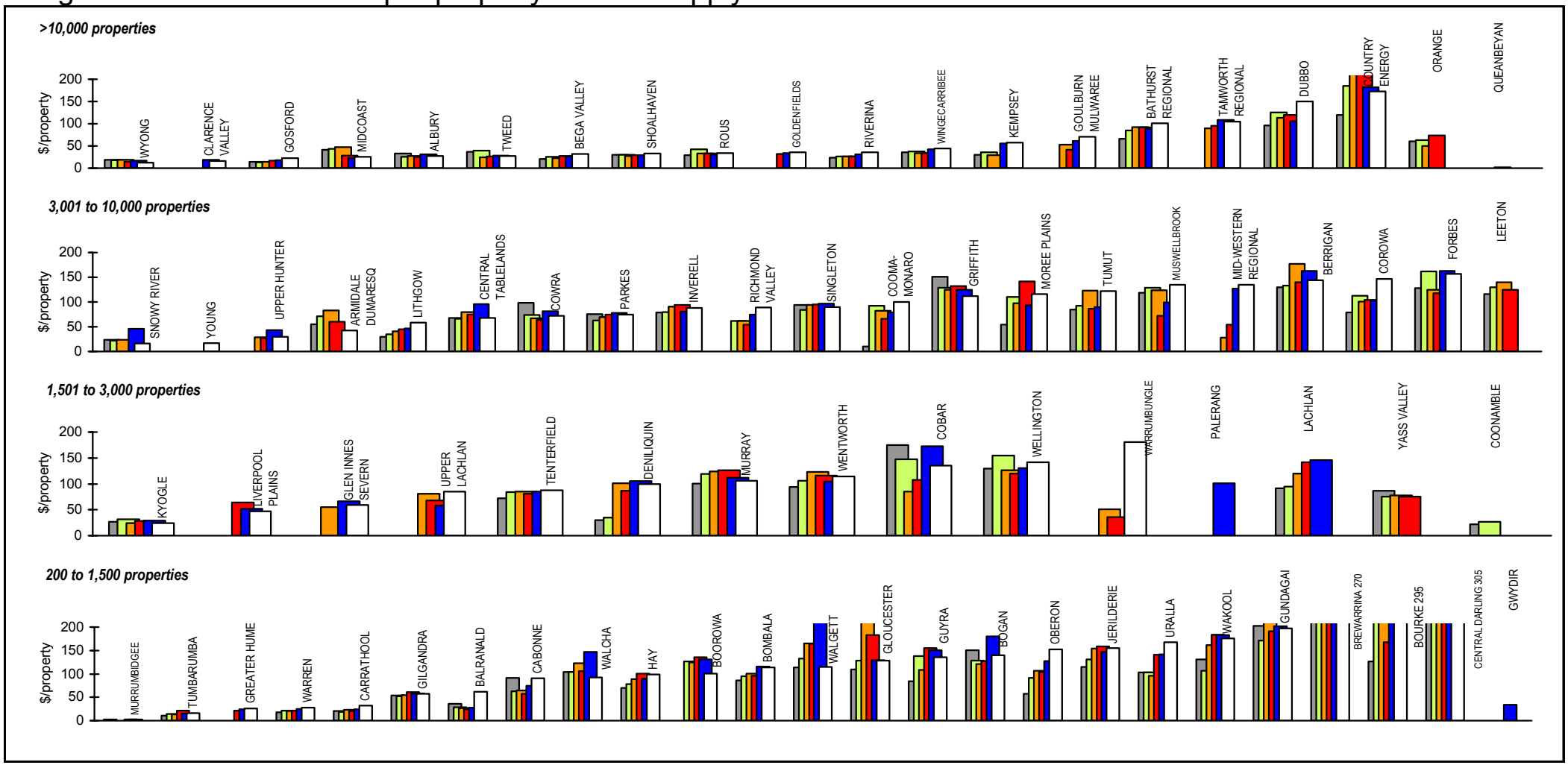
Parameter:

$$\frac{\text{Administration Cost (W1a) + Engineering Cost (W1b)}}{\text{[No. of Residential Assessments (Q34) + No. of Non-Residential Assessments (Q35)] x No. of Connected Properties per Assessment}}$$

Notes:

1. This figure shows ranked values of the 2006/07 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 2006/07 management costs per property for the 25 LWUs shown ranges from $35 to $281. The LWU on the right did not report this indicator for 2006/07. Results for the previous 5 years are also shown in Jan 2007$.
2. The Statewide median management cost is $115 per connected property.
3. For general notes see page 25.

Figure 41: Treatment cost per property – water supply



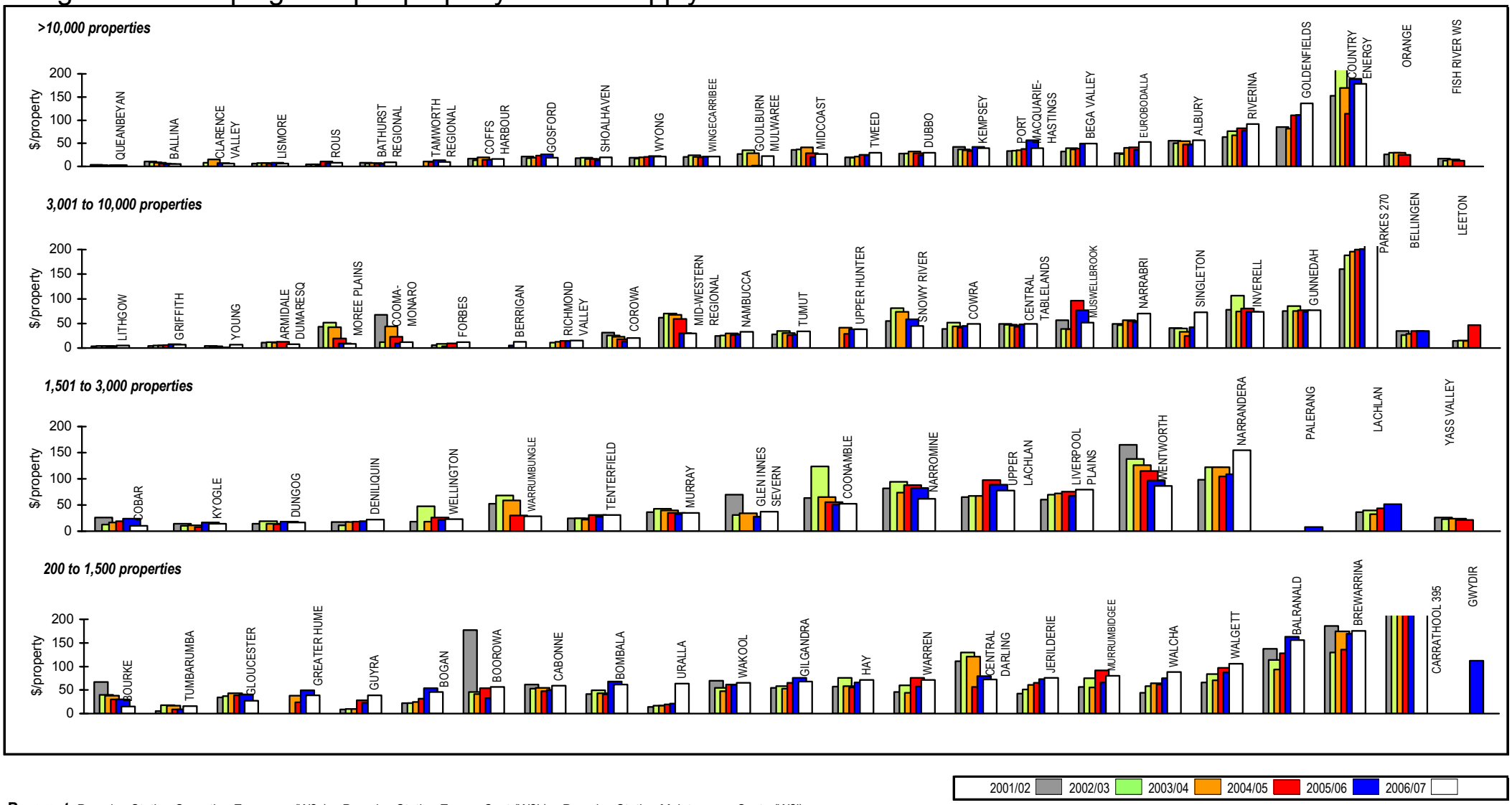
Parameter: Treatment Operation Expenses (W2j) + Treatment Chemical Cost (W2k) + Treatment Maintenance Expenses (W2l)

[No. of Residential Assessments (Q34) + No. of Non-Residential Assessments (Q35) x No. of Connected Properties per Assessment

Notes:

1. This figure shows ranked values of the 2006/07 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 2006/07 treatment costs for the 20 LWUs shown ranges from $20 to $160 per connected property. The LWU on the right did not report the indicator for 2006/07. Results for the previous 5 years are also shown in Jan 2007$.
2. Only LWUs with a water treatment works involving at least filtration and disinfection for over 50% of their supply have been shown.
3. The Statewide median water treatment cost is $27 per connected property.
4. For general notes see page 25.

Figure 42: Pumping cost per property – water supply



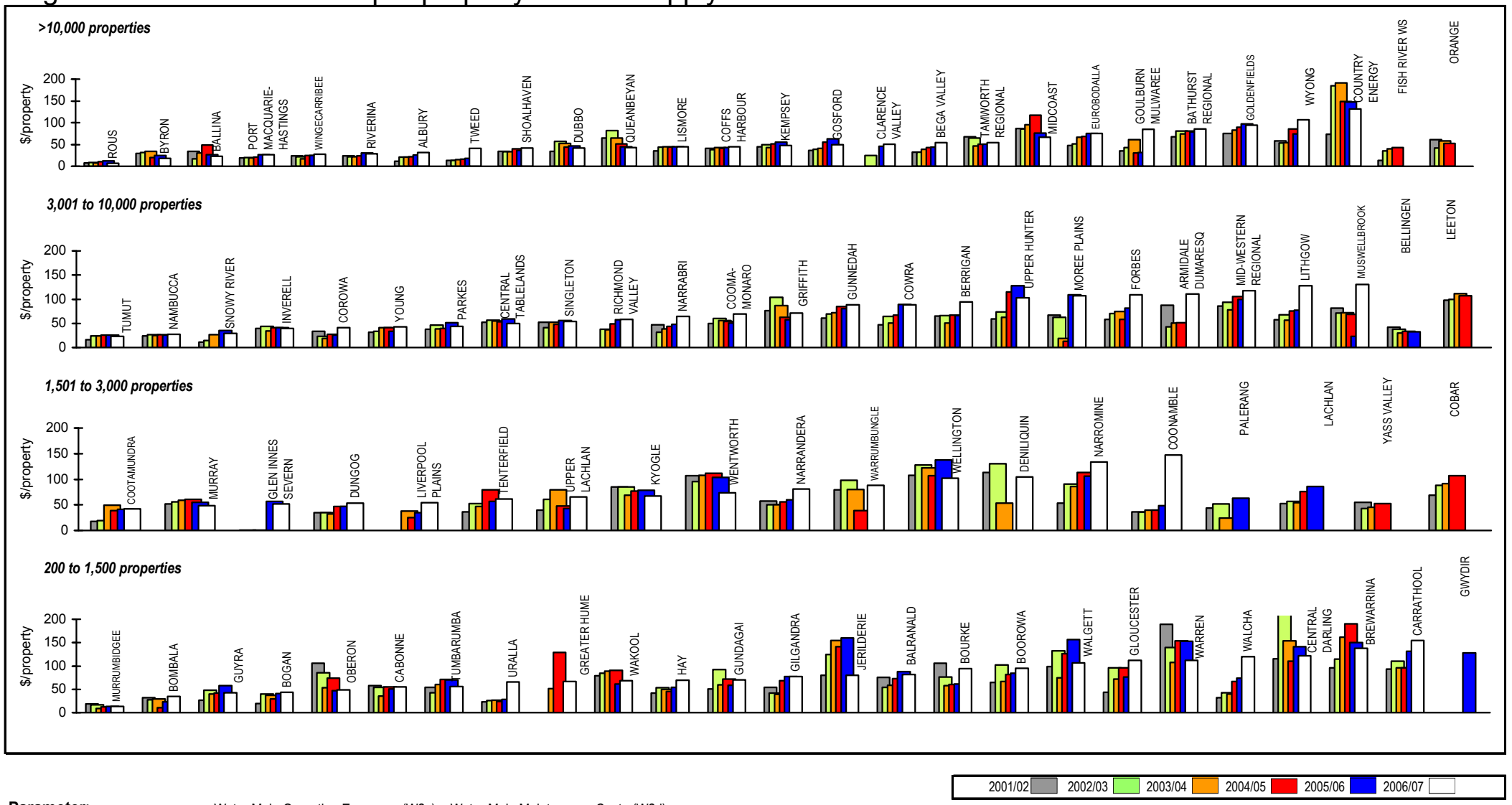
Parameter: Pumping Station Operation Expenses (W2g) + Pumping Station Energy Cost (W2h) + Pumping Station Maintenance Costs (W2i)

[No. of Residential Assessments (Q34) + No. of Non-Residential Assessments (Q35) x No. of Connected Properties per Assessment

Notes:

1. This figure shows ranked values of the 2006/07 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 2006/07 water pumping costs for the 23 LWUs shown ranges from $5 to $270 per connected property. The 2 LWUs on the right did not report this indicator for 2006/07. Results for the previous 5 years are also shown in Jan 2007$.
2. The Statewide median water pumping cost (including energy costs) is $21 per connected property.
3. For general notes see page 25.

Figure 43: Water main cost per property – water supply



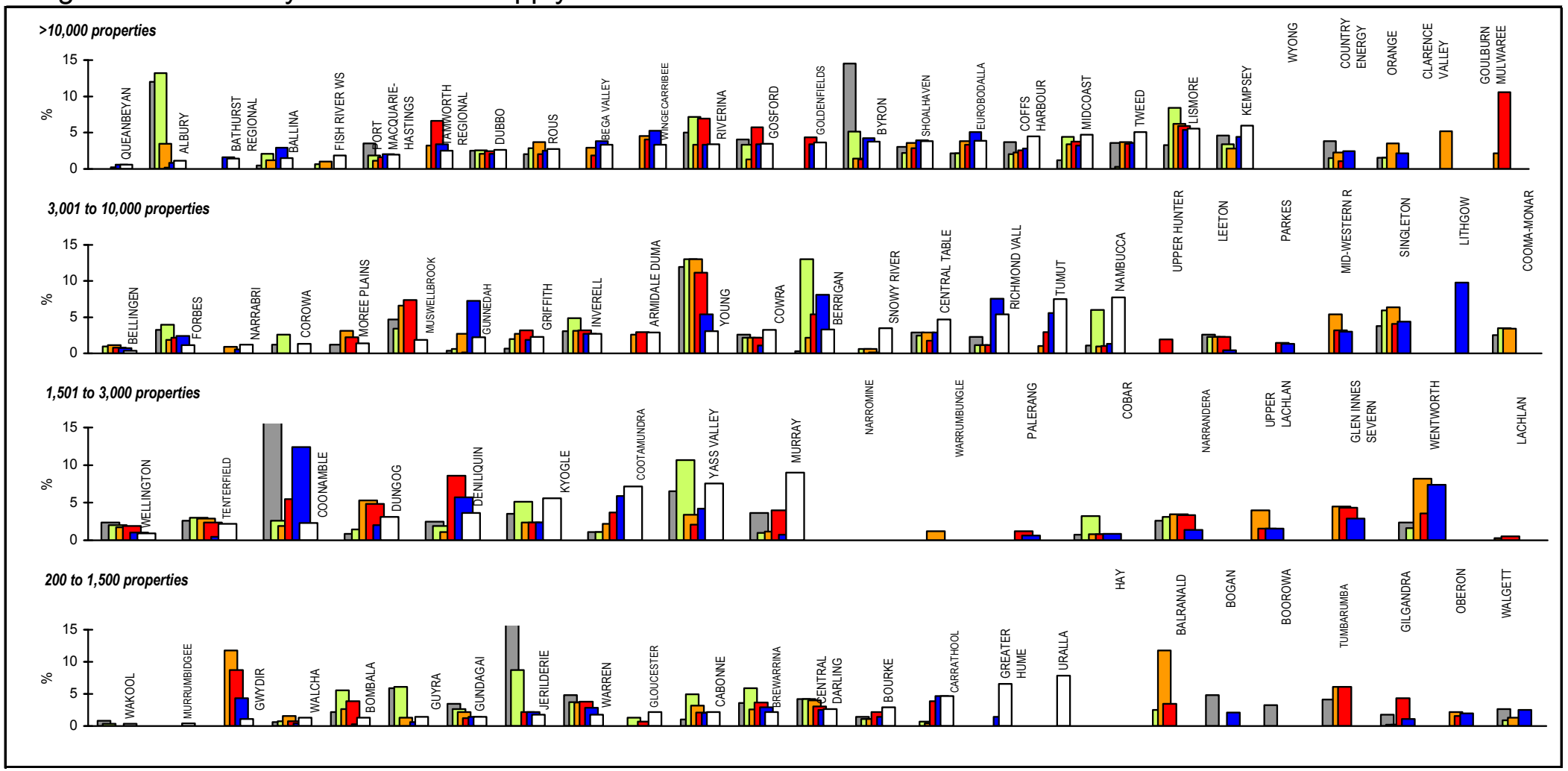
Parameter: Water Main Operation Expenses (W2c) + Water Main Maintenance Costs (W2d)

[No. of Residential Assessments (Q34) + No. of Non-Residential Assessments (Q35) x No. of Connected Properties per Assessment

Notes:

1. This figure shows ranked values of the 2006/07 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 2006/07 water main costs for the 23 LWUs shown ranges from $23 to $130 per property. The 2 LWUs on the right did not report this indicator for 2006/07. Results for the previous 5 years are also shown in Jan 2007$.
2. The Statewide median water main cost is $49 per property.
3. For general notes see page 25.

Figure 44: Total days lost – water supply



Parameter:

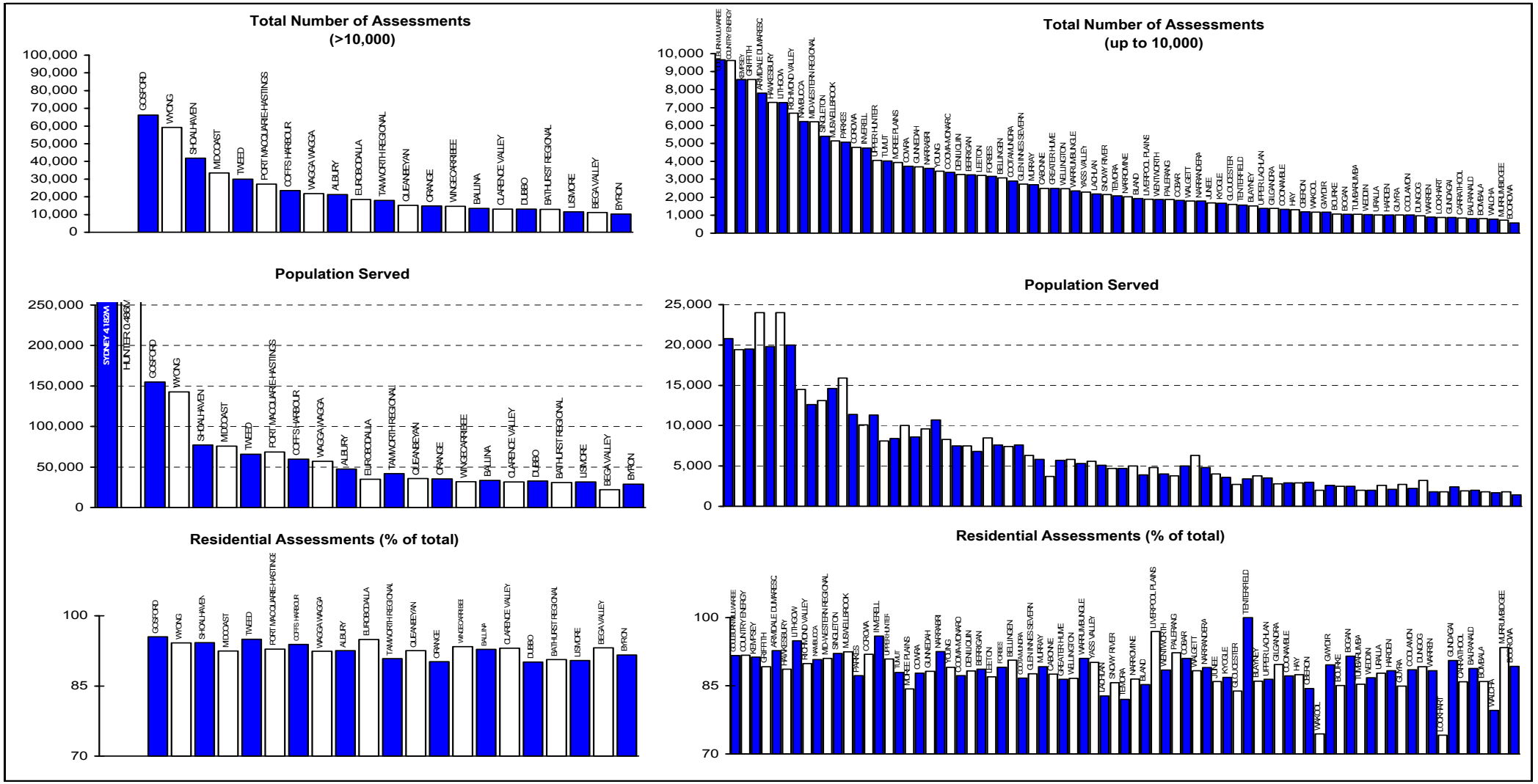
$$\frac{\text{Total Number of Days Lost for All Reasons in Year (Q31a) x 100}}{\text{Equivalent full time employees (Q120) x Available number of working days in year (ie. 230)}}$$

Notes:

1. This figure shows ranked values of the 2006/07 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 2006/07 total days lost for the 18 LWUs shown ranges from nil to 8%. Results for the previous 5 years are also shown. The 7 LWUs on the right did not report this indicator for 2006/07.
2. The Statewide median days lost is 3.4%.
3. For general notes see page 25.

9. Sewerage figures

Figure 45: Population, assessments served – sewerage



Parameter: No. of Residential Assessments (Q15) + No. of Non-Residential Assessments (Q16)

Parameter: Population Served (Q1)

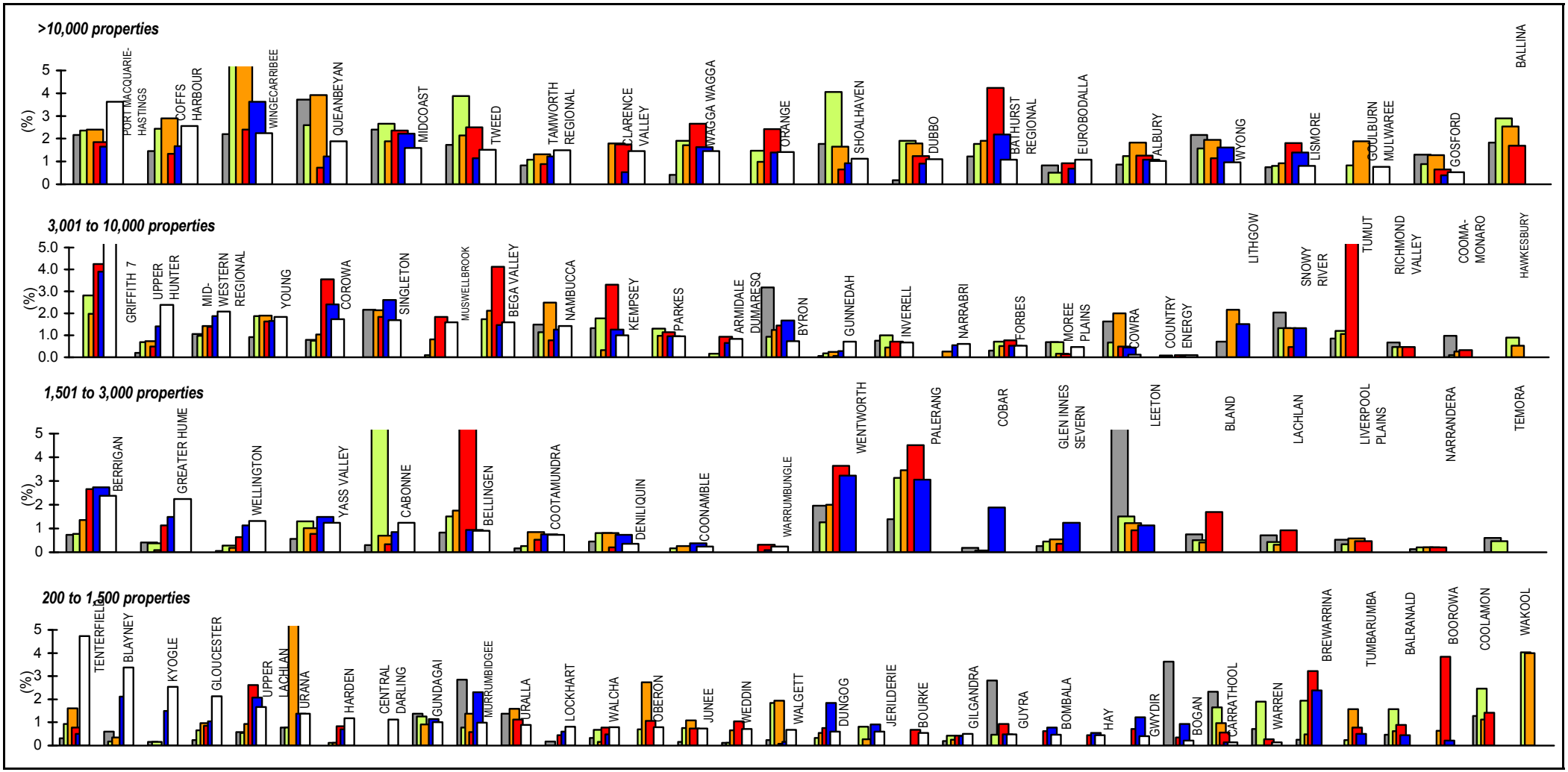
Parameter:

$$\frac{\text{No. of Residential Assessments (Q15)} \times 100}{\text{No. of Residential Assessments (Q15) + No. of Non-Residential Assessments (Q16)}}$$

Note:

1. For general notes see page 25.

Figure 46: New residential dwellings connected – sewerage



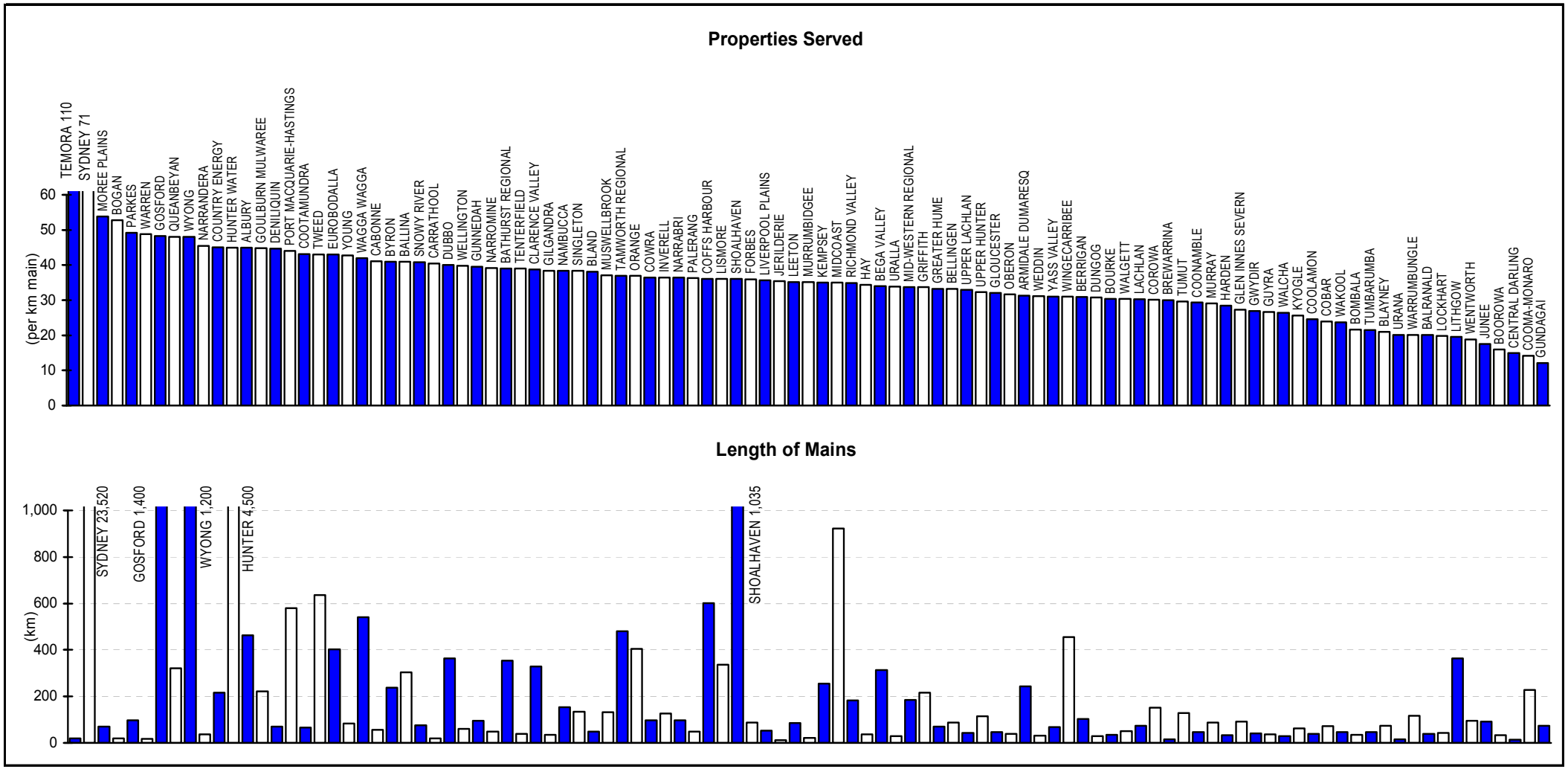
Parameter:

$$\frac{\text{No. of New Residential Dwellings Connected in Year (Q12)} \times 100}{\text{[No. of Residential Assessments (Q15) + No. of Non-Residential Assessments (Q16)} \times \text{No. of Connected Properties per Assessment}}$$

Notes:

1. This figure shows ranked values of the 2006/07 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 2006/07 total number of new residential dwellings connected for the 20 LWUs shown ranges from about 7% to 0%. Results for the previous 5 years are also shown.
2. The 2006/07 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 25.

Figure 47: New residential dwellings connected – sewerage



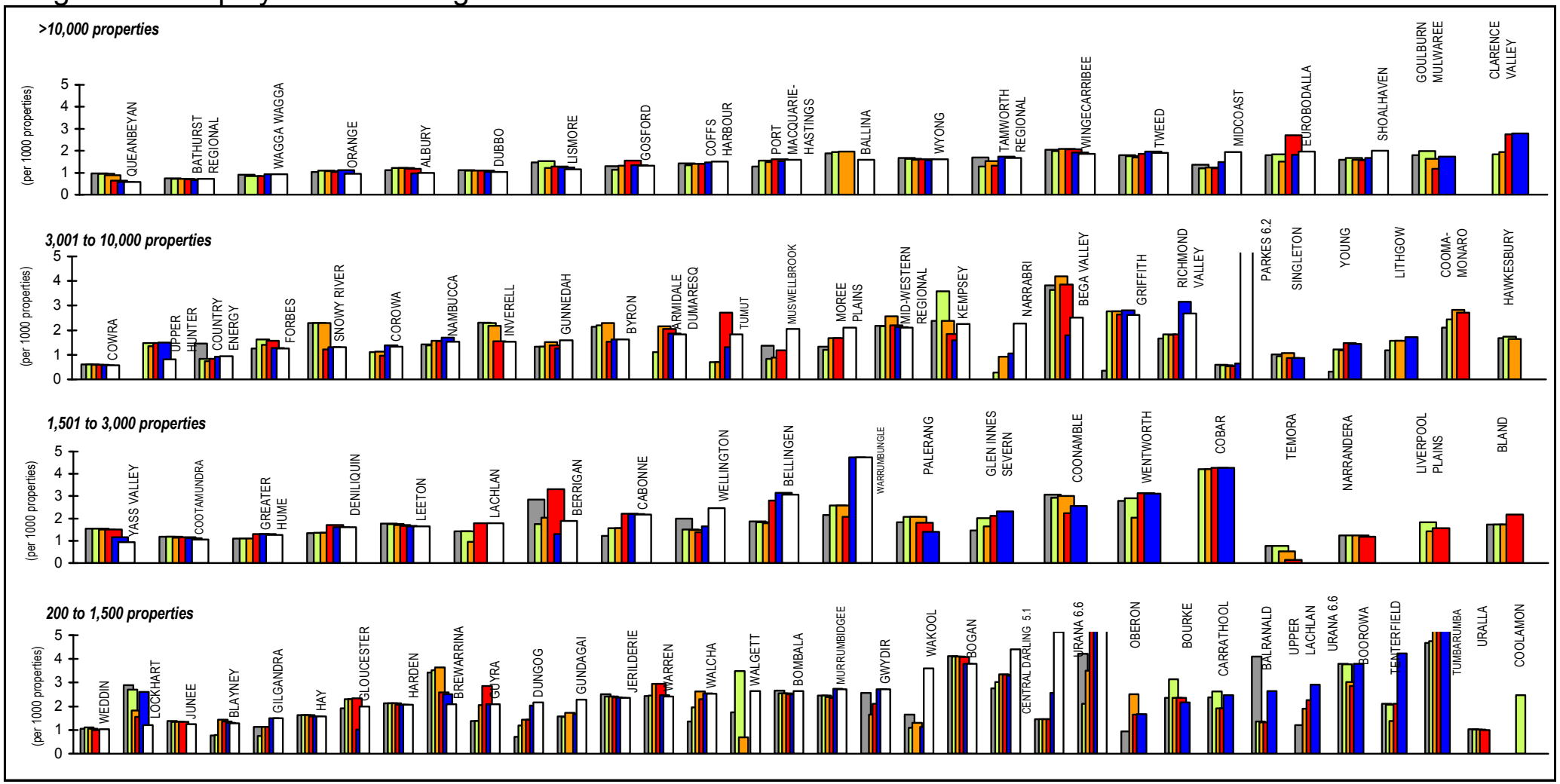
Parameter:

$$\frac{\text{[No. of Residential Assessments (Q15) + No. of Non-Residential Assessments (Q16) x No. of Connected Properties per Assessment}}{\text{Length of Reticulation/Gravity Mains (Q7) + Length of Rising Mains (Q8)}}$$

Note:

1. For general notes see page 25.

Figure 48: Employees – sewerage



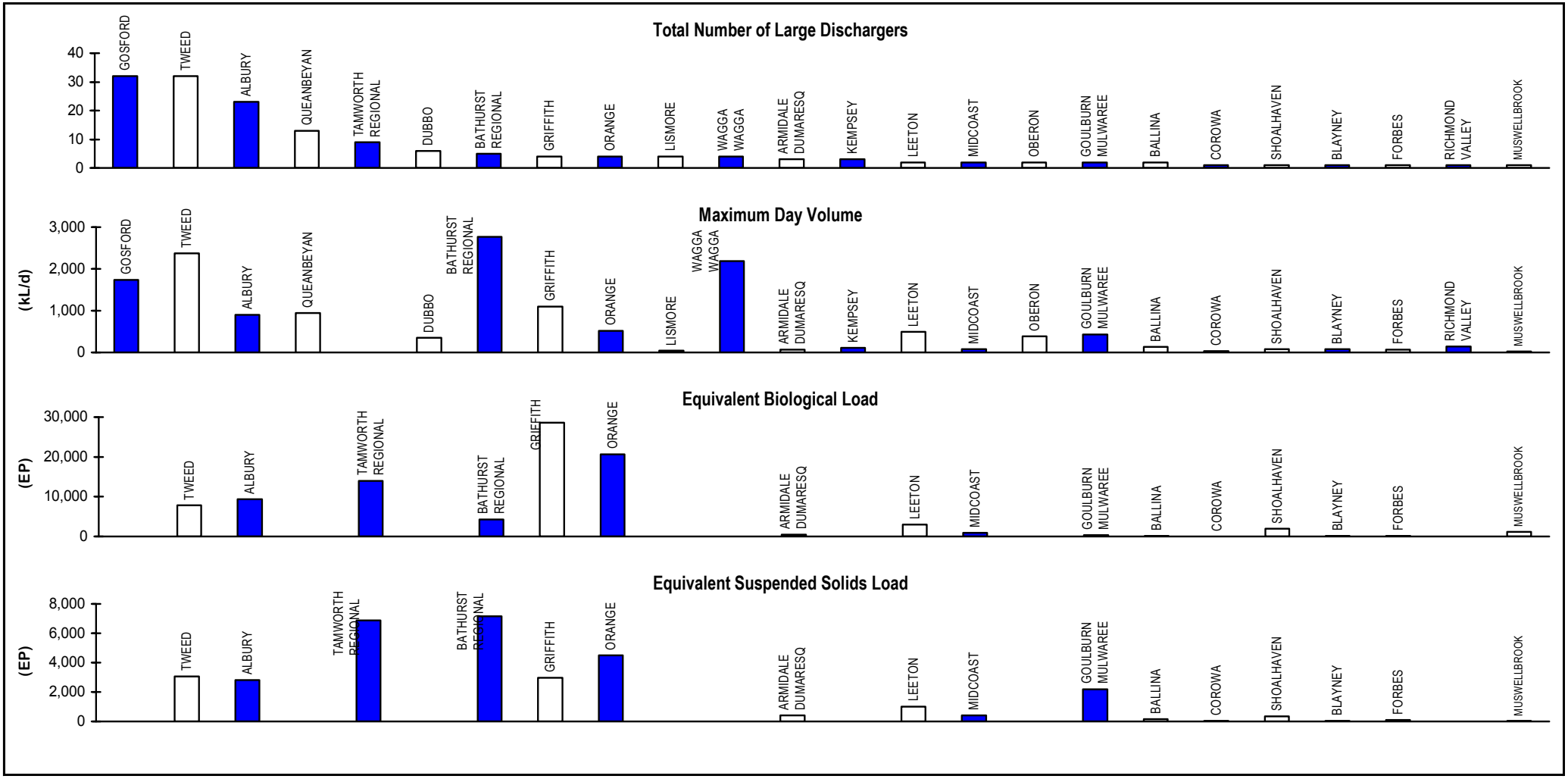
Parameter:

$$\frac{\text{Full-time Equivalent Employees (Q49) x 1000}}{\text{[No. of Residential Assessments (Q15) + No. of Non-Residential Assessments (Q16) x No. of Connected Properties per Assessment}}$$

Notes:

1. This figure shows ranked values of the 2006/07 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 2006/07 sewerage employees for the 21 LWUs shown ranges from about 1 to 6 per 1000 connected properties. The 5 LWUs on the right did not report this indicator for 2006/07. Results for the previous 5 years are also shown.
2. The 2006/07 Statewide median number of sewerage employees is 1.6 per 1000 connected properties.
3. For general notes see page 25.

Figure 49: Trade waste – sewerage

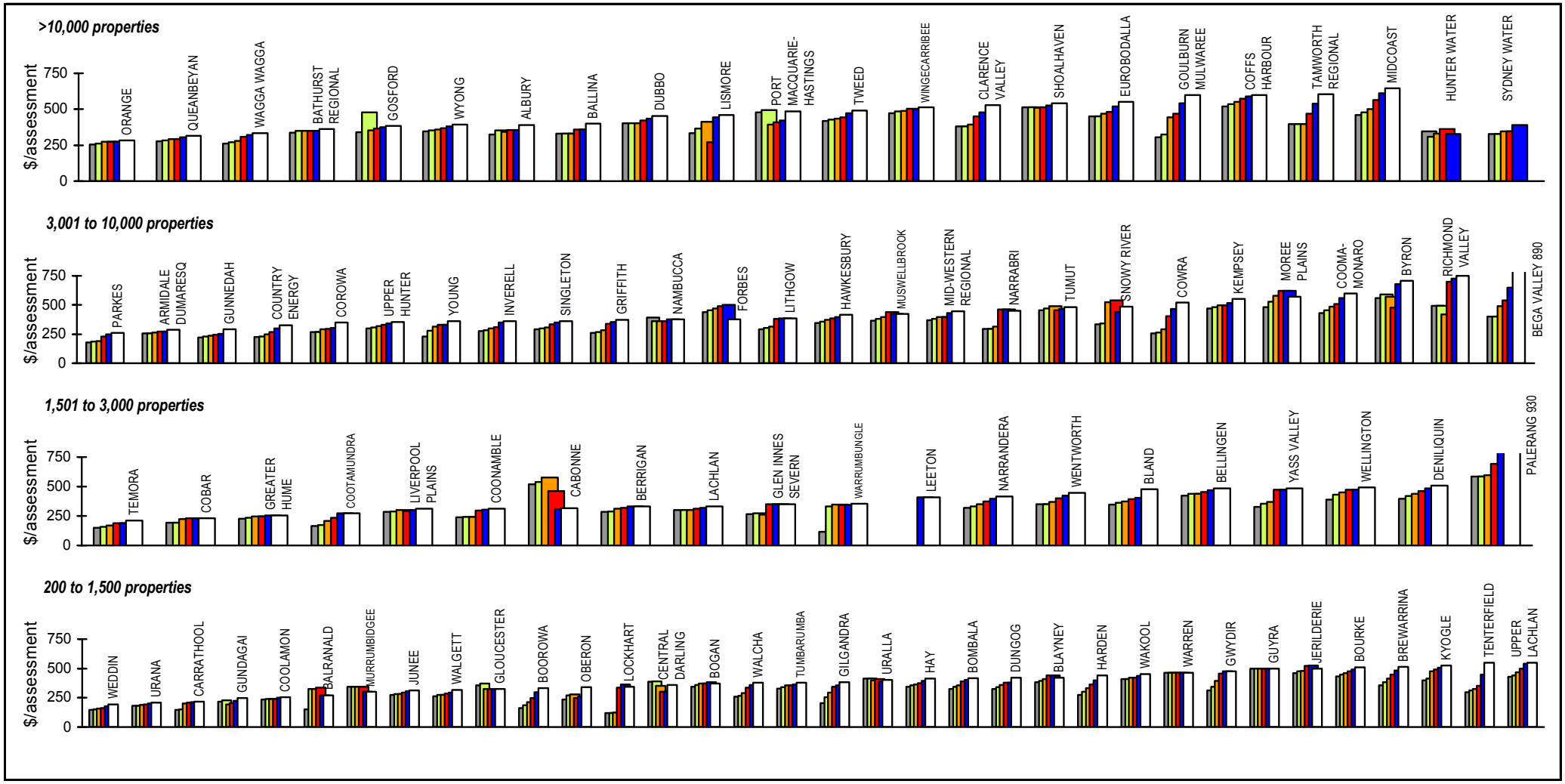


Parameter: Number of Large Dischargers (Q27)
Parameter: Maximum Day Volume (Q28)
Parameter: Equivalent Biological Load (Q29)
Parameter: Equivalent Suspended Solids Load (Q30)

Notes:

1. A total of 24 non-metropolitan Local Water Utilities (LWUs) have 158 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 DWE (page 6).
3. For general notes see page 25.

Figure 50: Typical residential bill – sewerage

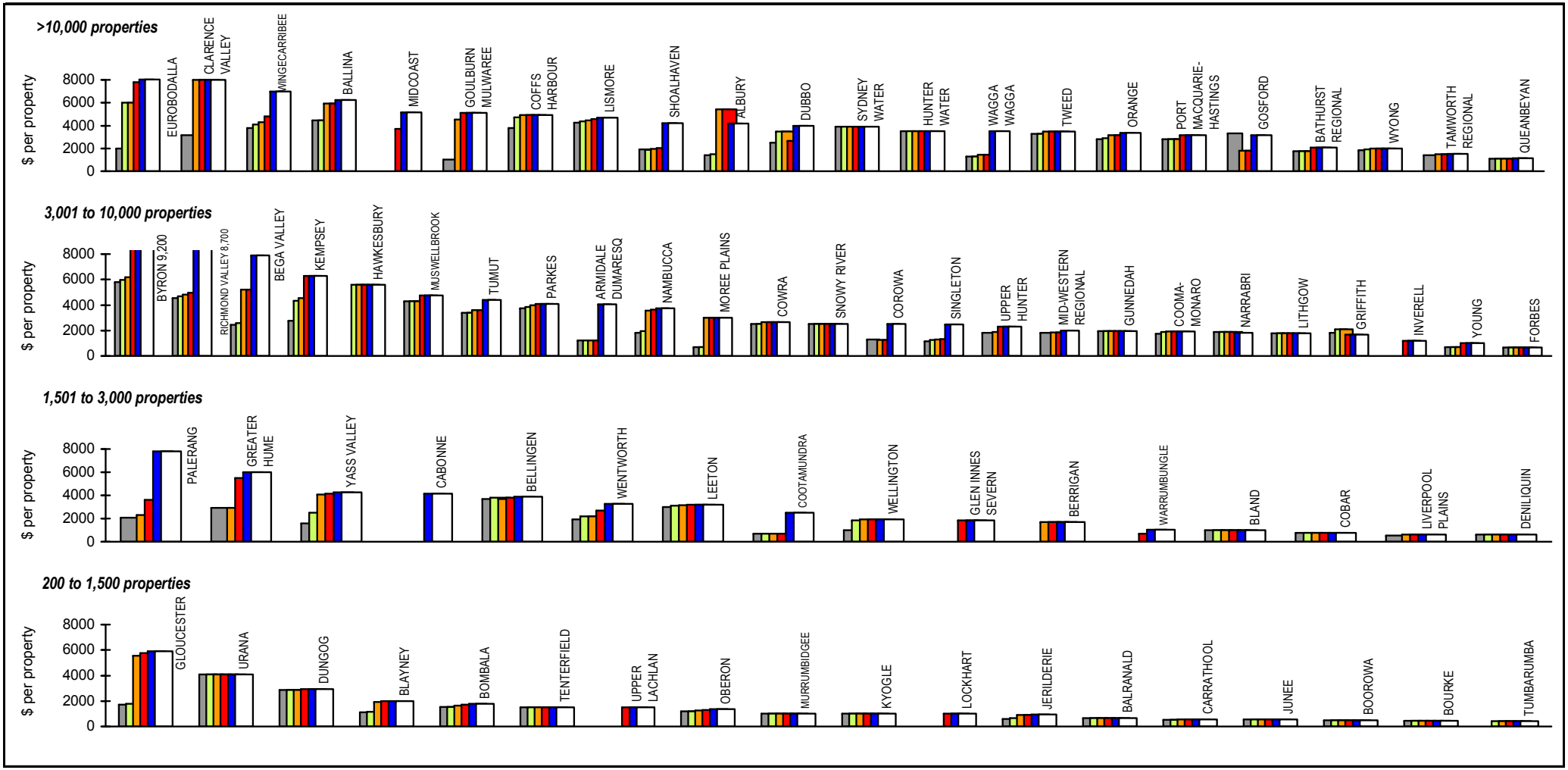


Parameter: Residential Access Charge

Notes:

1. This figure shows ranked values of the 2007/08 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 2007/08 typical residential bill for sewerage for the 26 LWUs shown ranges from about $260 to $890. Results for the previous 5 years are also shown in Jan 2008$.
2. The 2007/08 Statewide median typical residential bill for sewerage supply is $405 per assessment.
3. For general notes see page 25.

Figure 51: Typical developer charge – sewerage

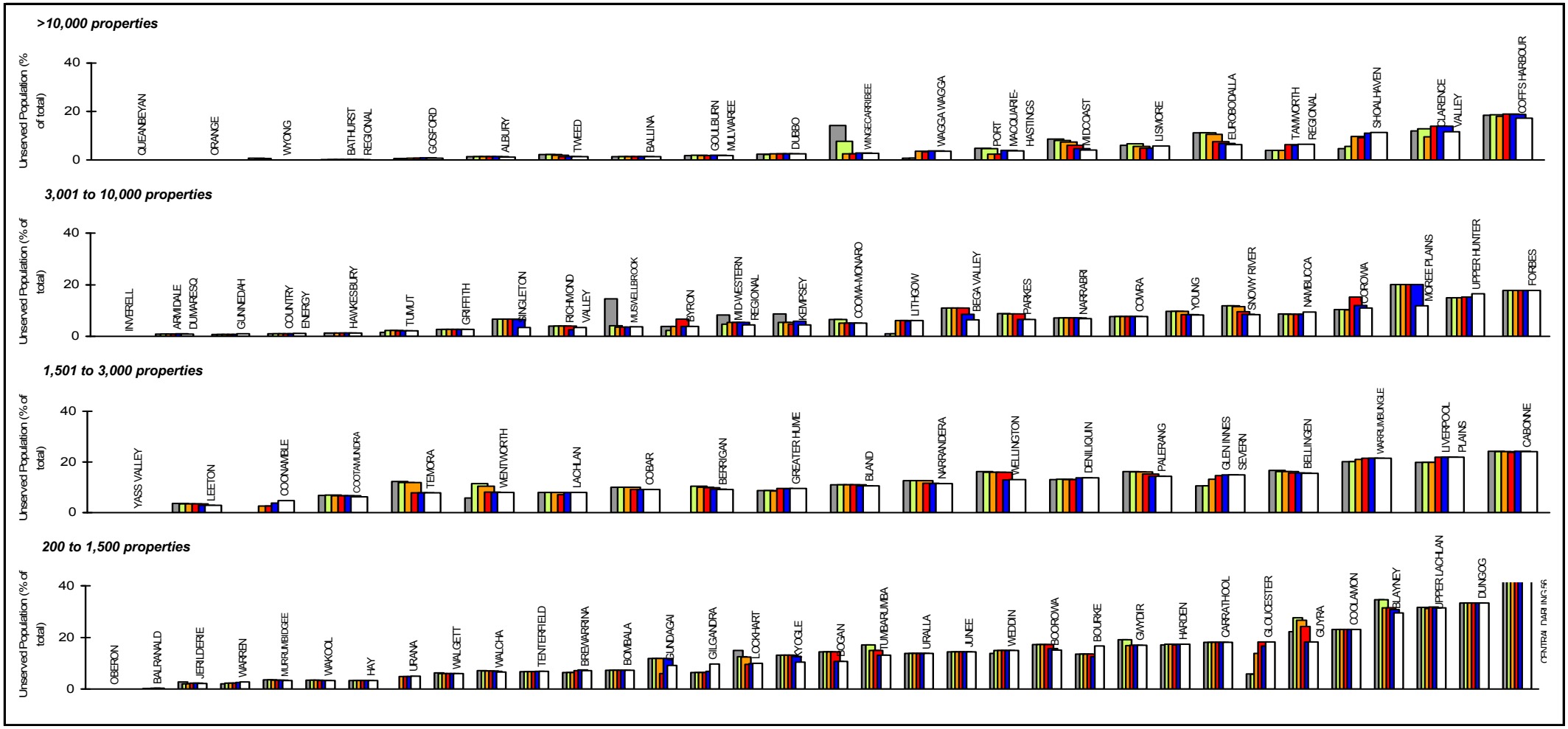


Parameter: Typical Sewerage Developer Charge (Q62)

Notes:

1. This figure shows ranked values of the 2007/08 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 25 LWUs shown ranges from from $9200 to $700 per equivalent tenement (ET). Results for the previous 5 years are also shown in Jan 2008$.
2. The 2007/08 Statewide median typical sewerage developer charge was about $3900 per ET.
3. 78 LWUs levied sewerage developer charges.
4. For general notes see page 25.

Figure 52: Urban population without sewerage – sewerage



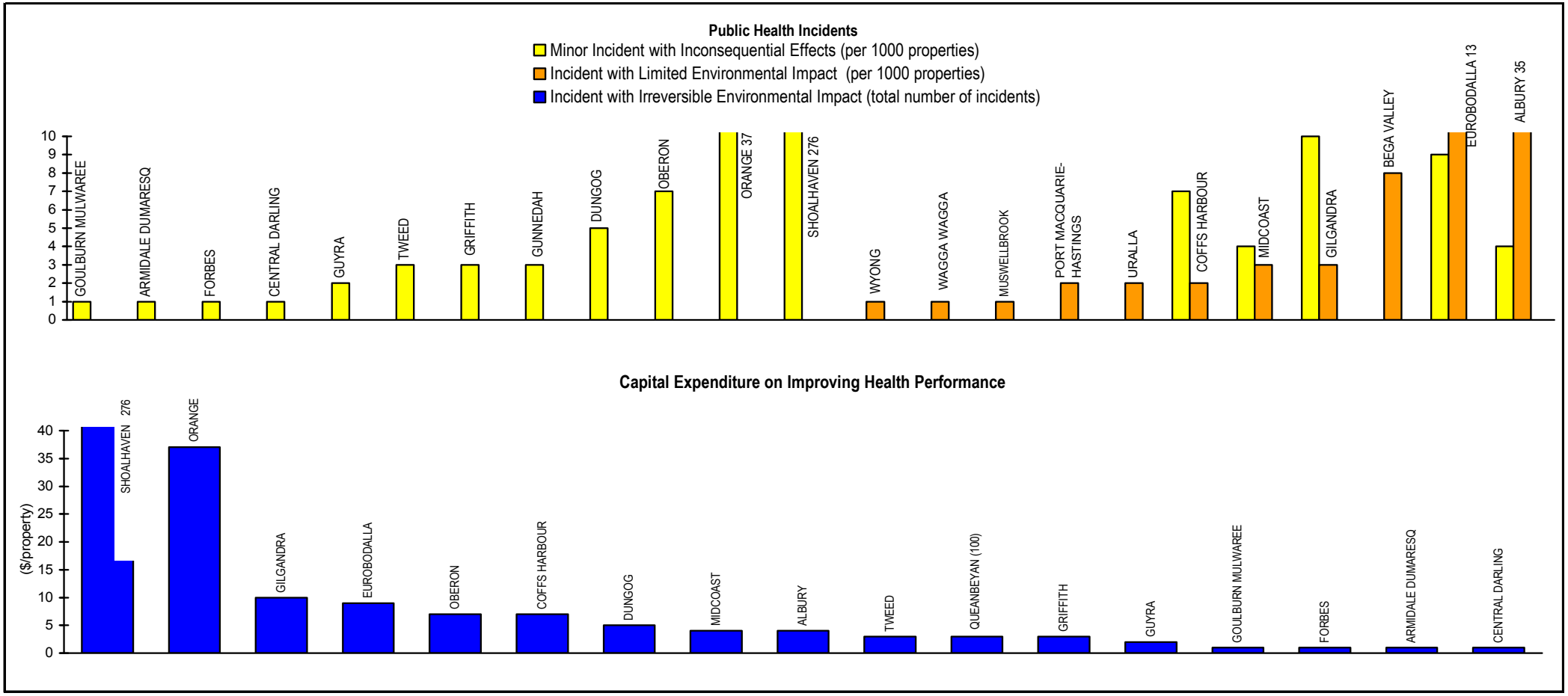
Parameter:

$$\frac{\text{Unserved Urban Population (Q21)}}{\text{Population Served (Q1) + Unserved Urban Population (Q21)}}$$

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 urban population without a reticulated sewerage service for the 26 LWUs shown ranges from from nil to 18 %. Results for the previous 5 years are also shown.
2. The 2006/07 Statewide median urban population without a reticulated sewerage service was 3.7%.
3. The percentage of urban population without a reticulated sewerage service for the median LWU was 7%.
4. 93% of LWUs provided a reticulated sewerage service to over 80% of their urban population. Overall, 94.6% of the urban population in non-metropolitan NSW (ie. 1.69 million people) received a reticulated sewerage service.
5. For general notes see page 25.

Figure 53: Public health incidents, capital expenditure – sewerage



Parameter: $\frac{\text{Total No. of Minor Incidents with Inconsequential Effects (Q44)}}{\text{[No. of Residential Assessments (Q15) + No. of Non-Residential Assessments (Q16)] x No. of Connected Properties per Assessment}}$

Parameter: $\frac{\text{Total No. of Minor Incidents with Limited Health Impacts (Q45)}}{\text{[No. of Residential Assessments (Q15) + No. of Non-Residential Assessments (Q16)] x No. of Connected Properties per Assessment}}$

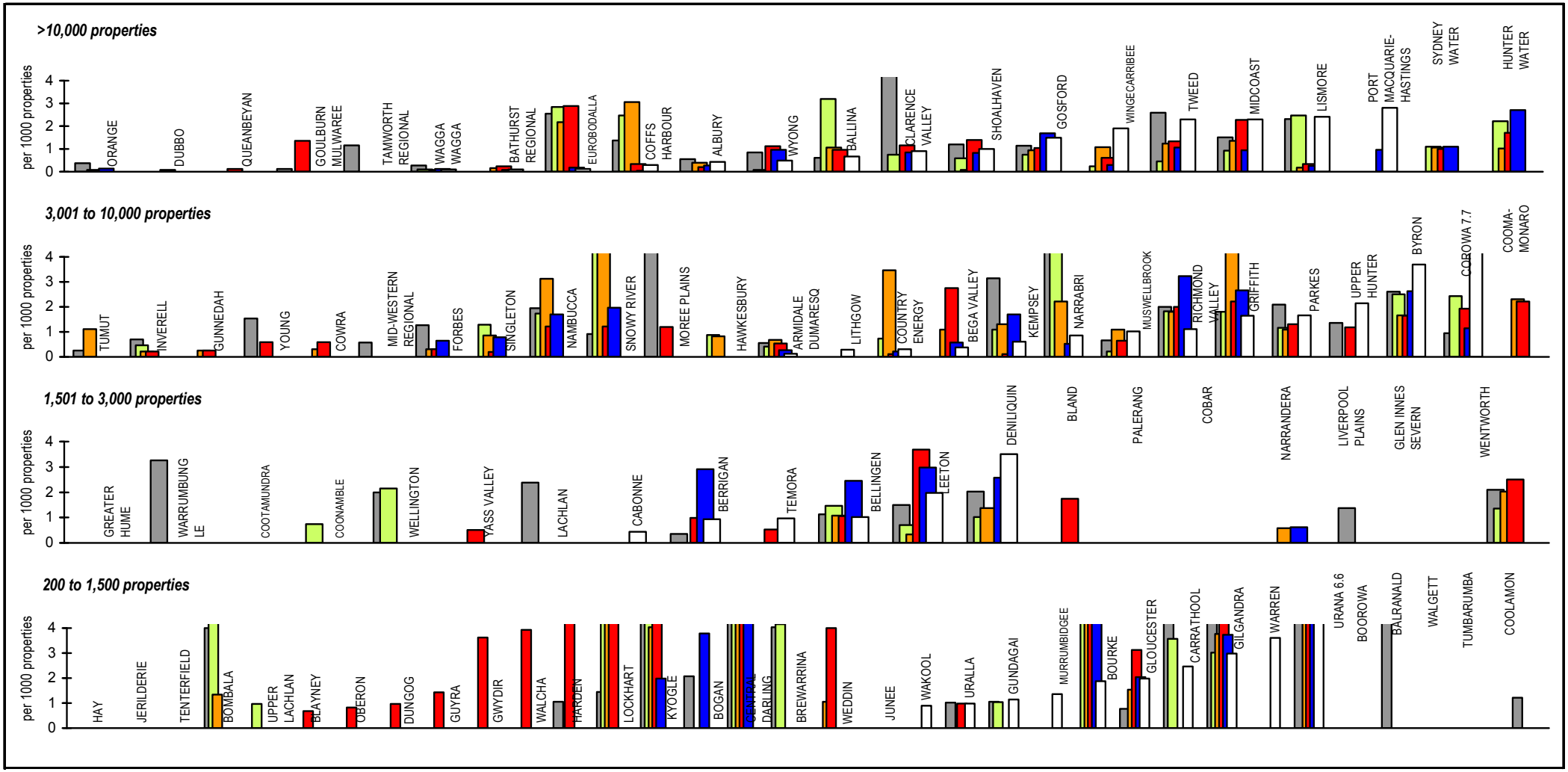
Parameter: $\frac{\text{Total No. of Major Incidents with Major Health Impacts (Q46)}}{\text{[No. of Residential Assessments (Q15) + No. of Non-Residential Assessments (Q16)] x No. of Connected Properties per Assessment}}$

Parameter: $\frac{\text{Capital Expenditure on Improving Health Performance (S) x (Q48)}}{\text{[No. of Residential Assessments (Q15) + No. of Non-Residential Assessments (Q16)] x No. of Connected Properties per Assessment}}$

Notes:

1. The following 21 utilities did not report public health incidents: Ballina, Balranald, Bland, Boorowa, Carrathool, Cobar, Coolamon, Cooma-Monaro, Glen Innes-Severn, Lachlan, Liverpool Plains, Lockhart, Midwestern Regional, Narrandera, Narromine, Palerang, Snowy River, Temora, Tumbarumba, Tumut, and Wentworth. 23 Utilities reported and are shown in the figure above, while 55 utilities reported zero environmental incidents.
2. For general notes see page 25.

Figure 54: Odour complaints – sewerage



Parameter:

$$\frac{\text{[No. of Odour Complaints from Treatment Works and Pumping Stations (Q39) x 1000}}{\text{[No. of Residential Assessments (Q15) + No. of Non-Residential Assessments (Q16)] x No. of Connected Properties per Assessment}}$$

Notes:

1. This figure shows ranked values of the 2006/07 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 18 LWUs shown ranges from 0 to 7.7 complaints per thousand connected properties. The LWU on the right did not report this indicator for 2006/07. Results for the previous 5 years are also shown.
2. The 2006/07 Statewide median number of odour complaints is 0.4 per 1000 properties.
3. For general notes see page 25.

Figure 55: Complaints (per 1,000 properties) – sewerage

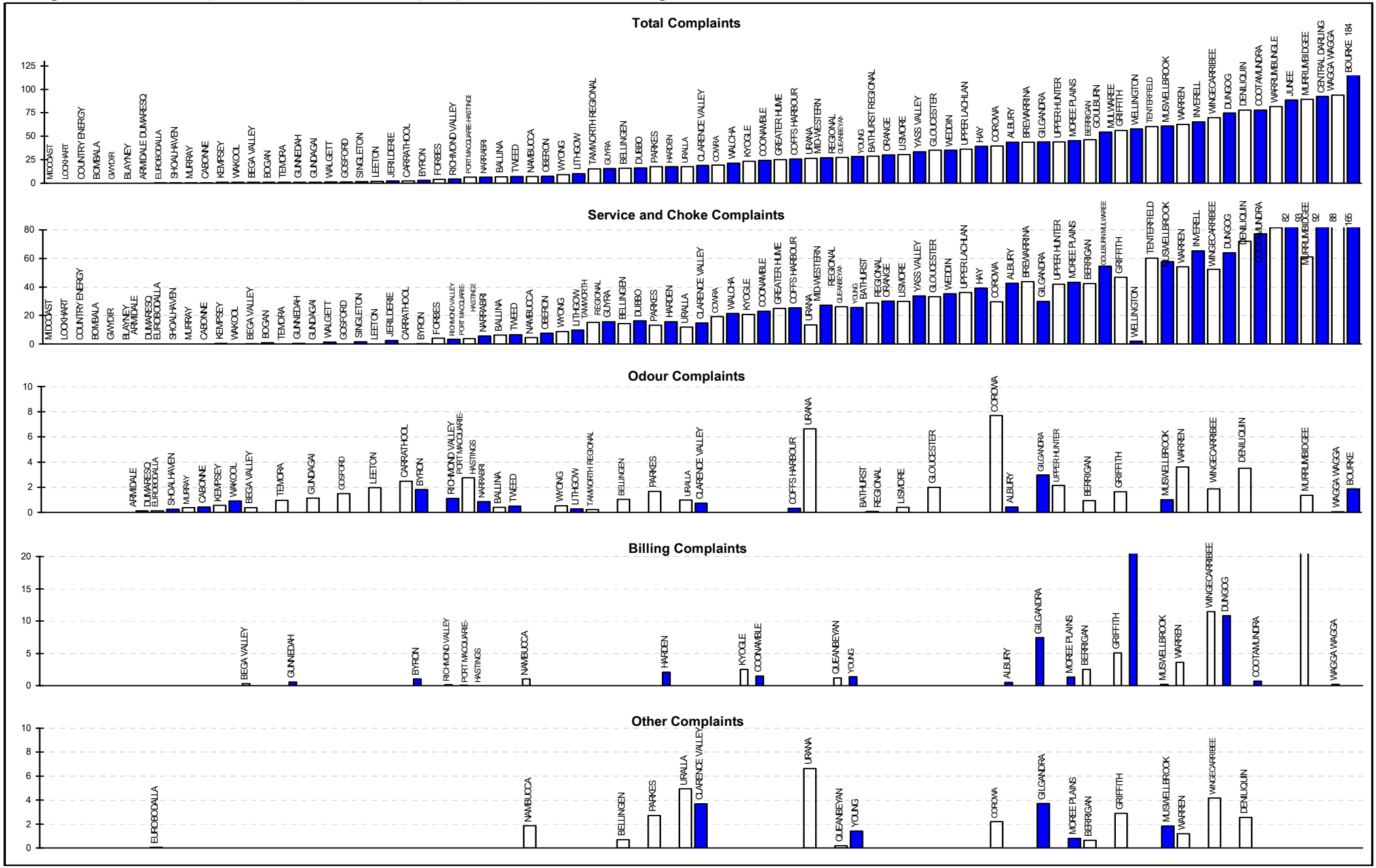


Figure 55: Complaints (per 1,000 properties) – sewerage (continued)

Parameter: $\frac{\text{[Total No. of Complaints (Q34) + (Q37) + (Q38) +(Q39)] x 1000}}{\text{[No. of Residential Assessments (Q15) + No. of Non-Residential Assessments (Q16)] x No. of Connected Properties per Assessment}}$

Parameter: $\frac{\text{No of Service or Choke Complaints Reported (Q34)}}{\text{[No. of Residential Assessments (Q15) + No. of Non-Residential Assessments (Q16)] x No. of Connected Properties per Assessment}}$

Parameter: $\frac{\text{No. of Odour Complaints Reported (Q39)}}{\text{[No. of Residential Assessments (Q15) + No. of Non-Residential Assessments (Q16)] x No. of Connected Properties per Assessment}}$

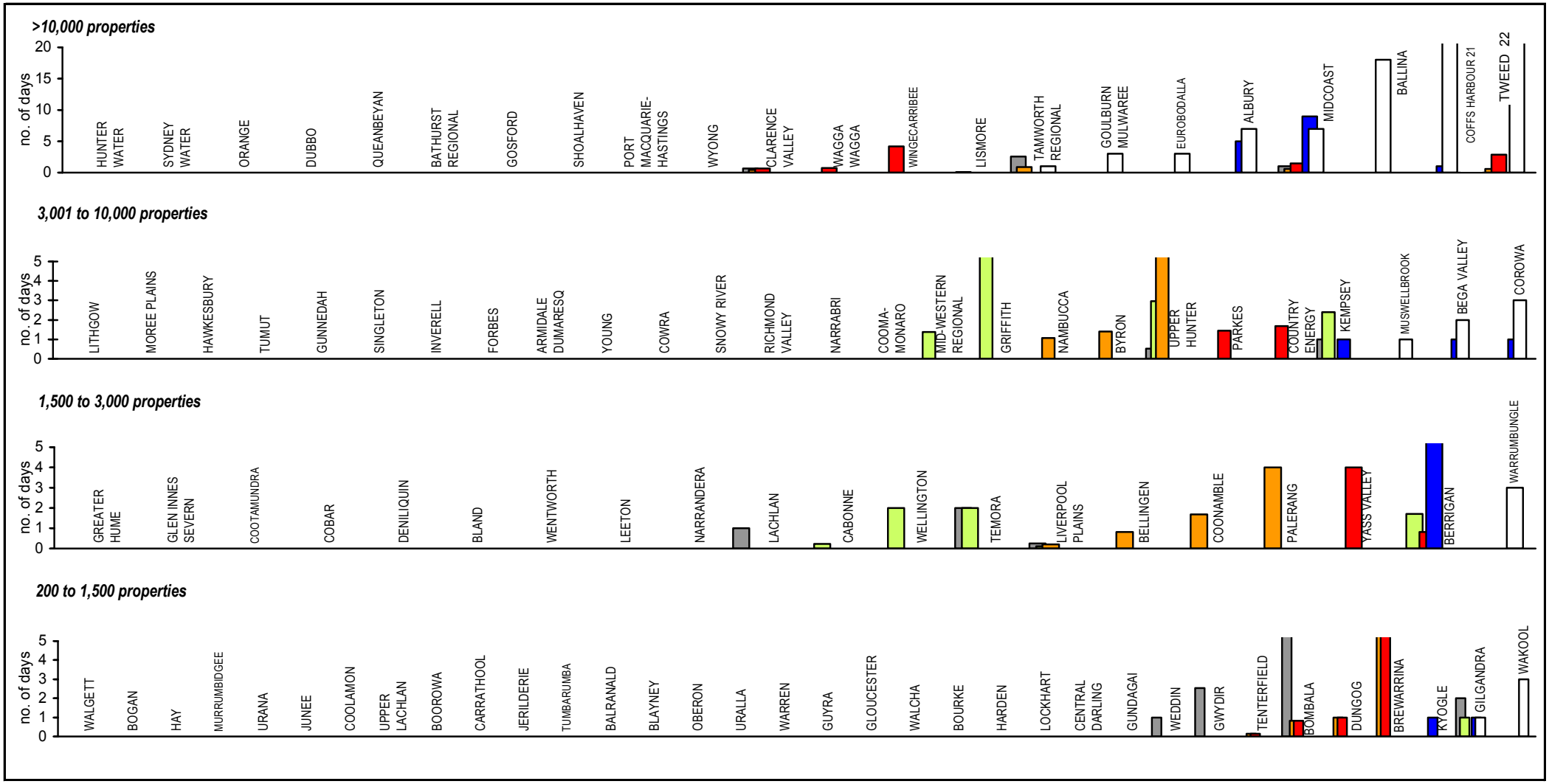
Parameter: $\frac{\text{No of Billings Complaints Reported (Q37)}}{\text{[No. of Residential Assessments (Q15) + No. of Non-Residential Assessments (Q16)] x No. of Connected Properties per Assessment}}$

Parameter: $\frac{\text{No. of Other Complaints Reported (Q38)}}{\text{[No. of Residential Assessments (Q15) + No. of Non-Residential Assessments (Q16)] x No. of Connected Properties per Assessment}}$

Note:

1. For general notes see page 25.

Figure 56: Treatment works malfunction – sewerage

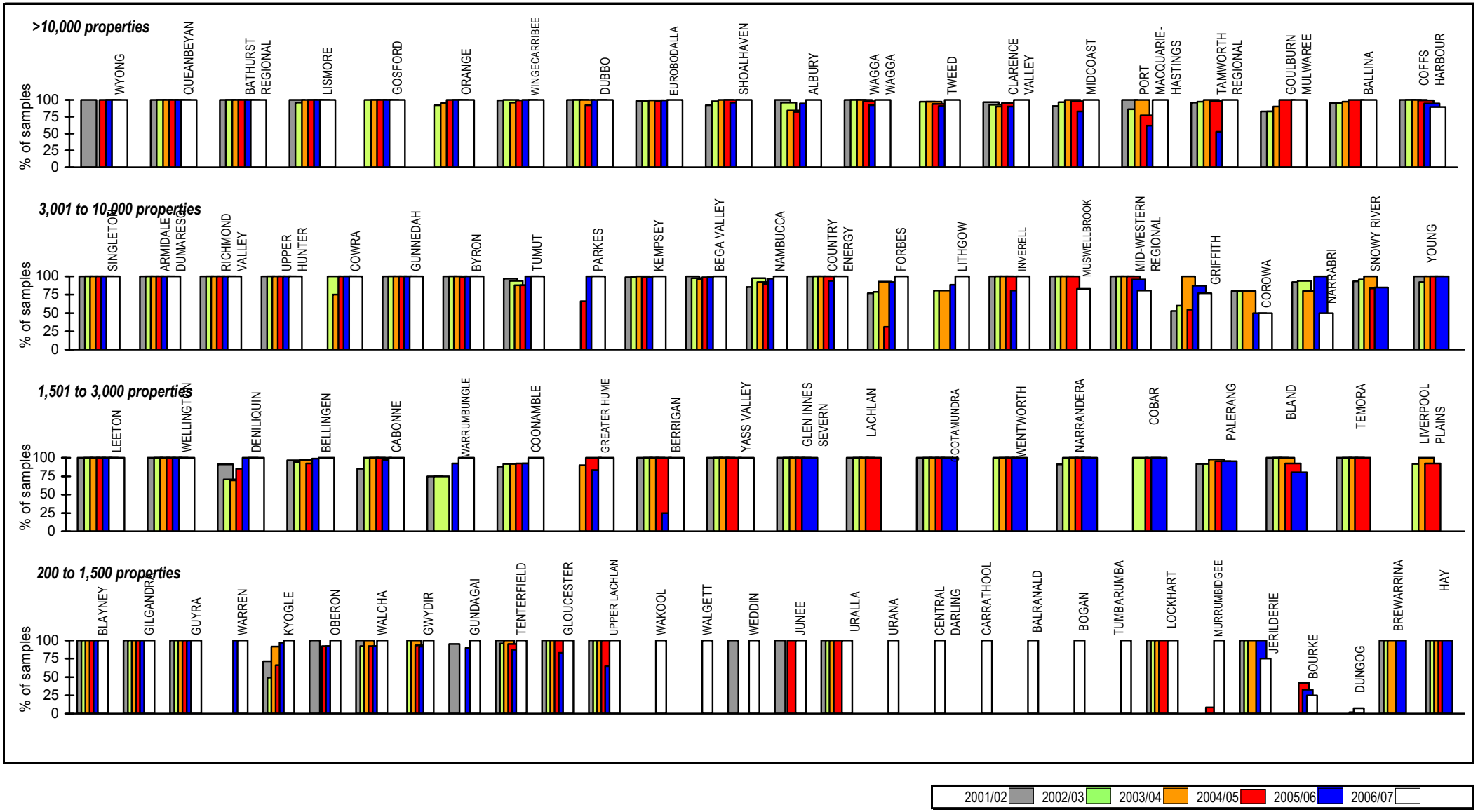


Parameter: Number of Days of major Malfunction of Treatment Processes (STW Q67)

Notes:

1. The figure shows the 2006/07 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 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 25.

Figure 57: Compliance with BOD in licence – sewerage

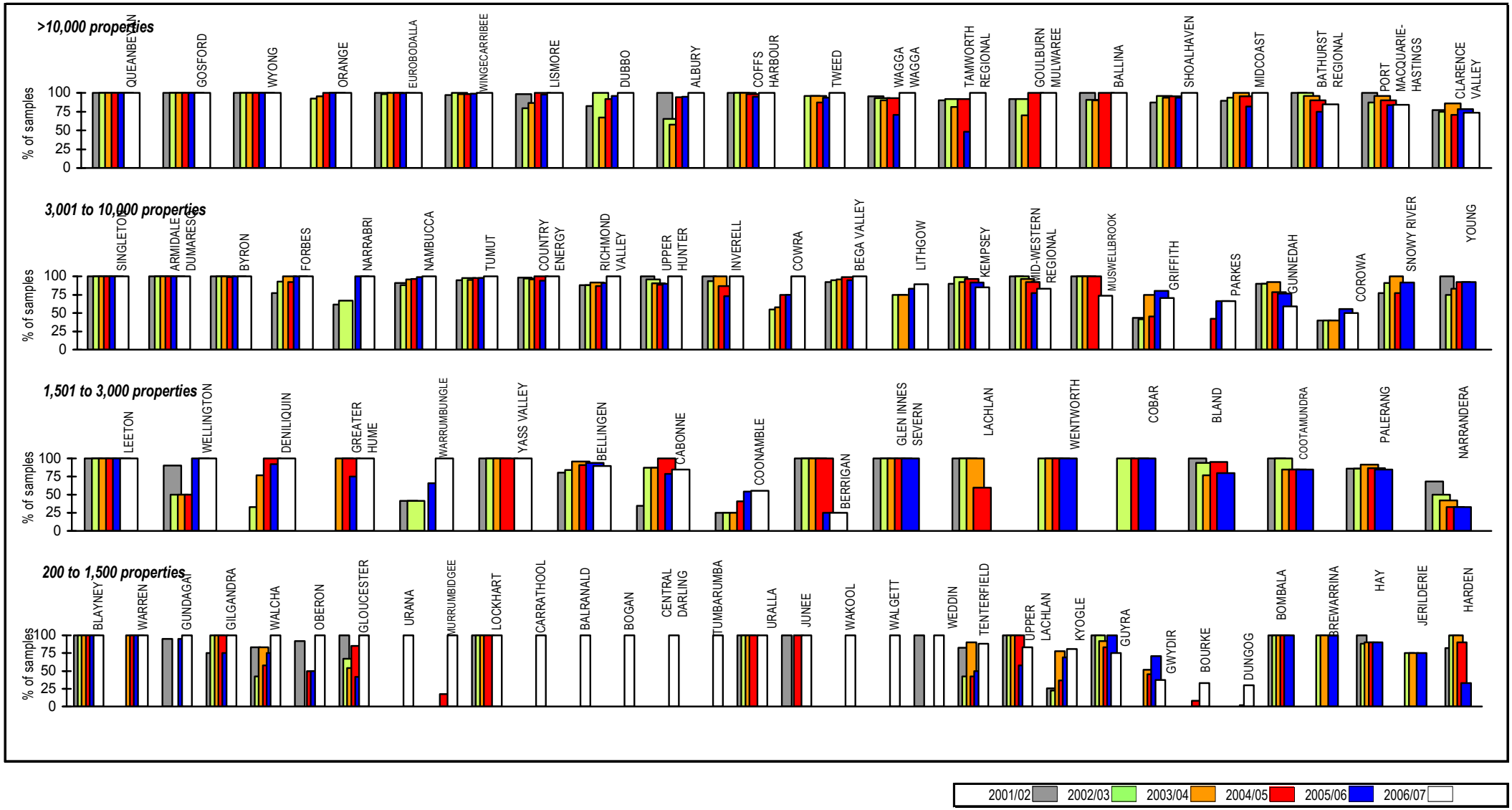


Parameter: Percentage of samples complying with 90 percentile Department of Environment and Conservation (DEC) licence limits for Biochemical Oxygen Demand (BOD) (STW Q50)

Note:

1. For general notes see page 25.

Figure 58: Compliance with SS in licence – sewerage

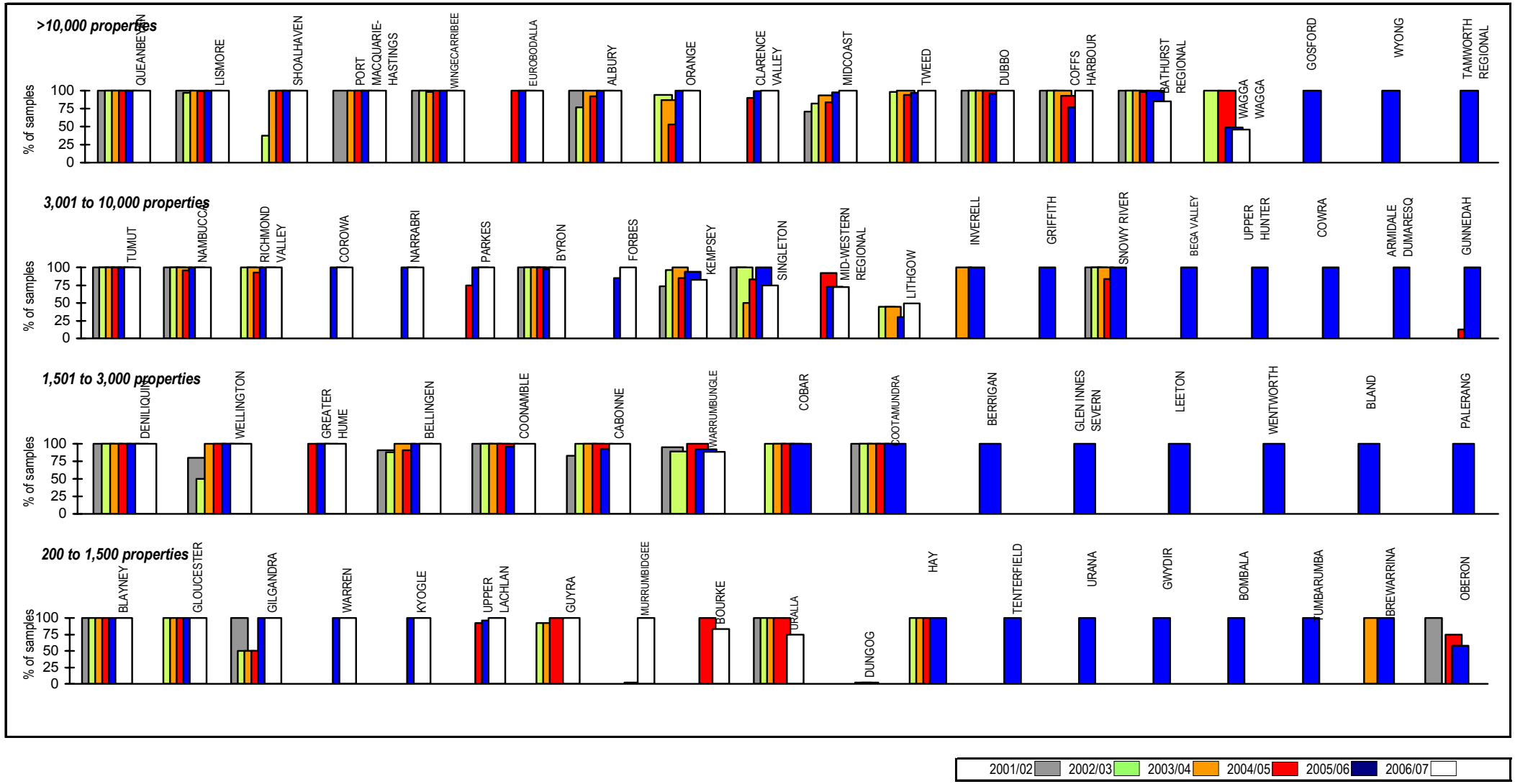


Parameter: Percentage of samples complying with 90 percentile Department of Environment and Conservation (DEC) licence limits for Suspended Solids (SS) (STW Q52)

Note:

1. For general notes see page 25.

Figure 59: Compliance with N in licence – sewerage

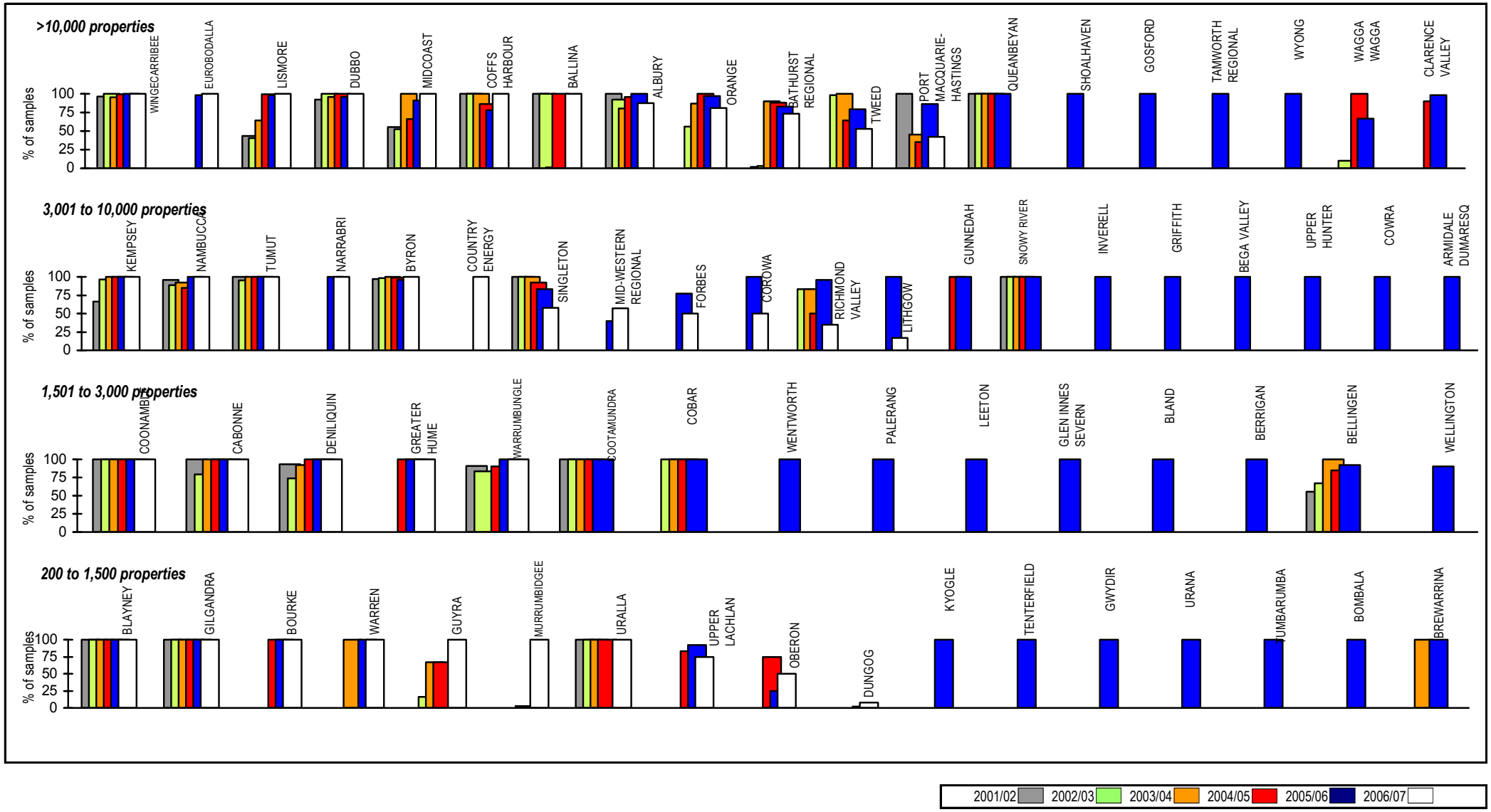


Parameter: Percentage of samples complying with 90 percentile Department of Environment and Conservation (DEC) licence limits for Total Nitrogen (STW Q54)

Note:

1. For general notes see page 25.

Figure 60: Compliance with P in licence – sewerage

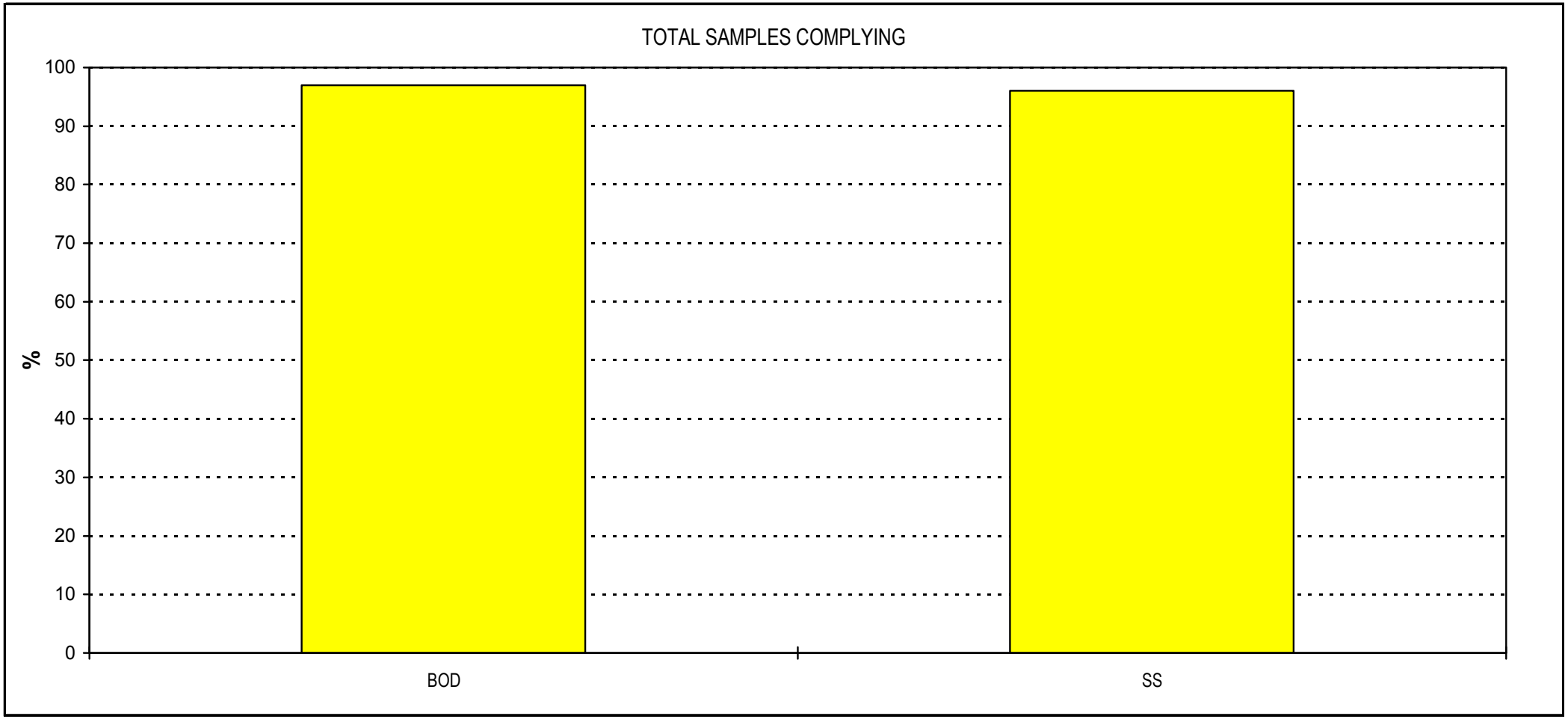


Parameter: Percentage of samples complying with 90 percentile Department of Environment and Conservation (DEC) licence limits for Total Phosphorus (STW Q60)

Note:

1. For general notes see page 25.

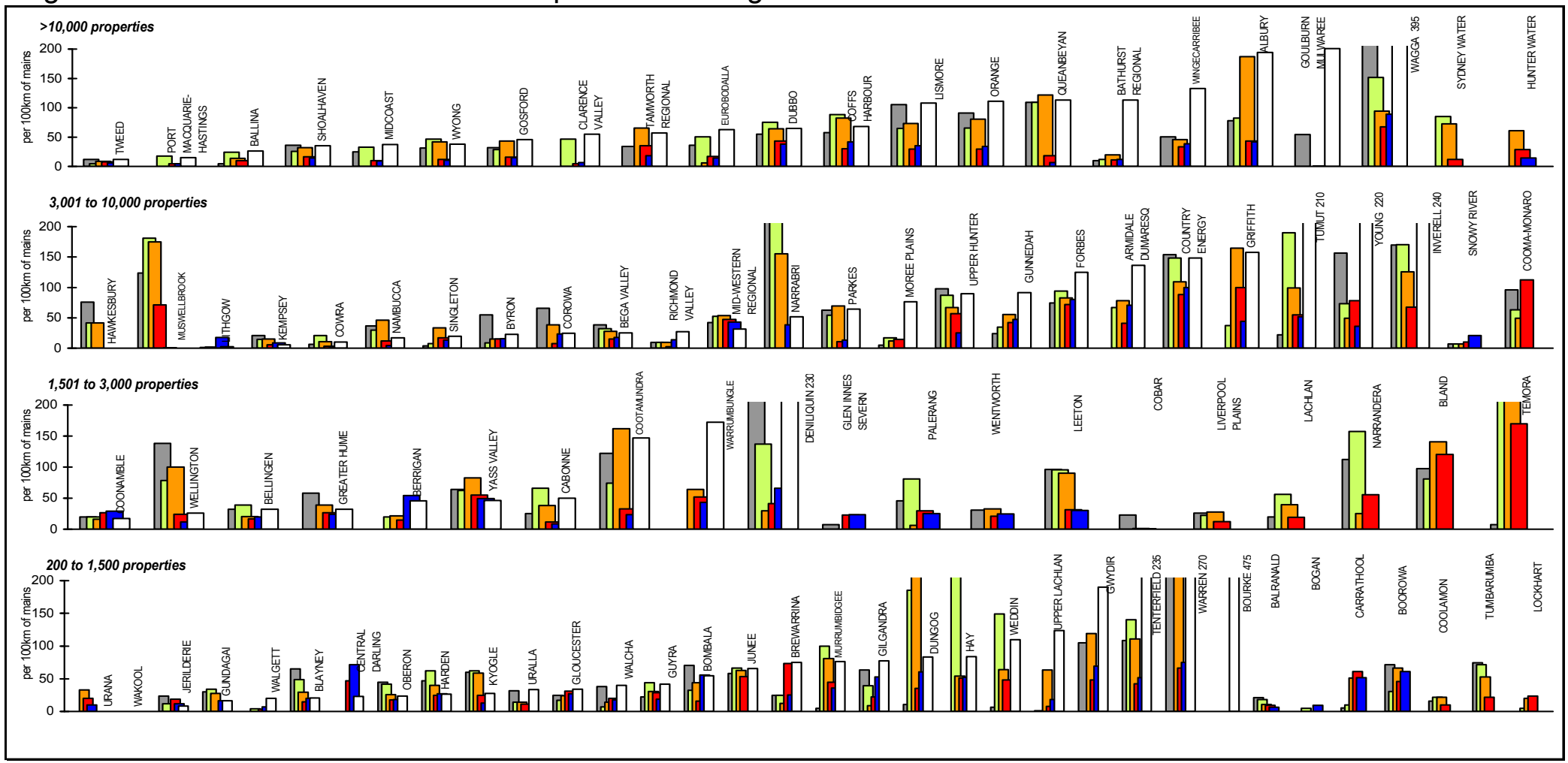
Figure 61: Compliance with P in licence – sewerage



Notes:

1. BOD - 97% of the 5120 sampling days for NSW Local Water Utilities (LWUs) achieved 100% compliance with the 90 percentile limit of their DEC licence in regard to BOD. 71% of LWUs complied with the 90 percentile limit of their BOD licence.
2. SS - 96% of the 5120 sampling days for NSW LWUs achieved 100% compliance with the 90 percentile limit of their DEC licence in regard to SS. 57% 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. Median numbers of sampling days reported for treatment works are:
   12 days for < 4,000 EP
   14 days for about 15,000 EP
   31 days for >25,000 EP
6. For general notes see page 25.

Figure 62: Sewer main chokes and collapses – sewerage



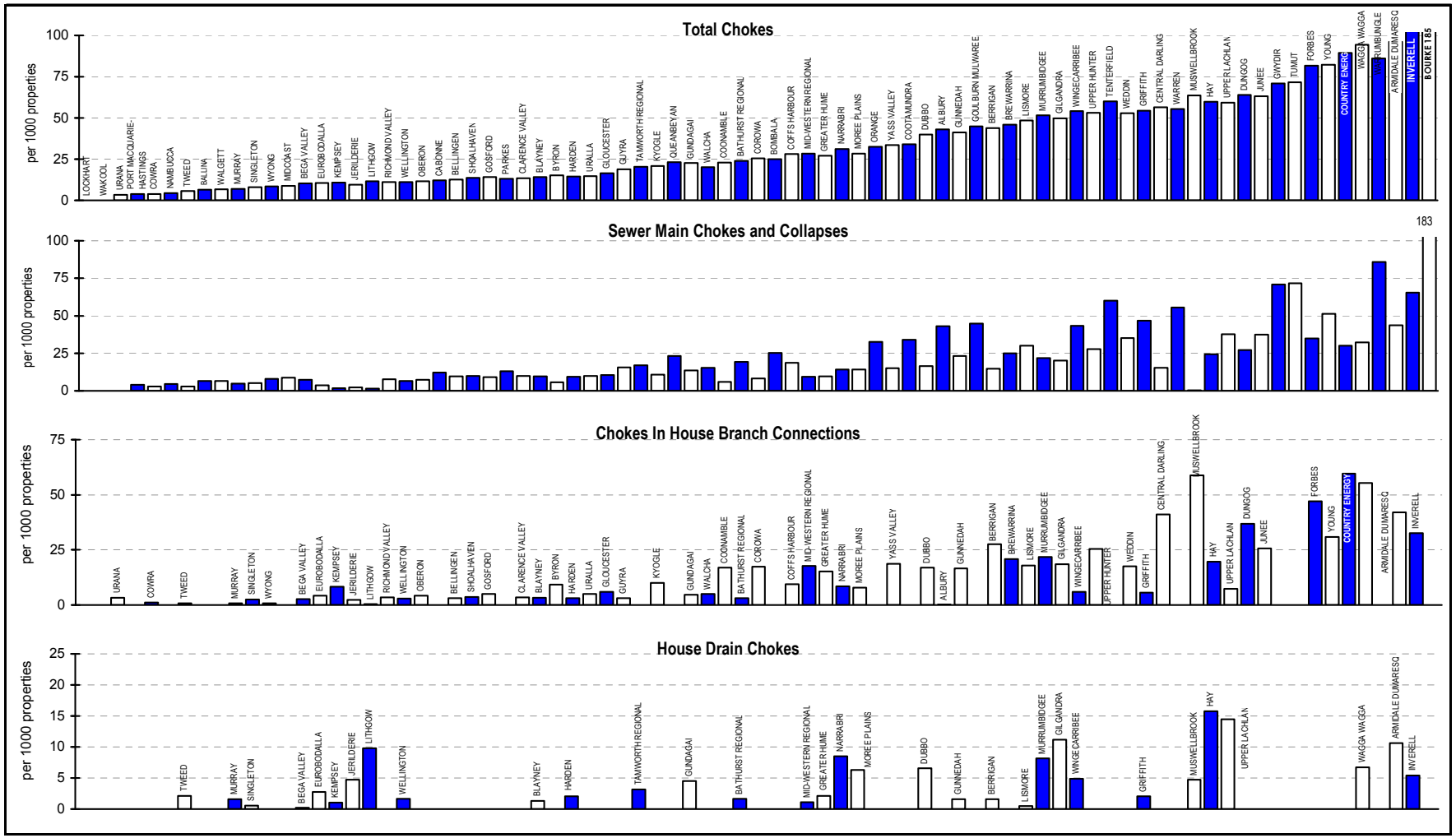
Parameter:

$$\frac{\text{Total No. of Confirmed Sewer Chokes (Q64) x 100}}{\text{Length of Reticulation/Gravity Mains (Q7) + Length of Rising Mains (Q8)}}$$

Notes:

1. This figure shows ranked values of the 2006/07 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 2006/07 sewer main chokes and collapses for the 26 LWUs shown ranges from nil to 239 chokes per 100 km of sewer mains. The 2 LWUs on the right did not report this indicator for 2006/07 Results for the previous 5 years are also shown.
2. The Statewide median sewer main chokes and collapses is 46 per 100 km of sewer mains.
3. 20% 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 25.

Figure 63: Total chokes (per 1,000 properties) – sewerage



Parameter: [No. of Confirmed Sewer Chokes (Q64) + No. of Chokes in House Branch Connections (Q67) + No. of Chokes in House Drains (Q68)] x 1000

[No. of Residential Assessments (Q15) + No. of Non-Residential Assessments (Q16) x No. of Connected Properties per Assessment

Parameter: No. of Confirmed Sewer Chokes (Q64) x 1000

[No. of Residential Assessments (Q15) + No. of Non-Residential Assessments (Q16) x No. of Connected Properties per Assessment

Parameter: No. of Chokes in House Branch Connections (Q67) x 1000

[No. of Residential Assessments (Q15) + No. of Non-Residential Assessments (Q16) x No. of Connected Properties per Assessment

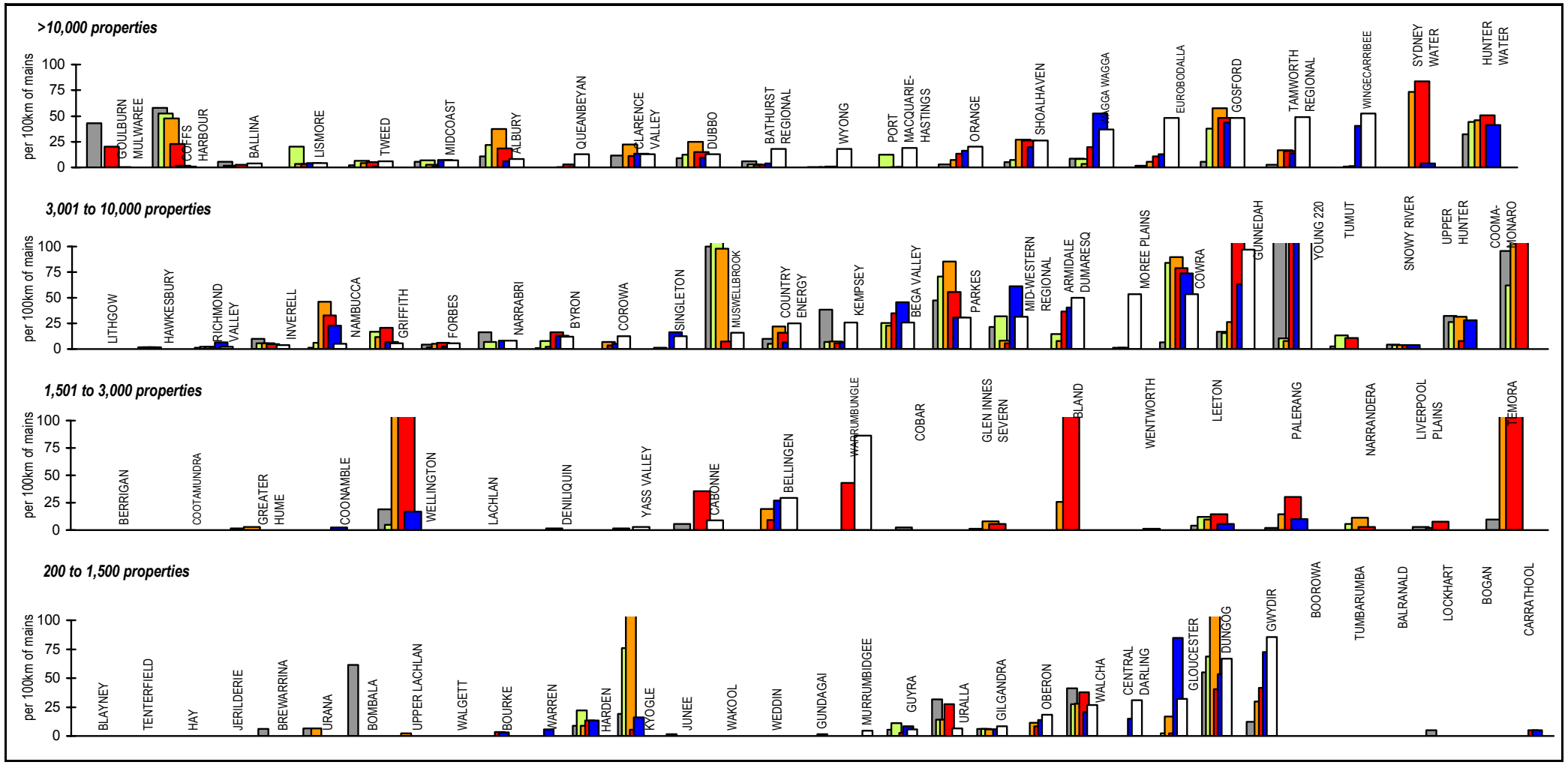
Parameter: No. of Chokes in House Drains (Q68) x 1000

[No. of Residential Assessments (Q15) + No. of Non-Residential Assessments (Q16) x No. of Connected Properties per Assessment

Note:

1. For general notes see page 25.

Figure 64: Sewer overflows to the environment – sewerage



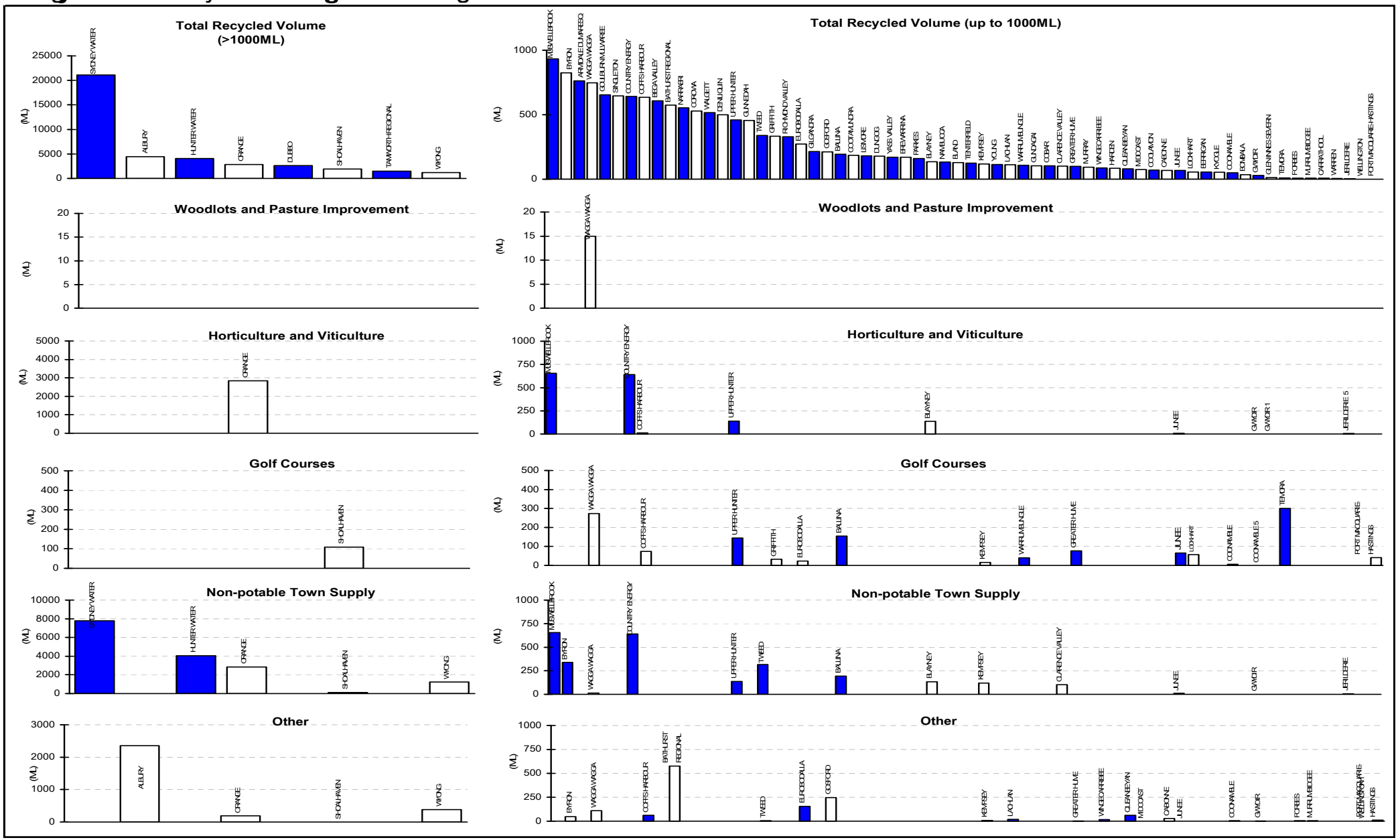
Parameter:

$$\frac{\text{Total No. of Sewage Overflows (Q63)} \times 100}{\text{Length of Reticulation/Gravity Mains (Q7)} + \text{Length of Rising Mains (Q8)}}$$

Notes:

1. This figure shows ranked values of the 2006/07 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 2006/07 sewer overflows to the environment for the 26 LWUs shown ranges from nil to 219 overflows per 100 km of sewer mains. The 4 utililties on the right did not report this indicator for 2006/07. Results for the previous 5 years are also shown.
2. The Statewide median sewer overflows to the environment is 18 per 100 km of sewer mains.
3. 29% of reporting LWUs reported no sewer overflows.
4. For general notes see page 25.

Figure 65: Recycled water – sewerage

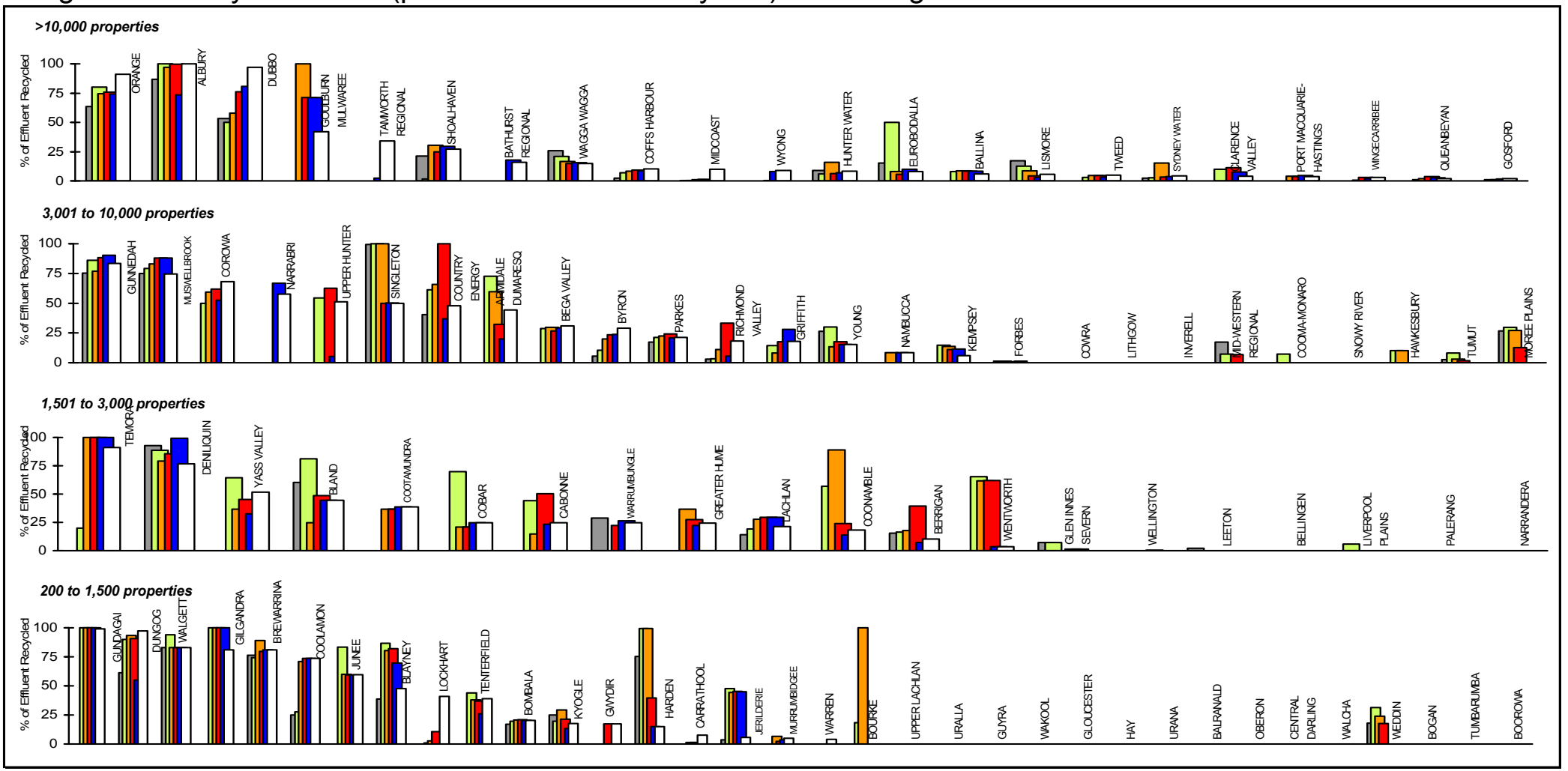


Notes:

1. The total volume of recycled water for non-metropolitan NSW was 30000 ML, which was 19 % of the total volume of sewage collected. Re-use was carried out by 70% of LWUs. 20% of LWUs recycled over 50% of their effluent.

2. For general notes see page 25.

Figure 66: Recycled water (per cent of effluent recycled) – sewerage



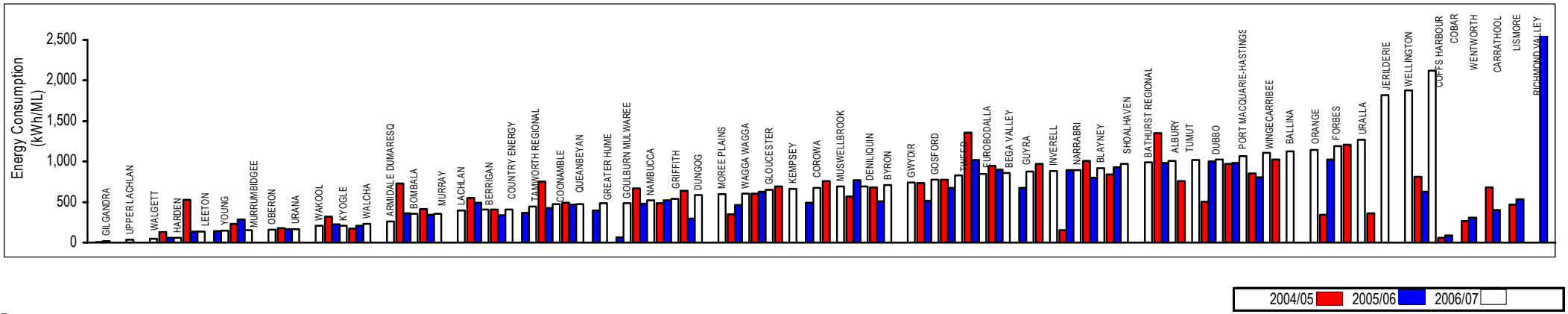
Parameter:

$$\frac{\text{Total Volume Recycled (STW Q25) x 100}}{\text{Volume of Sewage Receiving Secondary Treatment (STW Q18)}}$$

Notes:

1. This figure shows ranked values of the 2006/07 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 2006/07 recycled water (% of sewage effluent recycled) for the 26 LWUs shown ranges from 83% to 0%. Results for the previous 5 years are also shown.
2. The 2005/06 result has been adopted for those LWUs that did not report but historically report consistent effluent reuse (generally >25%). These LWUs are shown in italics bold.
3. The Statewide median reuse of recycled water is 10% of effluent recycled.
4. Reuse of recycled water was carried out by 70% of LWUs. Statewide, 19% of the total volume of sewage collected was recycled. The total volume recycled in non-metropolitan NSW was 30,000 ML.
5. For general notes see page 25.

Figure 67: Energy consumption per ML – sewerage



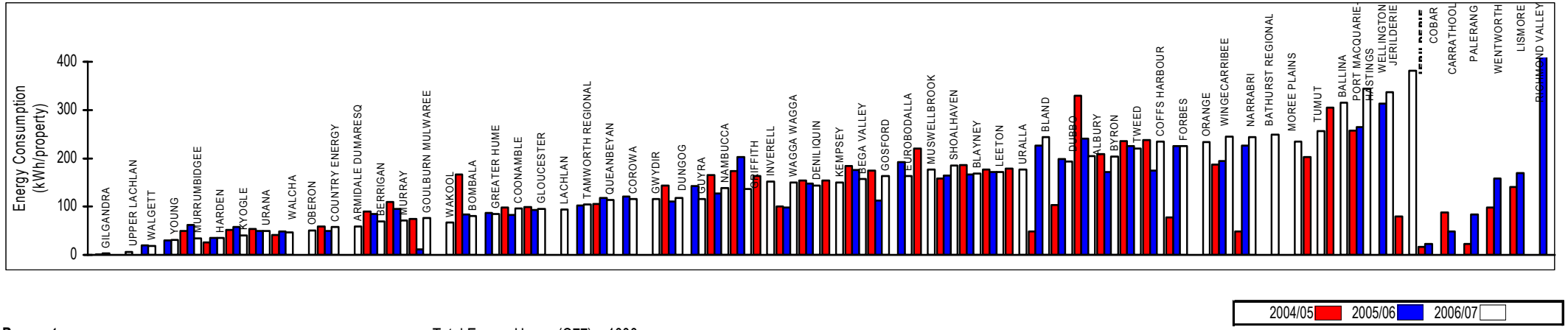
Parameter:

$$\frac{\text{Total Energy Usage (S Q77) x 1000}}{\text{Total Volume of Sewage Collected ((Q26)}}$$

Notes:

1. This figure shows ranked values of the 2006/07 total energy consumption per ML. The energy consumption per ML for the 57 Local Water Utilitites (LWUs) shown range from about 15 to 2100kWh per connected property.
2. For general notes see page 18.

Figure 68: Energy consumption per property – sewerage



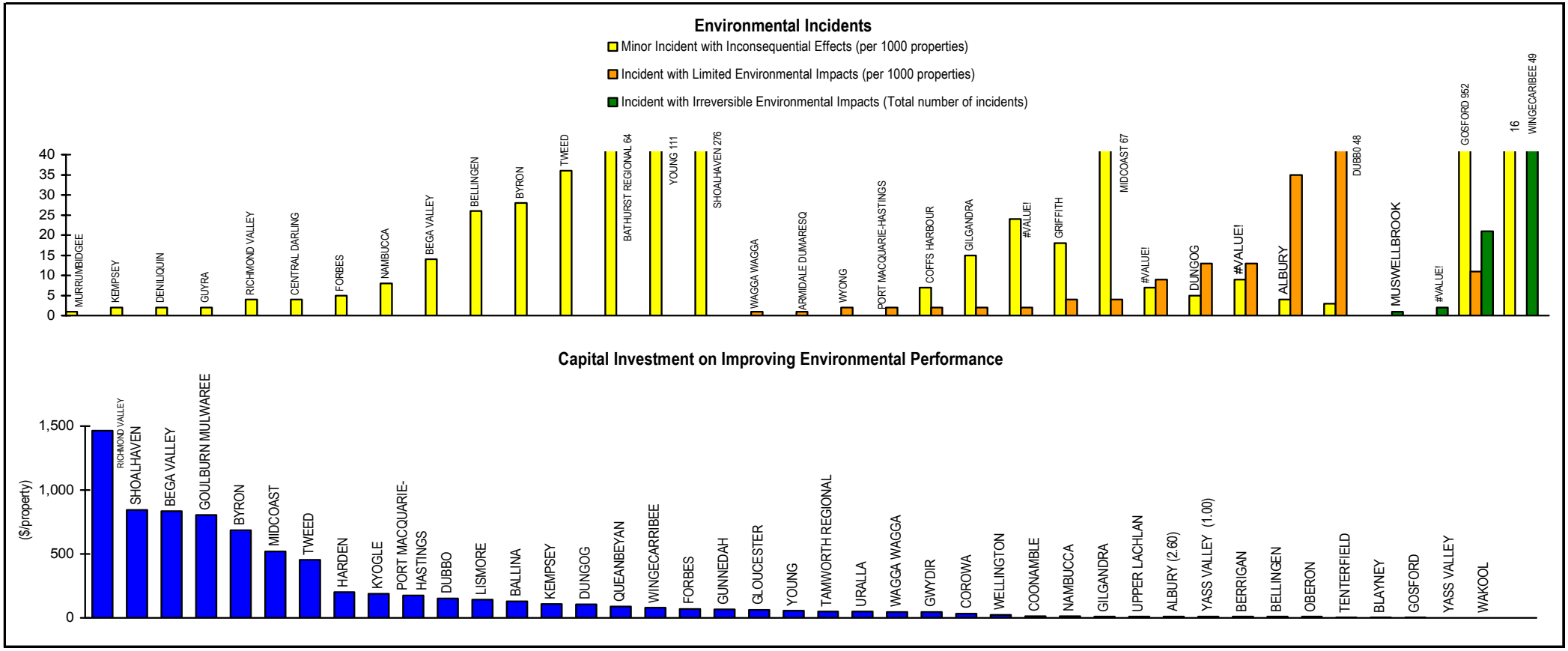
Parameter:

$$\frac{\text{Total Energy Usage (Q77) x 1000}}{\text{[No. of Residential Assessments (Q15) + No. of Non-Residential Assessments (Q16) x No. of Connected Properties per Assessment}}$$

Notes:

1. This figure shows ranked values of the 2006/07 total energy consumption per connected property. The energy usage per connected property for the 58 Local Water Utilitites (LWUs) shown range from about 3 to 380kWh per connected property.
2. For general notes see page 25.

Figure 69: Enviromental incidents, management systems, capital investment – sewerage



Parameter:
$$\frac{\text{Total Number of Minor Incidents with Inconsequential Effects (Q69)}}{\text{[No. of Residential Assessments (Q15) + No. of Non-Residential Assessments (Q16) x No. of Connected Properties per Assessment}}$$

Parameter:
$$\frac{\text{Total Number of Incidents with Limited Enviromental Impacts (Q70)}}{\text{[No. of Residential Assessments (Q15) + No. of Non-Residential Assessments (Q16) x No. of Connected Properties per Assessment}}$$

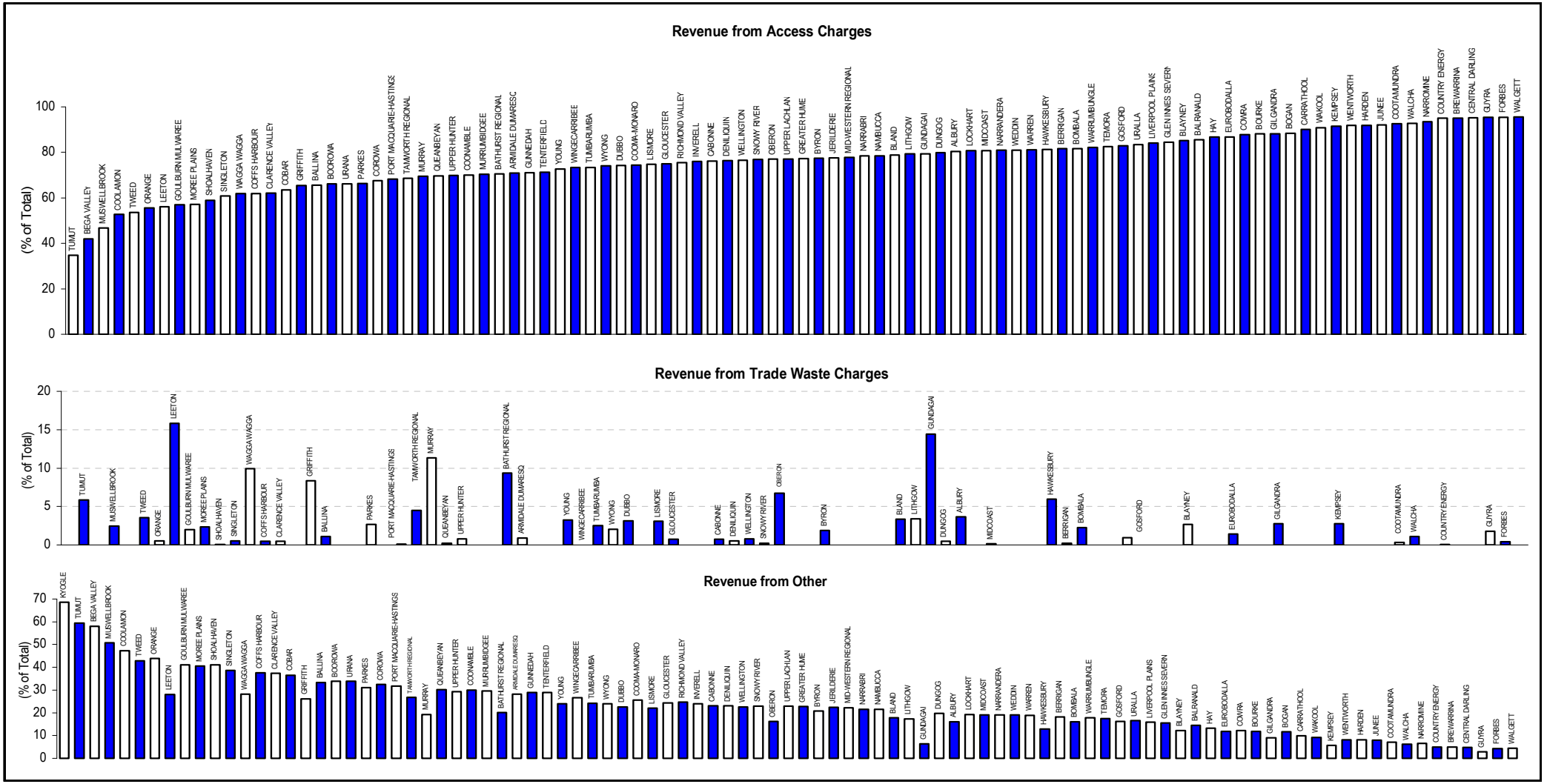
Parameter:
$$\frac{\text{Total Number of Incidents with Irreversible Enviromental Impacts (Q71)}}{\text{[No. of Residential Assessments (Q15) + No. of Non-Residential Assessments (Q16) x No. of Connected Properties per Assessment}}$$

Parameter:
$$\frac{\text{Capital Expenditure on Improving Environmental Performance (\$) (Q77)}}{\text{[No. of Residential Assessments (Q15) + No. of Non-Residential Assessments (Q16) x No. of Connected Properties per Assessment}}$$

Note:

1. The following 21 utilities did not report for environmental incidents: Balranald, Bland, Boorowa, Carrathool, Cobar, Coolamon, Cooma-Monaro, Country Energy, Glen Innes-Severn, Lachlan, Liverpool Plains, Lockhart, Midwestern Regional, Narrandera, Narromine, Palerang, Snowy River, Temora, Tumbarumba, Tumut, and Wentworth. 23 Utilities reported and are shown in the figure above, while 47 utilities reported zero environmental incidents.
2. The following 37 LWUs have prepared a sewerage Environmental Management Plan:
   Albury, Bega Valley, Bombala, Brewarrina, Cabonne, Carrathool, Clarence Valley, Coffs Harbour, Cootamundra, Corowa, Country Energy, Dubbo, Eurobodalla, Gosford, Goulburn Mulwaree, Greater Hume, Griffith, Gunnedah, Kempsey, Kyogle, Lismore, Lithgow, Lockhart, MidCoast Water, Murray, Murrumbidgee, Nambucca, Shoalhaven, Tumut, Uralla, Wagga Wagga, Wakool, Walcha, Weddin, Wingecaribee, Wyong.
3. For general notes see page 25.

Figure 70: Revenue from access charges, trade waste charges – sewerage



Parameter: Residential and Access Charges [(S6) + (S7a)] x 100 / Total Revenue (S14)

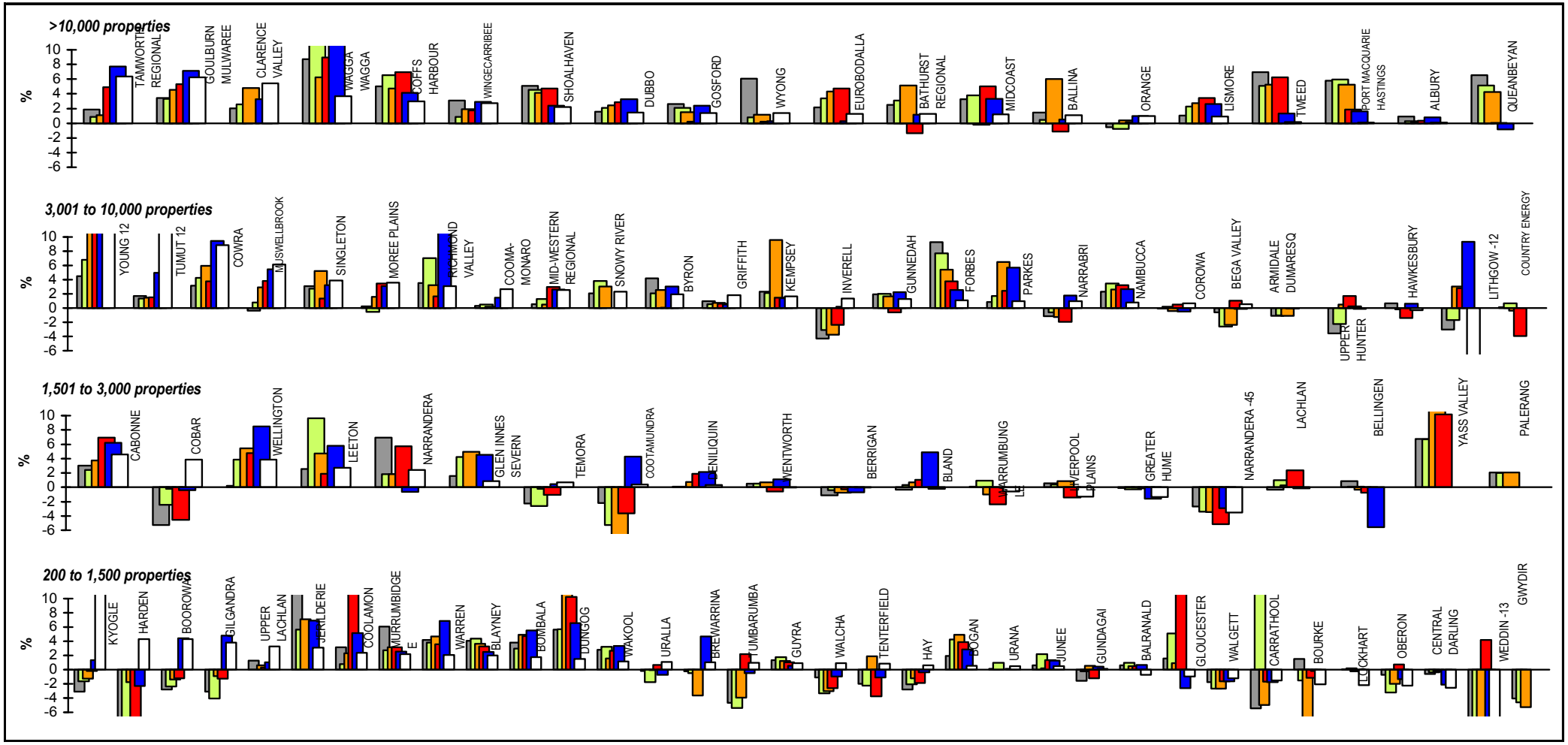
Parameter: Trade Waste Charges (S8) x 100 / Total Revenue (S14)

Parameter: [Other Income (S11) + Extra Charges (S9) + Interest Income (S10) + Other Grants (S12C) + Contributions (S13)] x 100 / Total Revenue (S14)

Note:

1. For general notes see page 25.

Figure 71: Economic real rate of return – sewerage



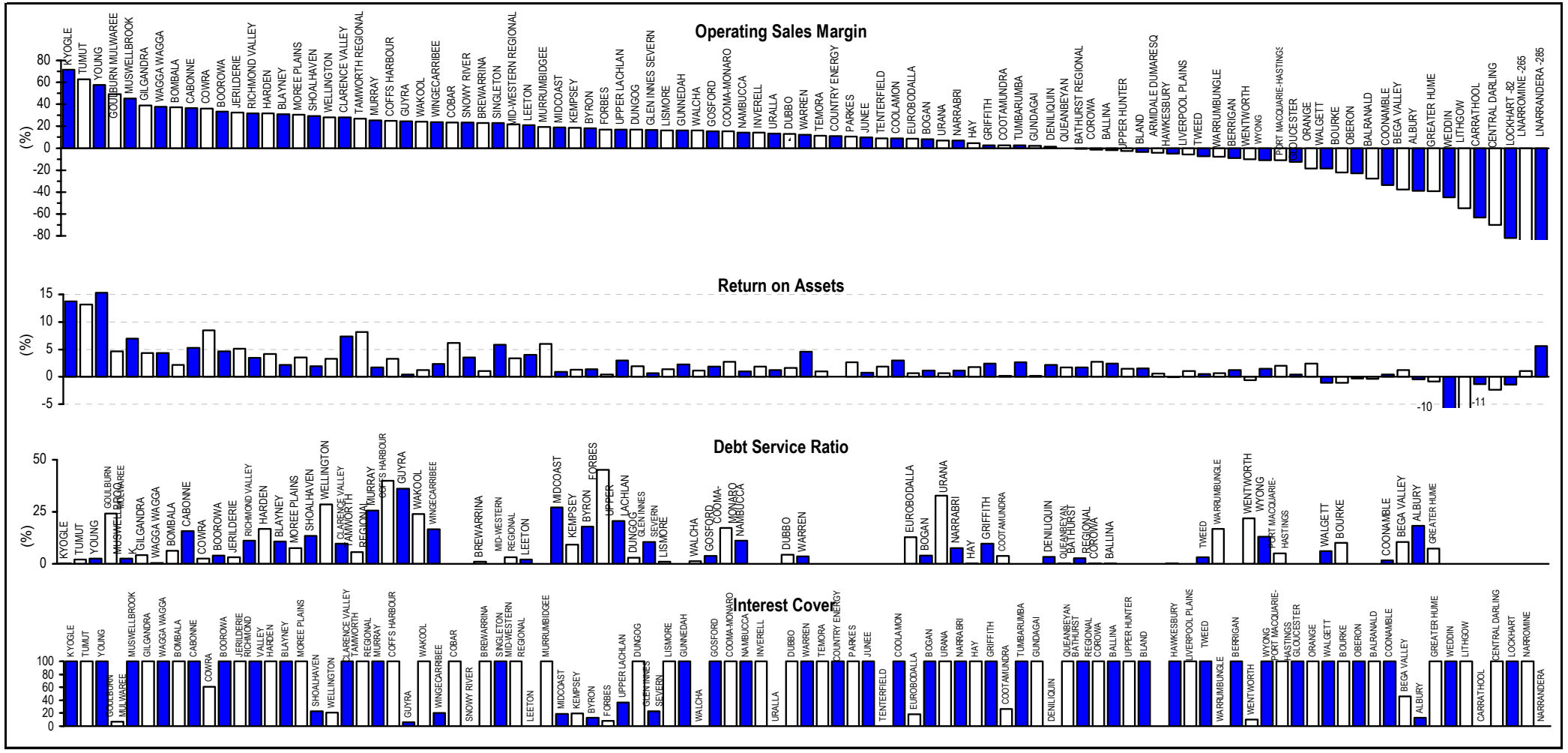
Parameter:

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

Notes:

1. This figure shows ranked values of the 2006/07 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 2006/07 sewerage real rate of return for the 25 LWUs shown ranges from 12% to -12.2%. Results for the previous 5 years are also shown.
2. The Statewide median sewerage ERRR is 1.4%.
3. The ERRR was not reported for Sydney and Hunter Water Corporations from 2002/03 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 25.

Figure 72: Operating sales margin, return on assets, debt service ratio, interest cover – sewerage



Parameter: otal 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)

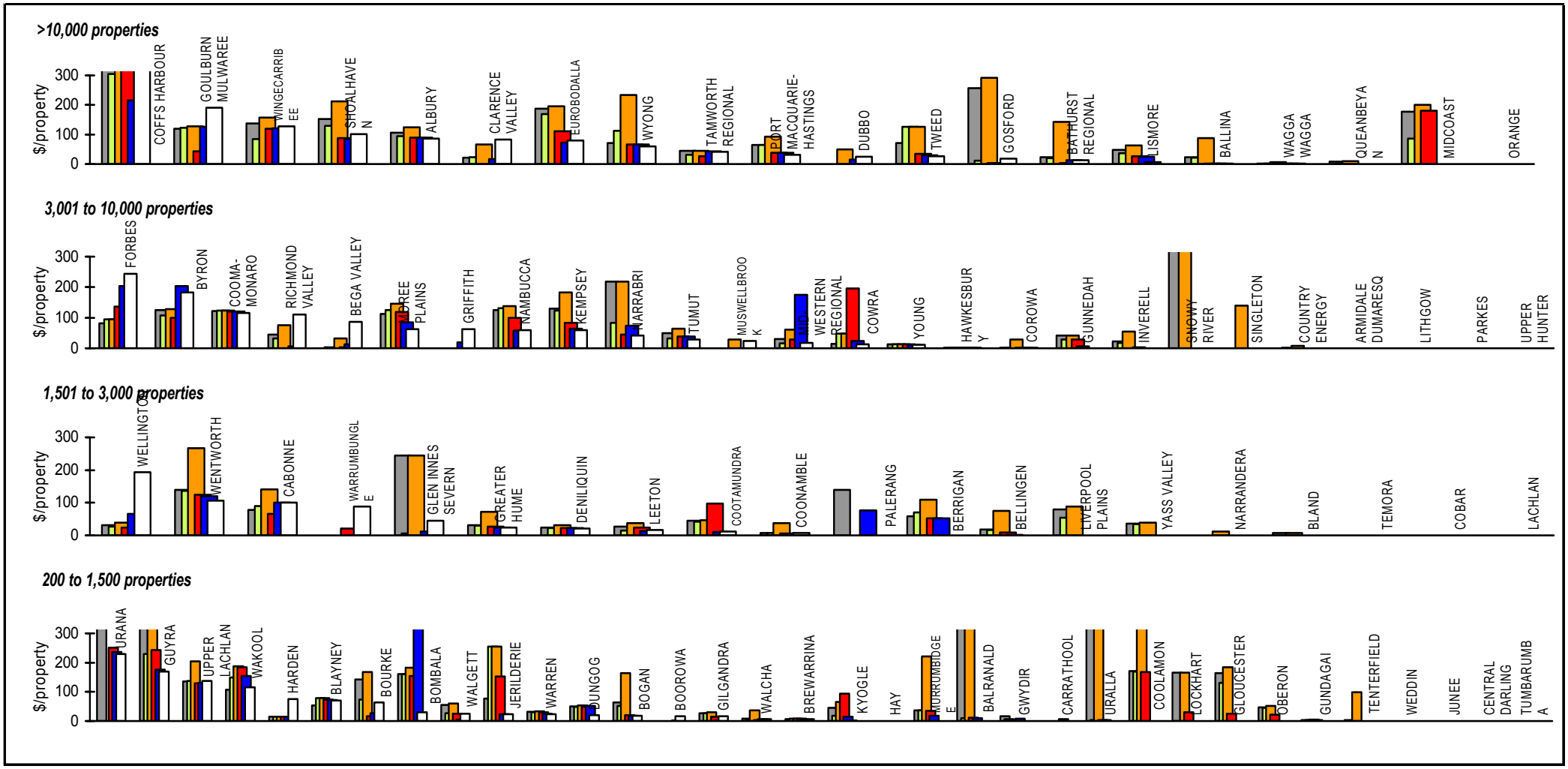
Parameter: [Payment of Debt (S18) + Interest Expense (S4a)] x 100
Total Revenue (S14) - Grants for Capital Works (S12a) - Developer Provided Assets (S13b)

Parameter: [Total Revenue (S14) - Grants for Capital Works (S12a) - Total Expenses (S5) + Interest Expense (S4a)]
Interest Expenses (S4a) -Interest Income (S10)

Note:

1. Values of interest cover >100 are reported as 100 in accordance with the National Performance Framework - 2006/07.
2. For general notes see page 25.

Figure 73: Loan payment – sewerage



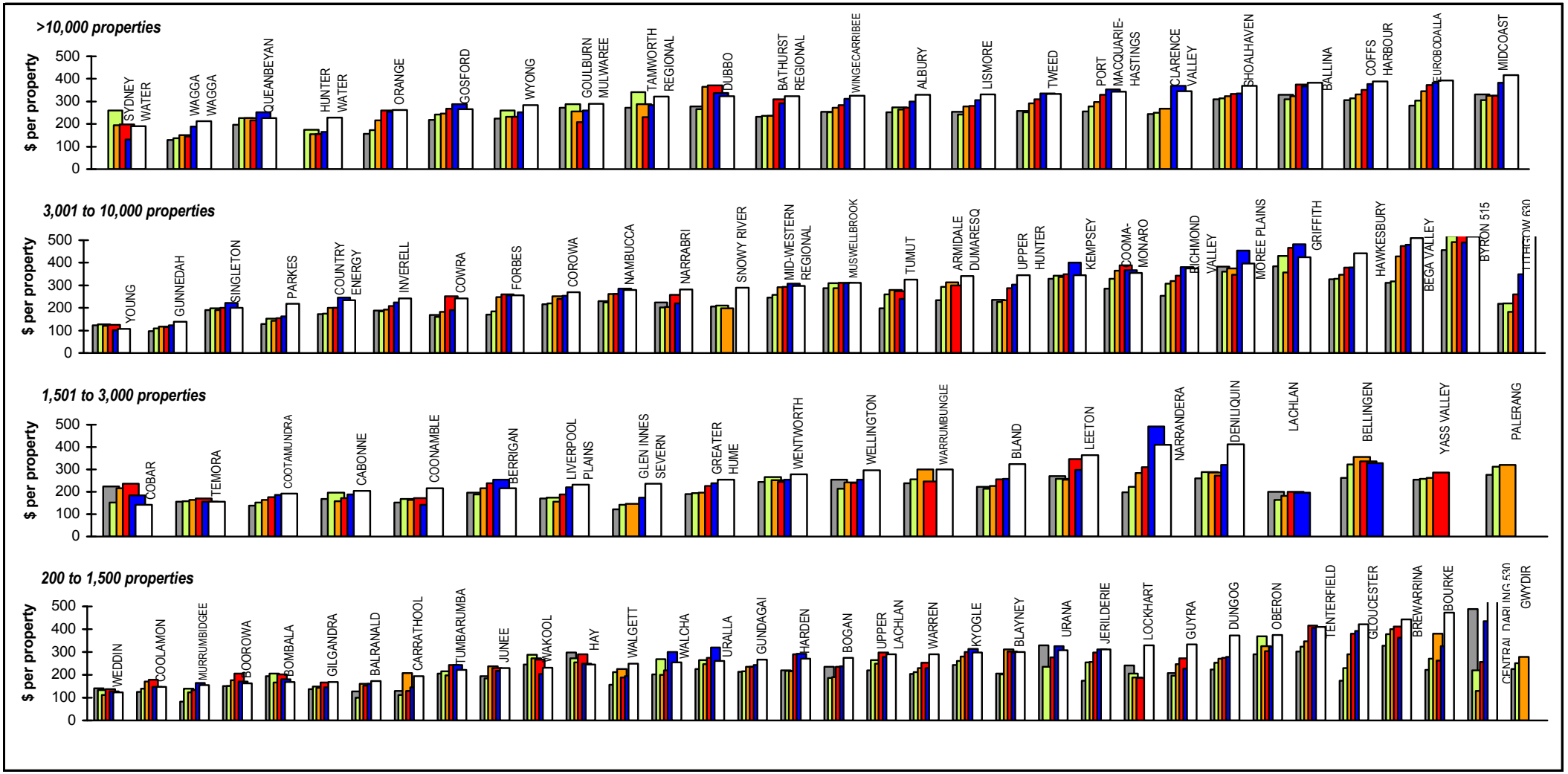
Parameter: Payment of Debt (S17) + Interest Expenses (S4a)

[No. of Residential Assessments (Q15) + No. of Non-Residential Assessments (Q16) x No. of Connected Properties per Assessment

Notes:

1. This figure shows ranked values of the 2006/07 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 2006/07 sewerage loan payments for the 26 LWUs shown ranges from $244 to $0 per connected property. Results for the previous 5 years are also shown in Jan 2007$.
2. The Statewide median annual sewerage loan payment is $30 per connected property.
3. For general notes see page 25.

Figure 74: Operating cost (OMA) per property – sewerage



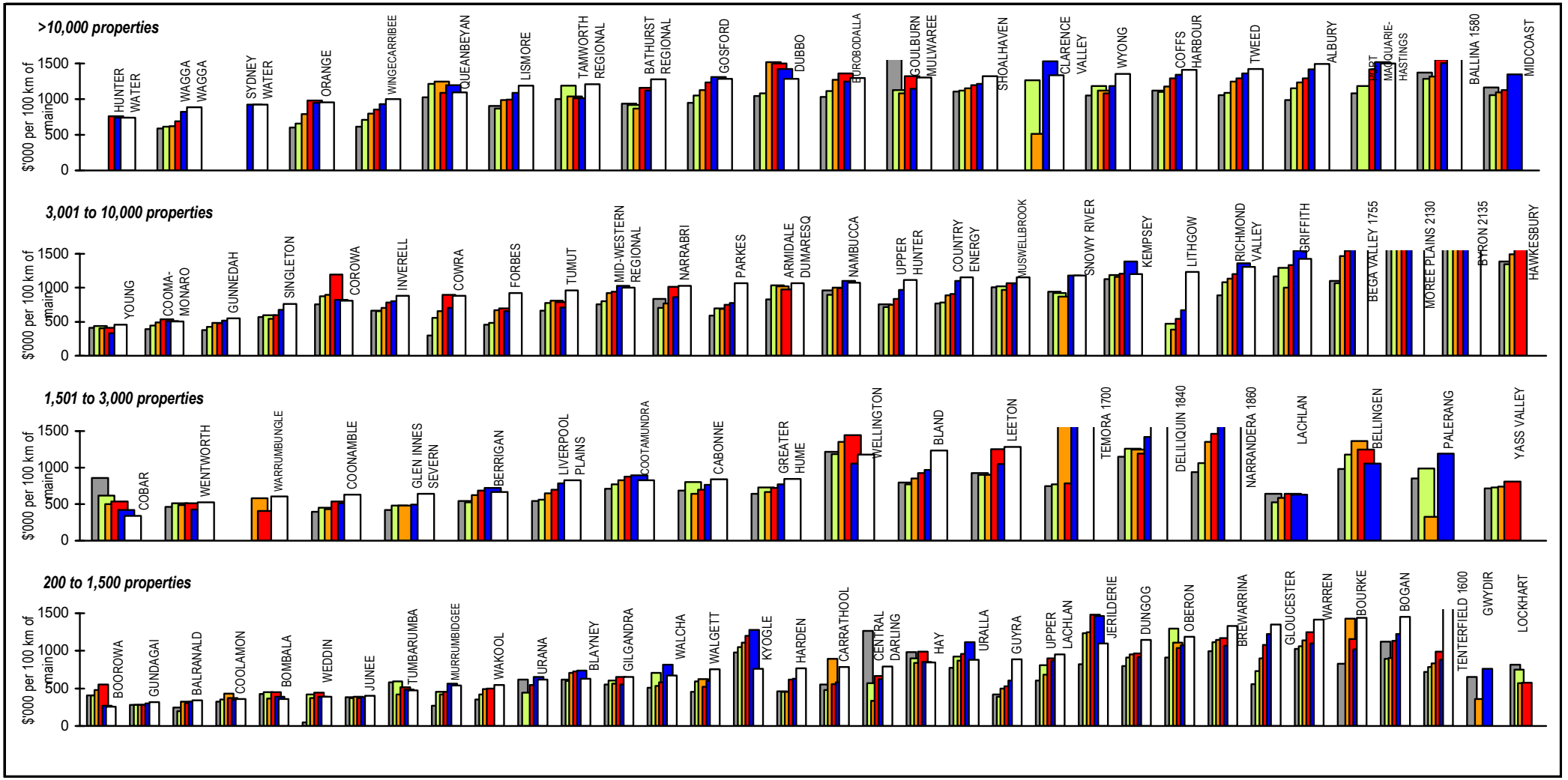
Parameter:

$$\frac{\text{Management Expenses (S1) + Total Operations Expenses (S2) - Purchase of Water + Bulk Supplier's OMA}}{\text{[No. of Residential Assessments (Q15) + No. of Non-Residential Assessments (Q16)] x No. of Connected Properties per Assessment}}$$

Notes:

1. This figure shows ranked values of the 2006/07 water supply operating cost (OMA - operation, maintenance and administration) per property for each Local Water Utility (LWU) in 4 groups based on the number of connected properties served – over 10,000, 3,001 to 10,000, 1,501 to 3,000 and 200 to 1,500. Each white bar represents one LWU. As an example, for the second graph (property range from 3,001 to 10,000), the operating costs for the 26 LWUs shown ranges from $107 to $630 per connected property. Results for the previous 5 years are also shown in Jan 2007$.
2. The Statewide median operating cost per connected property is $320.
3. For general notes see page 25.

Figure 75: Operating cost (OMA) per 100 km of main – sewerage



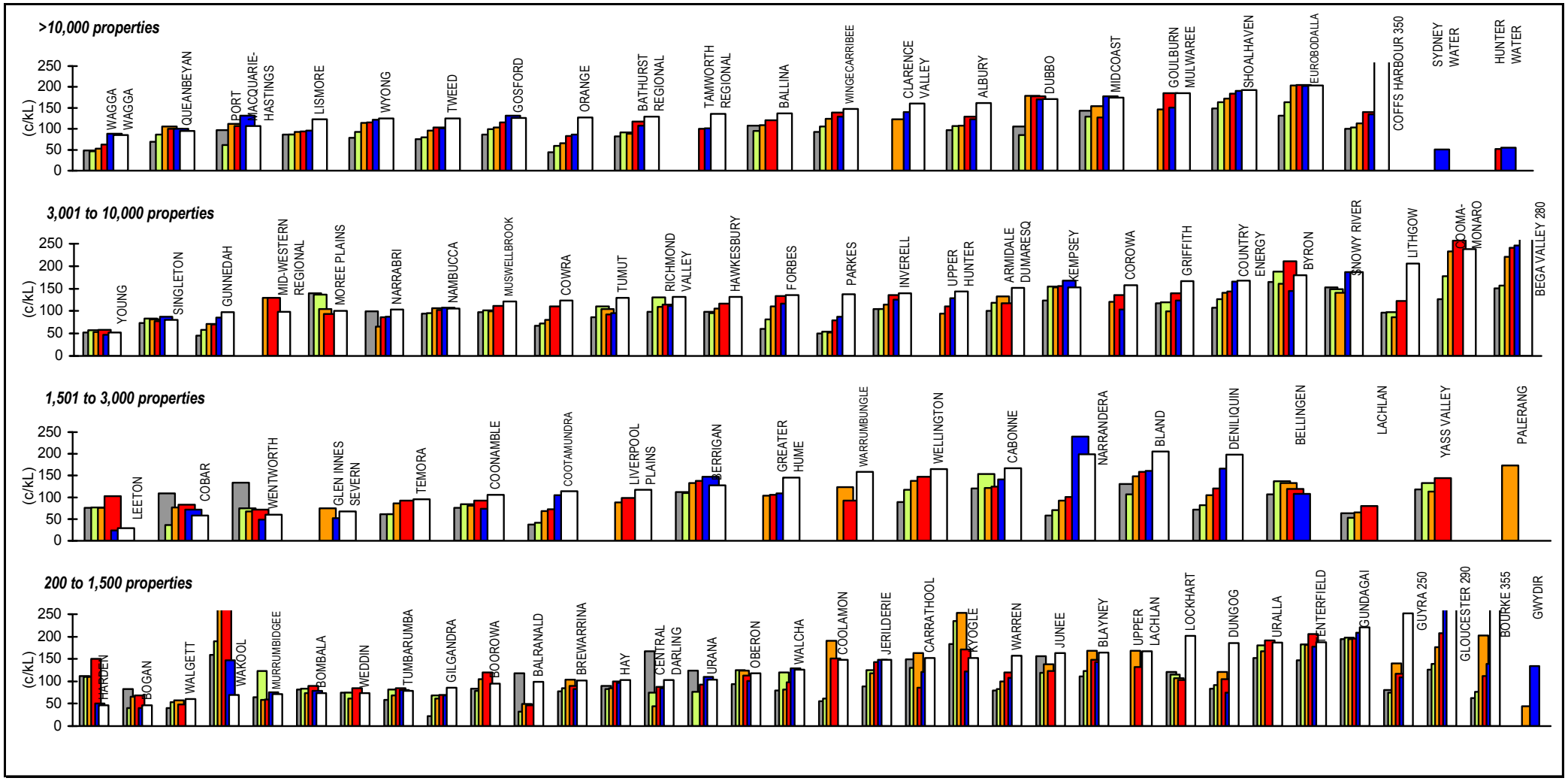
Parameter:

$$\frac{\text{Management Expenses (S1) + Total Operations and Maintenance Expenses (S2)}}{\text{[Length of Reticulation Mains (Q7) + Length of Rising Mains (Q8)]} \times 10}$$

Notes:

1. This figure shows ranked values of the 2006/07 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 25 LWUs shown ranges from $0.46M to $2.13M per 100 km of sewer main. Results for the previous 5 years are also shown in Jan 2007$. The LWU on the right did not report this indicator for 2006/07.
2. The Statewide median operating cost is $1.29M per 100 km of sewer main.
3. For general notes see page 25.

Figure 76: Operating cost (OMA) per kL – sewerage



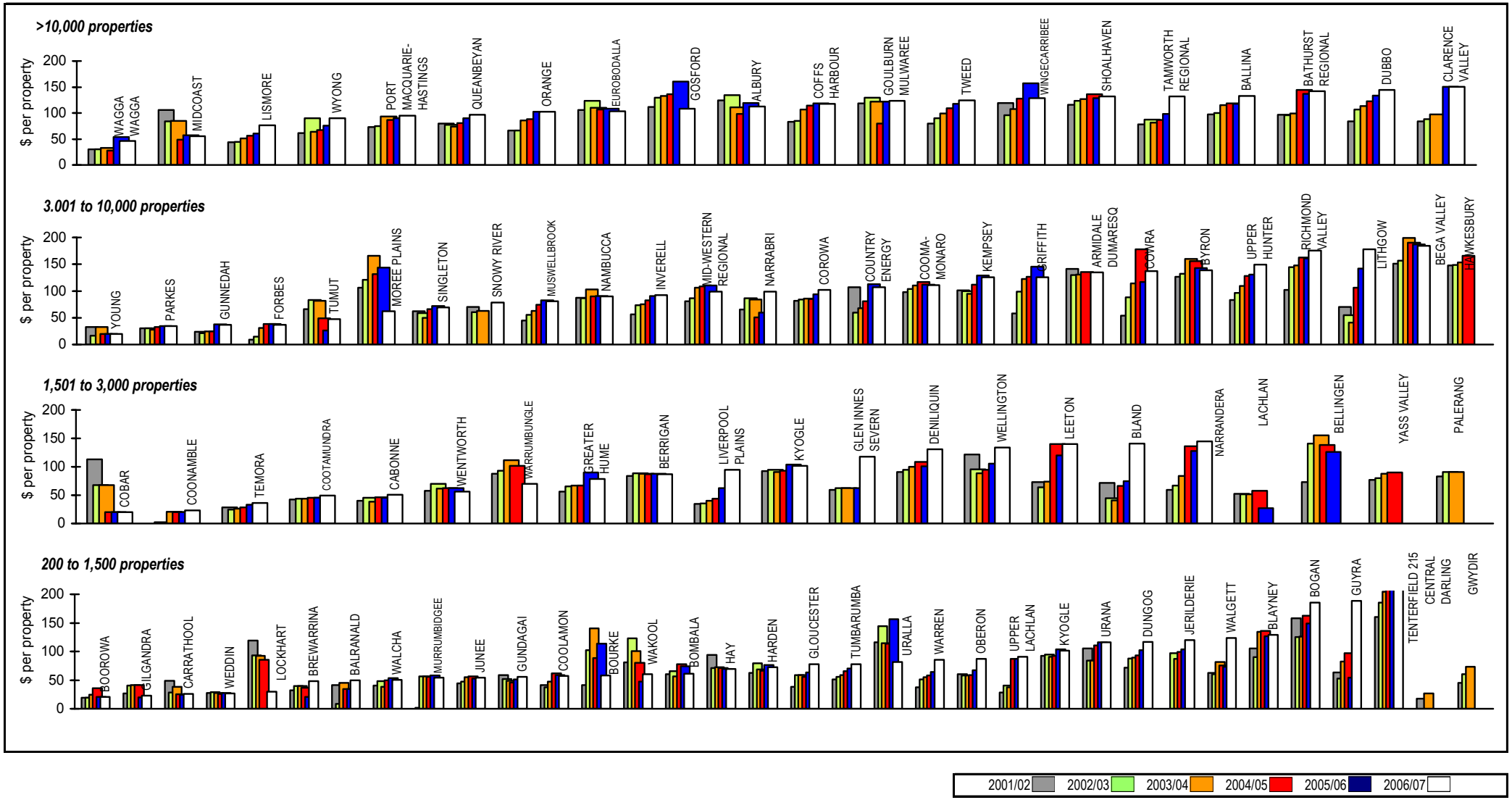
Parameter:

$$\frac{\text{Management Expenses (S1) + Total Operations and Maintenance Expenses (S2)}}{\text{Volume of Sewerage Receiving Secondary Treatment (Q26) x 10}}$$

Notes:

1. This figure shows ranked values of the 2006/07 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 52c/kL to 279c/kL. The 2006/07. Results for the previous 5 years are also shown in Jan 2007$.
2. The Statewide median operating cost is 129c/kL.
3. For general notes see page 25.

Figure 77: Management cost per property – sewerage



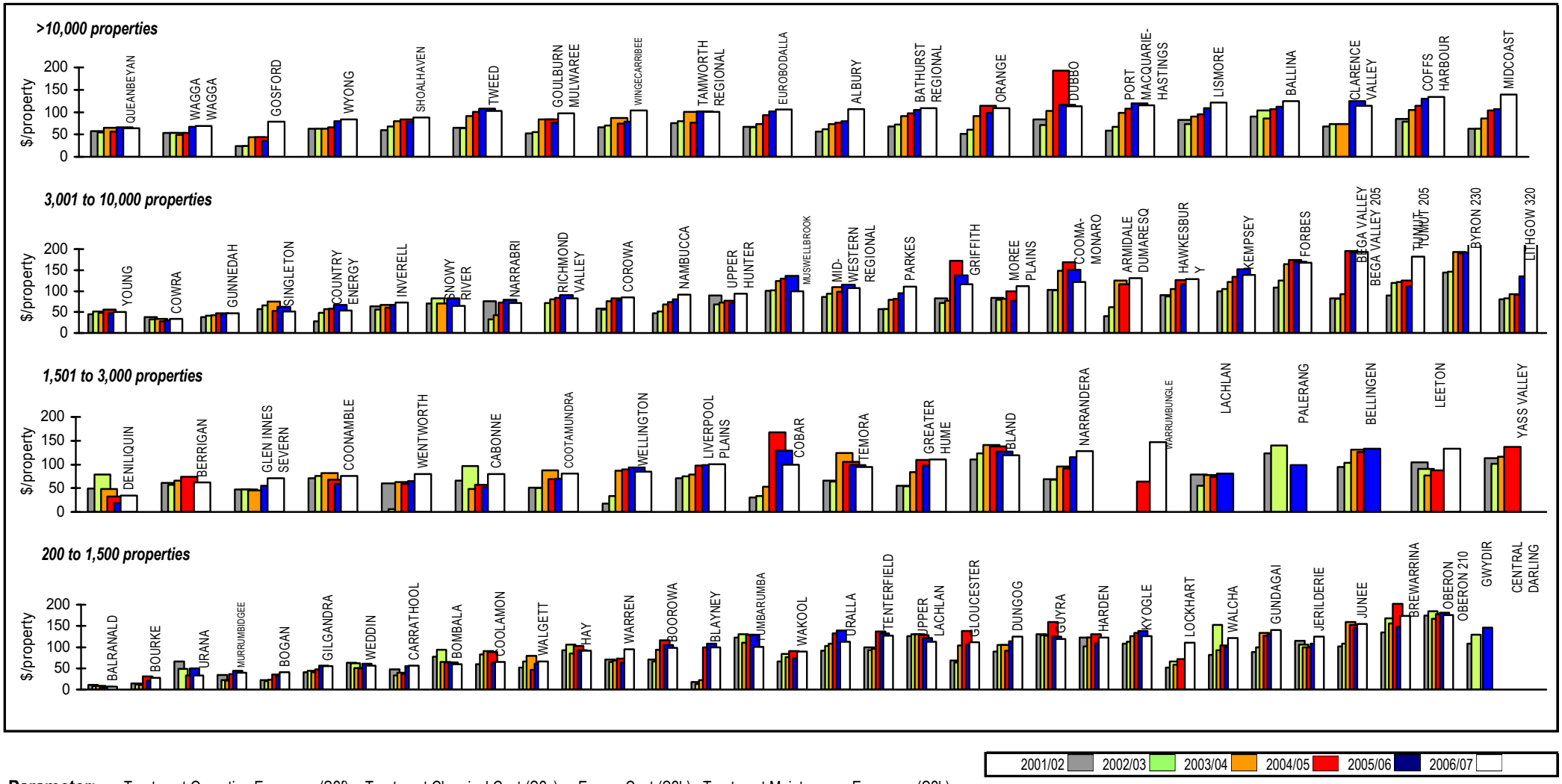
Parameter:

$$\frac{\text{Administration Cost (S1a) + Engineering Cost (S1b)}}{\text{[No. of Residential Assessments (Q15) + No. of Non-Residential Assessments (Q16)] x No. of Connected Properties per Assessment}}$$

Notes:

1. This figure shows ranked values of the 2006/07 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 2006/07 management costs for the 26 LWUs shown ranges from $20 to $184. The LWU on the right did not report this indicator for 2006/07. Results for the previous 5 years are also shown in Jan 2007$.
2. The Statewide median management cost is $110 per connected property.
3. For general notes see page 25.

Figure 78: Treatment cost – sewerage

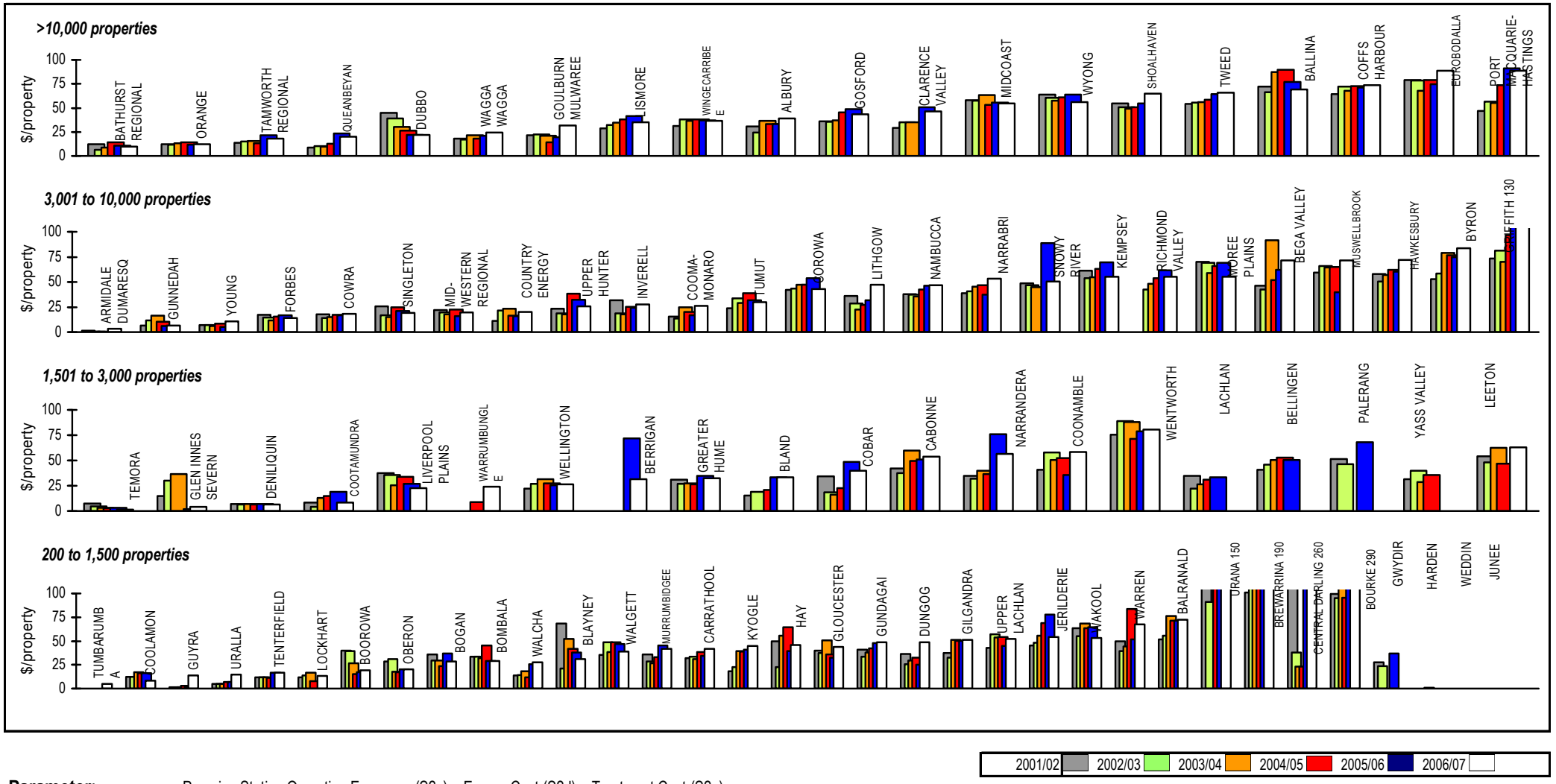


Parameter: Treatment Operation Expenses (S2f) + Treatment Chemical Cost (S2g) + Energy Cost (S2h)+ Treatment Maintenance Expenses (S2k)
[No. of Residential Assessments (Q15) + No. of Non-Residential Assessments (Q16) x No. of Connected Properties per Assessment

Notes:

1. This figure shows ranked values of the 2006/07 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 2006/07 sewerage treatment cost for the 26 LWUs shown ranges from $30 to $306 per connected property.2006/07. Results for the previous 5 years are also shown in Jan 2007$.
2. The Statewide median sewage treatment cost is $104 per connected property.
3. For general notes see page 25.

Figure 79: Pumping cost – sewerage



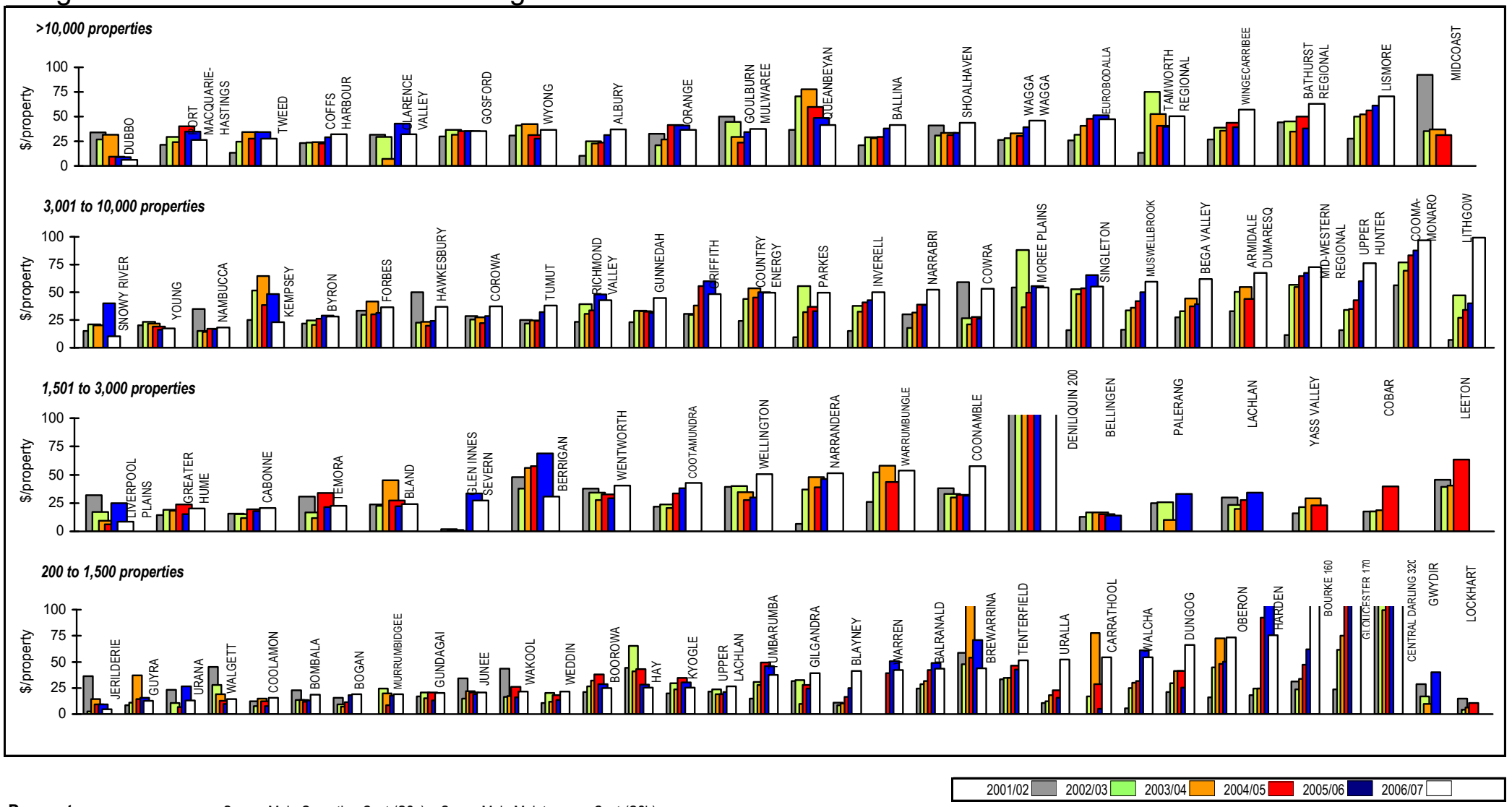
Parameter: Pumping Station Operation Expenses (S2c) + Energy Cost (S2d) + Treatment Cost (S2e)

[No. of Residential Assessments (Q15) + No. of Non-Residential Assessments (Q16) x No. of Connected Properties per Assessment

Notes:

1. This figure shows ranked values of the 2006/07 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 2006/07 sewerage pumping cost for the 25 LWUs shown ranges from $3 to $116 per connected property. The 3 utilities on the right did not report this indicator for 2006/07. Results for the previous 5 years are also shown in Jan 2007$.
2. The Statewide median pumping cost is $44 per connected property.
3. For general notes see page 25.

Figure 80: Sewer main cost – sewerage



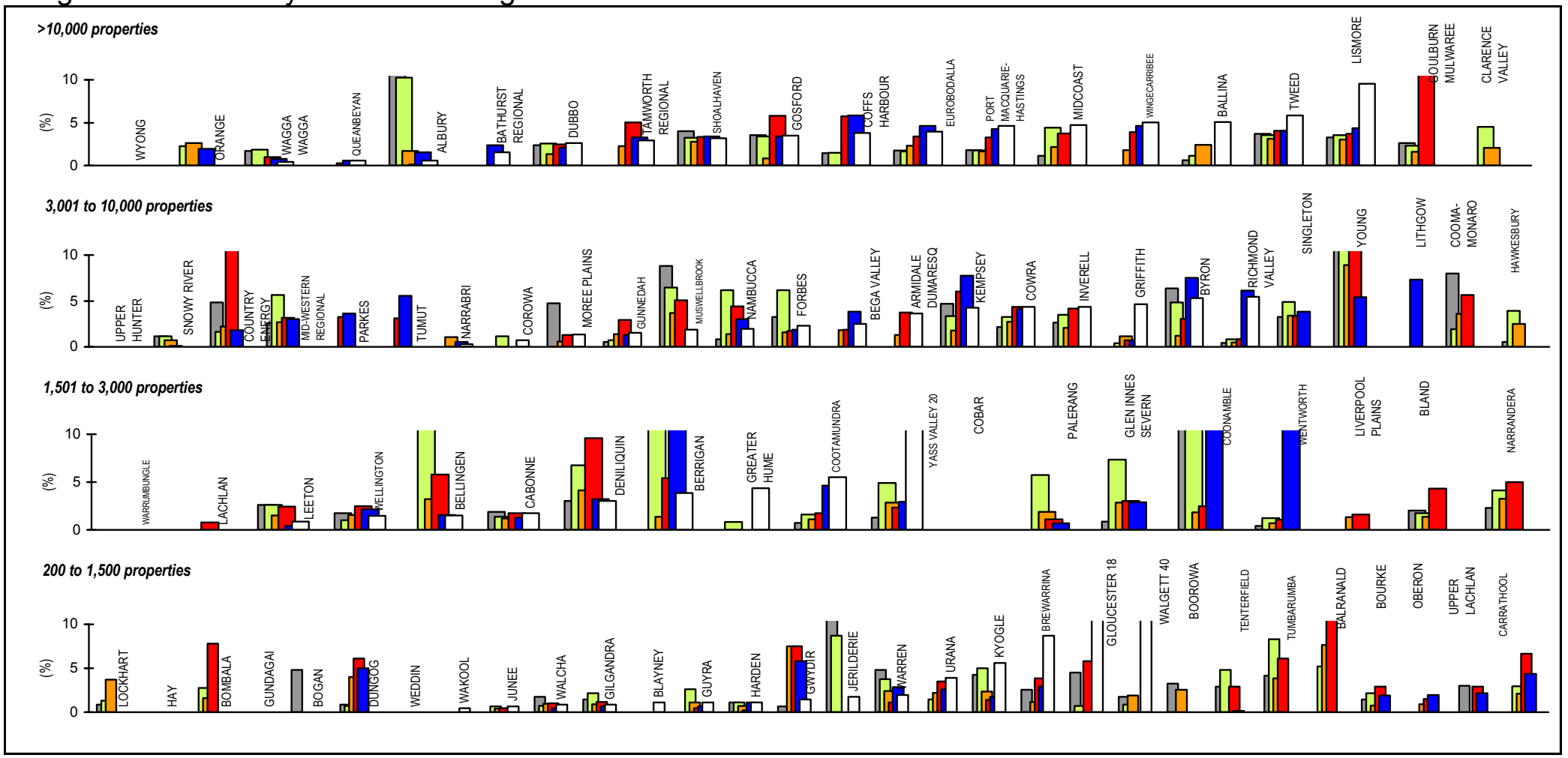
Parameter: Serwer Main Operation Cost (S2a) + Sewer Main Maintenance Cost (S2b)

[No. of Residential Assessments (Q15) + No. of Non-Residential Assessments (Q16) x No. of Connected Properties per Assessment

Notes:

1. This figure shows ranked values of the 2006/07 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 2006/07 sewer main cost for the 26 LWUs shown ranges from $10 to $99 per connected property.2006/07. Results for the previous 5 years are also shown in Jan 2007$.
2. The Statewide median sewer main cost is $39 per connected property.
3. For general notes see page 25.

Figure 81: Total days lost – sewerage



Parameter: [Total Number of Days Lost in Year (Q52) x 100] / [Total Number of Employees / 230]

[No. of Residential Assessments (Q15) + No. of Non-Residential Assessments (Q16) x No. of Connected Properties per Assessment

Notes:

1. This figure shows ranked values of the 2006/07 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 2006/07 percentage of days lost for the 26 LWUs shown ranges from nil to 5%. The 5 utilities on the right did not report this indicator for 2006/07. Results for the previous 5 years are also shown.
2. The Statewide median percentage days lost is 3%.
3. For general notes see page 25.

10. Tables

Table 1: NSW water supply performance indicators 2006-07

UTILITY CHARACTERISTICS	20%	Median (50%)	80%
Residential Assessments (% of total)	88	92	94
New Residential Dwellings Connected to Water Supply (%)	1.4	1.0	0.3
Properties Served per km of Main	45	33	22
Rainfall (% of average annual rainfall)	130	88	70
Total Urban Water Supplied (at Master Meters - ML)	13,100	6,800	2,900
Peak Week to Average Consumption (%)	105	135	170
Renewals Expenditure (% of current replacement cost of system assets)	0.6	0.1	0.0
Employees (employees per 1000 properties)	1.0	1.3	1.9
SOCIAL - *Charges/Bills* *(2007/08)*			
Residential Water Usage Charge (c/kL)	146	124	80
Residential Access Charge ($/assessment)	90	108	210
Typical Residential Bill ($/assessment)	270	360	480
Typical Developer Charge ($/equivalent tenement)	6,800	4,000	2,500
SOCIAL - *Health*			
Urban Population without Reticulated Water Supply (%)	0	0.8	3
Physical Water Quality Compliance (%)	100	100	100
Chemical Water Quality Compliance (%)	100	100	93
Microbiological (E. coli) Water Quality Compliance (%)	100	100	100
Percent Population with Microbiological Compliance	100	100	99
SOCIAL - *Levels of Service*			
Water Quality Complaints (per 1000 properties)	0	3	12.5
Water Service Complaints (per 1000 properties)	2	12	41
Customer Interruption Frequency (per 1000 properties)	12	36	96
Average Duration of Interruption (minutes)	60	120	180
Number of Main Breaks (per 100 km of main)	5	11	25
Drought Water Restrictions (% of time)	0	55	100
Total Days Lost (%)	1.9	3.4	4.7
ENVIRONMENTAL			
Average Annual Residential Supplied (kL/property)	140	185	290
Average Annual Residential Supplied COASTAL (kL/property)	140	165	200
Average Annual Residential Supplied INLAND (kL/property)	225	305	420
Real Loss (leakage) (L/service connection/day)	37	73	143
Energy Consumption (kWh/ML)	330	680	1,130
Renewable Energy Consumption (% of Total Energy)	18	0	0
Net Greenhouse Gas Emissions - WS & Sge (net tonnes CO2 - equivalents/1000props)	180	230	360
ECONOMIC - *Financial*			
Total Revenue - Water ($'000)	18,400	10,100	4,860
Residential Revenue from Usage Charges (% of total)	72	67	57
Current Replacement Cost per Assessment ($)	13,700	10,100	7,900
Economic Real Rate of Return (%)	3.4	1.4	0.2
Return on Assets (%)	3.9	1.9	0.6
Net Debt to Equity (%)	3	-6	-13
Interest Cover	>100	>100	0
Loan Payment ($/property)	80	15	0
Net Profit After Tax Ratio - WS & Sge (%)	26	16	7
ECONOMIC - *Efficiency*			
Operating Cost (OMA) per 100 km of Main ($'000)	660	1,030	1,780
Operating Cost (OMA) per property ($/property)	250	290	370
Operating Cost (OMA) per kL (c/kL)	66	90	137
Management Cost ($/property)	90	115	145
Treatment Cost ($/property)	16	27	89
Pumping Cost ($/property)	16	21	53
Energy Cost ($/property)	7	15	31
Water Main Cost ($/property)	39	49	85
Capital Expenditure - Water Supply ($/property)	504	302	98

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 councils and reducing the effect of smaller councils.
3. The performance indicators in this table and their grouping are consistent with the body of the present report and the reports for each council in Appendix C.

Table 2: NSW sewerage performance indicators 2006-07

UTILITY CHARACTERISTICS	20%	Median (50%)	80%
Residential Assessments (% of Total)	90%	93%	94%
New Residential Dwellings Connected to Sewerage (%)	1.6	1.2	0.4
Properties Served per km of Main	49	40	35
Volume of Sewage Collected (ML)	13100	3600	1400
Renewals Expenditure (% of current replacement cost of system assets)	0.6	0	0
Employees (per 1000 properties)	1.0	1.6	1.9
SOCIAL - *Charges/Bills* *(2007/08)*			
Residential Access Charge ($/assessment)	360	405	545
Typical Residential Bill ($/assessment)	360	405	550
Typical Developer Charge ($/equivalent tenement)	5500	3900	2000
Non-residential sewer usage charge (c/kL)	155	90	75
SOCIAL - *Health*			
Urban Properties without Reticulated Sewerage Service (%)	0.8	3.7	9.1
Percent of sewage treated to a tertiary level (%)	100	82	0
Percent of sewage volume treated that was compliant (%)	100	93	74
Sewage treatment works compliant at all times			
SOCIAL - *Levels of Service*			
Odour Complaints (per 1000 properties)	0.0	0.4	1.1
Service Complaints (per 1000 properties)	0	9	30
Customer Interruption Frequency (per 1000 properties)	0	0	15
Average Duration of Interruptions (hr)	0	2	2
Total Days Lost	0.3	3	4.6
ENVIRONMENTAL			
Volume of Sewage Collected per property (kL)	270	230	195
Total recycled water supplied (ML)	1,470	460	130
Effluent Reclaimed for Recycling (% of total effluent)	50	10	4
Biosolids Reuse (%)	100	100	0
Energy Consumption (kWh/ML)	530	780	1,020
Renewable Energy Consumption (% of total energy consumption)	6	0	0
Net greenhouse gas emissions - WS & Sge (net tonnes CO2 equivalents per 1000 properties)	180	230	360
90 Percentile Licence Limits for Effluent Discharge: **BOD 35 mg/L; SS 40 mg/L; Total N 25 mg/L; Total P 5 mg/L**			
Compliance with BOD in Licence (%)	100	100	100
Compliance with SS in Licence (%)	100	100	100
Sewer Main Chokes and Collapses (per 100 km of main)	25	46	113
Sewer Overflows to the Environment (per 100 km of main)	6	18	37
Sewage treated that was compliant (%)	100	94	74
ECONOMIC - *Financial*			
Total Revenue - Sge ($'000)	28,500	10,500	3,300
Revenue from Non-residential and Trade Waste Charges (% of total revenue)	26	16	12
Revenue from Trade Waste Charges (% of total)	3	1.1	0
Current Replacement Cost per asssessment ($)	13,030	10,900	7,990
Economic Real Rate of Return (%)	2.7	1.4	0.3
Return on Assets (%)	3.4	1.4	1
Net Debt to Equity (%)	6	-7	-22
Interest Cover	>100	>100	23
Loan Payment ($/property)	83	30	1
Net Profit After Tax Ratio WS & Sge (%)	28	16	7
ECONOMIC - *Efficiency*			
Operating Cost (OMA) per 100 km of Main ($'000)	970	1290	1420
Operating Cost (OMA) per property ($/property)	270	320	370
Operating Cost (OMA) per kL (c/kL)	117	129	202
Management Cost ($/property)	80	110	135
Treatment Cost ($/property)	71	104	112
Pumping Cost ($/property)	20	44	65
Energy Cost ($/property)	10	21	27
Sewer Main Cost ($/property)	28	39	49
Capital Expenditure ($/property)	815	193	75

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 3: 2006-07 best practice management compliance

	WATER UTILITY (sorted on connected properties)	WATER SUPPLY & SEWERAGE REVENUE ($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) Residential Charges >=50% in 2006/07, 60% in 2007/08, and 75% in 2008/09 (Yes/No)	(2c) Complying non-Residential Charges (Yes/No)	(2d) 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 Criteria5 (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 & current trade waste 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 Criteria6 (Yes/No)	Proposed Dividend from Surplus $'000
	LWUs with >10,000 Properties																							
1	Gosford	55.6	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	947
2	Wyong	67.7	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
3	Shoalhaven	42.6	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	1,419	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	1,141
4	Rous (Bulk Supplier) (NO SGE)	9.6	Yes	Yes				Yes	Yes	Yes	Yes	Yes	Yes											
5	MidCoast (Unfiltered)	41.7	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes		Yes	Yes	Yes	Yes	Yes	Yes	Yes*	Yes	Yes	
6	Tweed	43.7	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes		Yes	Yes	Yes			Yes	Yes*	Yes	Yes	
7	Port Macquarie-Hastings (Unfiltered)	28.9	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes		Yes	Yes	Yes	Yes	Yes	Yes	Yes*	Yes	Yes	753
8	Riverina (Groundwater) (NO SGE)	18.0	Yes	Yes	Yes	Yes		Yes	Yes	Yes	Yes	Yes												
9	Wagga Wagga (NO WS)	11.5													Yes	Yes	Yes		Yes	Yes	Yes*	Yes	Yes	
10	Coffs Harbour (Unfiltered)	33.2	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	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 (Bulk Supplier, No Sge)	7.2	Yes*	Yes					Yes		Yes													
13	Tamworth Regional	24.2	Yes*	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	565	Yes*	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	486
14	Clarence Valley	17.8	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
15	Eurobodalla (Unfiltered)	20.6	Yes	Yes	Yes		Yes	Yes	Yes	Yes	Yes	Yes			Yes	Yes	Yes		Yes	Yes	Yes	Yes		
16	Wingecarribee	19.8	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
17	Queanbeyan (Reticulator)	16.1	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
18	Dubbo	19.7	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes		Yes	Yes	Yes	Yes	Yes	Yes	Yes*	Yes	Yes	
19	Orange	20.0	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
21	Bathurst Regional	15.6		Yes			Yes		Yes			Yes				Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
22	Lismore (Reticulator)	12.7	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	192	Yes	Yes	Yes	Yes	Yes	Yes	Yes*	Yes	Yes	14
23	Bega Valley (Unfiltered)	26.6	Yes	Yes	Yes	Yes	Yes	Yes	Yes		Yes	Yes			Yes	Yes	Yes	Yes		Yes	Yes*	Yes	Yes	
24	Ballina (Reticulator)	12.7	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	350
25	Kempsey (Groundwater)	12.4	Yes	Yes	Yes		Yes	Yes	Yes	Yes	Yes	Yes			Yes	Yes	Yes	Yes	Yes	Yes	Yes*	Yes	Yes	
26	Country Energy	15.4	Yes	Yes	Yes	Yes	Yes	Yes[e]	Yes	Yes	Yes	Yes	Yes		Yes	Yes	Yes	Yes		Yes[e]	Yes	Yes	Yes	
27	Byron (Reticulator)	14.2	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
28A	Goldenfields (Reticulator) (NO SGE)	6.2		Yes	Yes	Yes		Yes	Yes															
28B	Goldenfields (Bulk) (NO SGE)	6.5	Yes*	Yes				Yes	Yes															
% of LWUs 'Yes' (>10,000 connected properties)			92%	100%	88%	81%	85%	92%	100%	85%	92%	92%	**(Overall 91%)**		96%	100%	100%	87%	87%	100%	100%	100%	100%	**(Overall 97%)**	
	LWUs with 3,001 - 10,000 Properties																							
20	Goulburn Mulwaree	13.8		Yes	Yes		Yes	Yes	Yes	Yes	Yes	Yes			Yes*	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
29	Armidale Dumaresq	8.4	Yes*	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes		Yes*	Yes			Yes		Yes*	Yes	Yes	
30	Griffith	12.2	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes					Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes		
30A	Hawkesbury (NO WS)	3.8													Yes		Yes	Yes	Yes	Yes	Yes			
31	Lithgow	7.1	Yes		Yes		Yes	Yes	Yes	Yes	Yes	Yes			Yes		Yes	Yes	Yes		Yes	Yes	Yes	
32	Mid-Western Regional	8.2	Yes	Yes	Yes	Yes	Yes		Yes	Yes	Yes				Yes	Yes	Yes					Yes		
33	Richmond Valley	10.4	Yes	Yes	Yes	Yes	Yes	Yes	Yes		Yes	Yes			Yes	Yes	Yes	Yes		Yes	Yes*	Yes	Yes	
34	Nambucca (Groundwater)	5.2	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
35	Singleton	7.8	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes				Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes		
36	Parkes	7.4	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes		Yes	Yes	Yes	Yes	Yes	Yes	Yes*	Yes	Yes	
37	Inverell	5.9	Yes	Yes	Yes	Yes		Yes		Yes					Yes	Yes	Yes	Yes		Yes		Yes		
38	Moree Plains (Groundwater)	6.1	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes		Yes	Yes	Yes	Yes		Yes	Yes	Yes	Yes	
39	Cowra	5.9		Yes	Yes	Yes	Yes			Yes	Yes					Yes	Yes	Yes				Yes		
40	Central Tablelands (NO SGE)	3.6	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes											
41	Muswellbrook	9.6	Yes	Yes	Yes	Yes	Yes	Yes				Yes			Yes	Yes	Yes	Yes		Yes	Yes*	Yes	Yes	
42	Corowa	4.0	Yes		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes		Yes	Yes	Yes			Yes	Yes*	Yes	Yes	
43	Tumut	7.4	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
44	Gunnedah (Groundwater)	3.6	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes		Yes	Yes				Yes		Yes	Yes	
45	Upper Hunter	4.8	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
46	Narrabri (Groundwater)	3.3	Yes	Yes	Yes	Yes	Yes		Yes			Yes			Yes	Yes			Yes		Yes*	Yes	Yes	

Table 3: 2006-07 best practice management compliance (continued)

	WATER UTILITY (sorted on connected properties)	WATER SUPPLY & SEWERAGE REVENUE ($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) Residential Charges >=50% in 2006/07, 60% in 2007/08, and 75% in 2008/09 (Yes/No)	(2c) Complying non-Residential Charges (Yes/No)	(2d) 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 Criteria5 (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 & current trade waste 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 Criteria6 (Yes/No)	Proposed Dividend from Surplus $'000
47	Bellingen (Unfiltered)	4.4	Yes	Yes	Yes	Yes	Yes	Yes	Yes			Yes			Yes		Yes			Yes	Yes			
48	Leeton	4.8		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes*	Yes				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		Yes	Yes*	Yes	Yes	Yes		
50	Cooma-Monaro	4.8	Yes	Yes	Yes		Yes	Yes	Yes	Yes	Yes	Yes			Yes	Yes	Yes	Yes		Yes	Yes*	Yes	Yes		
51	Forbes	3.7	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes		Yes	Yes	Yes	Yes	Yes	Yes	Yes*	Yes	Yes	Yes	
52	Snowy River (Unfiltered)	3.3	Yes*	Yes	Yes		Yes	Yes	Yes			Yes			Yes*	Yes	Yes	Yes	Yes		Yes*	Yes	Yes		
53	Berrigan (Dual Supply)	3.4	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes				Yes	Yes	Yes			Yes		Yes			
54	Deniliquin	3.6	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes		Yes	Yes	Yes		Yes	Yes	Yes	Yes	Yes		
55	Warrumbungle	2.6	Yes*		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes			Yes	Yes	Yes			Yes		Yes	Yes		
% of LWUs 'Yes' (3,001 - 10,000 connected properties)			89%	89%	100%	86%	96%	89%	89%	82%	79%	79%	**(Overall 88%)**		93%	93%	89%	59%	59%	78%	74%	100%	78%	**(Overall 80%)**	
	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	Yes	Yes	Yes	Yes	Yes	Yes	
57	Wellington	3.7	Yes	Yes	Yes	Yes	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	Yes	Yes	Yes				Yes	Yes	Yes	Yes		Yes		Yes			
59	Lachlan	2.8	Yes	Yes	Yes	Yes	Yes		Yes		Yes				Yes		Yes				Yes*	Yes			
60	Glen Innes Severn	2.3	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
61	Liverpool Plains	1.5		Yes	Yes	Yes	Yes	Yes*			Yes	Yes				Yes		Yes	Yes	Yes[e]	Yes		Yes		
62	Narromine (Groundwater)	2.1	Yes	Yes	Yes	Yes	Yes	Yes	Yes		Yes				Yes	Yes	Yes	Yes		Yes	Yes	Yes			
63	Narrandera (Groundwater)	2.2	Yes	Yes	Yes	Yes	Yes		Yes	Yes	Yes				Yes	Yes	Yes	Yes				Yes			
64	Dungog (Reticulator)	1.7	Yes	Yes	Yes		Yes	Yes*	Yes	Yes	Yes	Yes			Yes	Yes	Yes			Yes*	Yes	Yes	Yes		
65	Murray (Dual Supply)	3.0	Yes*	Yes	Yes	Yes	Yes	Yes	Yes		Yes	Yes			Yes*	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes		
66	Cobar WB (Bulk Supplier, NO SGE)		Yes																						
67	Cobar	2.5		Yes	Yes	Yes	Yes		Yes							Yes					Yes	Yes			
68	Tenterfield	2.1	Yes		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes			Yes	Yes	Yes			Yes		Yes	Yes		
69	Temora (NO WS)	0.5													Yes	Yes									
70	Kyogle	3.4	Yes	Yes	Yes	Yes	Yes	Yes[e]	Yes	Yes	Yes	Yes	Yes		Yes	Yes	Yes	Yes	Yes	Yes[e]	Yes	Yes	Yes	Yes	
71	Palerang	2.4	Yes*	Yes	Yes	Yes	Yes	Yes	Yes						Yes*	Yes		Yes	Yes	Yes					
72	Bland (NO WS)	0.8													Yes*		Yes			Yes		Yes			
73	Upper Lachlan	2.0	Yes	Yes	Yes		Yes	Yes	Yes	Yes	Yes				Yes	Yes	Yes	Yes				Yes			
74	Wentworth (Dual Supply)	2.8	Yes	Yes	Yes	Yes	Yes	Yes	Yes			Yes			Yes					Yes		Yes	Yes		
75	Coonamble (Groundwater)	0.9	Yes	Yes	Yes	Yes	Yese		Yes	Yes	Yes				Yes	Yes	Yes	Yes		Yes[e]		Yes			
76	Harden (Reticulator)	1.9	Yes*	Yes	Yes	Yes	Yes	Yes	Yes						Yes*	Yes						Yes			
% of LWUs 'Yes' (1,501 - 3,000 connected properties)			89%	89%	100%	89%	100%	78%	94%	56%	78%	50%	**(Overall 82%)**		90%	85%	70%	60%	35%	70%	50%	85%	45%	**(Overall 66%)**	
	LWUs with 200 - 1,500 Properties																								
77	Junee (NO WS)	0.5													Yes	Yes									
78	Blayney (NO WS)	0.9													Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
79	Walgett (Dual Supply)	1.9								Yes	Yes	Yes									Yes	Yes	Yes		
80	Greater Hume	1.5	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes					Yes*		Yes	Yes				Yes			
81	Gwydir	1.3	Yes	Yes	Yes	Yes	Yes		Yes		Yes	Yes			Yes*			Yes					Yes		
82	Gloucester	1.7	Yes	Yes	Yes		Yes	Yes	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		Yes	Yes		
84	Gilgandra (Groundwater)	1.2	Yes	Yes	Yes	Yes	Yes	Yes[e]	Yes	Yes					Yes	Yes	Yes	Yes	Yes	Yes[e]	Yes*	Yes			
85	Uralla	1.0		Yes	Yes	Yes	Yes	Yes			Yes	Yes				Yes	Yes	Yes	Yes	Yes			Yes		
86	Hay (Dual Supply)	1.3	Yes	Yes	Yes		Yes	Yes[e]	Yes	Yes	Yes				Yes	Yes	Yes	Yes		Yes[e]	Yes*	Yes			
87	Bourke (Dual Supply)	1.7	Yes	Yes	Yes		Yes		Yes	Yes	Yes				Yes							Yes			
88	Wakool (Dual Supply)	1.9	Yes	Yes	Yes	Yes	Yes	Yes	Yes		Yes				Yes	Yes	Yes			Yes		Yes			
89	Bogan	1.4			Yes	Yes	Yes		Yes	Yes	Yes					Yes		Yes				Yes			
90	Guyra	1.3	Yes	Yes	Yes	Yes			Yes	Yes	Yes	Yes			Yes	Yes				Yes[e]	Yes*	Yes	Yes		
91	Cabonne	2.0	Yes	Yes	Yes	Yes	Yes	Yes	Yes			Yes			Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
92	Carrathool (Groundwater)	1.1		Yes	Yes	Yes	Yes		Yes													Yes			
93	Tumbarumba	1.0	Yes	Yes	Yes	Yes	Yes	Yes[e]	Yes	Yes		Yes			Yes	Yes	Yes	Yes	Yes	Yes[e]	Yes	Yes	Yes	Yes	

Table 3: 2006-07 best practice management compliance (continued)

	WATER UTILITY (sorted on connected properties)	WATER SUPPLY & SEWERAGE REVENUE ($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) Residential Charges >=50% in 2006/07, 60% in 2007/08, and 75% in 2008/09 (Yes/No)	(2c) Complying non-Residential Charges (Yes/No)	(2d) 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 Criteria5 (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 & current trade waste 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 Criteria6 (Yes/No)	Proposed Dividend from Surplus $'000
94	Gundagai	0.8		Yes	Yes	Yes	Yes		Yes		Yes	Yes				Yes	Yes	Yes	Yes	Yes			Yes	Yes		
95	Weddin (NO WS)	0.2													Yes								Yes			
96	Warren (Dual Supply)	0.9	Yes		Yes	Yes	Yes		Yes	Yes					Yes	Yes	Yes						Yes			
97	Bombala	0.8		Yes	Yes				Yes	Yes	Yes					Yes	Yes	Yes		Yes			Yes			
98	Walcha	1.0	Yes*	Yes	Yes	Yes	Yes		Yes		Yes				Yes*	Yes	Yes	Yes	Yes				Yes			
99	Coolamon (NO WS)	0.5													Yes	Yes							Yes			
100	Balranald (Dual Supply)	2.0	Yes*	Yes	Yes		Yes		Yes	Yes					Yes*		Yes	Yes					Yes			
101	Murrumbidgee (Groundwater)	0.5	Yes*	Yes	Yes	Yes	Yes		Yes						Yes*						Yes		Yes			
102	Lockhart (NO WS)	0.3													Yes		Yes	Yes								
103	Central Darling (Dual Supply)	0.7		Yes	Yes	Yes	Yes	Yes[e]	Yes							Yes				Yes[e]						
104	Boorowa	0.7		Yes	Yes		Yes	Yes[e]									Yes		Yes	Yes[e]			Yes			
105	Brewarrina	0.9				Yes			Yes		Yes					Yes	Yes						Yes			
106	Jerilderie (Dual Supply)	0.5	Yes	Yes	Yes	Yes	Yes		Yes	Yes					Yes	Yes	Yes	Yes					Yes			
107	Urana (NO WS)	0.2													Yes	Yes	Yes			Yes			Yes			
% of LWUs 'Yes' (200 - 1,500 connected properties)			60%	84%	92%	72%	84%	44%	88%	52%	52%	36%	**(Overall 66%)**		68%	68%	65%	55%	29%	45%	29%	84%	32%	**(Overall 53%)**		
TOTAL 'YES' for large LWUs (>$10M Revenue)[2]			26	29	26	23	25	27	29	24	26	26	19	3	25	26	26	23	22	26	26	26	25	18	6	
% of Large LWUs (29 WS LWUs and 26 SGE LWUs)			90%	100%	90%	79%	86%	93%	100%	83%	90%	90%	66%	10%	96%	100%	100%	88%	85%	100%	100%	100%	96%	69%	23%	
TOTAL 'YES' for remainder of LWUs (<$10M Revenue)[2]			54	59	66	56	63	47	61	44	47	38	15	0	61	60	55	42	30	46	36	67	38	14	0	
% of Small LWUs (69 WS LWUs and 75 SGE LWUs)			78%	86%	96%	81%	91%	68%	88%	64%	68%	55%	22%	0%	81%	80%	73%	56%	40%	61%	48%	89%	51%	19%	0%	
TOTAL 'YES' for all LWUs			80	88	92	79	88	74	90	68	73	64	34	3	86	86	81	65	52	72	62	93	63	32	6	
% all LWUs			82%	90%	94%	81%	90%	76%	92%	69%	74%	65%	35%	3%	85%	85%	80%	64%	51%	71%	61%	92%	62%	32%	6%	
													(Overall 81%)											**(Overall 72%)**		

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 2006/07 Annual Financial Statements, supplemented by other data provided to DWE by the LWU.

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

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

4 Where an LWU has not yet reported its revenue for 2006/07, the revenue reported for 2005/06 is shown in italics bold above.

5 The required criteria for water supply in 2006/07 are (1), (2), (2a), (2b), (2c), (2d), (3), (4), (5) and (6) except for bulk water suppliers which are not required to comply with criteria 2(a), 2(b) or 2(c) which refer to residential water tariffs.

6 The required criteria for sewerage in 2006/07 are (1), (2), (2a), (2b), (2c), (2d), (2e), (3) and (6).

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

9 Yes* in column (2e) for sewerage indicates that the LWU has a year 2002 or earlier trade waste policy, which needs to be updated.

10 As shown above, the overall levels of compliance with the outcomes of the Best-Practice Management Critieria for water supply (Criteria 1,2,2a,2b,2c,2d,3,4,5 and 6) were: 91% for LWUs with >10,000 properties; 88% for LWUs with 3,001 - 10,000 properties; 82% for LWUs with 1,501 - 3,000 properties and 66% for LWUs with 200 - 1,500 properties respectively. The overall level of compliance for water supply for all LWUs was 81%.

11 As shown above, the overall levels of compliance with the outcomes of the Best-Practice Management Critieria for sewerage (Criteria 1,2,2a,2b,2c,2d,2e,3 and 4) were: 97% for LWUs with >10,000 properties; 80% for LWUs with 3,001 - 10,000 properties; 66% for LWUs with 1,501 - 3,000 properties and 53% for LWUs with 200 - 1,500 properties respectively. The overall level of compliance for sewerage for all LWUs was 72%.

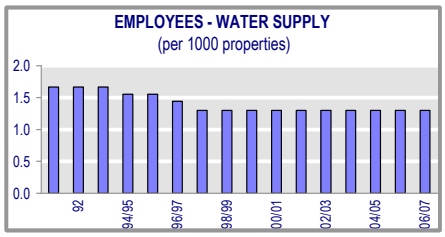
12 The overall compliance for water supply and sewerage was 77%.

Table 4: Trends in statewide performance indicators – 1991 to 2006-07

WATER SUPPLY

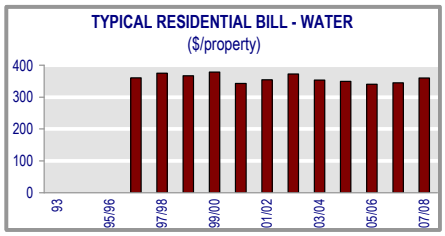
UTILITY CHARACTERISTICS

	92		94/95		96/97		98/99		00/01		02/03		04/05		06/07
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	1.3



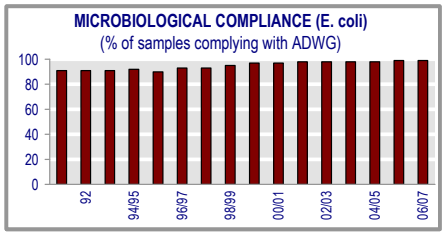
SOCIAL - Bills/Charges

	93		95/96		97/98		99/00		01/02		03/04		05/06		07/08
Typical Residential Bill ($/ property) (January 2008$)				361	375	367	379	343	355	373	353	350	341	345	360



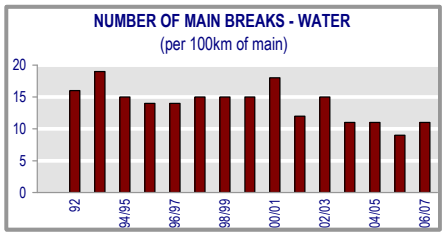
SOCIAL - Health

	92		94/95		96/97		98/99		00/01		02/03		04/05		06/07
Compliance with Microbiological' Drinking Water Guidelines (% of samples complying)	91	91	91	92	90	93	93	95	97	97	98	98	98	99	99



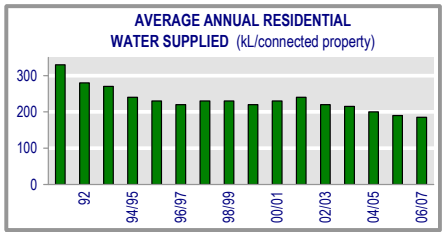
SOCIAL - Levels of Service

	92		94/95		96/97		98/99		00/01		02/03		04/05		06/07
Number of Main Breaks (per 100km of Main)	16	19	15	14	14	15	15	15	18	12	15	11	11	9	11



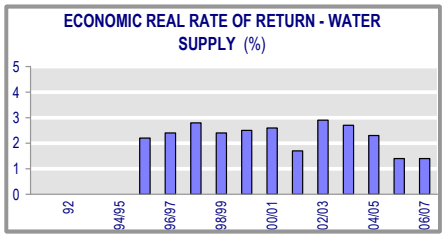
ENVIRONMENTAL

	92		94/95		96/97		98/99		00/01		02/03		04/05		06/07
Annual Residential Water Supplied (kL/connected property)	330	280	270	240	230	220	230	230	220	230	240	220	215	200	190	185



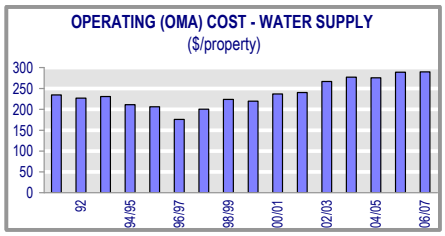
ECONOMIC - Financial

	92		94/95		96/97		98/99		00/01		02/03		04/05		06/07
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	1.4	1.4



ECONOMIC - Efficiency

	92		94/95		96/97		98/99		00/01		02/03		04/05		06/07
Operating (OMA) Cost ($/property) (January 2007$)	235	227	231	211	206	176	200	224	220	237	240	267	277	275	289	290



	92		94/95		96/97		98/99		00/01		02/03		04/05		06/07
Management Cost ($/property) (January 2007$)	71	71	83	78	71	75	82	100	92	95	101	106	109	106	114	115

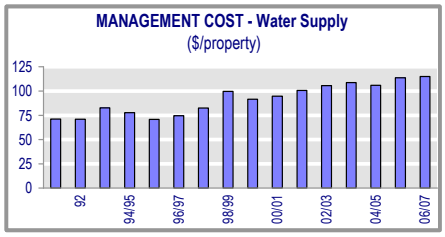
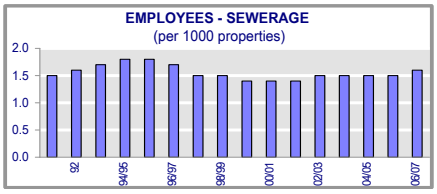


Table 4: Trends in statewide performance indicators – 1991 to 2006-07 (continued)

SEWERAGE

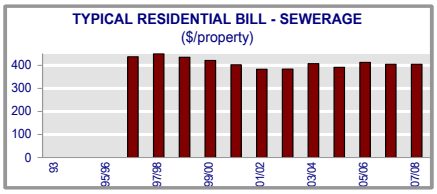
UTILITY CHARACTERISTICS

	92	94/95	96/97	98/99	00/01	02/03	04/05	06/07
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	1.5 1.6



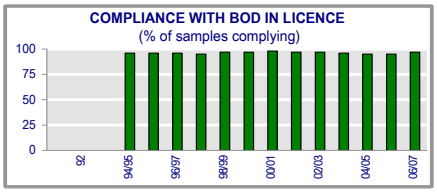
SOCIAL - *Bills/Charges*

	93	95/96	97/98	99/00	01/02	03/04	05/06	07/08
Typical Residential Bill ($/property) (January 2008$)	438	450 435	421 402	383 384	408 392	413 405	405	

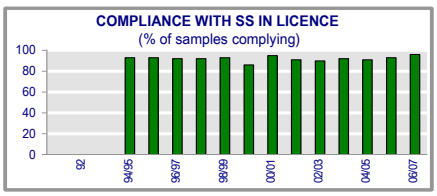


ENVIRONMENTAL

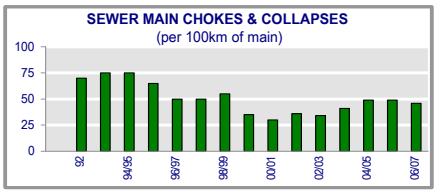
	92	94/95	96/97	98/99	00/01	02/03	04/05	06/07
Compliance with BOD in Licence (% of samples complying)	96	96 96	95 97	97 98	97 97	96 95	95 97	



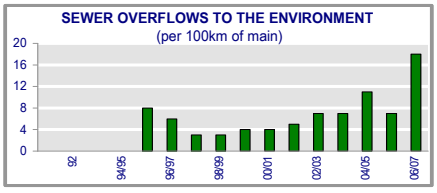
	92	94/95	96/97	98/99	00/01	02/03	04/05	06/07
Compliance with SS in Licence (% of samples complying)	93	93 92	92 93	86 95	91 90	92 91	93 96	



	92	94/95	96/97	98/99	00/01	02/03	04/05	06/07
Sewer Main Chokes and Collapses (per 100 km of Main)	70 75	75 65	50 50	55 35	30 36	34 41	49 49	46

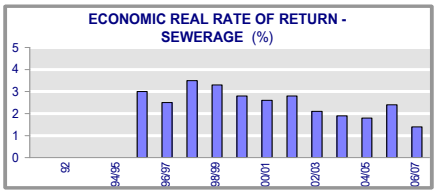


	92	94/95	96/97	98/99	00/01	02/03	04/05	06/07
Sewer Overflows to the Environment (per 100 km of Main)	8	6 3	3 4	4 5	5 7	7 11	7 18	



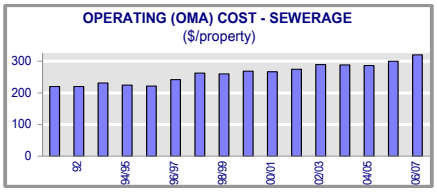
ECONOMIC - *Financial*

	92	94/95	96/97	98/99	00/01	02/03	04/05	06/07
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 2.4	1.4	

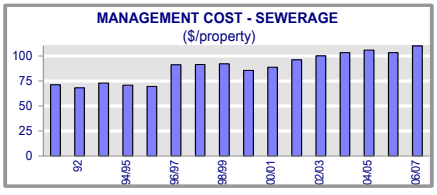


ECONOMIC - *Efficiency*

	92	94/95	96/97	98/99	00/01	02/03	04/05	06/07
Operating (OMA) Cost ($/property) (January 2007$)	220 220	231 225	221 242	262 260	269 266	275 289	288 286	299 320



	92	94/95	96/97	98/99	00/01	02/03	04/05	06/07
Management Cost ($/property) (January 2007$)	71 68	73 71	70 91	91 92	85 89	96 100	103 106	103 110



Notes:

1. The values shown are Statewide medians on a percentage of connected properties basis from 1991 to 2006/07, 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 1996/2004 NHMRC/NRMMC 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: 2006-07 NSW water utility performance summary

	WATER UTILITY	Water Supply											Sewerage						Water Supply & Sewerage - Current (2006/07) unless noted as 2007/08											
		Water Supply Connected Properties (No.)[5]	Total Urban Water Supplied Potable + Non-potable + Recycled (Excl Bulk) (ML)[2]	Average Annual Residential Water Supplied (kL/connected property)	Water Main Breaks (per 100km of Main)	Avge Duration of Unplanned Interruption (mins)	Revenue ($M)[8]	Water Quality Compliance (2004 NHMRC/NRMMC Guidelines)					Revenue ($M)[2,8]	% Sge Treated that was Compliant (%)	Sewer Overflows (No per 100km of Main)	Sewage Odour Complaints (per 1000 properties)	Recycled Water		Net Profit After Tax ($M)	2007/08 Typical Residential Bill ($/assessment)	2007/08 Typical Developer Charge ($/ET)	Current Replacement Cost per Assessment ($)	OMA Cost ($/connected property)	Mngmnt Cost ($/connected property)	ERRR (%)	Net Debt to Equity (%)	Capital Expenditure		Strategic Business Plans Prepared ? Note 15 (Yes/No)
								Chemical Note 11 (%)	E. coli Note 12 (%)	% Pop'n with E. coli Compliance	Water Quality Complaints						(% of effluent recycled)	(Total ML)									($/prop)	($M)	
		(1) C 1	(2) W8	(3) W 9	(3a) A 6	(3b) C 10	(4) F 1	(7)	(8)	(8a) H 3	(8b) C 3	(9) F 2	(10) E 4	(10) E 10	(11) C 4	(12) W 15	(12a) W 14	(13a) F 18	(13b) P5	(14)	(15)	(17) F8	(18)	(19) F12	(19a) F16	(19b) F11	(19c)	(21)
	Sydney Water	1,721,000	509,900	199	35	119	**810**	100	100	100	1	**899**	100	2.5	0.4	4.3	21,130	20	730	5,580		450		1.9	45		635	
	Hunter Water	217,000	70,600	192	37	176	**103**	100	100	100	4	**101**	99	53	1.7	8.3	4,060	29	668	3,650		438		2.3	24		105	
	Sydney Catchment Authority						**151**					**NO SGE**						22									88	
LWUs with > 10,000 Properties																													
1	Gosford	69,326	13,557	147	36	65	**25.8**	92	100	100	56	**29.8**	100	48	1.5	2	212	4.0	670	5,890	14,200	576	246	0.4	-2	466	32.3	Yes
2	Wyong	58,100	13,161	139	4	150	**39.2**	100	100	100	7	**28.5**	99	18	0.5	9	1,233	-5.8	697	4,800	17,900	597	214	2.3	6	911	53.0	Yes
3	Shoalhaven	44,800	13,011	165	14		**15.2**	100	100	100	3	**27.4**	92	26	1.0	27	1,919	18.0	759	10,540	21,500	588	244	1.5	1	927	41.5	Yes
4	Rous (Bulk Supplier) (NO SGE)	44,920	1,037	13	10	180	**9.6**	100	100	100		**NO SGE**						1.0		3,500	8,900	143	67	0.3	6	723	32.5	Yes
5	MidCoast (Unfiltered)	35,790	9,506	167	10		**17.7**	91	100	100	31	**24.0**	95	7	2.3	10	75	10.7	1,018	11,390	26,100	674	109	1.6	9	1,235	44.2	Yes
6	Tweed	28,900	9,838	199	10		**20.7**	93	100	98	1	**23.0**	91	6	2.3	5	340	7.7	832	14,800	37,700	622	266	0.7	-6	1,807	52.2	Yes
7	Port Macquarie-Hastings (Unfiltered)	29,200	6,714	157	4	180	**16.0**	91	100	100	6	**12.9**	50	19	2.8	4		2.4	834	11,750	23,900	626	188	0.8	-5	996	29.1	Yes
8	Riverina (Groundwater) (NO SGE)	27,300	17,559	410	20		**18.0**	100	100	99	3	**NO SGE**						3.2	388	3,300	8,000	277	75	5.1	-8	310	8.5	Yes
10	Coffs Harbour (Unfiltered)	23,310	5,708	179	9		**14.2**	100	100	100	3	**19.0**	87	1	0.3	10	636	13.0	1,046	11,520	22,600	615	223	3.0	-4	908	21.2	Yes
11	Albury	22,600	8,625	276	15		**8.9**	100	100	100		**10.4**	86	8	0.4	100	4,468	-4.2	643	7,560	25,000	559	207	-0.1	2	207	4.7	Yes
12	Fish River WS (Unfiltered, Bulk Supplier)	23,500	1,212	11	3		**7.2**	94	97			**NO SGE**						2.0			4,000	91	31		-13			Yes
13	Tamworth Regional	19,900	8,708	229	12		**12.0**	94	100	100	2	**12.2**	98	49	0.0	34	1,468	7.0	981	5,410	16,200	662	247	4.2	-18	368	7.3	Yes
14	Clarence Valley	19,500	6,356	184	10		**24.6**	80	97	97	8	**9.0**	86	13	0.9	4	103	27.2	842	12,230	23,800	590	294	8.7	-8	2,453	47.8	Yes
15	Eurobodalla (Unfiltered)	18,900	4,205	126	2		**10.1**	100	100	100	0	**10.5**	100	48	0.1	8	273	2.8	1,039	17,840	15,300	723	258	1.4	-2	410	7.7	Yes
16	Wingecarribee	17,600	4,936	214			**9.7**	93	100	100	19	**10.1**	81	53	1.9	3	87	4.7	879	12,500	18,200	575	237	3.2	-7	321	5.7	Yes
17	Queanbeyan (Reticulator)	15,500	4,437	211	6		**10.4**		100	100	0	**5.7**	100	13	0.0	2	81	2.4	925	8,200	23,500	752	194	0.3	-14	131	2.0	Yes
18	Dubbo	15,630	10,378	431	5	112	**11.0**	100	97	99	0	**8.7**	57	13	0.0	97	2,658	2.9	946	8,460	25,100	768	306	1.3	4	480	7.5	Yes
19	Orange	15,600	8,968	323			**12.3**	100	100	100	2	**7.7**	81	20	0.0	100	2,836	5.9	860	9,620	23,500	561	212	3.0	-11	487	7.6	Yes
21	Bathurst Regional	14,400	6,670	291	20		**8.5**	100	100	99	11	**7.2**	81	18	0.1	16	575	1.4	763	4,700	23,300	727	289	0.8	-9	1,481	21.3	Yes*
22	Lismore (Reticulator)	13,700	3,534	174	22	150	**5.6**	100	100	97	3	**7.1**	100	4	2.4	6	182	2.4	796	6,700	34,500	667	157	0.8	-6	329	4.5	Yes
23	Bega Valley (Unfiltered)	13,800	3,742	161	7		**6.9**	100	100	100	4	**8.2**	100	26	0.4	31	608	8.9	1,359	18,850	23,100	858	351	0.3	-3	1,555	21.5	Yes
24	Ballina (Reticulator)	13,400	4,265	198	3	120	**5.3**		100	100		**7.4**	98	4	0.7	6	193	2.3	712	10,970	20,900	725	223	0.6	-13	327	4.4	Yes
25	Kempsey (Groundwater)	12,100	4,061	184	9		**6.7**	100	100	99	1	**5.7**	70	26	0.6	6	119	1.4	1,010	14,100	39,000	623	246	1.2	3	310	3.8	Yes
26	Country Energy	10,700	6,831	278	10		**11.8**	100	100	100	0	**3.6**	68	25	0.3	48	641	-0.1	757		9,200	1,103	473			632	6.8	Yes
27	Byron (Reticulator)	10,500	3,191	181	9		**4.7**	100	100	100	4	**9.5**	92	12	3.7	29	824	1.6	1,052	16,150	32,600	893	270	1.1	2	562	5.9	Yes
28A	Goldenfields (Reticulator) (NO SGE)	10,600	6,295	294	15		**6.2**	100	100	100	4	**NO SGE**						1.3	539	4,200	16,100	308	83	-0.3	-13	575	6.1	
28B	Goldenfields (Bulk Supplier) (NO SGE)	17,810	773	0			**6.5**	100	100	100		**NO SGE**						0.4			8,000	238	40	0.4	-12	33	0.6	Yes
	Totals or Medians (% of LWUs basis excl bulk suppliers) for >10,000 Properties	*561,000*	*185,760*	*184*	*10*	*135*	*340.5*	*16 / 24 complied with chemical 23 / 26 complied with E. coli*				*287.7*			*0.6*	*10*	*19,531*		*855*	*11,390*	*23,400*	*644*	*245.4*	*1.3*	*-4*	*525*	*480*	
LWUs with 3,001 - 10,000 Properties																													
20	Goulburn Mulwaree	9,360	2,558	137	12	240	**6.1**	100	100	100		**7.7**	100	0	0.0	42	655	3.9	1,022	8,350	31,800	630	232	2.9	6	1,380	13.5	Yes*
29	Armidale Dumaresq	8,170	3,152	248	24		**4.7**	100	100	100	1	**3.7**	100	50	0.1	44	763	-0.4	771	7,680	19,000	809	346	-0.5	-6	147	1.2	Yes
30	Griffith	7,870	8,704	675	14	180	**7.3**	100	100	100	1	**4.9**	61	6	1.6	18	334	3.0	869	4,880	16,100	986	345	2.8	-11	640	4.9	Yes
31	Lithgow	7,710	***2,050***	***160***			**3.8**	100	100	100		**3.3**	40		0.3			-2.6	725	4,020	13,600	1,097	395	-7.9	-8	55	0.4	Yes
32	Mid-Western Regional	6,800	3,481	316	9	120	**4.9**	100	100	100		**3.3**	20	32	0.0			1.6	1,101	4,650	23,500	717	226	1.8	-5	292	1.9	Yes
33	Richmond Valley	6,490	3,165	254	12	120	**4.9**	90	100		4	**5.5**	98	2	1.1	18	329	2.9	1,196	13,880	27,200	833	383	2.8	-2	1,893	12.0	Yes
34	Nambucca (Groundwater)	6,120	1,744	156	2	120	**2.3**	100	100	100	3	**2.9**		5	0.0	***8***	***133***	1.6	617	7,790	22,400	467	163	1.3	-11	101	0.6	Yes
35	Singleton	6,010	2,772	269	11	120	**4.9**	100	100	100	1	**2.9**	58	13	0.0	50	646	4.0	766	6,800	19,700	552	168	4.4	-26	527	3.1	Yes
36	Parkes	5,910	5,060	239	16	120	**5.8**	100	100	100		1.6	14	31	1.7	21	160	2.9	734	9,210	29,600	769	107	1.7	-21	336	2.0	Yes
37	Inverell	5,320	***2,344***	***294***	6	60	**4.0**	100	100	100	2	1.9	99	4	0.0			1.8	919	9,790	20,700	632	215	2.3	-8	133	0.7	Yes
38	Moree Plains (Groundwater)	4,420	3,302	592	78	60	**3.2**	100	97			**2.9**		54	0.0			1.5	1,246	7,030	24,000	870	213	2.5	5	1,677	6.5	Yes
39	Cowra	5,220	2,507	256	11	180	**4.1**	100	100	100	37	1.8	60	54	0.0			0.8	1,046	5,250	10,100	766	418	2.9	-6	606	2.7	Yes*

Table 5: 2006-07 NSW water utility performance summary (continued)

	WATER UTILITY	Water Supply										Sewerage						Water Supply & Sewerage - Current (2006/07) unless noted as 2007/08										
		Water Supply Connected Properties (No.)[5] (1) C 1	Total Urban Water Supplied Potable + Non-potable + Recycled (Excl Bulk) (ML)[2] (2) W8	Average Annual Residential Water Supplied (kL/connected property) (3) W 9	Water Main Breaks (per 100km of Main) (3a) A 6	Avge Duration of Unplanned Interruption (mins) (3b) C 10	Revenue ($M)[8] (4) F 1	Water Quality Compliance (2004 NHMRC/NRMMC Guidelines) Chemical Note 11 (%) (7)	E. coli Note 12 (%) (8)	% Pop'n with E. coli Compliance (8a) H 3	Water Quality Complaints (8b) C 3	Revenue ($M)[2,8] (9) F2	% Sge Treated that was Compliant (%) (10) E 4	Sewer Overflows (No per 100km of Main) (10) E 10	Sewage Odour Complaints (per 1000 properties) (11) C 4	Recycled Water (% of effluent recycled) (12) W 15	Recycled Water (Total ML) (12a) W 14	Net Profit After Tax ($M) (13a) F 18	2007/08 Typical Residential Bill ($/assessment) (13b) P5	2007/08 Typical Developer Charge ($/ET) (14)	Current Replacement Cost per Assessment ($) (15)	OMA Cost ($/connected property) (17) F8	Mngmnt Cost ($/connected property) (18)	ERRR (%) (19) F12	Net Debt to Equity (%) (19a) F16	Capital Expenditure ($/prop) (19b) F11	Capital Expenditure ($M) (19c)	Strategic Business Plans Prepared ? Note 15 (Yes/No) (21)
40	Central Tablelands (NO SGE)	5,140	1,743	204	11	240	**3.6**	100	100	100	10	**NO SGE**						0.1	399	7,570	18,300	401	184	0.9	6	305	1.6	Yes
41	Muswellbrook	5,120	2,902	278	32	60	**5.2**	100	100	100	2	**4.4**	78	16	1.0	74	933	4.4	943	8,050	22,100	860	212	4.9	-14	554	2.8	Yes
42	Corowa	4,680	2,187	319	29	120	**2.1**	95	100	100	7	1.9	84	13	7.7	68	529	0.0	646	2,906	15,000	622	232	-0.9	-16	151	0.7	Yes
43	Tumut	4,260	1,458	165		240	**2.1**		100	100		**5.3**			0.0			3.9	716	8,810	23,100	646	135	5.7	-5			Yes
44	Gunnedah (Groundwater)	4,330	2,975	393	14	120	**2.5**	100	100	74	0	1.1	59	97	0.0	83	456	1.7	717	5,950	24,000	376	105	2.7	-13	311	1.3	Yes
45	Upper Hunter	4,040	1,979	270	57	60	**3.1**	100	97	15	2	1.7	100		2.1	51	460	2.1	862	7,640	18,400	714	301	2.9	-21	199	0.8	Yes
46	Narrabri (Groundwater)	4,330	***3,600***	***544***	182	180	1.5	100	100	99	23	1.8	23	8	0.8	58	554	0.5	741	4,000	17,500	574	191	0.1	-20	90	0.4	Yes
47	Bellingen (Unfiltered)	4,000	1,334	183	5	120	**2.5**	100	100	100	2	1.9	95	30	1.0			0.0	832	10,200	17,000							Yes
48	Leeton	3,970	***2,865***	***482***			**2.8**	100	100	100	3	**2.0**	100		2.0			1.4	858	5,800	22,400	777	305	3.1	-19	199	0.7	
49	Young (Reticulator)	4,270	1,765	221	21	120	**2.6**	100	100	100	4	1.3		219	0.0	15	114	1.7	811	3,100	14,400	536	55	6.9	-25	112	0.4	Yes
50	Cooma-Monaro	3,570	***1,700***	***314***			**2.5**	100	100			**2.3**						1.5	1,197	4,250	15,300	727	228	4.2	-14	388	1.3	Yes
51	Forbes	3,470	2,424	499	33	180	2.0	100	100	100	2	1.7	100	6	0.0	1	8	0.8	837	2,990	25,000	612	97	1.6	-7	181	0.6	Yes
52	Snowy River (Unfiltered)	3,880	904	133	7	120	1.6	100	100	93		1.7			0.0			0.8	938	9,000	28,100	554	159	1.3	-9	265	1.0	Yes
53	Berrigan (Dual Supply)	3,390	1,921	465	35	120	**2.3**	100	100	100	1	1.1	82		0.9	10	56	0.5	1,051	5,900	22,400	595	184	1.1	-9	483	1.6	Yes
	Totals or Medians (% of LWUs basis) for 3,001 - 10,000 Properties	*138,000*	*68,840*	*270*	*14*	*120*	*92.1*	*23 / 25 complied with chemical 24 / 26 complied with E. coli*				*70.6*			*0.1*	*42*	*6,130*		*848*	*6,110*	*21,400*	*646*	*213*	*2.5*	*-9*	*298*	*62*	
	LWUs with 1,501 - 3,000 Properties																											
54	Deniliquin	3,190	3,098	489	25	180	1.9	100	100	100	17	1.7	100		3.5	77	500	0.4	1,039	1,050	11,100	855	347	0.0	-19	330	1.0	Yes
55	Warrumbungle	3,920	1,022	225	10		1.5	100	96	94	38	1.1	89	86	0.0	25	108	-0.4	751	2,030	21,400	684	130	-4.0	-13	139	0.5	Yes
56	Yass Valley	3,000	842	197	8	240	1.6	100	100	100	1	1.4	100	3	0.0	52	171	0.0	941	13,350	16,200							Yes
57	Wellington	2,870	1,220	279	26	120	**2.3**	100	100	100		1.4	100		0.0	0	1	0.9	1,094	5,790	17,000	726	283	4.2	14	965	2.6	Yes
58	Cootamundra (Reticulator)	2,950	931	224	39	120	1.3					0.9			0.0	***39***	***185***	-0.9	658	5,890	13,500	583	92	0.1	-4			Yes
59	Lachlan	2,550	1,455	364	6	60	1.9	78	100	100		0.9	72		0.0	21	112	0.0	932		21,100							Yes
60	Glen Innes Severn	2,860	***830***	***188***			1.3	100	95		4	1.0	100			2	13	0.1	695	4,450	16,800	522	217	0.5	-3			Yes
61	Liverpool Plains	2,530	***950***	***238***			0.9	100	100			0.6						-0.2	665	4,000	18,200	611	213	-3.1	-11	177	0.4	
62	Narromine (Groundwater)	2,050	1,180	374			1.1	50	100	100		1.0	100					-2.2	832	2,520	10,800	637	262	2.8	-36			Yes
63	Narrandera (Groundwater)	2,010	1,460	487			1.3	75	95			0.9						-1.8	926		11,300	779	259	4.2	-36	511	0.9	Yes*
64	Dungog (Reticulator)	1,990	606	198	41	240	1.1	100	100			0.6	2	67	0.0	97	180	0.3	762	7,000	17,700	799	221	1.7	-13	432	0.6	Yes
65	Murray (Dual Supply)	2,600	1,500	439	9	120	1.7		100	100	0	1.3	79		0.4	18	93	0.9	977	4,180	22,600	555	206	2.0	2	284	0.7	Yes
67	Cobar	2,090	***2,190***	***709***			1.9	100	100	100		0.6				***25***	***105***	0.7	1,135	2,180	15,000	668	67	3.6	-16	424	0.9	
66	Cobar WB (Bulk Supplier)		0									**NO SGE**																Yes
68	Tenterfield	1,930	433	177	7	120	1.1	63	96	80	12	1.0	98		0.0	39	126	0.2	971	3,000	30,600	794	385	0.1	-11	201	0.3	Yes
70	Kyogle	1,820	501	197	7	120	0.9	100	100		2	**2.5**	76		0.0	18	55	2.0	924	2,000	24,200	600	218	10.4	-7	1,454	2.4	Yes
71	Palerang	1,790	***520***	***170***			1.0	100	100	65		1.4						0.0	1,315	6,090	9,400							Yes
73	Upper Lachlan	1,850	534	219	5	120	1.1	50	97	75		0.8	74		0.0			0.4	1,211	4,400	19,300	658	195	3.3	-2	473	0.8	Yes
74	Wentworth (Dual Supply)	2,180	290	560			2.0	100	100	100		0.9				***3***		0.1	1,133	6,430	16,800	717	148	1.4	2	22	0.0	Yes
76	Harden (Reticulator)	1,760	540	317	7	60	1.5					0.4			0.0	***15***	***85***	0.2	1,100		22,000	928	153	1.4	-1	300	0.4	Yes
75	Coonamble (Groundwater)	1,590	1,214	462	39	60	0.4	100	100	96	13	0.5	57		0.0	18	50	0.1	550		20,500	478	51	-3.2	-44	146	0.2	Yes
	Totals or Medians (% of LWUs basis excl bulk suppliers) for 1,501 - 3,000 Properties	*48,000*	*22,900*	*238*	*8*	*120*	*27.6*	*12 / 17 complied with chemical 13 / 18 complied with E. coli*				*20.9*			*0.0*	*21*	*1,784*		*936*	*4,095*	*17,350*	*668*	*213*	*1.4*	*-11*	*315*	*12*	

Table 5: 2006-07 NSW water utility performance summary (continued)

WATER UTILITY		Water Supply										Sewerage						Water Supply & Sewerage - Current (2006/07) unless noted as 2007/08										
		Water Supply Connected Properties (No.)[5]	Total Urban Water Supplied Potable + Non-potable + Recycled (Excl Bulk) (ML)[2]	Average Annual Residential Water Supplied (kL/connected property)	Water Main Breaks (per 100km of Main)	Avge Duration of Unplanned Interruption (mins)	Revenue ($M)[8]	Water Quality Compliance (2004 NHMRC/NRMMC Guidelines)				Revenue ($M)[2,8]	% Sge Treated that was Compliant	Sewer Overflows (No per 100km of Main)	Sewage Odour Complaints (per 1000 properties)	Recycled Water		Net Profit After Tax ($M)	2007/08 Typical Residential Bill ($/assessment)	2007/08 Typical Developer Charge ($/ET)	Current Replacement Cost per Assessment ($)	OMA Cost ($/connected property)	Mngmnt Cost ($/connected property)	ERRR (%)	Net Debt to Equity (%)	Capital Expenditure		Strategic Business Plans Prepared ?
								Chemical Note 11 (%)	E. coli Note 12 (%)	% Pop'n with E. coli Compliance	Water Quality Complaints		(%)			(% of effluent recycled)	(Total ML)									($/prop)	($M)	Note 15 (Yes/No)
		(1) C 1	(2) W8	(3) W 9	(3a) A 6	(3b) C 10	(4) F 1	(7)	(8)	(8a) H 3	(8b) C 3	(9) F 2	(10) E 4	(10) E 10	(11) C 4	(12) W 15	(12a) W 14	(13a) F 18	(13b) P5	(14)	(15)	(17) F8	(18)	(19) F12	(19a) F16	(19b) F11	(19c)	(21)
LWUs with 200 - 1,500 Properties																												
79	Walgett (Dual Supply)	1,590	1,506	935	91		1.3	100	100	100		0.6	100			***83***	***517***	-0.3	985		21,200	830	333	-1.5	-15			
80	Greater Hume	1,590	743	300	21	180	0.8	100	100			0.7	92		0.0	24	101	-0.2	515	7,400	25,900	626	156	-0.9	-7	111	0.2	Yes
81	Gwydir	1,450	746	260	22	180	0.8	29	100	100	8	0.5	32	85	0.0	17	30	0.0	1,139	4,000	20,000							Yes
82	Gloucester	1,670	391	165	12	240	1.0	100	100	100	3	0.7	100	32	2.0			0.1	772	11,830	17,000	889	180	-2.7	-13	171	0.3	Yes
83	Oberon (Reticulator)	1,350	756	155	22	120	1.1	100	100	100	2	0.5		18	0.0			0.1	609	2,500	9,400	753	153	0.8	-9	110	0.1	Yes*
84	Gilgandra (Groundwater)	1,360	960	455	41	120	0.7	100	100	100	11	0.5	100	9	3.0	81	215	0.5	902		18,100	405	53	3.7	-12	198	0.3	Yes
85	Uralla	1,570	335	161	27	120	0.5	100	96		20	0.5	75	7	1.0			-0.2	764	760	17,100	678	170	-1.3	-7	124	0.1	
86	Hay (Dual Supply)	1,310	1,643	1,290	32	300	0.7	100	100	100		0.6	100		0.0			0.2	844		21,900	602	152	0.2	-17	125	0.2	Yes
87	Bourke (Dual Supply)	1,180	3,136	2,820	87	180	1.1	100	90		4	0.6	25		1.9			0.0	1,442	860	25,800	1,119	129	-0.1	-7			Yes
88	Wakool (Dual Supply)	1,340	1,478	1,260	0		1.4	100	100	100		0.5	100		0.9			0.5	1,383		36,700	709	134	1.8	1	240	0.3	Yes
89	Bogan	1,060	876	515	30		1.0	100	100	100	1	0.4	100		0.0			-0.1	966		21,700	1,197	475	-1.2	-8	18	0.0	
90	Guyra	1,170	453	221	17	120	0.9	100	100	100	1	0.5	75	6				0.4	1,016	1,050	25,700	703	289	1.5	-2			Yes
91	Cabonne	1,100	331	161	11	240	0.8	88	100	100	5	1.2	93	9	0.4	25	69	0.7	708	8,560	24,100	762	169	2.4	-14	107	0.2	Yes
92	Carrathool (Groundwater)	1,090	579	378			1.0	71	100	83	3	0.1	100		2.5	8	8	-0.1	847	1,490	64,700	946	159	-0.2		305	0.3	Yes*
93	Tumbarumba	1,140	***380***	***214***			0.6	80	100	81		0.4						0.2	827	870	26,400	479	190	1.4	-13	256	0.3	Yes
94	Gundagai	1,060	742	244	8	60	0.5	100	100	100	6	0.3	100	1	1.1	99	105	0.1	499		25,200	621	136	0.8	-6	57	0.1	
96	Warren (Dual Supply)	960	577	415	58		0.5	50	100	96	18	0.5	100		3.6	4	6	0.1	936		22,200	631	176	-0.4	-3			Yes
97	Bombala	840	226	242	31		0.4	100	100	100	4	0.3			0.0	***20***	***35***	0.3	934	3,260	29,300	533	198	1.4	-6			Yes*
98	Walcha	880	232	189	2	120	0.6	100	100	100	2	0.4	100	27	0.0			0.2	844		24,900	697	157	0.8	-3			Yes
100	Balranald (Dual Supply)	810	777	1,080	13		1.8	100	100	100		0.2	100					1.1	1,046	1,590	30,100	660	176	6.4	2	3,595	2.9	Yes
101	Murrumbidgee (Groundwater)	840	1,044	760	45	60	0.3	100	100	100		0.2	100	5	1.4	5	8	0.2	647	2,000	12,700	365	147	2.1	-29	102		Yes
103	Central Darling (Dual Supply)	730	342	470	30	120	0.6	100	100	80	7	0.1	100	31				0.0	1,178		33,800	1,043		-0.2	-8			Yes*
104	Boorowa	620	***210***	***375***			0.4	83	96			0.2						0.3	1,188	900	32,000	455	58	3.8	-1			
105	Brewarrina	480	270	366	82		0.6	100	97	83	4	0.3	100			81	170	0.3	1,320		35,800	1,265	144	2.6	-8			
106	Jerilderie (Dual Supply)	460	365	886	19	120	0.3	100	100	100		0.3				6	5	0.2	1,454	3,180	27,100	736	206	2.2	-18	60		Yes
Totals or Medians (% of LWUs basis) for 200 - 1,500 Properties		*28,000*	*18,970*	*366*	*25*	*120*	*19.8*	*19 / 25 complied with chemical 21 / 25 complied with E. coli*				*11.0*			*0.9*	*22*	*1,269*		*934*	*2,000*	*25,200*	*700*	*159*	*0.8*	*-8*	*124*	*5*	
LWUs without Water Supply																												
9	Wagga Wagga (NO WS)	**NO WS**	22,700									**11.5**	35	35	0.1	15	747	4.9	333	3,500	10500	211	46	3.6	-9.7	190	4.3	Yes
30A	Hawkesbury	**NO WS**	7,110									**3.8**						-0.1	414	5,590	13800	443		-0.3	-4.2	42	0.3	
69	Temora	**NO WS**	2,080									0.5			1.0	91	310	0.1	211		6500	155	37	0.7	-5.1	88	0.2	Yes
72	Bland	**NO WS**	1,830									0.8	100			***45***	***129***	0.1	476	1,000	8800	324	141	-0.2	-24.7	199	0.4	Yes
77	Junee	**NO WS**	1,600									0.5	100	100	0.0	60	10	0.1	314	550	11000	230	54	0.5	-7.1	45	0.1	Yes
78	Blayney	**NO WS**	1,550									0.9	100	100	0.0	48	135	0.3	420	2,040	13200	301	129	2.0	-9.9	17	0.0	Yes
95	Weddin	**NO WS**	970									0.2	100		0.0			-0.1	195		6700	124	27	-13.2	-42.5	3	0.0	Yes
99	Coolamon	**NO WS**	960									0.5				***74***	***70***	0.2	255		10400	147	57	2.3	-8.7	134	0.1	
102	Lockhart	**NO WS**	830									0.3	100	100	0.0	100	136	-0.2	344	1,000	12500	330	30	-2.2	-15.3			Yes
107	Urana	**NO WS**	300									0.2	100	100				0.0	207	4,100	20600	309	116	0.5	-5.1			Yes
Totals or Medians (% of LWUs basis) for LWUs without WS			*40,000*									*19.2*			*0.0*	*60*	*1,537*		*324*	*1,520*	*10750*	*265*	*54*				*5*	
Statewide Totals & Medians [6]			775,000 WS Connected Properties	296,000 ML (note 6)	Median 185kL/connected property (note 7)	Median 11 Breaks per (note 7)	Median 120 minutes (note 7)	Total $476M (note 6)	71% of LWUs complied with chemical guidelines 83% of LWUs complied with E.coli guidelines		Median 3 Quality Complaints per 1000 props	Total $404M (note 6)	71% of LWUs complied with BOD licence requirement	Median 18 Overflows per 100km	Reuse of effluent was carried out by 70% of LWUs 19% of effluent collected was recycled		Total 30,000 ML	Total $185M	Median $765 per assessment (note 7)	Median $7,900 per ET (note 7)	Median $21,000 per assessment (note 7)	Median $610/ connected (note 7)	Median $225/ connected property (note 7)	Median 1.6% (note 7)	Median -3% (note 7)	Median $495 per assess (note 7)	Total $565M (note 7)	89 Yes 8 Yes* (note 14)

Table 5: 2006-07 NSW water utility performance summary (continued)

Notes

1. This table shows the key 2006/07 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 *2006/07 NSW Water Supply and Sewerage Benchmarking Report* (www.deus.nsw.gov.au/water).
2. **No WS** means not responsible for water supply;
   No SGE means not responsible for sewerage. For LWUs with water supply only or sewerage only, the results are shown left justified and are not included in the median calculation for water supply and sewerage.
3. Where an LWU has not reported an item for 2006/07, the value previously reported has been used where available. Such values are shown in this table in ***italics bold*** .
4. The number of connected properties for LWUs responsible for sewerage only (column (1)) is sewerage properties.
5. **NSW Water Utilities**
   In NSW in 2006/07, there were 111 water utilities comprising:
   - 4 metropolitan water utilities (Sydney and Hunter Water Corporations, Sydney Catchment Authority (SCA) 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.
6. **Totals for Non-metropolitan NSW**
   The totals shown above are for non-metropolitan NSW & therefore exclude Sydney & Hunter Water Corporations, the SCA and Hawkesbury Council. The totals exclude double-counting where bulk water suppliers are involved.
   - ***Total number of water supply connected properties*** in non-metropolitan NSW was 775,000 (col (1)).
   - ***Total annual water supplied*** was 296,000 ML (column (2)).
   - ***Total revenue*** for water supply and sewerage was $880M (columns (4) and (9)) and the current replacement cost of assets was $17,000M ($9,300M for Water, $7,700M for Sewerage) (Tables 11 & 16).
7. **Statewide medians (non-metropolitan) were:**
   - ***Average annual residential water supplied*** - 185kL/connected property (column (3)).
   - ***Typical residential bill (TRB)*** for water and sewerage - $765/assessment (column(13b). The 2007/08 TRB for water supply has been calculated on the basis of each LWU's 2007/08 tariff using the 2006/07 average annual residential water supplied (column (3)). The TRB for sewerage is based on the LWU's access charge (col(1)) of Appendix F except for 3 LWUs where account was also taken of the usage charges. The TRB in col (13b) is for 2007/08. However, NWI indicators P2, P4 and P5 are defined as the TRB for 2006/07 and will therefore differ from those shown in column (13b). The 2006/07 TRBs are shown in column 8 of Tables 6 and 7.
   - ***Typical developer charge*** for water and sewerage - $7,900/ET for 2007/08 (col (14) and Tables 6 and 7).
   - ***Economic real rate of return (ERRR)*** for water and sewerage - 1.6% (column (19)). As shown in Figures 13 and 14 of the *2006/07 NSW Water Supply and Sewerage Performance Monitoring Report* , 93% of LWUs are achieving full cost recovery for water supply and 89% are achieving full cost recovery for sewerage. The remaining 6 water utilities and 7 sewerage utilities with over 1,000 properties which are not achieving full cost recovery have agreed to do so by June 2009. Refer also to Tables 6 and 7.
   - ***Net debt/equity*** for water and sewerage was -3% (column (19a)).
   - ***Water main breaks*** - 11 breaks per 100km of main (column (3a)).
   - ***Average duration of unplanned interruptions (water supply)*** - 120 minutes (column (3b)).

7. cont'd **Statewide medians (non-metropolitan):**
   - ***Water quality complaints*** - 3 per 1000 properties (column (8b)).
   - ***Operation, maintenance and administration (OMA)*** cost for water and sewerage - $610/connected property (column (17)). The OMA cost excludes the purchase cost of water. However, NWI indicator F8 includes the purchase cost of water and therefore may differ from the figures in col (17).
   - ***Management cost*** for water supply and sewerage - $225/connected property (column (18)).
   - ***Current replacement cost*** for water supply and sewerage - $21,000/assessment (column (15)).
   - ***Capital expenditure*** for water supply and sewerage - $495/property (column (19b)). The total capital expenditure for water supply and sewerage was $565M (column (19c)).
8. **Category 1 Businesses** - Category 1 businesses are defined as having an annual revenue of over $2M (*NSW Government's Policy Statement on Application of National Competition Policy to Local Government, June 1996*). 72 LWUs are Category 1 businesses (shown in bold in Cols (4) & (9)). Column (4) shows there were 55 LWUs responsible for water supply with a revenue of over $2M; and 41 such utilities responsible for sewerage (column (9).
9. **Pay-for-use water supply tariff** - 93 of the 95 water supply LWUs have a pay-for-use water supply tariff in 2007/08 (ie. a two-part tariff or an inclining block tariff). Such tariffs comply with IPART recommendations and the *COAG Strategic Framework for Water Reform* .
10. **Pay-for-Use Pricing & Full Cost Recovery** - For water supply, 90% of LWUs have pay-for-use pricing in 2007/08, residential tariffs independent of land value together with full cost recovery (col 2 of Appendix C).
    For sewerage, 85% of LWUs have tariffs independent of land value and full cost recovery (col 2 of Appendix C).
    Such LWUs comply with the *COAG Strategic Framework for Water Reform* and the *National Water Initiative* .
11. **Physical and chemical water quality** - 96% of the 25,130 physical samples and 95% of the 29,140 chemical samples tested for NSW LWUs achieved 100% compliance with the 2004 NHMRC/NRMMC Guidelines.
    Col (7) shows that 71% of LWUs complied with chemical water quality (health related).
12. **Microbiological water quality** - E.coli contamination is the primary health-related indicator.
    - ***E.coli*** - 99% of the 18,700 samples tested for NSW LWUs achieved 100% compliance with the 2004 NHMRC/NRMMC Guidelines. 83% of LWUs complied with these guidelines (column 8).
13. **Compliance with DECC Discharge Licence for Sewerage**
    - ***BOD*** - 97% of the 5,120 sampling days for NSW LWUs achieved 100% compliance with the 90-percentile limit of their DECC licence for BOD (Biochemical Oxygen Demand). 71% of LWUs complied with the DECC licence.
    - ***SS*** - 96% of the 5,120 sampling days for NSW LWUs achieved 100% compliance with the 90-percentile limit of their DECC licence for SS (Suspended Solids). 57% of LWUs complied with their DECC licence for SS. (11 LWUs had no DECC discharge licence and 21 did not report BOD or SS)
14. **Strategic Business Plans** - 89 LWUs have completed a sound water supply and/or sewerage Strategic Business Plan (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.
    8 LWUs have prepared draft Strategic Business Plans for their businesses but further development of these draft business plans is required; these are shown as "Yes*" in column 21.
15. **Total Water Supplied** (col (2)) includes non-potable and recycled water (see Table 8).
    Similarly, the average annual residential water supplied (col (3)) includes non-potable and recycled water.
16. **National Water Initiative (NWI) Indicators** - The 30 NSW water supply utilities with over 10,000 connected properties (3 metropolitan utilities and 27 non-metropolitan utilities) are required to report their performance under the NWI. The results that have met the rigorous NWI auditing requirements have been published in the *National Performance Report 2006-07* and are shown in Appendix G of the *2006/07 NSW Water Supply and Sewerage Performance Monitoring Report* .
    Refer also to Notes 19 and 20 on page 28.
17. The performance indicators for Sydney and Hunter Water Corporations and Sydney Catchment Authority are from the *National Performance Report 2006-07 for Urban Water Utilities* .

Table 5A: Water utilities with both water supply and sewerage – levels of service and financial

	WATER UTILITY	LEVELS OF SERVICE: Billing Complaints WS & Sge (per 1000 properties) (22) C 6			Average Telephone Connect Time (seconds) (23) C 9			Greenhouse Emissions WS & Sge (tonnes CO2 per 1000 properties) (24) E 9		FINANCIAL: Total Revenue WS & Sge ($M) (24a) F 3			Capital Expenditure (Assets, Renewals, Plant/Equip) WS & Sge ($ per prop) (24b) F 11			Return on Assets WS & Sge (%) (24c)			Economic Real Rate of Return WS & Sge (%) (25) F 12			Net Debt to Equity WS & Sge (%) (26) F 16			Interest Cover WS & Sge (27) F 17			Dividend Paid WS & Sge ($'000) (29) F 15			CSOs WS & Sge ($'000) (30) F 19			% Revenue from CSOs WS & Sge (%) (31) F 5		Net Profit after Tax Ratio WS & Sge (%) (32) F18/F3	
		04/05	05/06	06/07	04/05	05/06	06/07	05/06	06/07	04/05	05/06	06/07	04/05	05/06	06/07	04/05	05/06	06/07	04/05	05/06	06/07	04/05	05/06	06/07	04/05	05/06	06/07	04/05	05/06	06/07	04/05	05/06	06/07	05/06	06/07	05/06	06/07
	Sydney Water		3	3		20	21	208	234		1515	1,709			369				3.8	2.7	1.9		46	45		3	2		120,000	193,000		86,075	89,676	6	5	18	20
	Hunter Water		6	5		90	64	299	394		190	204			484				3.2	3.9	2.3		13	24		8	6		33,800	35,100		9,103	8,993	5	4	38	29
	Sydney Catchment Authority																												15,387	16,581							
LWUs with > 10,000 Properties																																					
1	Gosford							435	386		56.7	55.6	188	210	466		0.9	0.8	-0.7	0.7	0.4		-6.9	-2.3		>100	>100		1,313	947		543	1,038	1	2	8	7
2	Wyong						9				52.1	67.7	392	517	911		0.5	2.2	1.1	1.0	2.3		2.4	5.8		>100	22					1,272	1,294	3	2	4	-4
3	Shoalhaven					1	1		404		43.9	42.6	596	553	927		3.0	1.6	4.0	1.7	1.5		-3.0	0.9		>100	>100		2,559	2,560		903	830	2	2	28	42
5	MidCoast					5		255	328		48.1	41.7	540	1143	1235		4.2	1.9	4.7	4.5	1.6		9.4	8.6		10	>100					524	952	1	2	26	26
6	Tweed					30	30		445		32.8	43.7	605	291	1807		2.0	1.1	5.3	1.2	0.7		-17.3	-5.8		>100	>100					746	720	3	2	16	18
7	Port Macquarie-Hastings		1	1		21	19	421	685		32.1	28.9	738	1223	996		1.1	1.3	2.1	1.4	0.8		-10.8	-4.9		>100	>100		759	753		654	688	2	2	12	8
11	Albury City		4					975	401		19.8	19.3	138	201	207		-0.1	-0.2	0.2	0.3	-0.1		1.6	1.9		2	30					332	331	2	2	-2	-22
10	Coffs Harbour		0	0							37.1	33.2		392	908		4.2	3.4	6.8	4.8	3.0		-9.0	-3.8		>100	>100					468	452	1	1	42	39
13	Tamworth Regional		3								26.8	24.2	108	307	368		5.0	5.3	3.3	5.7	4.2		-16.0	-17.9		>100	>100		1,013	1,051		355	359	1	1	40	29
15	Eurobodalla							359	413		19.1	20.6	642	1484	410		0.8	1.4	4.1	0.7	1.4		-1.9	-2.4		>100	>100		691			375	359	2	2	4	14
17	Queanbeyan		5	14		5	5		129		15.7	16.1	135	192	131		0.5	1.4	0.4	-0.5	0.3		-15.3	-14.3		>100	>100					166	160	1	1	7	15
19	Orange						36		455		21.0	20.0	182	500	487		1.9	3.9	1.9	3.6	3.0		-15.0	-11.1		>100	>100					268	232	1	1	17	29
20	Goulburn Mulwaree			0				78	167		11.4	13.8	818	1443	1380		3.7	2.3	2.7	3.8	2.9		12.7	5.7		12	8					175	173	2	1		27
18	Dubbo		3			30	21	555	646		18.8	19.7	708	1615	480		2.2	1.1	2.5	3.1	1.3		7.1	3.7		>100	31					183	186	1	1	18	15
16	Wingecarribee										19.9	19.8	503	818	321		2.6	3.3	2.7	3.5	3.2		-5.4	-7.0		>100	>100					267	269	1	1	26	24
14	Clarence Valley		1	1							19.0	33.6		541	2453		1.3	9.5		1.5	8.7		-16.9	-7.5		>100	>100					403	388	2	2	19	74
21	Bathurst Regional		1						245		14.3	15.6	367	365	1481		0.5	1.0	-0.6	0.6	0.8		-11.4	-9.3		>100	>100					186	188	1	1	7	9
24	Ballina					60					12.7	12.7	112	244	327		0.7	1.7	-1.7	-0.3	0.6		-20.1	-12.9		>100	>100		350	350		280	304	3	2	6	18
22	Lismore						10				15.4	12.7	118	402	329		4.7	1.2	2.8	3.1	0.8		-12.6	-6.0		>100	>100		210	206		247	218	2	2	37	19
Totals for >10,000 Properties												*$526M*													*No. of LWUs paying dividend is 6*						*No. of LWUs with +ve NPAT ratio is 16*						
LWUs with 3,001 - 10,000 Properties																																					
23	Bega Valley		1			10	10	265	172		13.6	15.0	641	1410	1555		0.0	1.0	0.9	-0.2	0.3		-10.0	-3.0		>100	>100					288	228	2	1	0	55
27	Byron		4			20			191		14.0	14.2	1733	886	562		1.1	1.0	0.0	2.6	1.1		1.4	2.1		>100	>100					159	152	1	1	8	11
26	Country Energy		7	1			20	1122			15.9	15.4		275	632				-0.3	0.5							>100					306	286	2	2	7	0
25	Kempsey		0			3			332		12.5	12.4	452	503	310		14.5	0.9	4.4	1.7	1.2		-96.3	2.5		3	7					238	118	2	1	11	11
31	Lithgow					5					7.2	7.1	85	75	55		1.4	-6.8	-0.5	1.8	-7.9		-17.7	-8.4			>100					172	176	2	2	6	-34
29	Armidale Dumaresq			0					23		8.2	8.4	76	154	147		-0.5	-0.2	-0.4		-0.5		-10.0	-5.9			>100					122	122	2	1	-6	-5
30	Griffith		6	5							12.4	12.2	849	348	640		2.1	3.6	3.1	2.0	2.8		-11.5	-11.2		>100	>100					116	115	1	1	16	23
33	Richmond Valley		1	1							9.7	10.4	218	319	1893		6.0	3.2	2.2	6.5	2.8		-15.4	-2.4		>100	>100					171	170	2	2	36	25
32	Mid-Western Regional		2	2		30					7.9	8.2	955	214	292		1.7	1.9	2.8	1.6	1.8		-4.7	-5.3		>100	>100					128	128	2	2	15	18
34	Nambucca		11	9							6.1	5.2	114	245	101		3.3	1.8	3.4	3.4	1.3		-15.2	-10.6		>100	>100					137	136	2	3	32	28
35	Singleton			0							8.3	7.8	265	327	527		4.8	6.5	3.5	5.0	4.4		-27.4	-25.8		>100	>100					75	74	1	1	42	43
37	Inverell		1	1		5	5				5.6	5.9	328	243	133		2.7	2.7	1.3	2.9	2.3		-10.7	-8.1		>100	>100					127	128	2	2	20	28
41	Muswellbrook			0							8.6	9.6	898	271	554		7.6	6.0	6.0	8.9	4.9		-21.9	-14.4		>100	>100					70	67	1	1	40	42
36	Parkes			0					12		8.5	7.4	181	412	336		4.1	3.6	2.0	4.3	1.7		-32.8	-21.4		>100	>100					111	125	2	2	35	31
42	Corowa		3	0		10	30				4.3	4.0	105	269	151		0.5	0.5	-0.1	-0.2	-0.9		-14.7	-15.9		>100	>100					99	95	3	2	6	0
38	Moree Plains			5					1,883		6.4	6.1	294	246	1677		2.9	2.6	2.5	2.1	2.5		6.0	5.3		>100	>100					0	0	0	0	15	23

Table 5A: Water utilities with both water supply and sewerage – levels of service and financial (continued)

	WATER UTILITY	LEVELS OF SERVICE						FINANCIAL																							
		Billing Complaints WS & Sge (per 1000 properties) (22) C 6			Average Telephone Connect Time (seconds) (23) C 9			Greenhouse Emissions WS & Sge (tonnes CO2 per 1000 properties) (24) E 9			Total Revenue WS & Sge ($M) (24a) F 3			Capital Expenditure (Assets, Renewals, Plant/Equip) WS & Sge ($ per prop) (24b) F 11			Return on Assets WS & Sge (%) (24c)			Economic Real Rate of Return WS & Sge (%) (25) F 12			Net Debt to Equity WS & Sge (%) (26) F 16			Interest Cover WS & Sge (27) F 17			Dividend Paid WS & Sge ($'000) (29) F 15			CSOs WS & Sge ($'000) (30) F 19			% Revenue from CSOs WS & Sge (%) (31) F 5		Net Profit after Tax Ratio WS & Sge (%) (32) F18/F3	
		04/05	05/06	06/07	04/05	05/06	06/07	05/06	06/07	04/05	05/06	06/07	04/05	05/06	06/07	04/05	05/06	06/07	04/05	05/06	06/07	04/05	05/06	06/07	04/05	05/06	06/07	04/05	05/06	06/07	05/06	06/07	05/06	06/07
44	Gunnedah	5	30			20				3.2	3.6				311	2.7	3.7		1.4	3.1	2.7	-19.5	-13.1		>100	>100				51	0	2	0	28	41
46	Narrabri	9	9		35	60		464	263	3.6	3.3			192	90	1.8	1.9		1.1	1.4	0.1	-18.4	-19.9		>100	>100				69	69	2	2	18	13
43	Tumut									5.2	7.4					3.3	6.5		2.4	2.9	5.7	-15.9	-5.5		>100	>100				77	65	2	1	31	49
49	Young	6	1							4.0	3.9		146	195	112	8.5	8.8		10.2	13.0	6.9	-34.3	-25.0		>100	>100				80	80	2	2	37	38
39	Cowra	2	3							4.9	5.9		138	461	606	-0.3	2.9		-0.3	0.4	2.9	-8.4	-6.3		5	>100				105	105	2	2	-5	13
45	Upper Hunter		2			30				4.9	4.8		83	250	199	3.7	5.0		3.6	3.4	2.9	-26.7	-21.2		>100	>100				79	76	2	2	29	36
52	Snowy River	14	3		30	30				3.4	3.3				265	1.6	1.9				1.3		-9.3			>100				0	20	0	1	17	23
51	Forbes	1	0							4.2	3.7		1167	280	181	4.0	1.7		3.2	4.4	1.6	-7.7	-7.1		>100	>100				63	63	2	2	31	19
50	Cooma-Monaro									4.4	4.8		114	168	388	2.6	5.1		2.2	3.2	4.2	-12.7	-14.1		>100	>100				64	62	2	1	21	29
53	Berrigan	8	8							3.8	3.4		56	269	483	1.6	1.8		1.4	1.5	1.1	-17.3	-8.8		>100	>100				79	41	2	1	19	15
Totals for 3,001 - 10,000 Props											*$205M*														*No. of LWUs paying dividend is 0*						*No. of LWUs with +ve NPAT ratio is 23*			
LWUs with 1,501 - 3,000 Properties																																			
48	Leeton	3			20					4.9	4.8		221	245	199	4.8	4.0		2.2	4.6	3.1	-20.6	-19.0		>100	>100				66	66	1	1	34	27
54	Deniliquin	5	3							4.1	3.6		111	137	330	1.6			3.5	2.4	0.0	-23.8	-18.8		>100	>100				71	71	2	2	12	9
47	Bellingen		3							4.4	4.4		230	176		-1.0			-0.1	-3.4		-26.1				>100				99		3		-13	
60	Glen Innes Severn	22								2.3	2.3			421		1.1				1.2	0.5	-11.3	-3.2		>100	>100				58	57	3	2	13	4
58	Cootamundra	2	1							2.8	2.2			266		2.5	0.0		-1.6	3.2	0.1	-3.8	-4.0		66	3				78	76	3	3	19	-38
57	Wellington	117	111		40	40				4.3	3.7		708	2166	965	6.9	3.5		3.0	8.1	4.2	11.0	14.5		11	11				65	64	2	2	31	21
91	Cabonne	23	5							2.2	2.0		266	74	107	2.2	3.7		4.9	3.8	2.4	-21.5	-13.6		>100	>100				44	44	2	2	27	26
80	Greater Hume		0		30	30				1.6	1.5		171	187	111	-0.7	-0.5		0.3	-1.3	-0.9	-8.8	-6.6		>100	>100				41	39	3	3	-10	-10
59	Lachlan		2			12			454	2.8	2.8		636	129		1.0			-0.9	-0.4		-21.4			>100	>100				45		2		11	
65	Murray	1	1		10	10				2.6	3.0			310	284	4.0	2.0		4.7	4.4	2.0	10.5	1.9		9	63				51	48	2	2	21	30
62	Narromine									2.1	2.1			251		1.1	5.1		-0.3	1.7	2.8	-27.6	-36.0		>100	>100				38	37	2	2	9	-97
56	Yass Valley	3	3		10					3.0	3.0		150						3.6							>100				0		0		0	
61	Liverpool Plains									1.8	1.5		31	81	177	1.1	-1.4		-1.1	-18.7	-3.1	-23.7	-11.5		>100	>100				51	64	3	4	10	-10
55	Warrumbungle		13							1.9	2.6				139		-1.3		-2.1		-4.0		-12.5			>100				0	70	0	3	0	-14
71	Palerang	1								2.4	2.4					3.1										>100				0		0		26	
63	Narrandera									2.6	2.2		110	1055	511	4.2	8.0		6.9	3.4	4.2	-38.6	-35.7		>100	>100				48	45	2	2	31	-65
67	Cobar	3			3			22		2.2	2.5		55	228	424	0.9	4.2		0.1	0.1	3.6	-16.7	-15.8		>100	>100				24	24	1	1	8	26
74	Wentworth	10			5					3.0	2.8		36	132	22	0.8	0.9		0.1	2.0	1.4	7.3	1.8		3	7				35	35	1	1	8	4
75	Coonamble	1	8							1.6	0.9				146	3.9	1.1		-1.5	2.8	-3.2	-50.2	-44.2		>100	>100				29	26	2	3	38	8
Totals for 1,501 - 3,000 Props											*$50M*														*No. of LWUs paying dividend is 0*						*No. of LWUs with +ve NPAT ratio is 9*			
LWUs with 200 - 1,500 Properties																																			
70	Kyogle	4	3		1	1		224	152	1.6	3.4		371	308	1454	-1.3	10.7		-0.3	-1.6	10.4	-8.1	-6.7			>100				53	52	3	2	-14	59
79	Walgett							573	547	2.0	1.9					-1.4	-1.4		-2.5	-3.5	-1.5	-23.0	-14.7			>100				22	23	1	1	-10	-14
68	Tenterfield	2	3			10				1.8	2.1		206	190	201	0.0	0.8		-4.3	-1.3	0.1	-17.9	-11.1		>100	>100				43	43	3	2	0	8
84	Gilgandra	11	13		30	30			405	1.1	1.2		181	135	198	2.7	4.4		1.0	3.6	3.7	-14.9	-11.5		>100	>100				26	26	2	2	23	36
73	Upper Lachlan		5		60	20			460	1.8	2.0			102	473	1.0	3.3		1.0	1.2	3.3	-1.7	-1.9		13	>100				30	31	2	2	10	17
82	Gloucester		2			15		266	295	1.7	1.7		540	382	171	0.5	0.4		12.0	0.2	-2.7	-17.5	-13.2		>100	>100				36	36	2	2	3	3
87	Bourke		9							1.5	1.7			115		-3.3	0.4		-4.0	-3.4	-0.1	-13.9	-7.0			>100				11	10	1	1	-12	-1

Table 5A: Water utilities with both water supply and sewerage – levels of service and financial (continued)

	WATER UTILITY	LEVELS OF SERVICE						FINANCIAL																					
		Billing Complaints WS & Sge (per 1000 properties) (22) C 6			Average Telephone Connect Time (seconds) (23) C 9			Greenhouse Emissions WS & Sge (tonnes CO2 per 1000 properties) (24) E 9			Total Revenue WS & Sge ($M) (24a) F 3			Capital Expenditure (Assets, Renewals, Plant/Equip) WS & Sge ($ per prop) (24b) F 11			Return on Assets WS & Sge (%) (24c)			Economic Real Rate of Return WS & Sge (%) (25) F 12			Net Debt to Equity WS & Sge (%) (26) F 16			Interest Cover WS & Sge (27) F 17			Dividend Paid WS & Sge ($'000) (29) F 15			CSOs WS & Sge ($'000) (30) F 19			% Revenue from CSOs WS & Sge (%) (31) F 5		Net Profit after Tax Ratio WS & Sge (%) (32) F18/F3	
		04/05	05/06	06/07	04/05	05/06	06/07	05/06	06/07	04/05	05/06	06/07	04/05	05/06	06/07	04/05	05/06	06/07	04/05	05/06	06/07	04/05	05/06	06/07	04/05	05/06	06/07	04/05	05/06	06/07	05/06	06/07	05/06	06/07
86	Hay	3	2				60			1.3	1.3		404	193	125	0.3	1.3		-1.9	-0.6	0.2	-12.7	-17.1		>100	>100				24	24		2	2		3	11
83	Oberon	5							80	1.6	1.6		41	182	110	1.4	1.5		1.5	2.1	0.8	-8.6	-8.8		>100	>100				18	18		1	1		10	5
81	Gwydir	5	4							1.3	1.3					-1.3									>100				0			0			-12	
64	Dungog		15		15	15				1.8	1.7		80	417	432	3.3	2.4		5.3	3.3	1.7	-20.2	-12.9		>100	>100				43	42		3	2		18	15
85	Uralla		1							1.1	1.0		38	79	124	-0.1	-1.0		0.0	-1.2	-1.3	-18.1	-6.6		>100	>100				27	33		3	3		0	-21
89	Bogan				10	10				1.2	1.4				18	-1.8	-0.8		-0.9	-2.7	-1.2	-14.5	-7.6			>100				0	17		0	1		-15	-9
76	Harden	24	14				1			1.7	1.9				300	-2.0	1.4		-4.5	-2.2	1.4	-3.0	-1.3			63				36	36		2	2		-7	10
88	Wakool			0			40			1.6	1.9		524	445	240	0.0	1.7		2.0	1.9	1.8	4.3	0.9		7	22				26	26		2	1		17	28
93	Tumbarumba	2								1.2	1.0		273	394	256	3.5	2.4		2.7	4.3	1.4	-23.7	-12.9		>100	>100				20	19		2	2		24	20
94	Gundagai	8	9						359	0.7	0.8		93	29	57	1.1	1.1		0.0	0.3	0.8	-11.9	-5.9		>100	>100				19	19		3	2		8	17
92	Carrathool	1	1							1.1	1.1		445		305	-0.8	-0.1		0.2	-1.6	-0.2	-5.1				>100				15	13		1	1		-9	-10
96	Warren	31	30				60			1.0	0.9		101	180		2.1	1.6		-1.3	-0.4	-0.4	-16.0	-2.7		>100	>100				15	15		2	2		19	10
98	Walcha	226	9							0.8	1.0					0.0	1.1		-1.0	-0.8	0.8	-5.4	-3.2			>100				14	8		2	1		-4	18
100	Balranald	2	0							0.9	2.0			151	3595	0.4	6.3		0.6	0.9	6.4	1.1	1.7		2	56				0			0			7	55
97	Bombala		0		20				184	0.8	0.8					3.6	2.1		4.0	3.7	1.4	-17.5	-5.8		>100	>100				19	18		3	2		30	32
101	Murrumbidgee	2	50				120		49	0.6	0.5		37	150	102	2.9	4.8		2.2	2.3	2.1	-21.3	-29.3		>100	>100				14	12		3	2		33	31
90	Guyra		2						324	1.2	1.3		800			0.7	1.3		1.1	0.9	1.5	-1.6	-2.0		>100	11				25	57		2	4		9	27
104	Boorowa									0.7	0.7					3.0	3.8		2.7	3.2	3.8	1.9	-1.1		19	>100				14	15		2	2		35	42
105	Brewarrina		0							0.8	0.9		346			2.8	2.7		3.7	3.4	2.6	-22.9	-7.5		>100	>100				4	4		1	0		12	33
106	Jerilderie		0				5			0.6	0.5			35	60	4.3	3.5		3.0	4.4	2.2	-33.3	-18.0		>100	>100				10	10		2	2		29	34
103	Central Darling	10	25		20	30				0.8	0.7					-0.1	0.0		-2.8	0.2	-0.2	-4.5	-8.0		>100	>100										-1	-6
	Totals for 200 - 1,500 Props										*$38M*																										
																									No. of LWUs paying dividend is 0						*No. of LWUs with +ve NPAT ratio is 21*					
	LWUs with a single service (WS or Sge)																																				
4	Rous (Bulk Supplier) (NO SGE)		0						86	10.9	9.6				723	0.4			0.3			5.9			>100					11			0			15	11
8	Riverina (Groundwater) (NO SGE)		0						557	15.1	18.0				310	4.3			5.1			-7.9			6					201			1			17	24
12	Fish River WS (Bulk Supplier, NO SGE)		0						76	5.8	7.2								7.9			-12.6			>100												28
28A	Goldenfields (Reticulator) (NO SGE)								1,627	10.0	6.2				575	1.6			-0.3			-12.8			>100					97			2				17
40	Central Tablelands (NO SGE)		0						386	3.8	3.6				305	0.4			0.9			6.4			2					56			2			-3	3
66	Cobar WB (Bulk Supplier, NO SGE)																								>100												
9	Wagga Wagga (NO WS)		0							12.2	11.5				190	4.3			3.6			-9.7			>100					152			1			52	49
69	Temora (NO WS)									0.5	0.5				88	1.0			0.7			-5.1			>100					24			5			10	17
72	Bland (NO WS)									1.1	0.8				199	1.5			-0.2			-24.7			>100					21			3			30	12
77	Junee (NO WS)									0.5	0.5				45	0.7			0.5			-7.1			>100					20			4			12	14
78	Blayney (NO WS)		0							1.0	0.9				17	2.2			2.0			-9.9			>100								2			21	30
95	Weddin (NO WS)		0							0.2	0.2				3	-10.4			-13.2			-42.5			>100					15			8			-43	-32
99	Coolamon (NO WS)									0.5	0.5				134	3.0			2.3			-8.7			>100					13			3			35	45
102	Lockhart (NO WS)									0.3	0.3					-1.4			-2.2			-15.3			>100					10			3			0	-57
104	Boorowa (NO WS)		0							0.2	0.2					0.7			0.5			-5.1			>100					4			2			-10	10
	Totals for all LWUs										*Revenue for single service LWUs is $63 M*														*No single service LWUs paid a dividend*						*Single service LWUs with +ve NPAT is 12*					
											Total Revenue is $880 M including single service LWUs														*Total No. of LWUs paying dividend is 6*						*Total No. of LWUs with +ve NPAT is 81*					

Table 6: Water supply – residential chargers, bills and cost recovery

	WATER UTILITY	RESIDENTIAL CHARGES - Current and 2007/08																				BILLS			COST RECOVERY													
		Type of Tariff	Access Charge (or Minimum)				Usage Charge										Operating Cost (OMA)			Typical Developer Charge			Typical Residential Bill			Return on Assets			ERRR			Residential Revenue from Usage Charges		Annual Residential Water Supplied**		Connected Properties
							Step 1				Step 2																											
			($)				Step (kL)		Charges (c/kL)			Step (kL)			Charges (c/kL)			(c/kL)			($/ET)			($/assessment)			(%)			(%)			(% of residential		kL/property			
			(1)	(2)			(5a)		(5b)			(5c)			(5d)			(6)			(7)			(8)			(11)			(12)			(13)		(14)		(15)
		P1																						P2						F13			F4		W9		C1
		07/08	2002/03	05/06	06/07	07/08	06/07	07/08	05/06	06/07	07/08	05/06	06/07	07/08	05/06	06/07	07/08	04/05	05/06	06/07	05/06	06/07	07/08	05/06	06/07	07/08	04/05	05/06	06/07	04/05	05/06	06/07	05/06	06/07	05/06	06/07	06/07
	Sydney Water	Inclining Block	75	76	64	56	<400	<400	120	126	134	>400	>400	>400	148	163	183	74	70	88	1,800	1,800	840	319	308	322				3.8	2.7	1.9	75	82	203	199	1,721,000
	Hunter Water	Declining Block	26	32	35	38	<1000	<1000	109	114	120	>1000	>1000	>1000	103	110	49	44	39	49	900	900	560	255	255	268				3.2	5.0	3.5	67	65	204	192	217,000
	LWUs with > 10,000 Properties																																				
1	Gosford	Two Part	70	81	83	85	All	All	93	112	136							108	117	159	2,300	2,300	2,300	247	248	285	-0.6	-0.8	-0.1	-1.9	-1.3	-0.4	71	68	180	147	69,330
2	Wyong	Two Part	80	92	108	111	All	All	93	112	138							91	101	153	2,500	2,500	2,500	244	264	303	1.1	1.8	2.8	2.2	1.4	3.2	68	66	163	139	58,100
3	Shoalhaven	Inclining Block	220	95	79	61	<450	<450	70	80	95	>450	>450	>450	105	120	143	57	57	76	3,000	4,120	5,270	215	211	218	2.2	3.3	1.1	3.1	0.8	0.6	55	62	171	165	44,800
4	Rous (Bulk Supplier) (No S	Two Part		104	108	112	All	All	96	96	99							54	58	58	3,280	3,380	3,500				1.6	1.7	0.4	0.2	0.5	0.3		78			44,920
5	MidCoast (Unfiltered)	Inclining Block		140	130	130	All	<200	120	135	145			>200			165	92	86	97	3,800	4,800	4,900	354	355	372	5.5	4.0	3.7	4.2	6.6	2.4	70	72	178	167	35,790
6	Tweed	Two Part	105	90	95	95	All	All	82	104	123							68	76	88	4,330	4,330	10,000	261	318	340	1.6	4.1	1.9	4.2	1.1	1.4	68	72	208	199	28,900
7	Port Macquarie-Hastings (U	Inclining Block	180	113	110	110	<270	<270	125	138	153	>270	>270	>270	250	276	306	111	143	123	7,850	8,040	8,300	327	327	350	0.7	3.3	0.9	2.3	1.3	1.1	71	74	171	157	29,200
8	Riverina (Groundwater) (No	Two Part	80	80	80	80	All	All	70	72	75							39	42	43	2,300	2,800	3,300	334	375	388	2.4	2.5	4.3	2.3	3.1	5.1	77	80	362	410	27,300
10	Coffs Harbour (Unfiltered)	Inclining Block	175	200	104	108	<365	<365	136	182	189		>365	>365		200	227	83	80	93	5,990	5,990	6,590	450	430	446	5.2	6.2	3.5	6.5	5.6	2.9	63	78	184	179	23,310
11	Albury City	Inclining Block	153	84	84	87	<225	<225	45	47	50	>250	>225	>225	90	94	100	32	52	63	2,125	3,400	3,400	243	238	251	-0.1	0.2	0.0	0.1	-0.2	-0.3	72	70	302	276	22,600
12	Fish River WS (Bulk Supplier) (No Sge)		MAQ	MAQ	MAQ	MAQ																						0.1									23,500
13	Tamworth Regional	Inclining Block	128	150	155	170	<450	<400	80	83	90	>450	>450	>400	85	88	135	58	63	78	3,610	3,700	3,820	405	345	376	3.9	2.4	3.5	2.0	4.4	2.7	67	60	319	229	19,900
14	Clarence Valley	Inclining Block	218	90	96	104	All	<450	98	105	113			>450			170		72	75	4,140	4,140	4,230	323	289	312	1.2		10.2		1.0	9.8	21	73	238	184	19,500
15	Eurobodalla (Unfiltered)	Inclining Block	230	220	240	285	All	<450	120	130	160			>450			240	118	135	153	8,980	9,230	9,540	411	404	486	1.5	3.4	2.2	3.4	1.1	1.5	46	43	159	126	18,900
16	Wingecarribee	Inclining Block	197	197	99	99	<300	<300	53	124	124	>150	>300	>300	143	185	185	62	72	89	2,510	5,500	5,500	336	364	364	3.4	3.9	4.6	4.1	4.5	3.8	46	65	192	214	17,600
17	Queanbeyan (Reticulator)	Inclining Block	216	238	247	254	<176	<176	100	145	160	>176	>176	>176	150	195	215	80	132	127	6,730	6,960	7,060	463	570	611	0.2	1.0	1.1	0.8	-0.1	0.6	55	61	209	211	15,500
18	Dubbo	Inclining Block	210	175	110	116	<550	<550	70	87	87	>550	>550	>550	105	131	138	59	68	67	2,640	4,000	4,230	444	485	490	1.9	1.9	0.8	2.2	2.9	1.1	56	83	385	431	15,630
19	Orange	Inclining Block	300	102	102	106	<450	<450	141	141	146	>450	>450	>450	212	212	219	103	90	52	5,870	6,050	6,200	427	558	577	3.8	3.4	5.1	3.6	6.0	4.6	75	75	230	323	15,600
21	Bathurst Regional	Inclining Block	250	250	259	269	<300	<300	50	43	45	>255	>300	>300	80	85	90	61	69	87	2,560	2,650	2,650	365	384	400	0.2	0.0	0.6	-0.1	0.3	0.5	41	43	267	291	14,400
22	Lismore (Reticulator)	Two Part	86	100	100	100	All	All	111	122	135							106	106	119	1,940	1,940	2,020	317	312	335	5.7	1.9	0.9	1.4	4.2	0.6	70	71	196	174	13,700
23	Bega Valley (Unfiltered)	Two Part	146	125	135	130	All	All	110	140	210							115	118	133	4,500	4,500	10,700	304	361	469	0.1	1.1	0.8	0.8	-0.2	0.0	65	66	163	161	13,800
24	Ballina (Reticulator)	Inclining Block	90	95	95	100	<350	<350	82	90	107	>350	>350	>350	105	120	160	101	134	105	4,510	4,510	4,510	267	273	312	-0.4	-0.9	0.8	-2.6	-1.7	0.1	64	66	209	198	13,400
25	Kempsey (Groundwater)	Two Part	412	265	265	276	All	All	86	89	99							62	78	85	7,470	7,470	7,650	418	428	457	1.6	6.0	0.7	6.6	1.9	1.1	32	38	178	184	12,100
26	Country Energy	Inclining Block	226	185	185	209	<400	<400	71	76	79	>400	>400	>400	220	236	236	93	169	136				410	396	429				0.7			62	59	317	278	10,700
27	Byron (Reticulator)	Two Part	95	101	103	115	All	All	108	120	127							121	129	129	6,490	6,460	6,460	307	320	345	1.3	1.3	0.7	-0.3	1.1	0.2	68	71	190	181	10,500
28A	Goldenfields (Reticulator) (	Two part	204	204	204	204	All	All	106	110	114							85	122	50	2,000	3,100	4,200	533	527	539			1.6	-1.9	-2.3	-0.3	65	66	311	294	10,600
28B	Goldenfields (Bulk Supplier) (No Sge)																		41	40									0.4	2.8	2.8	0.4	67	65			17,810
	Medians (% of LWUs basis excl bulk suppliers) for >10,000 Properties				*106*	*110*				*112*	*124*								*88*	*91*		*4,330*	*5,085*		*353*	*372*			*1.3*		*1.3*	*1.1*	*64*	*68*	*194*	*184*	
	LWUs with 3,001 - 10,000 Properties																																				
20	Goulburn Mulwaree	Inclining Block	225	256	208	230	<292	<292	70	126	140	>292	>292	>292	157	181	200	124	124	124	2,860	2,860	3,250	356	381	422	1.4	1.2	1.1	0.3	1.5	1.2	37	42	143	137	9,360
29	Armidale Dumaresq	Inclining Block	180	219	219	240	<200	<200	77	77	92	>400	>200	>200	103	103	123	91		121	3,620	3,620	3,620	407	423	483		-0.1	-0.7	-0.6		-0.9		59	243	248	8,170
30	Griffith	Inclining Block	210	153	135	108	<200	<200	30	35	40	>200	>200	>200	55	60	65	33	40	51	2,930	2,930	3,110	490	490	497	3.2	10.4	4.4	5.0	3.3	3.5	67	70	703	675	7,870
31	Lithgow	Inclining Block	250	200	206	206	<500	<500	85	85	85	>500	>500	>500	160	160	160	116	124	176	2,230	2,230	2,230	344	342	342	-1.6	-0.4	-4.0	-2.0	-1.9	-5.2	44	41	195	160	7,710
32	Mid Western Regional	Two Part	248	265	292	312	All	All	96	104	108							108	90	82	2,800	2,800	2,800	575	621	654	1.5	2.8	1.2	2.7	1.2	1.3	42	48	322	316	6,800
33	Richmond Valley	Inclining Block	140	215	140	120	<200	<200	55	105	120	>200	>200	>200	80	150	160	77	85	94	2,330	4,800	4,950	330	431	446	1.8	2.7	2.9	2.8	1.6	2.3	37	64	207	254	6,490
34	Nambucca (Groundwater)	Two Part	145	85	85	70	All	All	90	100	110							58	58	65	3,780	3,890	3,970	247	241	242	4.1	3.5	3.0	3.6	4.3	2.1	65	67	180	156	6,120
35	Singleton	Two Part	194	194	180	180	All	All	77	77	83							61	59	76	2,730	4,110	4,250	452	387	404	5.7	4.8	6.8	5.4	6.6	4.7	57	51	335	269	6,010
36	Parkes	Inclining Block	330	295	295	307	<365	<365	60	65	70	>365	>365	>365	160	170	175	39	52	64	5,110	5,110	5,110	519	450	474	3.7	2.9	4.0	1.9	4.0	1.9	51	53	368	239	5,910
37	Inverell	Inclining Block	210	245	255	265	All	<700	100	100	100			>700			120	94	101	90	4,240	4,240	6,780	476	549	559	3.6	2.4	3.4	2.3	3.5	3.1	46	47	231	294	5,320

Table 6: Water supply – residential chargers, bills and cost recovery (continued)

	WATER UTILITY	RESIDENTIAL CHARGES - Current and 2007/08																	BILLS			COST RECOVERY									
		Type of Tariff	Access Charge (or Minimum)				Usage Charge Step 1						Usage Charge Step 2				Operating Cost (OMA)			Typical Developer Charge			Typical Residential Bill			Return on Assets			ERRR			Residential Revenue from Usage Charges (% of residential		Annual Residential Water Supplied** kL/property		Connected Properties
		(1) P1	($) (2)				Step (kL) (5a)		Charges (c/kL) (5b)			Step (kL) (5c)			Charges (c/kL) (5d)			(c/kL) (6)			($/ET) (7)			($/assessment) (8) P2			(%) (11)			(%) (12) F13			(13) F4		(14) W9		(15) C1
		07/08	2002/03	05/06	06/07	07/08	06/07	07/08	05/06	06/07	07/08	05/06	06/07	07/08	05/06	06/07	07/08	04/05	05/06	06/07	05/06	06/07	07/08	05/06	06/07	07/08	04/05	05/06	06/07	04/05	05/06	06/07	05/06	06/07	05/06	06/07	06/07
38	Moree Plains (Groundwater	Two Part	282	255	255	250	All	All	62	65	72							44	82	66	3,270	3,270	3,270	555	640	676	1.5	1.8	2.0	1.7	1.1	1.7	56	57	484	592	4,420
39	Cowra	Inclining Block	310	347	225	255	<600	<600	36	100	105	>500	>600	>600	71	200	200	104	90	109	2,500	2,500	2,500	439	481	524	-1.8	-1.1	1.5	-1.3	-1.6	1.4	24	57	321	256	5,220
40	Central Tablelands (No Sge	Inclining Block	120	124	124	124	<450	<450	116	125	135	>450	>450	>450	174	188	202	89	109	118	4,430	5,940	7,570	404	379	399	0.7	1.8	0.4	1.2	0.3	0.9	75	70	241	204	5,140
41	Muswellbrook	Inclining Block	120	167	172	175	<350	<350	120	124	124	>350	>350	>350	180	185	185	59	74	97	3,300	3,300	3,300	580	516	519	8.7	7.2	5.1	8.5	12.6	3.8	74	68	344	278	5,120
42	Corowa	Two Part	280	120	120	120	All	All	50	50	55	>1000			110			35	24	75	440	906	906	333	280	296	0.5	1.1	-0.7	-0.5	0.0	-1.7	59	56	427	319	4,680
43	Tumut	Inclining Block	215	89	72	94	<400	<400	80	82	85	>400	>400	>400	100	103	106	53	68	85	4,110	4,110	4,250	204	207	234	1.5	3.4	0.9	3.1	1.1	0.3	77	69	310	165	4,260
44	Gunnedah (Groundwater)	Inclining Block	262	125	130	150	<450	<400	45	55	70	>450	>450	>400	90	95	110	33	38	34	3,390	3,390	4,000	276	346	425	3.1	2.8	4.8	2.5	3.5	3.9	63	66	336	393	4,330
45	Upper Hunter	Two Part	186	205	212	219	All	All	100	104	107							47	82	81	3,110	5,340	5,340	499	492	508	5.7	4.9	9.6	5.6	6.4	6.7	55	52	294	270	4,040
46	Narrabri (Groundwater)	Two Part	153	40	80	100	All	All	35	35	35							21	23	35	2,200	2,200	2,200	231	271	291	2.3	5.4	2.9	5.8	0.8	-1.2	36	32	547	544	4,330
47	Bellingen (Unfiltered)	Two Part	200	214	222	202	All	All	64	66	79							67	63		6,300	6,300	6,300	388	343	347	0.4	1.5		0.5	-1.6		44		272	183	4,000
48	Leeton	Inclining Block	240	175	175	175	<350	<350	49	50	50	>350	>350	>350	64	67	75	47	49	57	2,600	2,600	2,600	444	438	449	3.7	3.0	3.9	2.5	3.5	3.5	66	63	502	482	3,970
49	Young (Reticulator)	Inclining Block	390	175	175	175	<300	<300	125	125	125	>100	>300	>300	170	170	170	84	86	104	2,000	2,000	2,000	540	451	451	6.5	5.7	5.3	6.4	9.8	4.0	72	68	242	221	4,270
50	Cooma-Monaro	Inclining Block	328	342	342	342	All	<300	60	73	80			>300			120	69	69	78	2,340	2,340	2,340	533	571	598	4.5	4.7	9.2	6.5	6.7	6.7	35	40	318	314	3,570
51	Forbes	Inclining Block	279	186	140	140	<450	<600	61	64	64	>400	>400	>600	92	96	96	36	37	50	670	670	1,730	473	475	459	5.5	3.2	3.4	2.9	6.2	2.2	64	67	446	499	3,470
52	Snowy River (Unfiltered)	Two Part	247	455	299	329	All	All	44	48	94								192	113	2,500	2,500	4,000	570	363	454			0.8		0.0	0.6	24	23	118	133	3,880
53	Berrigan (Dual Supply)	Two Part	465	506	300	300	All	All	57	90	90							47	57	67	4,200	4,200	4,200	673	721	721	2.5	2.7	2.1	2.5	2.9	1.7	11	52	237	236	3,390
53	Berrigan (Non Potable)	Two Part					All	All	28	45	45																								450	465	
	Medians (% of LWUs basis) for 3,000 to 10,000 Properties				*180*	*191*				*77*	*88*								*68*	*81*		*3,300*	*3,285*		*452*	*453*			*2.9*		*3.3*	*1.9*	*56*	*57*	*318*	*263*	
	LWUs with 1,501 - 3,000 Properties																																				
54	Deniliquin	Inclining Block	494	274	395	409	<800	<800	53	24	25	>400	>800	>800	81	55	57	35	48	46	450	450	450	593	512	531	1.8	3.0	0.0	5.8	2.8	-0.1	51	20	533	489	3,190
55	Warrumbungle	Two Part	465	419	217	217	All	All	90	70	80							66		153	1,000	1,000	1,000	419	375	397		-1.0	-2.9	-2.1		-4.0		52	368	225	3,920
56	Yass Valley	Two Part	350	196	200	200	All	All	115	120	130							109			8,490	8,710	8,960	418	436	456		1.6		1.5					193	197	3,000
57	Wellington	Inclining Block	480	310	175	183	<300	<300	95	145	150	<500	<500	<500	105	175	181	103	104	101	1,480	1,480	3,880	531	580	602	6.4	2.2	3.6	2.3	7.8	4.4	39	72	241	279	2,870
58	Cootamundra (Reticulator)	Inclining Block	289	96	100	100	<450	<450	123	126	126	>450	>450	>450	246	250	252	100	107	124	3,000	3,000	3,310	367	383	383	1.6	1.6	-1.2	1.8	2.3	-1.4		81	221	224	2,950
59	Lachlan	Inclining Block	220	230	265	265	<450	<450	70	85	93	>300	>450	>450	100	128	140	96	77					454	574	601	0.6	-1.1		-2.3	-0.5		57		314	364	2,550
60	Glen Innes Severn	Inclining Block	175	88	88	85	<450	<450	130	130	138	>450	>450	>450	195	195	195		99	99	2,590	2,590	2,590	376	333	345	-1.0		0.0		-0.9	-0.1	72	72	222	188	2,860
61	Liverpool Plains	Inclining Block	200	100	103	203	<300	<300	60	62	64	>300	>300	>300	100	103	106	70	78	101	3,390	3,390	3,390	243	250	355	1.3	0.4	-2.1	-1.0	-0.5	-3.7	63	75	238	238	2,530
62	Narromine (Groundwater)	Two Part	215	175	165	150	All	All	62	65	70							47	50	56	1,300	1,300	1,300	437	408	412	2.6	1.3	11.1	0.6	4.6	6.5	67	68	381	374	2,050
63	Narrandera (Groundwater)	Two Part	236	225	220	220	All	All	58	56	60							34	46	51	1,000	1,000	1,000	491	494	510	5.5	6.2	9.9	7.5	5.8	5.5	59	58	327	487	2,010
64	Dungog (Reticulator)	Inclining Block	298	194	195	199	<220	<220	66	69	72	>220	>220	>220	133	138	145	107	115	140	2,700	2,700	3,500	325	331	342	2.1	3.4	3.2	3.0	1.7	1.9	41	38	198	198	1,990
65	Murray (Dual Supply)	Two Part	388	177	190	196	All	All	56	65	67							53	54	55	2,130	2,130	2,130	420	609	626	6.4	6.6	2.2	7.0	6.8	2.3	50	51	224	233	2,600
65	Murray (Non Potable)	Two Part		63	70	72	All	All	38	45	46																								460	439	
67	Cobar	Inclining Block	527	290	270	230	<450	<450	60	65	75	>450	>450	>450	100	110	130	38		49	1,410	1,410	1,410	1127	848	905	0.8	1.5	3.6	1.5	0.4	3.5	52	59	675	709	2,090
66	Cobar WB (Bulk Supplier) (No Sge)																																				
68	Tenterfield	Two Part	259	210	175	218	All	All	112	141	115							154	165	170	1,500	1,500	1,500	402	425	421	-0.6	-3.6	-0.4	-5.1	-1.6	-0.9	50	59	171	177	1,930
70	Kyogle	Inclining Block	250	175	175	192	<200	<200	105	105	105		>200	>200		175	175	93	110	110	1,000	1,000	1,000	343	381	398	-4.4	0.5	5.1	-0.5	-8.6	4.1	57	56	158	197	1,820
71	Palerang	Inclining Block	270	160	266	290	<200	<200	92	100	110	>200	>200	>200	125	135	180				2,490	2,490	2,490	326	436	477					0.7		55		169	170	1,790
73	Upper Lachlan	Inclining Block	582	401	421	420	<250	<250	92	97	110	>300	>250	>250	110	116	150	170	154	127	1,600	1,600	2,200	498	633	661	2.1	2.2	3.6	1.8	1.4	3.4	31	31	179	219	1,850
74	Wentworth (Dual Supply)	Inclining Block	485	220	240	250	<250	<250	110	110	115	>250	>250	>250	260	260	270	35	51	48	2,880	3,150	3,150	646	657	688	1.9	0.7	2.1	0.7	2.7	2.5	57	52	66	83	2,180
74	Wentworth (Non Potable)	Inclining Block		110	130	135	<700	<700	35	35	37	>700	>700	>700	60	60	63																		560	560	
75	Coonamble (Groundwater)	Inclining Block	186	175	60	64	<370	<370	48	32	34		>370	>370		48	51	13	24	35			600	348	223	237	6.6	3.9	1.6	2.9	8.6	-2.9	23	77	462	462	1,590
	Medians (% of LWUs basis) for 1,500 to 3,000 Properties				*195*	*203*				*85*	*93*								*78*	*98*		*1,600*	*2,165*		*432*	*456*			*2.1*		*2.0*	*2.1*	*52*	*58*	*224*	*221*	

Table 6: Water supply – residential chargers, bills and cost recovery (continued)

	WATER UTILITY	RESIDENTIAL CHARGES - Current and 2007/08																			BILLS			COST RECOVERY													
		Type of Tariff	Access Charge (or Minimum)				Usage Charge								Operating Cost (OMA)			Typical Developer Charge			Typical Residential Bill			Return on Assets			ERRR			Residential Revenue from Usage Charges		Annual Residential Water Supplied**		Connected Properties
							Step 1				Step 2																									
			($)				Step (kL)		Charges (c/kL)			Step (kL)			Charges (c/kL)			(c/kL)			($/ET)			($/assessment)			(%)			(%)			(% of residential		kL/property		
		(1)	(2)				(5a)		(5b)			(5c)			(5d)			(6)			(7)			(8)			(11)			(12)			(13)		(14)		(15)
		P1																						P2						F13			F4		W9		C1
		07/08	2002/03	05/06	06/07	07/08	06/07	07/08	05/06	06/07	07/08	05/06	06/07	07/08	05/06	06/07	07/08	04/05	05/06	06/07	05/06	06/07	07/08	05/06	06/07	07/08	04/05	05/06	06/07	04/05	05/06	06/07	05/06	06/07	05/06	06/07	06/07
	LWUs with 200 - 1,500 Properties																																				
76	Harden (Reticulator)	Inclining Block	419	470	280	280	<350	<350	104	110	120		>350	>350		150	150	108	121	214	2,000	2,000	3,310	782	629	660	-1.6	-2.5	0.6	-3.8	-2.2	0.6	44	66	424	317	1,760
79	Walgett (Dual Supply)	Unmetered	538	570	626	670	All	All										37	41	61				570		670	-1.8	-0.7	-1.6	-3.1	-4.8	-1.7	13	2	614	189	1,590
79	Walgett (Non Potable)	Unmetered					All	All	Nil	Nil	Nil																								1110	935	
80	Greater Hume	Inclining Block	200	425	60	60	<200	<200	90	60	60	>1000	>200	>200	110	80	80	65	55	91	1,400	1,400	1,400	712	260	260	-0.5	1.0	0.1	1.2	-1.0	-0.3	24	80	319	300	1,590
81	Gwydir	Inclining Block	333	364	430	430	<450	<450	80	90	90	>450	>450	>450	220	195	195		70		2,000	2,000	2,000	630	664	664					0.6		70		247	260	1,450
82	Gloucester	Two Part	371	225	225	225	All	All	118	124	135							165	156	199	5,380	5,540	5,720	438	429	447	2.5	10.3	0.5	11.9	2.7	0.0	43	42	181	165	1,670
83	Oberon (Reticulator)	Two Part	185	94	98	100	All	All	100	104	108							46	44	68	1,100	1,100	1,100	264	259	267	3.9	2.4	2.6	2.0	4.5	2.6	49	47	170	155	1,350
84	Gilgandra (Groundwater)	Two Part	265	250	176	180	All	All	50	71	75							37	40	33				467	499	521	2.1	3.0	4.5	2.5	2.9	3.7	48	65	433	455	1,360
85	Uralla	Two Part	332	190	200	200	All	All	70	70	100							118	133	196	360	360	400	327	313	361	0.2	0.8	-1.9	-0.4	-1.4	-2.3	39	44	196	161	1,570
86	Hay (Dual Supply)	Inclining Block	345	70	75	77	<300	<300	58	61	63	>300	>300	>300	87	92	95	24	26	28				371	416	429	0.1	-0.9	1.0	-1.9	-0.7	-0.1	25	31	191	181	1,310
86	Hay (Non Potable)	Unmetered		220	230	237	All	All	Nil																		0.1	-0.9							830	1290	
87	Bourke (Dual Supply)	Two Part	420	170	176	182	All	All	50	110	110							18	22	24	400	400	400	549	917	933	-4.8	-4.8	1.4	-5.7	-5.4	1.4	23	32	399	412	1,180
87	Bourke (Non Potable)	Unmetered		280	290	300	All	All															400												1790	2820	
88	Wakool (Dual Supply)	Inclining Block	245	150	200	210	<600	<600	80	75	80	>400	>600	>600	160	120	126	66	31	43				1078	881	929	1.4	1.8	1.9	1.8	1.5	2.1	18	24	638	373	1,340
88	Wakool (Non-Potable)	Unmetered		400	400	420																													950	1260	
89	Bogan	Inclining Block	518	195	195	220	<450	<500	70	72	72	>450	>450	>500	105	108	108	73	81	111				610	589	596	-4.4	-2.5	0.0	-3.1	-5.2	-2.3	63	58	543	515	1,060
90	Guyra	Inclining Block	232	245	270	284	<450	<450	92	100	105	>750	>450	>450	165	120	120	63	91	96	560	560	630	531	491	516	1.4	1.4	2.1	1.0	1.6	2.1	43	61	248	221	1,170
91	Cabonne	Inclining Block	544	170	176	182	<300	<300	125	129	130	>300	>300	>300	275	284	290	111	138	186	400	400	4,280	390	384	392	1.9	2.6	1.5	2.1	1.5	-0.5	71	72	159	161	1,100
92	Carrathool (Groundwater)	Inclining Block	315	325	333	343	<350	<350	70	72	75	>350	>350	>350	80	82	85	26	84	150	900	910	920	416	608	629	-0.4	1.2	0.1	0.8	-1.5	0.0		60	488	378	1,090
93	Tumbarumba	Inclining Block	382	310	310	310	<400	<300	60	66	65	>400	>400	>300	90	98	109	59	58	78	410	440	440	530	452	449	5.4	3.0	2.3	3.0	6.7	1.8	23	26	367	214	1,140
94	Gundagai	Inclining Block	310	75	80	80	<300	<300	65	70	70	>300	>300	>300	85	90	90	70	67	68	600	630	660	238	251	251	1.2	1.0	1.8	0.2	0.3	1.2	71	75	250	244	1,060
96	Warren (Dual Supply)	Inclining Block	350	210	220	225	<450	<450	70	73	75	>450	>450	>450	105	110	113	40	42	57				382	458	471	-0.9	-1.0	-0.4	-1.3	-0.4	-0.4	52	51	219	178	960
96	Warren (Non Potable)	Inclining Block					<450	<450	25	26	27	>450	>450	>450	45	47	48																		440	415	
97	Bombala	Inclining Block	350	373	385	400	<350	<350	44	46	48	>350	>350	>350	96	99	103	53	71	136	1,280	1,380	1,420	639	496	515	2.3	3.1	1.9	3.1	1.7	1.1	28	24	467	242	840
98	Walcha	Inclining Block	313	120	120	124	<300	<300	175	175	181	>300	>300	>300	260	260	269	139	146	168				412	451	466	-0.4	-0.1	1.1	-0.3	-0.6	0.8	74	82	223	189	880
100	Balranald (Dual Supply)	Two Part	462	171	180	198	All	All	57	60	66							25	41	51	910	910	910	530	690	777	0.9	0.5	12.5	0.7	1.3	13.1	29	25	149	226	810
100	Balranald (Non Potable))	200kL Allowance		181	181	210	>200	>200	21	22	25												910												670	1080	
101	Murrumbidgee (Groundwate	Two Part	180	180	180	180	All	All	20	21	22							24	19	17	1,000	1,000	1,000	332	340	347	2.5	1.9	3.9	1.3	2.1	2.1	50	53	759	760	840
103	Central Darling (Dual Supply)	Two Part	504	105	105	105	All	All	300	300	300							80	89	110				779	818	818	0.3	-2.6	0.6	-3.1	0.7	0.3	58	56	107	96	730
103	(Non Potable-Wilcannia	Unmetered		425	425	425	All	All																											400	470	
104	Boorowa	Two Part	390	310	352	388	All	All	105	120	125							89	86	86	400	400	400	616	798	857	2.4	5.4	3.4	5.7	2.2	3.6	41	41	372	375	620
105	Brewarrina	Unmetered	555	700	756	805	All	All										28	33	146				700	756	805	2.7	4.4	4.7	5.1	3.0	4.4			506	366	480
106	Jerilderie (Dual Supply)	Inclining Block	389	160	161	177	<250	<250	140	100	105	>200	>250	>250	200	140	140	86	82	54	2,110	2,250	2,250	705	886	954	2.5	0.2	2.2	-0.5	2.1	1.4	34	28	228	231	460
106	Jerilderie (Non Potable)	300kL Allowance		225	230	253	>300	>300	37	45	48																								460	886	
	Medians (% of LWUs basis) for 200 to 1,500 Properties				*198*	*205*				*74*	*85*								*69*	*86*		*910*	*1,000*		*496*	*517*			*1.5*		*1.0*	*1.1*	*43*	*49*	*285*	*231*	
	Median All LWUs (% of LWUs basis)			*Access Charge*		*190*			*Usage Charge*		*100*						*OMA (c/kL)*	*90*		*Developer*	*3,200*		*TRB*	*450*		*ROA*	*1.9*		*ERRR*	*1.4*		*60*		*260*		
	Median All LWUs (Statewide basis)					*108*					*124*							*90*		*Charge*	*4,000*			*360*			*1.9*			*1.4*		*67*		*185*		

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 26).

** For LWUs with a dual water supply, the first row in column 14 is the potable supply while the second row labelled non-potable supply shows the Total Annual Residential water supplied (ie. sum of the potable and non-potable water supplied (see also Note 12 on page 27).

NOTE: Bills and Charges are in January 2008$

Table 6A: Water supply – 2007-08 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	240	✓	Nil	up to 400 kL	92
							401 kL to 1000 kL	123
							>1000 kL	142
		Armidale, untreated	Inclining Block		✓	Nil	up to 400 kL	45
							401 kL to 1000 kL	80
							>1000 kL	98
100	Balranald (Dual Supply)	Balranald & Euston, Filtered	Two Part	210	✓	Nil	All	66
		Balranald & Euston, Raw	200 kL Allowance	191	✓	200	>200 kL	25
21	Bathurst Regional	Filtered	Inclining Block	269	✓	Nil	0 to 300 kL	45
							>300 kL	90
		Hillview Water	Inclining Block	128	✓	Nil	0 to 250 kL	45
							>250 kL	185
53	Berrigan (Dual Supply)	Berrigan,Barooga,Finley(Potable)	Two Part	300	✓	Nil	All	90
		Berrigan,Barooga,Finley(Non-Potable)	Two Part	300	✓	Nil	All	45
		Tocumwal (Filtered)	Two Part	300	✓	Nil	All	60
89	Bogan	Nyngan	Inclining Block	220	✓	Nil	<500 kL	72
							>500 kL	108
		Nyngan, Raw Water	Inclining Block	300			<500 kL	44
							>500 kL	65
		Hermidale	Annual Charge	460	✓			
		Girilambone & Coolabah	Annual Charge	310	✓			
97	Bombala	Bombala	Inclining Block	401	✓	Nil	up to 350 kL	48
							>350 kL	103
		Delegate	Unmetered	307	✓			
87	Bourke (Dual Supply)	Bourke, Filtered	Two Part	182	✓	Nil	All	110
		Bourke, Raw	Unmetered	300	✓			
105	Brewarrina	Brewarrina	Unmetered	805				
		Goodooga	Unmetered	661				
91	Cabonne	Molong	Inclining Block	182	✓	Nil	up to 300 kL	130
							301 kL to 500 kL	290
							>500 kL	400
		Cumnock	Inclining Block	161	✓	Nil	up to 300 kL	320
							301 kL to 500 kL	410
							>500 kL	430
		Yeoval	Inclining Block	135	✓	Nil	up to 300 kL	170
							301 kL to 500 kL	230
							>500 kL	390
		North Yeoval Wellington	Inclining Block	134	✓	Nil	up to 300 kL	170
							301 kL to 500 kL	230
							>500 kL	390
92	Carrathool	Carrathool	Inclining Block	343	✓	Nil	up to 350 kL	75
							>350 kL	85
		Hillston	Inclining Block	154	✓	Nil	up to 350 kL	50
							>350 kL	60
		Melbergen	Inclining Block	210	✓	Nil	up to 400 kL	40
							>400 kL	70
		Goolgowi Rural Water	Inclining Block	512	✓	Nil	<450 kL	50
							>450 kL	75
		Rankins Springs	500 kL Allowance	607	✓	500	>500 kL	30
103	Central Darling	Wilcannia (Filtered)	Two Part	105	✓	Nil	All	300
		Wilcannia (Raw)	Unmetered	425	✓			
		White Cliffs, Raw	Two Part	400	✓	Nil	All	330
		Ivanhoe (Raw)	Two Part	185	✓	Nil	All	140
		Ivanhoe (Filtered)	Two Part	115	✓	Nil	All	325
40	Central Tablelands	Central Tablelands	Inclining Block	124	✓	Nil	up to 450 kL	135
							>450 kL	202
		Quandialla	Inclining Block	464	✓	Nil	up to 200 kL/quarter	120
							after 200 kL/quarter	200
67	Cobar	Cobar	Inclining Block	230	✓	Nil	up to 450 kL	75
							451 to 550 kL	130
							>551 kL	185

Table 6A: Water supply – 2007-08 residential multiple tariffs (continued)

	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)
75	Coonamble Shire	Coonamble	Inclining Block	64	✓	Nil	<370 kL	34
							>370 kL	51
		Gulargambone	Inclining Block	103	✓	Nil	<430 kL	46
							>430 kL	69
		Quambone	Inclining Block	106			<430 kL	48
							>430 kL	71
42	Corowa	Corowa, Mulwala, Howlong	Two Part	120	✓	Nil	All	55
		Balldale	Two Part	240	✓	Nil	All	55
26	Country Energy	Broken Hill, Sunset Strp, Menindi (filtered)	Inclining Block	209	✓	Nil	up to 400 kL	79
							> 400 kL	236
							extra 0.549kL/day for smmuer	79
		Pipeline Customers or Unfiltered Water	Inclining Block	209	✓	Nil	up to 400 kL	51
							> 400 kL	117
39	Cowra	Cowra	Inclining Block	255	✓	Nil	up to 600 kL	105
							>200 kL	200
54	Deniliquin	Deniliquin, Filtered	Inclining Block	409	✓	Nil	< 800 kL	25
							>800 kL	57
		Deniliquin, Raw	Flat rate	200	✓	Nil	Unrestricted	
64	Dungog (Unfiltered)	Dungog	Inclining Block	193	✓	Nil	up to 220 kL	72
							> 220 kL	145
		Clarence Town	Inclining Block	199	✓	Nil	up to 220 kL	74
							> 220 kL	145
		Patterson District	Inclining Block	305	✓	Nil	up to 220 kL	90
							> 220 kL	192
		Gresford	Inclining Block	453	✓	Nil	up to 220 kL	80
							> 220 kL	197
84	Gilgandra (Groundwater)	Gilgandra	Two Part	180	✓	Nil	All	75
		Tooraweenah	Two Part	73	✓	Nil	All	110
60	Glen Innes Severn	Glen Innes	Inclining Block	88	✓	Nil	up to 450 kL	138
							>450 kL	195
		Deep water	Inclining Block	88	✓	Nil	up to 450 kL	60
							>450 kL	125
82	Gloucester	Gloucester	Two Part	225	✓	Nil	All	135
		Barrington	Two Part	225	✓	Nil	All	135
20	Goulburn Mulwaree Council	Goulburn	Inclining Block	230	✓	Nil	up to 292 kL	140
							>292 kL	200
		Marulan	Inclining Block	330	✓	Nil	<292 kL	130
							>292 kL	175
80	Greater Hume	Culcairn	Inclining Block	60	✓	Nil	<200kL	60
							>200kL	80
		Villages	Inclining Block	109	✓	Nil	<200kL	100
							>200kL	130
30	Griffith	Griffith (Filtered)	Inclining Block	108	✓	Nil	up to 200 kL	40
							>200 kL	65
		Yenda (Dual), Filtered	Inclining Block	249	✓	Nil	up to 200 kL	40
							>200 kL	65
		Yenda (Dual), Raw	Two Part		✓	Nil	All	22
94	Gundagai		Inclining Block	80	✓	Nil	up to 300 kL	70
							301 to 500 kL	90
							> 500 kL	140
44	Gunnedah (Groundwater)	Gunnedah	Inclining Block	150	✓	Nil	<400 kL	70
							>400 kL	110
		Curlewis	Inclining Block	159	✓	Nil	<400 kL	75
							>400 kL	115
		Mullaley	Inclining Block	258	✓	Nil	<400 kL	115
							>400 kL	155
		Tambar Springs	Inclining Block	298	✓	Nil	<400 kL	198
							>400 kL	235

Table 6A: Water supply – 2007-08 residential multiple tariffs (continued)

	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)
90	Guyra	Guyra	Inclining Block	284		Nil	up to 450 kL	105
							>450 kL	120
		Tingha	Inclining Block	247		Nil	up to 450 kL	160
		Tingha Rural	Inclining Block	226		Nil	>450 kL	190
86	Hay (Dual Supply)	Hay (Filtered)	Inclining Block	77	✓	Nil	up to 300 kL	63
							>300 kL	95
		Hay (Unfiltered)	unmetered	237				
106	Jerilderie (Dual Supply)	Jerilderie, Filtered	Inclining Block	177	✓	Nil	up to 250 kL	105
							>250 kL	140
		Jerilderie, Raw	Two Part	253	✓	Nil	all	48
61	Liverpool Plains Shire Council	Quirindi, Blackville,Caroona, Premer, Spring Ridge,Wallabadah, Willow	Inclining Block	203	✓	Nil	up to 300 kL	64
							>300 kL	106
		Werris Creek	Inclining Block	256	✓	Nil	up to 300 kL	98
							>300 kL	160
38	Moree Plains Shire	Moree, Mungindi, Boggabilla, Pallamallawa	Potable,Two Part	250	✓	Nil	All	72
		Garah, Boomi, Boggabilla, Gurley, Weemalah	Non-Potable, Two Part	250	✓	Nil	All	50
65	Murray	Murray, Filt	Two Part	196	✓	Nil	All	67
		Murray, Raw	Two Part	72	✓	Nil	All	46
101	Murrumbidgee	Darlington Point	Two Part	180	✓	Nil	All	22
		Coleambally	Two Part	200	✓	Nil	All	20
46	Narrabri (Groundwater)	Narrabri	Two Part	100	✓	Nil	All	35
		Narrabri, unmetered	Two Part	300	✓			
		Gwabegar	Two Part	180	✓	Nil	All	55
		Wee Wa	Two Part	100	✓	Nil	All	51
		Boggabri	Two Part	225	✓	Nil	All	51
		Bellata	Two Part	300	✓	Nil	All	55
		Pilliga	Two Part	180	✓	Nil	All	55
71	Palerang	Bungendore	Inclining Block	290	✓	Nil	up to 200 kL	110
							>200 kL	180
		Braidwood	Inclining Block	375	✓	Nil	up to 200 kL	160
							>200 kL	310
		Captains Flat	Inclining Block	348	✓	Nil	up to 200 kL	259
							>200 kL	342
8	Riverina (Groundwater) (No Sge)	WaggaWagga	Two Part	80	✓	Nil	All	75
		Rural Towns & Villages	Two Part	100	✓	Nil	All	87
35	Singleton	Singleton	Two Part	180	✓	Nil	All	83
		Mt Thorley	Two Part	496	✓	Nil	All	150
		Jerry's Plains /Broke Water	Two Part	180	✓	Nil	All	120
13	Tamworth	Tamworth	Inclining Block	170	✓	Nil	up to 400 kL	90
							401 to 800 kL	135
							>800 kL	203
		Calala Backwash Water	Inclining Block		✓	Nil	All	21
		Raw Water			✓		up to 400 kL	62
							401 to 800 kL	69
							>800 kL	78
		Dungowan Dam (if main crosses property)	Inclining Block	85	✓	Nil	up to 400 kL	31
		Raw Water					401 to 800 kL	69
							>800 kL	78
68	Tenterfield	Tenterfield	Two Part	218	✓	Nil	All	115
		Jennings	Two Part	218	✓	Nil	All	115
		Urbenville	Two Part	335	✓	Nil	All	66
93	Tumbarumba (Unfiltered)	Tumbarumba	Inclining Block	310	✓	Nil	up to300 kL	65
							>300 kL	109
		Khancoban, metered	IncliningBlock	350	✓	Nil	up to300 kL	65
							>300 kL	114

Table 6A: Water supply – 2007-08 residential multiple tariffs (continued)

	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)
43	Tumut		Tumut	94		Nil	up to 400 kL	85
							> 400 kL	106
			Tumit Raw Water	75			up to 400 kL	35
							> 400 kL	47
45	Upper Hunter Shire Council	Murrurundi	Two Part	289	✓	Nil	All	131
		Merriwa/Cassilis	Two Part	219	✓	Nil	All	95
		Aberdeen/Scone	Two Part	219	✓	Nil	All	107
73	Upper Lachlan Council	Crookwell	Inclining Block	420	✓	Nil	up to 250 kL	110
							> 250 kL	150
		Taralga	Inclining Block	420	✓	Nil	up to 250 kL	110
							> 250 kL	150
		Dalton Water	Inclining Block	420	✓	Nil	up to 250 kL	110
							> 250 kL	150
		Gunning	Inclining Block	210	✓	Nil	up to 250 kL	110
							> 250 kL	150
85	Uralla	Uralla	Two Part	200	✓	Nil	All	100
		Bundarra	Two Part	520	✓	Nil	All	100
88	Wakool (Dual Supply)	Barham, Tooleybuc, Moulamein(Filtered + Raw Water)	Inclining Block, Raw Water is unmetered	210+420	✓	Nil	up to 600 kL	80
					✓		>600 kL	126
		Wakool , Murray Downs, Koraleigh (Filtered)	Inclining Block	210	✓	Nil	up to 600 kL	80
							>600 kL	126
98	Walcha	Treated	Inclining Block	124	✓	Nil	up to 300 kL	181
							> 300 kL	269
		Untreated	Two part	124	✓	Nil		91
79	Walgett	Walgett Shire	Unmetered	670	✓			
		Lightening Ridge	Unmetered	596				
		Collarenebri	Unmetered	696				
		Carinda	Unmetered	293	✓			
		Carinda Bore	Unmetered	278	✓			
		Rowena	Unmetered	344	✓			
		Cumborah	Unmetered	312				
96	Warren (Dual Supply)	Warren Bore Water	Inclining Block	225	✓	Nil	up to 450 kL	75
							>450 kL	113
		Warren River Water	Inclining Block			Nil	up to 450 kL	27
							>450 kL	48
		Nevertire	Inclining Block	340	✓	Nil	up to 450 kL	43
							>450 kL	65
		Collie	Inclining Block	230	✓	Nil	up to 400 kL	92
							>400 kL	136
55	Warrumbungle, Northern	Coonabarabran	Two part	217	✓	Nil	All	80
		Timore Dam (Raw)	Two part	217	✓	Nil	All	80
		Baradine	Two part	217	✓	Nil	All	100
		Binnaway	Two part	217	✓	Nil	All	100
		Villages: Bugaldie, Kenebri	Two part	427	✓	Nil	All	100
	Warrumbungle, Southern	Southern, Coolah, Dunedoo & Mendooran	Two part	267	✓	Nil	All	90
		Village	Two part	427			All	90
57	Wellington	Wellington, Geurie	Inclining Block	183	✓	Nil	up to 300 kL	150
							301 to 10000 kL	181
							>10000 kL	186
74	Wentworth (Dual Supply)	Filtered	Inclining Block	250	✓	Nil	up to 250 kL	115
							>250 kL	270
		Raw	Inclining Block	135	✓	Nil	up to 700 kL	37
							>700 kL	63
56	Yass Valley	Yass, Bowning, Binalong & Rural Areas	Two Part	200	✓	Nil	All	130
		Murrumbateman	Two Part	149	✓	Nil	All	130
49	Young (Reticulator)	Young	Inclining Block	175	✓	Nil	up to 50 kL (1st & 4th quarter)	125
							>50 kL	170
							up to 100 kL (2nd & 4th quarter)	125
							>100 kL	170

Table 6B: Water supply – 2007-08 non-residential multiple tariffs

	WATER UTILITY	Town	Tariff Type	Access Charge for 20 mm Service Connection (or Minimum) ($) (2)	Basis for Access Charge *Proportional to square of size of service connection or water meter (3)	Access Charge Independent of Land Value ? (4)	Allowance (kL) (5)	Usage Range (kL) (6)	Usage Charge (c/kL) (7)	Compliance with 2(b) of BPMG (8)
			(1)							
11	Albury City	Albury	Inclining Block	87	Meter Size* (eg 40mm:$348)	✓	Nil	up to 225 kL	50	✓
								226 kL to 19999kL	100	
								>19999	72	
29	Armidale Dumaresq	Armidale	Inclining Block	240	Uniform Access Charge	✓	Nil	Up to 400 kL	92	×
								401 kL to 1000 kL	123	
								>1000 kL	142	
		Armidale, Untreated Water	Inclining Block	240	Uniform Access Charge	✓	Nil	Up to 400 kL	45	
								401 kL to 1000 kL	80	
								>1000 kL	98	
24	Ballina (Reticulator)	Ballina	Inclining Block	100	Service Connection Size* (eg. 40mm $400)	✓	Nil	<350 kL	107	✓
								>350 kL	160	
100	Balranald (Dual Supply)	Balranald & Euston, Filtered	Two Part	198	Service Connection Size* (eg. 40mm $793)	✓	Nil	all	66	✓
		Balranald & Euston, Raw	201 kL Allowance	210	Service Connection Size* (eg. 40mm $721)	✓	200	>200 kL	25	
21	Bathurst Regional	Bathurst (Filtered)	Inclining Block	269	Service Connection Size* (eg. 25mm $419; 40mm $1074)	✓	Nil	<300kL	60	✓
								>300 kL	90	
23	Bega Valley (Unfiltered)	Bega Valley	Two Part	130	Service Connection Size* (eg. 40mm $520)	✓	Nil	all	210	✓
47	Bellingen (Unfiltered)		Two Part	202	Meter Size*: eg 40mm $808	✓	Nil	All	79	✓
53	Berrigan (Dual Supply)	Berrigan,Barooga,Finley(Potable)	Two Part	300	Uniform Access Charge	✓	Nil	All	90	×
		Berrigan,Barooga,Finley(Non-Potable	Two Part	300	Uniform Access Charge	✓	Nil	All	45	
		Tocumwal (Filtered)	Two Part	300	Uniform Access Charge	✓	Nil	All	60	
89	Bogan	Nyngan	Inclining Block	220	Service Connection Size* (eg. 40mm $880)	✓	Nil	<500 kL	72	✓
								>500 kL	108	
		Nyngan, Raw Water	Inclining Block	300			Nil	<500 kL	44	
								>500 kL	65	
		Hermidale	Annual Charge	460						
		Girilambone & Coolabah	Annual Charge	310						
97	Bombala	Bombala	Inclining Block	401	Uniform Access Charge	✓	Nil	up to 350 kL	48	×
								>350 kL	103	
		Delegate	Unmetered	307	Uniform Access Charge	✓				
104	Boorowa	Boorowa	Two Part	388	Uniform Access Charge	✓	Nil	All	125	×
87	Bourke (Dual Supply)	Bourke, Filtered	Two Part	182	Service Connection Size (eg. 40mm $626)	✓	Nil	All	110	×
		Bourke, Raw	Unmetered	300	Service Connection Size (eg. 40mm $943)					
105	Brewarrina	Brewarrina	Unmetered	805						×
		Goodooga	Unmetered	661						×
27	Byron (Reticulator)	Byron	Two Part	115	Service Connection* (40mm: $460)	✓	Nil	All	127	
91	Cabonne	Molong	Inclining Block	182	Service Connection (40mm: $364.40)	✓	Nil	<300 kL	130	×
								301 kL to 500 kL	290	
								>500 kL	400	
		Cumnock	Inclining Block	161	Service Connection (40mm: $321.60)	✓	Nil	<300 kL	320	
								301 kL to 500 kL	410	
								>500 kL	430	
		Yeoval	Inclining Block	135	Service Connection (40mm: $269.20)	✓	Nil	<300 kL	170	
								301 kL to 500 kL	230	
								>500 kL	390	
		North Yeoval Wellington	Inclining Block	134	Service Connection (40mm: $268)	✓	Nil	<300 kL	170	
								301 kL to 500 kL	230	
								>500 kL	390	
92	Carrathool	Carrathool	Inclining Block	343	Service Connection (40mm $515.20)	✓	Nil	<350kL	75	✓
								>350kL	85	
		Hillston	Inclining Block	154	Meter Size (40mm $230.60)	✓	Nil	<350kL	50	
								>350kL	60	
		Melbergen	Inclining Block	210	Uniform Access Charge	✓	Nil	<400 kL	40	
								>400 kL	70	
		Goolgowi Rural Water	Inclining block	512	Uniform Access Charge	✓	500	<450 kL	50	
								>450 kL	75	
		Rankins Springs	500 kL Allowance	607	Uniform Access Charge	✓	500	>500 kL	30	
103	Central Darling	Wilcannia (Filtered)	Two Part	105	Uniform Access Charge	✓	Nil	All	300	×
		Wilcannia (Raw)	Unmetered	425	Uniform Access Charge	✓	Nil			
		White Cliffs, Raw	Two Part	400	Uniform Access Charge	✓	Nil	All	330	
		Ivanhoe (Raw)	Two Part	185	Uniform Access Charge	✓	Nil	All	140	
		Ivanhoe (Filtered)	Two Part	115	Uniform Access Charge	✓	Nil	All	325	

Table 6B: Water supply – 2007-08 non-residential multiple tariffs (continued)

	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)	✓	Nil	All	135	✓
		Quandialla	Inclining Block	464		✓	Nil	up to 200 kL/quarter	120	
								after 200 kL/quarter	200	
14	Clarence Valley	Treated	Two Part	104	Service Connection Size (40mm:$417)	✓		All	94	✓
		Raw Water	Two Part	52	Service Connection Size (40mm:$208)	✓		All	57	
67	Cobar (Dual Supply)	Cobar	Inclining Block	250	Service Connection Size (40mm:$600)	✓	Nil	<450 kL	75	✓
								451 - 550 kL	130	
								>551 kL	185	
					Meter factor (meter factor<2:$108+meter factor>2			All	189	×
10	Coffs Harbour (Unfiltered)	Coffs Harbour, Nana Glen, Coramba	Two Part	108	$216+$43.20 per factor > 2)	✓	Nil			
50	Cooma-Monaro	Cooma, Bredbo, Nimmitabel	Two Part	342	Uniform Access Charge	✓	Nil	All	80	×
75	Coonamble Shire	Coonamble	Inclining Block	64	Meter Size 40mm :254	✓	Nil	<370 kL	34	×
								>370 kL	51	
		Gulargambone	Inclining Block	103	Meter Size 40mm :412	✓	Nil	<430 kL	46	
								>430 kL	69	
		Quambone		106	Meter Size 40mm :424			<430 kL	48	
								>430 kL	71	
58	Cootamundra (Reticulator)	Cootamundra	Two Part	200	Meter Size*: 40 mm $400	✓	Nil	all	120	✓
42	Corowa	Corowa, Mulwala, Howlong	Two Part	120	Uniform Access Charge	✓	Nil	all	55	×
		Balldale	Two Part	240	Uniform Access Charge	✓	Nil	all	55	
26	Country Energy	Broken Hill, Sunset Strp, Menindi, Fi	Inclining Block	209	Service Connection (eg.40mm $897)	✓	Nil	0 kL to 400 kL	79	✓
								> 400 kL	236	
								extra 0.549kL/day for smmuer	79	
		Chlorinated	Inclining Block	209	Service Connection* (eg.40mm $897)	✓	Nil	0 kL to400 kL	67	
								> 400 kL	224	
								extra 0.549kL/day for	67	
		Untreated	Two Part	209	Service Connection (eg.40mm $897)				121	
		Effluent Water	Two Part	209	Service Connection (eg.40mm $897)	✓	Nil	all	35	
39	Cowra	Cowra, Rural, Commercial, Governm	Two Part	150	Meter Size: 40 mm $600	✓	Nil	All	105	×
		Cowra, Industrial	Two Part	150	Meter Size: 40 mm $600	✓	Nil	All	55	
		Raw Water	Two Part	150			Nil	all	55	
54	Deniliquin	Deniliquin, Filtered	Two Part	405	Service connection(40mm $818)	✓	Nil	All	57	✓
		Deniliquin,Raw	25c/kL for >20mmservice	200		✓		unlimited		
18	Dubbo	Dubbo	Inclining Block	116	Meter Size* (eg.40mm $462)	✓	Nil	<550 kL	87	✓
								>550 kL	138	
64	Dungog (Unfiltered)	Dungog	Inclining Block	193	Meter Size (eg.40mm $416)	✓	Nil	upto 220 kL	72	×
								> 220 kL	145	
		Clarence Town	Inclining Block	199	Meter Size (eg.40mm $432)	✓	Nil	upto 220 kL	74	
								> 220 kL	145	
		Patterson District	Inclining Block	305	Meter Size (eg.40mm $645)	✓	Nil	upto 220 kL	90	
								> 220 kL	192	
		Gresford	Inclining Block	453	Meter Size (eg.40mm $1101)	✓	Nil	upto 220 kL	80	
								> 220 kL	197	
15	Eurobodalla (Unfiltered)	Eurobodalla	Two Part	285	Meter Size*: 40mm:$1140	✓	Nil	All	160	✓
51	Forbes	Forbes	Two Part	140	Service Connection Size* (40mm:560)	✓	Nil	All	64	✓
84	Gilgandra (Groundwater)	Gilgandra	Two Part	180	Service Connection Size* (40mm:722)	✓	Nil	All	75	✓
		Tooraweenah	Two Part	73	Uniform Access Charge	✓	Nil	All	110	
60	Glen Innes Severn	Glen Innes	Inclining Block	88	Service Connection Size* (40mm:350)	✓	Nil	upto 450 kL	138	×
								>450 kL	195	
		Deepwater	Inclining Block	88	Service Connection Size* (40mm:350)	✓	Nil	upto 450 kL	60	
								>450 kL	125	
82	Gloucester	Gloucester	Two Part	225	Service Connection Size (40mm:$900)	✓	Nil	all	135	✓
		Barrington	Two Part	225	Uniform Access Charge	✓	Nil	all	135	
0	Goldenfields (Reticulator)	Retail	Two Part	204	Uniform Access Charge	✓	Nil	All	114	×
1	Gosford	Gosford	Two Part	85	Service Connection Size* (40mm:$341.28)	✓	Nil	All	136	✓
20	Goulburn	Goulburn	Inclining Block	230	Meter Size*(40mm:$915)	✓	Nil	up to 292 kL (for 20mm	140	✓
								>292 kL (for 20mm meter)	200	
		Marilan	Inclining Block	330	Uniform Access Charge	✓	Nil	up to 292 kL (for 20mm	130	
								>292 kL (for 20mm meter)	175	

Table 6B: Water supply – 2007-08 non-residential multiple tariffs (continued)

	WATER UTILITY	Town	Tariff Type (1)	Access Charge for 20 mm Service Connection (or Minimum) ($) (2)	Basis for Access Charge *Proportional to square of size of service connection or water meter (3)	Access Charge Independent of Land Value ? (4)	Allowance (kL) (5)	Usage Range (kL) (6)	Usage Charge (c/kL) (7)	Compliance with 2(b) of BPMG (8)
80	Greater Hume	Culcairn	Inclining Block	60	Service Connection Size (40mm:$120)	✓	Nil	<200kL	60	×
								>200kL	80	
		Villages	Inclining Block	109	Service Connection Size (40mm:$218)	✓	Nil	<200kL	100	
								>200kL	130	
30	Griffith	Griffith (Filtered)	Inclining Block	108	Meter Size*(40mm:$432)	✓	Nil	up to 200 kL	40	✓
								>200 kL	65	
		Yenda (Dual), Filtered	Inclining Block	249	Uniform Access Charge	✓	Nil	up to 200 kL	40	
								>200 kL	65	
		Yenda (Dual), Raw	Two Part				Nil	all	22	
94	Gundagai	Gundagai	Two Part	80	Service Connection Size*: 40mm:$320	✓	Nil	all	90	✓
44	Gunnedah (Groundwater)	Gunnedah	Inclining Block	150	Service Connection Size: 20 to 40 mm:$150, 50mm: $345	✓	Nil	<450 kL	70	✓
								>450 kL	110	
		Curlewis	Inclining Block	159	Uniform Access Charge	✓	Nil	<450 kL	75	
								>450 kL	115	
		Mullaley	Inclining Block	258	Uniform Access Charge	✓	Nil	<450 kL	115	
								>450 kL	155	
		Tambar Springs	Inclining Block	298	Uniform Access Charge	✓	Nil	<450 kL	198	
								>450 kL	235	
90	Guyra	Guyra	Inclining Block	284	Uniform Access Charge	✓	Nil	up to 450 kL	105	✓
								>450 kL	120	
		Tingha	Inclining Block	247	Uniform Access Charge	✓	Nil	up to 450 kL	160	
		Tingha Rural	Inclining Block	226	Uniform Access Charge			>450 kL	190	
81	Gwydir			430	Meter Size*(40mm:$1720)	✓	Nil	<450 kL	90	✓
								>450 kL	195	
76	Harden (Reticulator)	Harden	Two Part	280	Service Connection Size*:40 mm:$1120	✓	Nil	all	120	✓
7	Port Macquarie-Hastings (Unfiltered)	Hastings	Inclining Block	110	Meter Size* (eg. 40mm $440)	✓	Nil	<270 kL	153	✓
								>270 kL	306	
86	Hay (Dual Supply)	Hay (Filtered)	Inclining Block	77	Service Connection Size*:40 mm:$308	✓	Nil	up to 300 kL	63	✓
								>300 kL	95	
		Hay (Unfiltered) - commercial users	Inclining Block	77	Service Connection Size*:40 mm:$308	✓	Nil	<450 kL	28	
								>450 kL	42	
37	Inverell	Inverell/Ashford/Yetman, Filtered	Two Part	265	Uniform Access Charge	✓	Nil	All	100	×
106	Jerilderie (Dual Supply)	Jerilderie, Filtered	Inclining Block	177	Service Connection Size*(32mm:$453)	✓	Nil	up to 250 kL	105	✓
								>250 kL	140	
		Jerilderie, Raw	two part	253	Uniform Access Charge	✓	Nil	all	48	
25	Kempsey (Groundwater)	Kempsey	Two Part	275	Service Connection Size:40 mm:$1061.50	✓	Nil	All	99	×
70	Kyogle	Kyogle, Bonalbo, Muli-Muli, Wooder	Inclining Block	192	Service Connection Size*:40 mm:$768	✓	Nil	< 200 kL	105	✓
								> 200 kL	175	
59	Lachlan	Condoblin	Two Part	215	Service Connection Size*:40 mm:$860	✓	Nil	all	93	✓
48	Leeton	Leeton, Whitton, Murrami	Inclining Block	175	Meter Size*(40mm:$700)	✓	Nil	up to 350 kL	50	✓
								>350 kL	75	
22	Lismore (Reticulator)	Lismore, Nimbin	Two Part	100	Service Connection Size*(40mm:$400)	✓	Nil	All	135	✓
31	Lithgow	Lithgow	Inclining Block	510	Service Connection Size (50mm:$680)	✓	Nil	<500 kL	85	×
								>500 kL	160	
61	Liverpool Plains Shire Council	Premer, Spring Ridge,Wallabadah,	Inclining Block	203	Service Connection Size* (eg. 40mm $811)	✓	Nil	up to 300 kL	64	✓
								>300 kL	106	
		Werris Creek	Inclining Block	256	Service Connection Size(eg. 40mm $1687)			up to 300 kL	98	
								>300 kL	160	
5	MidCoast		Two Part	130	Meter Size* (eg. 40mm $520)	✓	Nil	All	135	✓
32	Mid Western Regional Council	Mudgee, Gulgong & Rylstone	Two Part	505	Uniform Access Charge	✓	Nil	All	108	×
38	Moree Plains Shire	Pallamallawa	Two Part	250	Service Connection Size (eg. 40mm $1000)	✓	Nil	All	72	✓
		Weemalah	Two Part	250	Service Connection Size (eg. 40mm $1000)	✓	Nil	All	50	
65	Murray	Murray, Filt	Two Part	196	Service Connection Size (eg. 40mm $782.80)	✓	Nil	All	67	✓
		Murray, Raw	Two Part	72	Service Connection Size (eg. 40mm $288.40)	✓	Nil	All	46	
101	Murrumbidgee	Darlington Point	Two Part	180	Service Connection Size (eg. 40mm $340)	✓	Nil	All	22	✓
		Coleambally	Two Part	200	Service Connection Size (eg. 40mm $360)	✓	Nil	All	20	
41	Muswellbrook	Muswellbrook,Denman, Sandy Hollo	Two Part	175	Service Connection Size* (eg. 40mm $700)	✓	Nil	All	155	✓
34	Nambucca	Nambucca	Two Part	70	Service Connection Size (eg. 40mm $260)	✓	Nil	All	110	✓

Table 6B: Water supply – 2007-08 non-residential multiple tariffs (continued)

	WATER UTILITY	Town	Tariff Type	Access Charge for 20 mm Service Connection (or Minimum) ($) (2)	Basis for Access Charge *Proportional to square of size of service connection or water meter (3)	Access Charge Independent of Land Value ? (4)	Allowance (kL) (5)	Usage Range (kL) (6)	Usage Charge (c/kL) (7)	Compliance with 2(b) of BPMG (8)
			(1)							
46	Narrabri (Groundwater)	Narrabri	Two Part	100	Service Connection Size (eg. 40mm $256)	✓	Nil	All	35	✓
		Narrabri, non - metered	Unmetered	300	Service Connection Size (eg. 40mm $768)					
		Gwabegar	Two Part	180	Service Connection Size* (eg. 40mm $461)	✓	Nil	All	51	
		Wee Wa	Two Part	100	Service Connection Size* (eg. 40mm $256)	✓	Nil	All	40	
		Boggabri	Two Part	225	Service Connection Size* (eg. 40mm $576)	✓	Nil	All	51	
		Bellata	Two Part	300	Service Connection Size* (eg. 40mm $768)	✓	Nil	All	51	
		Pilliga	Two Part	180	Service Connection Size* (eg. 40mm $461)	✓	Nil	All	51	
63	Narrandera (Groundwater)	Narrandera	Two Part	220	Meter Size (eg. 40mm $750)	✓	Nil	All	60	✓
62	Narromine (Groundwater)	Narromine, Trangie, Tomingley	Two Part	150	Service Connection Size* (eg. 40mm $600)	✓	Nil	All	70	✓
83	Oberon (Unfiltered, Reticulator)	Oberon	Two Part	100	Service Connection Size* (eg. 38mm $361)	✓	Nil	All	108	✓
19	Orange	Orange	Two Part	106	Service Connection Size* (eg. 40mm $422.28)	✓	Nil	All	146	✓
71	Palerang	Bungendore	Inclining Block	290	Service Connection Size* (eg. 40mm $1160)	✓	Nil	up to 200 kL	110	✓
								>200kL	180	
		Braidwood	Inclining Block	375	Service Connection Size* (eg. 40mm $1500)	✓	Nil	up to 200 kL	160	
								>200kL	310	
		Captains Flat	Inclining Block	348	Service Connection Size* (eg. 40mm $1392)	✓	Nil	up to 200 kL	259	
								>200kL	342	
36	Parkes	Parkes	Inclining Block	307	Meter Size, eg : 40mm $639	✓	Nil	up to 365kL	70	✓
								>365 kL	175	
17	Queanbeyan (Reticulator)	Queanbeyan	Inclining Block	254	Meter Size, eg : 40mm $1107	✓	Nil	up to 176 kL	160	✓
								>176kL	215	
33	Richmond Valley	all	Inclining Block	120	Service Connection Size* (eg. 40mm $480)	✓	Nil	up to 200 kL	120	✓
								>200 kL	160	
8	Riverina	WaggaWagga	Two Part	120	Uniform Access Charge	✓	Nil	up to 36,000 kL	75	×
								>36,000 kL	65	
		Rural Towns & Villages	Two Part	125	Uniform Access Charge		Nil	up to 36,000 kL	87	
						✓		>36,000 kL	77	
4	Rous County Council	Rous Retail	Two Part	112	Uniform Access Charge	✓	Nil	All	99	×
3	Shoalhaven	Shoalhaven, treated	TwoPart	61	Service Connection Size(40mm:$244)	✓	Nil	up to 450 kL	95	✓
								> 450 kL	143	
35	Singleton	Singleton	Two Part	180	Meter Size* (eg. 40mm $720)	✓	Nil	All	83	✓
		Mt Thorley	Two Part	496	Meter Size* (eg. 40mm $1036)	✓	Nil	All	150	
		Jerry's/Broke Plains	Two Part	180	Uniform Access Charge	✓	Nil	All	120	
52	Snowy River (Unfiltered)	Snowy River	Two Part	329	Uniform Access Charge	✓	Nil	All	53	×
13	Tamworth	Tamworth	Inclining Block	170	Service Connection Size* (eg. 40mm $622)	✓	Nil	up to 400 kL	90	✓
								401 to 800 kL	135	
								>800 kL	203	
		Calala Backwash Water						All	21	
		Raw Water						up to 400 kL	62	
								401 to 800 kL	69	
								>800 kL	78	
		Dungowan Dam (if main crosses prop	Inclining Block	85	Uniform Access Charge	✓	Nil	up to 400 kL	31	
		Raw Water						401 to 800 kL	69	
								>800 kL	78	
68	Tenterfield	Tenterfield	Two Part	218	Uniform Access Charge	✓	Nil	All	115	×
		Jennings	Two Part	218	Uniform Access Charge	✓	Nil	All	115	
		Urbenville	Two Part	335	Uniform Access Charge	✓	Nil	All	66	
93	Tumbarumba (Unfiltered)	Tumbarumba	Inclining Block	310	Meter Size* (eg. 40mm $1240)	✓	Nil	up to300 kL	65	✓
								>300 kL	109	
		Khancoban	Inclining Block	350	Meter Size* (eg. 40mm $1400)	✓	Nil	up to300 kL	65	
								>300 kL	114	
43	Tumut	Tumut	Inclining Block	94	Meter Size (eg. 40mm $377)	✓	Nil	up to 400 kL	85	✓
								> 400 kL	106	
		Tumit Raw Water	Inclining Block	75	Meter Size (eg. 40mm $189.20)			up to 400 kL	35	
								> 400 kL	47	
6	Tweed	Tweed	Two Part	95	Meter Size*(40mm:$380)	✓	Nil	All	123	✓
45	Upper Hunter Shire Council	Murrurundi	Two Part	289	Meter Size*(40mm:$579)	✓	Nil	All	131	×
		Merriwa/Cassilis	Two Part	219	Meter Size*(40mm:$445)	✓	Nil	All	95	
		Aberdeen/Scone	Two Part	219	Meter Size*(40mm:$445)	✓	Nil	All	107	

Table 6B: Water supply – 2007-08 non-residential multiple tariffs (continued)

	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
				($)	*Proportional to square of size of service connection or water meter		(kL)	(kL)	(c/kL)	
			(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
73	Upper Lachlan Council	Crookwell	Inclining Block	420	Service Connection Size 38mm:$842)	✓	Nil	up to 250 kL	110	×
								> 250 kL	150	
		Taralga	Inclining Block	420	Service Connection Size 38mm:$842)	✓	Nil	up to 250 kL	110	
								> 250 kL	150	
		Dalton	Inclining Block	420	Service Connection Size 38mm:$842)	✓	Nil	up to 250 kL	110	
								> 250 kL	150	
		Gunning	Inclining Block	210	Service Connection Size 38mm:$422)	✓	Nil	up to 250 kL	110	
								> 250 kL	150	
85	Uralla	Uralla	Two Part	200	Uniform Access Charge	✓	Nil	All	100	×
		Bundarra	Two Part	520	Uniform Access Charge	✓	Nil	All	100	
88	Wakool (Dual Supply)	Moulamein(Filtered + Raw Water)	Two Part, Raw Water is unmetered	210+420	Service Connection Size*(40mm:$814, $1680)	✓	Nil	all	80	✓
		Filtered	Two Part	210	Service Connection Size*(40mm:$840)	✓	Nil	all	80	
98	Walcha	Wakool , Murray Downs, Koraleigh (	Two Part	124	Service Connection Size* 38mm:$111.91x4)	✓	Nil	All	181	✓
		Raw	Two Part	124	Service Connection Size* 38mm:$111.91x4)	✓	Nil	All	91	
79	Walgett (Dual Supply)	Walgett Shire	Unmetered	670	Uniform Access Charge	✓	Unmetered			×
		Lightening Ridge	Unmetered	596	Uniform Access Charge	✓	Unmetered			
		Collarenebri	Unmetered	696	Uniform Access Charge	✓	Unmetered			
		Carinda	Unmetered	293	Uniform Access Charge	✓	Unmetered			
		Carinda Bore	Unmetered	278	Uniform Access Charge	✓	Unmetered			
		Rowena	Unmetered	344	Uniform Access Charge	✓	Unmetered			
		Cumborah	Unmetered	312	Uniform Access Charge	✓	Unmetered			
96	Warren (Dual Supply)	Warren Bore Water	Inclining Block	225	Uniform Access Charge	✓	Nil	up to 450 kL	75	×
								>450 kL	113	
		Warren River Water	Inclining Block				Nil	up to 450 kL	27	
								>450 kL	48	
		Nevertire	Inclining Block	340	Uniform Access Charge	✓	Nil	up to 450 kL	43	
								>450 kL	65	
		Collie	Inclining Block	230	Uniform Access Charge	✓	Nil	up to 400 kL	92	
								>400 kL	136	
55	Warrumbungle	Coonabarabran	Two part	217	Uniform Access Charge	✓	Nil	All	80	×
		Timore Dam (Raw)	Two part	217	Uniform Access Charge	✓	Nil	All	80	
		Baradine	Two part	217	Uniform Access Charge	✓	Nil	All	100	
		Binnaway	Two part	217	Uniform Access Charge	✓	Nil	All	100	
		Villages: Bugaldie, Kenebri	Two part	427	Uniform Access Charge	✓	Nil	All	100	
		Southern, Coolah, Dunedoo & Mendo	Inclining Block	267	Uniform Access Charge	✓	Nil	All	90	
		Village	Two part	427	Uniform Access Charge	✓	Nil	All	90	
57	Wellington	Wellington, Geurie	Inclining Block	270	Service Connection Size 40mm:$1080)	✓	Nil	up to 300 kL	98	✓
								301 to 500 kL	109	
								500 to 10000kL	119	
								>10000 kL	186	
74	Wentworth (Dual Supply)	Filtered	Inclining Block	250	Service Connection Size*(40mm:$1000)	✓	Nil	up to 250 kL	115	✓
								>250 kL	270	
		Raw	Inclining Block	135	Service Connection Size(40mm:$500)	✓	Nil	up to 700 kL	37	
								>700 kL	63	
16	Wingecarribee	Wingecarribee	Two Part	99	Meter Size*(40mm:$396)		Nil	All	124	✓
2	Wyong	Wyong	Two Part	107	Service Connection Size (eg. 40mm: $381.94)	✓	Nil	All	112	✓
56	Yass Valley	Areas	Two Part	200	Meter Size 40mm:$309)	✓	Nil	All	130	✓
		Murrumbateman	Two Part	149	Uniform Access Charge	✓	Nil	All	130	
49	Young (Reticulator)	Young	Two Part	175	Meter Size* (40mm:$700)	✓	Nil	All	125	✓

End

Table 6C: Water supply – 2007-08 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)	
11	Albury City	Albury		Inclining Block	87	Uniform Access Charge	Nil	up to 225 kL	50	N
								226 kL to 19999kL	100	
								>19999	72	
29	Armidale Dumaresq	Armidale	Non Rateable	Two Part	240	Uniform Access Charge	Nil	all	128	N
			Non-Profit Sporting	Two Part	240	Uniform Access Charge	Nil	all	94	
			Untreated water	Allowance, Inclining Block	240	Uniform Access Charge	100	Up to 400 kL	45	
								401 kL to 1000 kL	80	
								>1000 kL	98	
24	Ballina (Reticulator)	Ballina		Inclining Block	100	Service Connection Size* (eg. 40mm $400)	Nil	<350 kL	107	N
								>350 kL	160	
100	Balranald (Dual Supply)	Balranald & Euston, Filtered	All	Two Part	198	Service Connection Size* (eg. 40mm $793)	200	all	66	N
		Balranald & Euston, Raw	All	201 kL Allowance	210	Service Connection Size* (eg. 40mm $721)	Nil	>200 kL	25	
21	Bathurst Regional	Bathurst (Filtered)		Inclining Block	269	Service Connection Size* (eg. 25mm $419; 40mm $1074)	Nil	<300kL	60	N
								>300 kL	90	
23	Bega Valley (Unfiltered)	Bega Valley	Public Hospitals and Nursing Homes		Nil	No Access Charge	300	>300kL	210	L
			Home Dialysis, Home Care Patients		Nil	No Access Charge	> 4 monthly of 70 kL	>Allowance	210	
			Non-Profit Community Org.		Nil	No Access Charge	Nil	all	210	
			Religious bodies		Nil	No Access Charge	Nil	all	210	
			Church Halls, Residences, Church Schools		130	Uniform Access Charge	Nil	all	210	
47	Bellingen (Unfiltered)				202	Meter Size 40mm $808	Nil	all	79	N
53	Berrigan (Dual Supply)	Berrigan,Barooga,Finley(Potable)		Two Part	300	Uniform Access Charge	Nil	all	90	N
		Berrigan,Barooga,Finley(Non-Potable)		Two Part	300	Uniform Access Charge	Nil	all	45	
		Tocumwal (Filtered)		Two Part	300	Uniform Access Charge	Nil	all	60	
89	Bogan	Nyngan	all	Inclining Block	110	Service Connection Size* (eg.40mm $440)	Nil	<450 kL	72	L
								>450 kL	108	
97	Bombala	Bombala		Incining Block	401	Uniform Access Charge	Nil	up to 350 kL	48	N
								>350 kL	103	
		North Yeoval Wellington		Unmetered	307	Uniform Access Charge				
104	Boorowa	Boorowa		Usage Charge only	Nil	No Access Charge	Nil	All	125	N
87	Bourke (Dual Supply)	Bourke		Bourke, Filtered	182	Service Connection Size (eg. 40mm $626)	Nil	All	110	N
				Bourke, Raw	300	Service Connection Size (eg. 40mm $943)				
105	Brewarrina	Brewarrina		Unmetered	805	Uniform Access Charge	Nil	Unmetered		N
		Goodooga		Unmetered	661	Uniform Access Charge	Nil	Unmetered		
27	Byron (Reticulator)	Byron		Two Part	115	Service Connection Size* (eg. 40mm: $460)	Nil	All	127	N
91	Cabonne	Molong		Inclining Block	182	Service Connection (40mm: $364.40)	Nil	<300 kL	130	N
								301 kL to 500 kL	290	
								>500 kL	400	
		Cumnock		Inclining Block	161	Service Connection (40mm: $321.60)	Nil	<300 kL	320	
								301 kL to 500 kL	410	
								>500 kL	430	
		Yeoval		Inclining Block	135	Service Connection (40mm: $269.20)	Nil	<300 kL	170	
								301 kL to 500 kL	230	
								>500 kL	390	
		North Yeoval Wellington		Inclining Block	134	Service Connection (40mm: $268)	Nil	<300 kL	170	
								301 kL to 500 kL	230	
								>500 kL	390	
92	Carrathool	Carrathool	Churches, 1/2 charge	Inclining Block	172	Service Connection (40mm $515.20/2)	Nil	<350kL	75	L
								>350kL	85	
		Hillston	Churches, 1/2 charge	Inclining Block	154	Meter Size (40mm $230.60/2)	Nil	<350kL	50	
								>350kL	60	
		Melbergen		Inclining Block	210.1	Uniform Access Charge	Nil	<400 kL	40	
								>400 kL	70	
		Goolgowi/Merriwagga	Churches, 1/2 charge	Inclining Block	250	Uniform Access Charge	500	<450 kL	50	
								>450 kL	75	
		Rankins Springs	Non-Rateable	500 kL Allowance	578	Uniform Access Charge	500	>500 kL	30	
103	Central Darling	Wilcannia (Filtered)		Two Part	105	Uniform Access Charge		All	360	N
		Wilcannia (Raw)		Two Part	425	Uniform Access Charge		All	300	
		White Cliffs, Raw		Two Part	400	Uniform Access Charge		All	330	
		Ivanhoe (Raw)		Two Part	185	Uniform Access Charge		All	325	
		Ivanhoe (Filtered)		Two Part	115	Uniform Access Charge		All	390	

Table 6C: Water supply – 2007-08 non-rateable tariffs (continued)

	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)	
40	Central Tablelands	Central Tablelands		Inclining Block	124	Meter Size* (eg. 20mm $124; 40mm $496)	Nil	All	135	N
		Quandialla		Inclining Block	464		Nil	up to 200 kL/quarter	120	
								after 200 kL/quarter	200	
14	Clarence Valley	Treated		Two Part	104	Service Connection Size* (40mm:$417)	Nil	All	94	N
		Raw		Two Part	52	Service Connection Size* (40mm:$208)	Nil	All	57	N
67	Cobar (Dual Supply)	Cober		Inclining Block	250	Service Connection Size (40mm:$600)	Nil	<450 kL	75	
								451 - 550 kL	130	N
								>551 kL	185	
10	Coffs Harbour (Unfiltered)	Coffs Harbour, Nana Glen, Coramba		Two Part	108	Meter factor (meter factor<2:$108+meter factor>2 $216+$43.20 per factor > 2)	Nil	All	189	N
50	Cooma-Monaro	Cooma, Bredbo, Nimmitabel		Two Part	342	Uniform Access Charge	Nil	All	80	N
75	Coonamble (Groundwater)	Coonamble		usage only	0	No Access Charge	Nil	All	51	L
		Gulargambone		usage only	0	No Access Charge	Nil	All	69	
		Quambone		usage only	0	No Access Charge	Nil	All	71	
58	Cootamundra (Reticulator)	Cootamundra	community	Two Part	100	Meter Size* (eg 40mm $400)	Nil	All	96	L
42	Corowa	Corowa, Mulwala, Howlong		Two Part	120	Uniform Access Charge	Nil	all	55	N
		Balldale		Two Part	240	Uniform Access Charge	Nil	all	55	
26	Country Energy	Broken Hill & other towns	Exempt Properties	Usage Charge only	Nil	No Access Charge	Nil	All Filtered	166	L
39	Cowra	Cowra	Schools	Two Part	150	Meter Size 40 mm:600	Nil	all	75	S
			Hospital, Showground, industry incentive		Nil		Nil	all	75	L
54	Deniliquin	Deniliquin, Filtered		Two Part	405	Service connection(40mm:818)	Nil	All	57	N
		Deniliquin, Raw		25c/kL for >20mmservice	200	Meter Size	Nil	Unlimited		
18	Dubbo	Dubbo		Inclining Block	116	Meter Size* (eg.40mm $462)	Nil	<550 kL	87	N
								>550 kL	138	
64	Dungog (Unfiltered)	Dungog			193	Meter Size (eg.40mm $416)	Nil	all	145	N
		Clarence Town			199	Meter Size (eg.40mm $432)	Nil	all	145	
		Patterson District			305	Meter Size (eg.40mm $645)	Nil	all	192	
		Gresford			453	Meter Size (eg.40mm $1101)	Nil	all	197	
15	Eurobodalla (Unfiltered)	Eurobodalla		Two Part	285	Meter Size*: 40mm $1140	Nil	All	160	N
51	Forbes	Forbes		Two part	140		Nil	All	64	N
84	Gilgandra (Groundwater)	Gilgandra		Two Part	180	Service Connection Size* (40mm:722)	Nil	All	75	N
		Tooraweenah		Two Part	73	Uniform Access Charge	Nil	All	110	N
60	Glen Innes Severn	Glen Innes		Inclining Block	88	Service Connection Size* (40mm:350)	Nil	upto 450 kL	138	N
								>450 kL	195	
		Deepwater		Inclining Block	88	Service Connection Size* (40mm:350)	Nil	upto 450 kL	60	N
								>450 kL	125	
82	Gloucester	Gloucester		Two Part	225	Service Connection Size (40mm:$900)	Nil	all	135	N
		Barrington		Two Part	225	Uniform Access Charge	Nil	All	135	
0	Goldenfields (Reticulator)	Retail		Two Part	204	Uniform Access Charge	Nil	All	114	N
1	Gosford	Gosford			85	Service Connection Size* (40mm:$341.28)	Nil	All	136	N
20	Goulburn Mulwaree Council	Goulburn		Inclining Block	230	Meter Size*(40mm:$915)	Nil	up to 292 kL (for 20mm	140	N
								>292 kL (for 20mm meter)	200	N
		Marulan		Inclining Block	330	Uniform Access Charge	Nil	up to 292 kL (for 20mm meter)	130	
								>292 kL (for 20mm meter)	175	
80	Greater Hume	Culcairn		Inclining Block	60	Service Connection Size (40mm:$120)	Nil	<200kL	60	N
								>200kL	80	
		Villages		Inclining Block	109	Service Connection Size (40mm:$218)	Nil	<200kL	100	N
								>200kL	130	
30	Griffith	Griffith	Griffith (Filtered)	Inclining Block	108	Meter Size*(40mm:$432)	Nil	up to 200 kL	40	N
								>200 kL	65	
			Yenda (Dual), Filtered	Inclining Block	249	Uniform Access Charge	Nil	up to 200 kL	40	
							Nil	>200 kL	65	
			Yenda (Dual), Raw	Two Part			Nil	All	22	

Table 6C: Water supply – 2007-08 non-rateable tariffs (continued)

	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
					($)	*Proportional to square of size of service connection or water meter	(kL)	(kL)	(c/kL)	
				(1)	(2)	(3)	(5)	(6)	(7)	
94	Gundagai	Gundagai		Two Part	80	Service Connection Size*: 40mm:$320	Nil	all	90	N
44	Gunnedah (Groundwater)	Gunnedah	Sporting/Charitable orgs	Inclining Block	Nil	No Access Charge	Nil	<1600 kL	75	L
								>1600 kL	115	
		Curlewis	Sporting/Charitable orgs		Nil	No Access Charge	Nil	All	80	L
		Mullaley	Sporting/Charitable orgs		Nil	No Access Charge	Nil	All	120	L
		Tambar Springs	Sporting/Charitable orgs		Nil	No Access Charge	Nil	All	200	L
90	Guyra	Guyra		Inclining Block	284	Uniform Access Charge	Nil	up to 450 kL	105	N
								>450 kL	120	
		Tingha		Inclining Block	247	Uniform Access Charge	Nil	up to 450 kL	160	
		Tingha Rural		Inclining Block	226	Uniform Access Charge		>450 kL	190	
81	Gwydir			Inclining Block	430	Meter Size*(40mm:$1720)	Nil	<450kL	90	N
								>450kL	195	
76	Harden (Reticulator)	Harden		Two Part	140	Service Connection Size*:40 mm:$560	Nil	all	120	L
7	Port Macquarie-Hastings (Unfiltered)	Hastings			Nil		Nil	<270 kL	153	L
								>270 kL	306	
86	Hay (Dual Supply)	Hay (Filtered)		Inclining Block	77	Uniform Access Charge	Nil	up to 300 kL	63	N
								>300 kL	95	
		Hay (Unfiltered)		Inclining Block	77	Uniform Access Charge	Nil	<450 kL	28	
								>450 kL	42	
37	Inverell	Inverell, Filtered		Two Part	265	Uniform Access Charge	Nil	All	100	N
106	Jerilderie (Dual Supply)	Jerilderie, Filtered		Inclining Block	177	Service Connection Size*(32mm:$453)	Nil	up to 250 kL	105	N
								>250 kL	140	
		Jerilderie, Raw		Two Part	253	Uniform Access Charge	Nil	all	48	
25	Kempsey (Groundwater)	Kempsey	All	Two Part	275	Service Connection Size:40 mm:$1061.50	Nil	All	99	N
70	Kyogle	Kyogle		Inclining Block	192	Service Connection Size*:40 mm:$768	Nil	< 200 kL	105	N
								> 200 kL	175	
59	Lachlan	Condoblin		Two Part	215	Service Connection Size*:40 mm:$860	Nil	All	93	N
48	Leeton	Leeton, Whitton, Murrami		Inclining Block	175	Meter Size*(40mm:$700)	Nil	up to 350 kL	50	N
								>350 kL	75	
22	Lismore (Reticulator)	Lismore		Two Part	100	Service Connection Size*(40mm:$400)	Nil	All	135	N
31	Lithgow	Lithgow		Inclining Block	510	Service Connection Size (50mm:$680)	Nil	<500 kL	85	N
								>500 kL	160	
61	Liverpool Plains Shire Council	Spring Ridge,Wallabadah, Willow Tree		Inclining Block	203	Service Connection Size* (eg. 40mm $811)	Nil	up to 300 kL	64	N
								>300 kL	106	
		Werris Creek		Inclining Block	256	Service Connection Size(eg. 40mm $1687)	Nil	up to 300 kL	98	N
								>300 kL	160	
5	MidCoast			Two part	130	Meter Size* (eg. 40mm $520)	Nil	All	135	N
32	Mid Western Regional Council	Mudgee, Gulgong & Rylstone		Two part	302	Uniform Access Charge	Nil	All	108	N
38	Moree Plains Shire	Moree, Mungindi, Boggabilla,		Two Part	250	Service Connection Size (eg. 40mm $1000)	Nil	All	72	N
		Garah, Boomi, Boggabilla, Gurley,		Two Part	250	Service Connection Size (eg. 40mm $1000)	Nil	All	50	
65	Murray	Murray, Filt		Two Part	196	Service Connection Size (eg. 40mm $782.80)	Nil	All	67	N
		Murray, Raw		Two Part	72	Service Connection Size (eg. 40mm $288.40)	Nil	All	46	
101	Murrumbidgee	Darlington Point	Churches	Two Part	Nil	No Access Charge	Nil	All	22	L
		Coleambally	Churches	Two Part	Nil	No Access Charge	Nil	All	20	L
41	Muswellbrook	Muswellbrook,Denman, Sandy Hollow		Two Part	175	Service Connection Size (eg. 40mm $700)	Nil	All	155	N
34	Nambucca	Nambucca		Two Part	70	Service Connection Size (eg. 40mm $260)	Nil	All	110	N
46	Narrabri (Groundwater)	Narrabri		Two Part	100	Service Connection Size (eg. 40mm $256)	Nil	All	35	N
		Narrabri, unmetered		Two Part	300	Service Connection Size (eg. 40mm $768)				N
		Gwabegar		Two Part	180	Service Connection Size* (eg. 40mm $461)	Nil	All	51	N
		Wee Wa		Two Part	100	Service Connection Size* (eg. 40mm $256)	Nil	All	40	N
		Boggabri		Two Part	225	Service Connection Size* (eg. 40mm $576)	Nil	All	51	N
		Bellata		Two Part	300	Service Connection Size* (eg. 40mm $768)	Nil	All	51	N
		Pilliga		Two Part	180	Service Connection Size* (eg. 40mm $461)	Nil	All	51	N
63	Narrandera (Groundwater)	Narrandera	Schools	Declining Block	110	Meter Size (eg. 40mm $375)	Nil	All	60	L
62	Narromine (Groundwater)	Narromine, Trangie, Tomingley		Two Part	150	Service Connection Size* (eg. 40mm $600)	Nil	All	70	N
83	Oberon (Unfiltered, Reticulator)	Oberon		Two Part	100	Service Connection Size* (eg. 38mm $361)	Nil	All	108	N
19	Orange	Orange		Two Part	106	Service Connection Size* (eg. 40mm $422.28)	Nil	All	146	N

Table 6C: Water supply – 2007-08 non-rateable tariffs (continued)

	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
					($)	*Proportional to square of size of service connection or water meter	(kL)	(kL)	(c/kL)	
				(1)	(2)	(3)	(5)	(6)	(7)	
71	Palerang	Bungendore		Inclining Block	290	Service Connection Size* (eg. 40mm $1160)	Nil	up to 200 kL	110	N
								>200kL	180	
		Braidwood		Inclining Block	375	Service Connection Size* (eg. 40mm $1500)	Nil	up to 200 kL	160	N
								>200kL	310	
		Captains Flat		Inclining Block	348	Service Connection Size* (eg. 40mm $1392)	Nil	up to 200 kL	259	N
								>200kL	342	
36	Parkes	Parkes		Inclining Block	307	Meter Size, eg : 40mm $639	Nil	up to 365kL	70	N
								>365 kL	175	
17	Queanbeyan	Queanbeyan		Inclining Block	254	Meter Size, eg : 40mm $1107	Nil	up to 176 kL	160	N
								>176kL	215	
33	Richmond Valley	Casino		Inclining Block	120	Service Connection Size* (eg. 40mm $480)	Nil	up to200 kL	120	N
								>200 kL	160	
			Govt Depts, Police Stations, Courts, Schools, Staff Housing, Public Offices		Wagga: $120, Rural, Town & Village: $125	Uniform Access Charge		up to 36,000 kL	75	S
8	Riverina (Groundwater)	Wagga Wagga	Churches or similar	Usage charge only	No Access Charge	No Access Charge	Nil	>36,000 kL	65	
4	Rous County Council	Rous Retail	Community org	Two Part	56	50% of Normal	Nil	All	99	S
3	Shoalhaven	Shoalhaven, treated	All	Two Part	61	Service Connection Size(40mm:$244)	Nil	up to 450 kL	95	N
								> 450 kL	143	
35	Singleton	Singleton		Two Part	180	Meter Size* (eg. 40mm $720)	Nil	All	83	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	329	Uniform Access Charge	Nil	All	53	N
13	Tamworth	Tamworth		Inclining Block	170	Service Connection Size* (eg. 40mm $622)	Nil	up to 400 kL	90	N
								401 to 800 kL	135	
								>800 kL	203	
		Calala Backwash Water						All	21	
		Raw Water						up to 400 kL	62	
								401 to 800 kL	69	
								>800 kL	78	
		Dungowan Dam (if main crosses property)		Inclining Block	85	Uniform Access Charge	Nil	up to 400 kL	31	
		Raw Water						401 to 800 kL	69	
								>800 kL	78	
68	Tenterfield	Tenterfield		Two Part	218	Uniform Access Charge, Council will consider on application, the making of a contribution equivalent to that of the water availability charge		All	115	N
		Jennings		Two Part	218			All	115	
		Urbenville		Two Part	335			All	66	
93	Tumbarumba (Unfiltered)	Tumbarumba		Inclining Block	310	Meter Size* (eg. 40mm $1240)	Nil	up to300 kL	65	N
								>300 kL	109	
		Khancoban		Inclining Block	350	Meter Size* (eg. 40mm $1400)		up to300 kL	65	
								>300 kL	114	
43	Tumut	Tumut		Inclining Block	94	Meter Size (eg. 40mm $377)	Nil	up to 400 kL	85	N
								> 400 kL	106	
		Tumut Raw Water		Inclining Block	75	Meter Size (eg. 40mm $189.20)		up to 400 kL	35	
								> 400 kL	47	
6	Tweed	Tweed		Two Part	95	Meter Size*(40mm:$380)	Nil	All	123	N
45	Upper Humter Shire Council	Murrurundi		Two Part	289	Meter Size*(40mm:$579)	Nil	All	131	N
		Merriwa/Cassilis		Two Part	219	Meter Size*(40mm:$445)	Nil	All	95	
		Aberdeen/Scone		Two Part	219	Meter Size*(40mm:$445)	Nil	All	107	
73	Upper Lachlan Council	Crookwell		Inclining Block	420	Service Connection Size 38mm:$842)	Nil	up to 250 kL	110	N
								> 250 kL	150	
		Taralga		Inclining Block	420	Service Connection Size 38mm:$842)	Nil	up to 250 kL	110	
								> 250 kL	150	
		Dalton		Inclining Block	420	Service Connection Size 38mm:$842)	Nil	up to 250 kL	110	
								> 250 kL	150	
		Gunning		Inclining Block	210	Service Connection Size 38mm:$422)	Nil	up to 250 kL	110	
								> 250 kL	150	
85	Uralla	Uralla		Two Part	200	Uniform Access Charge	Nil	All	100	N
		Bundarra		Two Part	520	Uniform Access Charge	Nil	All	100	
88	Wakool (Dual Supply)	Filtered + Raw Water		Two Part, Raw Water is unmetered	210+420	Service Connection Size*(40mm:$814, $1680)	Nil	All	80	N
		Filtered		Two Part	210	Service Connection Size*(40mm:$840)	Nil	All	80	
98	Walcha	Walcha,Treated		Two Part	124	Service Connection Size* 38mm:$111.91x4)	Nil	All	181	N
		Walcha, Untreated		Two Part	124	Service Connection Size* 38mm:$111.91x4)	Nil	All	91	

Table 6C: Water supply – 2007-08 non-rateable tariffs (continued)

	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
					($)	*Proportional to square of size of service connection or water meter	(kL)	(kL)	(c/kL)	
				(1)	(2)	(3)	(5)	(6)	(7)	
79	Walgett (Dual Supply)	Walgett Shire		unmetered	670	Uniform Access Charge				N
		Lightening Ridge		unmetered	596	Uniform Access Charge				
		Collarenebri		unmetered	696	Uniform Access Charge				
		Carinda		unmetered	293	Uniform Access Charge				
		Carinda Bore		unmetered	278	Uniform Access Charge				
		Rowena		unmetered	344	Uniform Access Charge				
		Cumborah		unmetered	312	Uniform Access Charge				
96	Warren (Dual Supply)	Warren Bore Water		Inclining Block	225	Uniform Access Charge	Nil	up to 450 kL	75	N
								>450 kL	113	
		Warren River Water					Nil	up to 450 kL	27	
								>450 kL	48	
		Nevertire		Inclining Block	340	Uniform Access Charge	Nil	up to 450 kL	43	
								>450 kL	65	
		Collie		Inclining Block	230	Uniform Access Charge	Nil	up to 400 kL	92	
								>400 kL	136	
55	Warrumbungle	Coonabarabran		Two part	217	Uniform Access Charge	Nil	All	80	N
		Timore Dam (Raw)		Two part	217	Uniform Access Charge	Nil	All	80	
		Baradine		Two part	217	Uniform Access Charge	Nil	All	100	
		Binnaway		Two part	217	Uniform Access Charge	Nil	All	100	
		Villages: Bugaldie, Kenebri		Two part	427	Uniform Access Charge	Nil	All	100	
		Southern, Coolah, Dunedoo & Mendooran		Inclining Block	267	Uniform Access Charge	Nil	All	90	
		Village		Two part	427	Uniform Access Charge	Nil	All	90	
57	Wellington	Village		Inclining Block	No Access Charge	No Access Charge	Nil	up to 300 kL	98	L
								301 to 500 kL	109	
								500 to 10000kL	119	
								>10000 kL	186	
74	Wentworth (Dual Supply)	Filtered		Inclining Block	250	Service Connection Size*(40mm:$1000)	Nil	up to 250 kL	115	N
								>250 kL	270	
		Raw		Inclining Block	135	Service Connection Size(40mm:$500)	Nil	up to 700 kL	37	
								>700 kL	63	
16	Wingecarribee	Wingecarribee		Two Part	99	Meter Size*(40mm:$396)	Nil	All	124	N
2	Wyong	Wyong		Two Part	107	Service Connection Size (eg. 40mm $381.94)		All	112	N
56	Yass Valley		Churches,etc	Two Part	200	Meter Size (40mm:$309)	Nil	All	33	L
			Playgrounds & Yass Pool	Two Part	200	Uniform Access Charge	Nil	All	59	
			Binalong Pool	Two Part	200	Uniform Access Charge	Nil	All	117	
49	Young (Reticulator)	Young		Two Part	175	Meter Size* (40mm:$700)	Nil	All	125	N

Table 7: Sewerage – residential charges, bills and cost recovery

	WATER UTILITY	RESIDENTIAL CHARGES (Current & 2007/08)																		BILLS			COST RECOVERY								
		Access Charge (or Minimum)			Operating Cost (OMA)			Access Charge Independent of Land Value ?			Non-residential Sewer Usage Charge (Not incl SDF) c/kL		Does Council Have Liquid Trade Waste Fees and Charges* ?		Non-Res & Trade Waste Charges (% of Annual rates & Charges)	Non-Res & Trade Waste Volume (% of Sewage Collected)	Typical Developer Charge			Typical Residential Bill			Return on Assets			Economic Real Rate of Return			Connected Properties	
		($)			(c/kL)			Yes/No									($/Equivalent Tenement [ET])			($/assessment)			(%)			(%)			(No.)	
		(1)			(2)			(3)			(3a)		(4)		(5)	(6)	(7)			(8) P3			(9)			(11) F14			(12) C2	
		05/06	06/07	07/08	04/05	05/06	06/07	03/04	06/07	07/08	06/07	07/08	06/07	07/08	2006/07	2006/07	05/06	06/07	07/08	05/06	06/07	07/08	04/05	05/06	06/07	04/05	05/06	06/07	06/07
	Sydney Water	374	389	408	72	50	65	✓	✓	✓	123	137	✓	✓			3900	3900	4740	374	389	408				3.8	2.7	1.9	1,672,000
	Hunter Water	268*	284*	303*	48	55	61	✓	✓	✓	44	46	✓	✓			3500	3500	3090	311	326	400				3.2	3.2	1.5	205,000
	LWUs with > 10,000 Properties																														
1	Gosford	364	376	385	115	132	126	✓	✓	✓	80	82	✓	✓		17	1680	3150	3590	364	376	385	-0.8	2.2	1.8	0.2	2.4	1.4	67,580
2	Wyong	368	381	394	115	122	125	✓	✓	✓	68	71	✓	✓	15	30	2000	2000	2300	368	381	394	1.8	0.3	1.4	0.2	0.3	1.4	57,400
3	Shoalhaven	515	526	541	187	190	193	✓	✓	✓	80	85	✓	✓	12	18	3000	4200	5270	515	526	541	3.3	3.7	1.9	4.7	2.4	2.2	37,010
5	MidCoast (Combined)	565	610	646	127	177	174	✓	✓	✓	157	166	✓	✓	18	19	3850	5150	6490	565	610	646	4.0	3.2	0.9	5.0	3.3	1.2	32,050
6	Tweed	445	473	492	104	101	125	✓	✓	✓	71	74	✓	✓	11	26	3490	3490	4800	445	473	492	4.1	2.1	0.5	6.2	1.3	0.2	27,300
9	Wagga Wagga	309	320	333	63	88	85	✓	✓	✓	65	65	✓	✓	27		1450	3500	3500	309	320	333		9.3	4.3	9.0	10.7	3.6	22,700
7	Port Macquarie-Hastings	409	421	484	107	131	106	✓	✓	✓	65	74	✓	✓	13	7	3150	3150	3450	409	421	484	3.3	1.6	2.1	1.8	1.6	0.1	25,800
11	Albury City	355	355	392	129	123	162		✓	✓	149	155	✓	✓	25		2900	4160	4160	355	355	392	-0.4	0.0	-0.4	0.3	0.8	0.1	21,000
10	Coffs Harbour	572	589	600	140	135	350		✓	✓		156	✓	✓	7		4930	4930	4930	572	589	600	6.2	3.6	3.3	7.0	4.1	3.0	21,860
13	Tamworth Regional	470	540	605	101	101	136		✓	✓		18	✓	✓	17	22	1500	1540	1590	470	540	605	2.4	6.2	8.1	4.9	7.7	6.4	18,000
15	Eurobodalla	482	520	553	204	202	204	✓	✓	✓			✓	✓	8	7	7800	8040	8300	482	520	553	3.4	0.0	0.7	4.7	0.3	1.2	17,300
17	Queanbeyan	294	305	314	100	100	95	×	✓	✓	55	60		✓	11	16	1080	1120	1140	294	305	314	1.0	0.7	1.7	0.1	-0.8	0.0	15,500
19	Orange	273	273	283	83	86	128	✓	✓	✓	128	132	✓	✓		36	3240	3340	3420	273	273	283	3.4	-0.1	2.4	0.2	1.0	1.0	15,500
18	Dubbo	421	434	455	178	171	172	×	✓	✓	124	130	✓	✓	31	53	2640	4000	4230	421	434	455	1.9	2.5	1.6	2.8	3.3	1.4	14,420
16	Wingecarribee	416*	500	515	139	129	147	✓	✓	✓	87	87	✓	✓	14	16	4400	7000	7000	504	500	515	3.9	1.9	2.3	1.7	2.9	2.7	14,000
14	Clarence Valley	452	480	530		140	161		✓	✓	28	97	✓	✓	16	8	8000	8000	8000	452	480	530		3.2	7.4		3.2	5.4	12,200
21	Bathurst Regional	351	351	363	118	107	129	×	✓	✓	78	81	✓	✓	36	38	2050	2050	2050	351	351	363	0.0	0.9	1.7	-1.4	1.1	1.2	14,000
24	Ballina	360	360	400	120		137	✓	✓	✓	105	109	✓	✓	20		5930	5930	6460	360	360	400	-0.9	1.1	2.4	-1.1	0.5	1.1	12,500
22	Lismore	432	445	461	93	96	123	✓	✓	✓	110	100	✓	✓	25	18	4560	4560	4680	432	445	461	1.9	4.1	1.3	3.5	2.6	0.9	12,130
	Medians (% of LWUs basis excl bulk suppliers) for >10,000 Properties		*439*	*461*		*129*	*136*		*18 out of 19 have usage charges*				*19 out of 19 have trade waste charges*					*4080*	*4,230*		*439*	*461*		*402*	*1.8*		*2.4*	*1.2*	
	LWUs with 3,001 - 10,000 Properties																														
23	Bega Valley	540	648	890	241	246	279	✓	✓	✓	138	160	✓	✓	15	10	5200	5200	8150	540	648	890	1.1	-0.1	1.2	1.1	-0.1	0.6	10,800
20	Goulburn Mulwaree	471	542	600	185	151	185		✓	✓	202	220	✓	✓	26		5100	5100	5100	471	542	600	1.2	7.7	4.7	5.3	7.1	6.2	9,950
27	Byron	478*	510*	544*	211	145	180	✓	✓	✓	120	133	✓	✓	23	34	6170	9220	9690	651	681	707	1.3	0.9	1.4	0.1	3.1	1.9	9,800
26	Country Energy	268	298	328	144	166	167	×	✓	✓	86	86	✓	✓	17	39				268	298	328	0.7			-3.9			9,600
25	Kempsey	499	517	553	156	168	153	✓	✓	✓	130	135	✓	✓	26	19	6300	6300	6450	499	517	553	6.0	6.1	1.3	1.5	1.4	1.6	8,900
31	Lithgow	380	384	384			206	×	✓	✓	98	98	✓	✓	13		1790	1790	1790	380	384	384	-0.4	7.3	-11.1	2.8	9.3	-12.2	7,130
29	Armidale Dumaresq	272	272	288	117		152	✓	✓	✓				✓	36	35	1240	4060	4060	272	272	288	-0.1		0.6	0.0		0.0	7,650
30A	Hawkesbury	384	398	414			132	✓	✓	✓	165	175		×	25		5590	5590	5590	384	398	414		0.8	-0.1	-1.4	0.6		7,110
30	Griffith	340	354	372	149	124	167	×	✓	✓	73	100	✓	✓	34	18	1690	1690	1770	340	354	372	10.4	0.4	2.4	0.6	0.5	1.8	7,280
33	Richmond Valley	700	725	750	115	112	132	✓	✓	✓	142	150		✓	13		4960	8670	8930	700	725	750	2.7	9.3	3.5	1.6	11.0	3.1	6,350
32	Mid Western Regional	396	433	447	130		98		✓	✓			✓	✓			1850	1850	1850	396	433	447	2.8	3.1	3.4	2.9	2.6	2.6	6,200
34	Nambucca	360	375	375	103	107	106	✓	✓	✓	141	155		✓	30		3640	3740	3820	360	375	375	3.5	2.5	1.0	3.2	2.7	0.8	5,910
35	Singleton	336	350	362	77	87	80	✓	✓	✓		11	✓	✓	16		1330	2470	2550	336	350	362	4.8	3.4	5.8	1.3	3.2	3.9	5,180
37	Inverell	310	350	360	136	126	140	✓	✓	✓		70	×	×	7	10	1180	1180	3010	310	350	360	2.4	0.1	1.9	-2.3	0.2	1.3	4,590
41	Muswellbrook	440	423	424	112		122	✓	✓	✓	155	155	✓	✓	21		4750	4750	4750	440	423	424	7.2	5.0	7.0	3.8	5.5	6.1	4,900

Table 7: Sewerage – residential charges, bills and cost recovery (continued)

	WATER UTILITY	RESIDENTIAL CHARGES (Current & 2007/08)																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) P3			Return on Assets (%) (9)			Economic Real Rate of Return (%) (11) F14			Connected Properties (No.) (12) C2
		05/06	06/07	07/08	04/05	05/06	06/07	03/04	06/07	07/08	06/07	07/08	06/07	07/08	2006/07	2006/07	05/06	06/07	07/08	05/06	06/07	07/08	04/05	05/06	06/07	04/05	05/06	06/07	06/07
36	Parkes	230	250	260	93	88	138	×	✓	✓	97	100	✓	✓	23	30	4100	4100	4100	230	250	260	2.9	5.3	2.7	2.4	5.7	1.0	4,810
42	Corowa	295	305	350	142	103	157		✓	✓				×	15	9	1270	1270	2000	295	305	350	1.1	0.6	2.7	0.5	-0.5	0.7	4,540
38	Moree Plains	620	620	570	96		101	✓	✓	✓	100	100	✓	✓	17		3000	3000	3760	620	620	570	1.8	4.4	3.5	3.5	3.1	3.5	3,820
44	Gunnedah	245	254	292	82	86	97	✓	✓	✓				×	5	9	1950	1950	1950	245	254	292	2.8	2.0	2.3	-0.6	2.2	1.3	3,800
46	Narrabri	463	413	450		87	104	✓	✓	✓			✓	✓			1800	1800	1800	463	463	450	5.4	1.2	1.1	-1.9	1.8	1.0	3,540
43	Tumut	455	466	482	92	95	129	✓	✓	✓	116	123	✓	✓	25		4410	4410	4560	455	466	482	3.4	5.2	13.2	1.5	5.0	12.1	3,820
49	Young	330	345	360	58	47	52	✓	✓	✓			✓	✓	21		1000	1000	1100	330	330	360	5.7	10.6	15.3	15.4	17.2	12.2	3,590
39	Cowra	403	465	522	110		123	✓	✓	✓			✓	✓	27		2650	2650	2750	403	465	522	-1.1	5.0	8.5	3.8	9.4	8.8	3,540
45	Upper Hunter	330	342	354	110	129	143		✓	✓	64	66	✓	✓	9		2300	2300	2300	330	342	354	4.9	1.5	1.4	1.7	0.3	-0.1	3,720
52	Snowy River	422*	360*	396*		187	187	✓	✓	✓	118	130		✓			2500	2500	5000	540	438	484			3.6		2.2	2.3	3,060
51	Forbes	488	501	378	133	117	135	×	✓	✓	120	120	✓	✓	20	24	650	650	1260	488	501	378	3.2	1.7	0.4	3.7	2.6	1.1	3,170
50	Cooma-Monaro	509	560	599	257		238	✓	✓	✓				×	19		1910	1910	1910	509	560	599	4.7	0.8	2.8	0.0	1.4	2.7	3,220
53	Berrigan	320	330	330	138	147	128	✓	✓	✓				×	13		1700	1700	1700	320	330	330	2.7	0.4	1.2	-0.3	-0.7	-0.1	3,190
	Medians (% of LWUs basis excl bulk suppliers) for 3,000 to 10,000 Properties		*384*	*378*		*114*	*137*		*18 out of 27 have usage charges*				*22 out of 27 have trade waste charges*					*2485*	*2,750*		*398*	*399*		*376*	*2.4*		*2.6*	*1.7*	
	LWUs with 1,501 - 3,000 Properties																												
48	Leeton	170	163	415	74	24	29	×	×	✓			✓	✓	36	8	3200	3200	3200		409	409	3.0	5.8	4.0	1.9	5.8	2.7	3,030
54	Deniliquin	461	484	508	120	166	198	✓	✓	✓				✓		8	600	600	600	461	484	508	3.0	1.5	2.1	1.9	2.1	0.3	3,130
47	Bellingen	453	470	485	120	107		✓	✓	✓	109	109	✓	✓		36	3800	3900	3900	453	470	485	1.5	-2.8		-0.7	-5.6		2,920
60	Glen Innes Severn	350	350	350		52	68		✓	✓	88	88		✓			1860	1860	1860	350	350	350		4.4	0.7		4.5	0.9	2,480
58	Cootamundra	233	275	275	72	105	114	×	✓	✓	141	153	×	×	30		700	700	2580	233	275	275	1.6	3.6	0.2	-3.6	4.3	0.4	2,840
57	Wellington	475	475	492	148		165	×	✓	✓	70	70		✓	19	7	1910	1910	1910	475	475	492	2.2	6.9	3.3	4.8	8.5	3.9	2,430
91	Cabonne	460	177*	183*	124	141	167	×	✓	✓	118	120	✓	✓	17		3890	4150	4280	460	308	316	2.6	2.5	5.3	7.0	6.2	4.6	2,300
80	Greater Hume	245	255	255	105	109	145		✓	✓	80	80	×	×	20		3000	6000	6000	245	255	255	1.0	-0.8	-0.9	-0.1	-1.6	-1.4	2,360
59	Lachlan	310	319	331	80			✓	✓	✓			×	×		21				310	319	331	-1.1	1.7		2.4	-0.1		2,240
65	Murray	318	340	351	84	88	117	✓	✓	✓	48	48	✓	✓	25	34	2050	2050	2050	318	340	351	6.6	2.3	1.7	2.8	2.5	1.7	2,560
62	Narromine	460	165*	420		94	94	✓	✓	✓	155	160	✓	✓	17		1220	1220	1220	460	519	420	1.3	0.2	1.0	-0.7	0.5	0.3	1,920
56	Yass Valley	475	475	485	144			×	✓	✓	148	148	✓	✓		10	4160	4260	4390	475	475	485	1.6			10.2			2,140
61	Liverpool Plains	292	300	310	98		117		✓	✓	129	133	✓	✓	20		610	610	610	292	300	310	0.4	1.0	1.1	-1.4		-1.3	1,850
55	Warrumbungle	342	342	354	92		159		✓	✓			×	×	18		1030	1030	1030	342	342	354	-1.0		0.6	-2.4		-0.6	2,330
69	Temora	187	187	211	93		95	✓	✓	✓			×	×	6		150	150	150	187	187	211		1.3	1.0	-1.1	0.5	0.7	2,080
71	Palerang	692	930	838					✓	✓		253	×	✓			3600	3600	3600	692	930	838					5.5		1,780
72	Bland	392	405	476	158	161	205	×	×	×			×	×	28		1000	1000	1000	392	405	476		4.5	1.5	1.0	4.9	-0.2	1,830
63	Narrandera	375	395	417	102	240	200	×	×	✓		110	×	×	17					375	395	417	6.2	2.1	5.6	5.7	-0.6	2.4	1,630
67	Cobar	230	230	230	83	72	58	✓	✓	✓			×	×			770	770	770	230	230	230	1.5	1.1	6.2	-4.6	-0.4	3.9	1,720
74	Wentworth	400	425	445	71	49	60	✓	✓	✓				×	10		2700	3280	3280	400	425	445	0.7	-0.3	-0.7	-0.6	1.1	-0.1	1,790
75	Coonamble	295	304	313	92	74	106	×	✓	✓	72	74		×	10	12				295	304	313	3.9	0.7	0.4	-5.2	-2.9	-3.5	1,350
	Medians (% of LWUs basis excl bulk suppliers) for 1,500 to 3,000 Properties		*342*	*354*		*99*	*117*		*13 out of 21 have usage charges*				*11 out of 21 have trade waste charges*					*1885*	*1,885*		*350*	*354*		*384*	*1.1*		*1.1*	*0.4*	

Table 7: Sewerage – residential charges, bills and cost recovery (continued)

	WATER UTILITY	RESIDENTIAL CHARGES (Current & 2007/08)																		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) P3			Return on Assets (%) (9)			Economic Real Rate of Return (%) (11) F14			Connected Properties (No.) (12) C2
		05/06	06/07	07/08	04/05	05/06	06/07	03/04	06/07	07/08	06/07	07/08	06/07	07/08	2006/07	2006/07	05/06	06/07	07/08	05/06	06/07	07/08	04/05	05/06	06/07	04/05	05/06	06/07	06/07
	LWUs with 200 - 1,500 Properties																												
70	Kyogle	490	508	526	153	122	153	✓	✓	✓	88	88	✓	✓	3	15	1000	1000	1000	490	508	526	0.5	0.7	13.7	-0.2	1.3	13.7	1,590
77	Junee	293	304	314	127		164	✓	✓	✓				×	13		550	550	550	293	304	314		1.5	0.7	1.3	1.3	0.5	1,600
78	Blayney	440	440	420	148	143	164	×	✓	✓	80	110	✓	✓		12	2000	2000	2040	440	440	420		2.1	2.2	3.3	2.5	2.0	1,550
79	Walgett	285	295	316			61	✓	✓	✓			×	✓	8					285	295	316	-0.7	-0.4	-1.1	-1.7	-1.7	-1.2	1,520
68	Tenterfield	350	450	550	205	178	188	✓	✓	✓			✓	×	22		1500	1500	1500	350	450	550	-3.6	0.4	1.9	-3.7	-1.1	0.8	1,480
84	Gilgandra	345	357	381	75	69	86	✓	✓	✓	90	90	✓	✓	26	23				345	357	381	3.0	3.2	4.3	-1.3	4.8	3.8	1,340
73	Upper Lachlan	500	540	550	132		167		✓	✓	97	110		×	15	13	1500	1500	2200	500	540	550	2.2	0.6	2.9	0.3	1.0	3.3	1,380
82	Gloucester	325	325	325	208	263	289	✓	✓	✓	100	100	✓	✓	33	10	5750	5920	6110	325	325	325	10.3	-1.3	0.4	12.2	-2.6	-1.0	1,510
87	Bourke	475	492	509	112	139	357	✓	✓	✓			✓	×	12		460	460	460	475	492	509	-4.8	0.3	-1.1	-1.1	-0.2	-2.0	1,070
86	Hay	376	395	415	120	97	103	✓	✓	✓	65	68	×	×	22	5				376	395	415	-0.9	0.5	1.8	-1.8	-0.3	0.6	1,270
83	Oberon	249	257	342	113	101	117	×	✓	✓	74	111	✓	✓	50		1310	1350	1400	249	257	342	2.4	-0.4	-0.3	0.7	-1.3	-2.3	1,200
81	Gwydir	458	475	475		134			✓	✓	245	245	✓	✓		12			2000	458	475	475					-1.7		1,100
64	Dungog	378	378	420	105	74	185	✓	✓	✓			✓	✓	16	11	2950	2950	3500	378	378	420	3.4	5.9	1.9	10.3	6.5	1.5	920
85	Uralla	410	390	404	192		187	✓	✓	✓	100	120	✓	✓	9	4	340	340	360	410	390	404	0.8	-0.3	1.2	0.7	-0.7	1.1	1,020
95	Weddin	162	178	195	84		74	✓	✓	✓			×	×	8					162	178	195		-7.2	-10.4	4.2	-13.8	-13.2	970
89	Bogan	370	383	370	68	40	47	×	✓	✓		185	×	×	4					370	383	370	-2.5	2.8	1.1	3.9	2.9	0.6	1,060
76	Harden	363	400	440	150	50	46	✓	✓	✓			×	×	7					363	400	440	-2.5	-0.6	4.2	-12.0	-2.3	4.3	970
88	Wakool	420	437	454		147	70	×	✓	✓			×	×	23	11				420	437	454	1.8	3.0	1.2	2.7	3.3	1.1	1,110
93	Tumbarumba	354	365	378	84	80	78	✓	✓	✓	77	80	×	✓	29		430	430	430	354	365	378	3.0	1.2	2.7	2.2	-0.5	0.9	990
94	Gundagai	205	225	248		209	221	×	✓	✓	114	130	✓	✓	41	24				205	225	248	1.0	0.7	0.2	-1.2	0.4	0.1	880
92	Carrathool	207	212	217	86	121	152	✓	✓	✓			×	×			570	570	570	207	212	217	1.2	-1.8	-1.4	-1.7	-1.8	-1.5	810
96	Warren	465	465	465	120	108	158	✓	✓	✓				×	21					465	465	465	-1.0	5.6	4.6	3.6	6.9	2.1	830
99	Coolamon	240	250	255	152		148	✓	✓	✓			×	×	18					240	250	255		3.2	3.0	11.3	5.1	2.3	960
102	Lockhart	337	365	344	91		201	×	✓	✓	262	173	×	×	13		1000	1000	1000	337	365	344			-1.4	-0.2		-2.2	830
98	Walcha	335	360	378	98	129	126	✓	✓	✓	80	87	✓	✓		21				335	360	378	-0.1	-0.2	1.1	-2.6	-1.0	0.9	790
100	Balranald	336	269	269	46		99	✓	✓	✓	15	15	×	×	16		680	680	680	336	269	269	0.5	0.6	-0.4	0.5	0.7	-0.7	760
97	Bombala	390	403	419	89	79	73	×	✓	✓	15	15		×	18		1710	1770	1840	390	403	419	3.1	4.8	2.2	4.7	5.5	1.8	760
101	Murrumbidgee	346	300	300	59	75	71	×	×	×			×	×	7		1000	1000	1000	346	300	300	1.9	3.3	6.0	3.1	2.6	2.2	740
90	Guyra	500	500	500	117	108	252	✓	✓	✓			×	×	12	8			420	500	500	500	1.4	0.2	0.4	1.1	0.6	0.9	960
104	Boorowa	247	297	331	120		95	×	✓	✓			×	✓	2		500	500	500	247	297	331	5.4	4.5	4.7	-1.2	4.4	4.3	530
105	Brewarrina	447	483	515	90	83	101	×	×	×			×	×	19					447	483	515	4.4	3.0	1.1	-1.2	4.7	1.0	480
106	Jerilderie	520	525	500	143	148	148	×	✓	✓	70	70	×	×	30		900	930	930	520	525	500	0.2	5.8	5.1	6.6	6.9	3.1	420
103	Central Darling	300	300	360	88	85	103	✓	✓	✓				×			400	400	400	300	300	360	-2.6	-1.8	-2.3	-1.5	-2.1	-2.5	200
107	Urana	195	200	207	93	110	103	✓	✓	✓				×			4100	4100	4100	195	200	207		-0.6	0.7	0.3	0.1	0.5	300
	Medians (% of LWUs basis excl bulk suppliers) for 200 to 1,500 Properties			*380*			*126*			*17 out of 34 have usage charges*					*13 out of 34 have trade waste charges*				*1,000*		*380*			*1.2*			*0.9*	
	Median All LWUs (% of LWUs basis)	*Access Charge*		*400*	*OMA (c/kL)*		*130*	*Non res Usage Charge*		*100*							*Developer Charge*		*2300*	*TRB*		*400*	*ROA*		*1.7*	*ERRR*		*1.1*	
	Median All LWUs (Statewide basis)			*405*			*129.3*			*90*									*3900*		*405*			*1.4*			*1.4*	

NOTE: Bills and Charges are in January 2008$

* **This LWU has a residential sewer usage charge which is added to the residential access charge.**

66 out of 101 have usage charges

65 out of 101 have trade waste charges

Note that, as shown on page 115 of Table 3, 65 LWUs have non-residential sewerage charges which comply with the *Best-Practice Management Guidelines* and 52 LWUs have complying trade waste fees and charges.

Table 7A: Sewerage – 2007-08 residential multiple tariffs

	WATER UTILITY	Town	Access Charge (or Minimum) ($) (1)	Access Charge Independent of Land Value ? (2)
78	Blayney	Blayney	420	✓
		Millthorpe	680	✓
87	Bombala	Bombala	419	✓
		Delegate	340	✓
105	Brewarrina	Brewarrina	514	
		Goodooga	224	
91	Cabonne	Molong	183	✓
		Canowindra	376	✓
		Eugora	319	✓
		Manildra	500	×
		Cudal, Cumnock, Yeoval	500	×
92	Carrathool	Hilston	217	✓
		Goolgowi	111	✓
75	Coonamble	Coonamble	313	✓
		Gulargambone	381	✓
42	Corowa	Corowa	350	✓
		Mulwala	400	✓
		Howlong	335	✓
20	Goulburn Mulwaree Council	Goulburn	600	✓
		Marulan	730	✓
80	Greater Hume	Burrumbuttock	460	✓
		Jindera	220	✓
		Holbrook	320	✓
		Culcairn	255	✓
		Henty	190	✓
		Walla Walla	280	✓
44	Gunnedah	Gunnedah	292	✓
		Curlewis	510	✓
90	Guyra	Guyra	500	✓
		Tingha	350	✓
102	Lockhart	Lockhart	344	✓
		The Rock	333	✓
		Yerong Creek	342	✓
101	Murrumbidgee	Darlington Point	300	×
		Coleambally	192	×
46	Narrabri	Narrabri	450	✓
		Wee Waa	460	✓
		Boggabri	350	✓
71	Palerang	Bungendore	838	✓
		Braidwood	1180	✓
		Captaind Flat	769	✓
93	Tumbarumba	Tumbarumba	378	✓
		Khancoban	398	✓
73	Upper Lachlan Council	Crookwell	550	✓
		Gunning	600	✓
		Taralga	650	✓
79	Walgett	Walgett	316	
		Lightening Ridge	299	
		Collarenebri	342	
96	Warren	Warren	465	✓
		Nevertire	490	✓
55	Warrumbungle Shire Council	Coolah & Dunedo	314	✓
		Coonabarabran	354	×
		Baradine	450	✓
57	Wellington	Wellington	492	×
		Mumbli	472	×
		Guerie	461	×

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 – 2007-08 non-residential multiple 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	127	✓	Meter Size (eg 25mm:$209, 40mm:$536)+usage	155 c/kL	✓
29	Armidale Dumaresq	Armidale	288	✓	Uniform Access Charge — Multiple Units: $257/WC; Hotels, Motels: $94/WC, $40/Urinals		×
24	Ballina	Ballina	300+usage	✓	Service connection size* (40mm $1200)	109 c/kL	✓
100	Balranald	Balranald	228+usage	✓	Access charge per equivalent 20 mm water connection	15 c/kL	✓
21	Bathurst Regional	Bathurst	363	✓	Service Connection Size*(25mm:$498, 40mm:$1274)	81 c/kL	✓
23	Bega Valley	Bega Valley	890	✓	Meter size* (eg. 40mm $3560)	160 c/kL	✓
47	Bellingen	Bellingen, Urunga, Dorrigo	485	✓	Uniform Access Charge	109 c/kL for >365 discharge	×
53	Berrigan	Berrigan, Finley, Tocumwal, Barooga	330	✓	Uniform Access Charge, after two WCs $72/WC		
72	Bland	Bland	476	×	Land Value		×
78	Blayney	Blayney	372	✓	Service connection size* (40mm $1488)	110 c/kL	✓
		Millthorpe	636	✓	Service connection size* (40mm $2544)	110 c/kL	
89	Bogan	Nyngan	100	✓	Service connection size* (40mm $400)	185 c/kL	✓
97	Bombala	Bombala	403	✓	Uniform Access Charge	15 c/kL	×
		Delegate	341	✓	Uniform Access Charge	65 c/kL	
104	Boorowa	Boorowa	331	✓	Uniform Access Charge		×
87	Bourke	Bourke	509	✓	Uniform Access Charge		×
105	Brewarrina	Brewarrina	514			$44/Urinals, Additional WCs (2-5) $130, additional WC $44/WC	×
		Goodooga	224				
27	Byron	Byron	544+usage	✓	$544 for up to 1 kL/d of usage, $544 for each/part additional kL/d of usage	120 c/kL	✓
91	Cabonne	Molong	183	✓	Service connection size* (40mm $514.40)	120 c/kL	✓
		Canowindra	376	✓	Service connection size* (40mm $520.60)	120 c/kL	
		Eugora	319	✓	Service connection size (40mm $505.10)	120 c/kL	
		Manildra	500	×	Land Value		
		Cudal, Cumnock, Yeoval	500	×	Land Value		
92	Carrathool	Hilston	217.30+$22.05/unit	✓	Base Charge — Motels:Base+10% Base charge/unit; Service Station:1.5 Base Charge;laundromat, Clubs & Hotels:2xBase Charge		×
		Goolgowi	111.30+$9.75/unit		Base Charge — Motels:Base+10% Base charge/unit; Service Station:1.5 Base Charge;laundromat, Clubs & Hotels:2xBase Charge		
103	Central Darling	Wilcannia	360	✓	Uniform Access Charge for two fittings, $120/additional fitting		×
14	Clarence Valley		305	✓	Service connection size* (40mm: $1218)	97 c/kL	✓
67	Cobar		260	✓	Uniform Access Charge for 3 WCs, additional $60/WC		×
10	Coffs Harbour	Coffs Harbour	584*water meter factor*discharge factor	✓	based on water meter factor	156 c/kL	×
99	Coolamon	Coolamon	255	✓	Uniform Access Charge	for >2 Pedestals, $70/Pedestal	×
		Ganmain	255	✓	Uniform Access Charge	for >2 Pedestals, $70/Pedestal	
50	Cooma-Monaro	Cooma,Nimmitabel	638	✓	$638 for consumption < 100 kL, increasing to $15153 for consumption > 8,000 kL		×
75	Coonamble	Coonamble	313	✓	Uniform Access Charge	74 c/kL, for >150kL water usage	×
		Gulargambone	381	✓	Uniform Access Charge	78 c/kL, for >150kL water usage	
58	Cootamundra	Cootamundra	160	×	Meter Size* 40mm:$640		×
42	Corowa	Corowa	350	✓	Uniform Access Charge	3 to 8 WC: $84/WC, 9 to 20 $56/WC, >20 WCs: $42/WC	×
		Mulwala	400	✓	Uniform Access Charge		
		Howlong	335	✓	Uniform Access Charge		
26	Country Energy	Broken Hill	537	✓	Service connection size* (40mm:$2146)	86 c/kL	✓
39	Cowra	Cowra	522+114	✓	Uniform Access Charge	$57/cistern	×
54	Deniliquin	Deniliquin	508	✓		$101/WC, $40/Costern, $58/3WC+$28/WC, $27/Urinal	×
18	Dubbo	Dubbo	242	✓	Service connection size* (40mm:$968)	130 c/kL	✓
64	Dungog	Dungog	400	✓	Uniform Access Charge	Hotels-Licensed Area & Clubs: $189/WC, $157/Urinal, Hotels- Guest Areas & Motels: $94/WC, $75/Urinal	×
15	Eurobodalla	Eurobodalla	553	✓	Meter Size(Availability Factor based)* (eg. 40mm 4x$553)		×
51	Forbes	Forbes	378	×	Service Connection Size* 40mm:1512	120 c/kL	×
84	Gilgandra	Gilgandra	182	✓	Service Connection Size*(40mm:$730)	90 c/kL	✓
60	Glen Innes Severn	Glen Innes	148	✓	Service Connection Size*(40mm:$594)	88 c/kL	×
82	Gloucester	Gloucester	295	✓	Service connection size* (40mm:$1180)	100 c/kL	✓
1	Gosford	Gosford	385	✓	Meter Size*(40mm $1540.48)	82 c/kL	✓
76	Goulburn Mulwaree	Goulburn	330	✓	Meter Size* (40mm:1325)	220 c/kL	✓
		Marulan	900	✓	Meter Size* (40mm:3600)	180 c/kL	

Table 7B: Sewerage – 2007-08 non-residential multiple tariffs (continued)

	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	88	✓	Service Connection Size*(40mm:$352)	80 c/kL	✓
		Jindera	85	✓	Service Connection Size(40mm:$169)	80 c/kL	✓
		Holbrook	96	✓	Service Connection Size(40mm:$192)	80 c/kL	✓
		Culcairn	96	✓	Service Connection Size(40mm:$192)	80 c/kL	✓
		Henty	100	✓	Service Connection Size(40mm:$200)	80 c/kL	✓
		Walla Walla	103	✓	Service Connection Size(40mm:$206)	80 c/kL	✓
30	Griffith	Griffith	168	✓	Service Connection Size* (40mm:$672)	100 c/kL	✓
94	Gundagai	Gundagai	80	✓	Service Connection*(eg 40mm:320)	130 c/kL	✓
44	Gunnedah	Gunnedah	292	✓	Uniform Access Charge		×
		Curlewis	510	✓	Uniform Access Charge		
90	Guyra	Guyra	500	✓	Uniform Access Charge	Ist WC/Urinal covered by rate, 2 to 6: $212/WC or Urinal, All additional: $106/WC or Urinal	×
		Tingha	350	✓	Uniform Access Charge		
81	Gwydir	Bingara, Warialda	400	✓	Meter Size*(eg 40mm:1600)	245 c/kL	✓
76	Harden	Harden	440	✓	Uniform Access Charge		×
7	Port Macquarie-Hastings	Hastings	484	✓	Uniform Access Charge	74 c/kL	×
30A	Hawkesbury	Category 1, Vol < 1kL/d	484	✓	Uniform Access Charge		×
		Category 2, Vol : 1kL to 5 kL/d	2420	✓	Uniform Access Charge		
		Category 3, Vol < 5kL to 10 kL/d	4821	✓	Uniform Access Charge		
		Category 4, Vol : 10kL to 20 kL/d	9611	✓	Uniform Access Charge		
		Category 5, Vol > 20 kL/d	9611	✓	Uniform Access Charge	for waste > 20 kL/d, 175c/kL	
86	Hay	Hay	340	✓	Uniform Access Charge	68 c/kL	×
37	Inverell	Inverell, Ashford, Delungra, Gilgai	360	✓	Uniform Access Charge		×
106	Jerilderie	Jerilderie	500	✓	Service Connection*(eg 32mm:1280)	70 c/kL	✓
77	Junee	Junee	314	✓	$78.90/WC, $30.40/Urinal		×
25	Kempsey	Kempsey	495	✓	Meter Size*(eg 40mm:$1980)	135 c/kL	✓
70	Kyogle	Kyogle	192	✓	Service Connection Size*(40mm:$768)+Usage, (minimum $526 including Trade waste Charges)	88 c/kL	✓
59	Lachlan	Lachlan	331	✓	Uniform Access Charge		×
48	Leeton	Leeton	241	×	Land Value		×
22	Lismore	Lismore, Nimbin & Perradenya	473	✓	Uniform Access Charge		×
31	Lithgow	Lithgow,Wallerawang, Portland	510	✓	Service Connection Size(50mm:$680)	98 c/kL	✓
61	Liverpool Plains	Quirindi, Werris Creek	188	✓	Service Connection Size*(40mm:$754))	133 c/kL	✓
102	Lockhart	Lockhart	152	✓	Meter Size*(40mm:$607)	173 c/kL	✓
		The Rock	215	✓	Meter Size*(40mm:$861)	90 c/kL	
5	MidCoast		488	✓	Meter Size*(eg 40mm: $1952)	166 c/kL	✓
32	Mid Western Regional	Mudgee, Gulgong & Rylstone	447	✓	Uniform Access Charge		×
38	Moree Plains Shire	Moree, Mungindi, Balone, Bogabilla and Gurly	570	✓	Service Connection Size (40mm:$1304)	100 c/kL	✓
65	Murray	Moama, Mathoura	252	✓	Service Connection Size*(40mm:$1009.40)	48 c/kL	✓
101	Murrumbidgee	Darlington Point	300	×	Land Value		×
		Coleambally	192	×	Land Value		×
41	Muswellbrook	Muswellbrook, Denman	185	✓	Service Connection Size*(40mm:$740))	155 c/kL	✓
34	Nambucca	Nambucca	375	✓	Service Connection Size (40mm:$544))	155 c/kL	×
46	Narrabri	Narrabri	450	✓	Uniform Access Charge	$68/Pedestal, $68/Cistern	×
		Wee Waa	460	✓	Uniform Access Charge	$69/Pedestal, $69/Cistern	
		Bogabri	350	✓	Uniform Access Charge	$53/Pedestal, $53/Cistern	
63	Narrandera	Narrandera	285	✓	Service Connection Size* (40mm:$1140))	110 c/kL	✓
62	Narromine	Narromine, Trangie	150	✓	Service Connection Size*(38mm:$600))	160 c/kL	✓
83	Oberon	Oberon	100	✓	Service Connection Size*(38mm:$361))	111 c/kL	✓
19	Orange	Orange	100	✓	Service connection Size 40mm:$401.95	132 c/kL	✓
71	Palerang	Bungendore	812	✓	Service connection Size 40mm:$1624	253 c/kL	×
		Braidwood	1495	✓	Service connection Size 40mm:$2990	259 c/kL	
		Captaind Flat	966	✓	Service connection Size 40mm:$1932	260 c/kL	

Table 7B: Sewerage – 2007-08 non-residential multiple tariffs (continued)

	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	260	✓	Meter Size (40mm:$438))		100 c/kL		×
17	Queanbeyan	Queanbeyan	245	✓	Service Connection Size (40mm:$1067)		60 c/kL		✓
33	Richmond Valley	all	(120+(1.50xC))xSDF	✓	Service Connection Size(40mm:$480), C=Water Cons in kL, SDF=0.95		150 c/kL		✓
3	Shoalhaven	Shoalhaven	541	✓	Meter Size (40mm:$1434))		85 c/kL		✓
35	Singleton	Singleton	362	✓	Uniform Access Charge			for more than 2 WCs: $161.75/WC, $88.40/Urinal	×
52	Snowy River	Snowy River	396	✓	Uniform Access Charge+usage		130 c/kL		×
13	Tamworth	Tamworth	605	✓	Meter Size (40mm: $796.80)		18 c/kL	Strata lot availability:$421	×
69	Temora	Temora	211	✓	Uniform Access Charge			up to 3 WCs, 4 to 9 WCs $105.50/WC, >10 WCs $52.75/W	×
68	Tenterfield	Tenterfield, Urbenville	550	✓	Uniform Access Charge			$183.33/WC for Motels, $275/WC for Parks/Guest Houses/Clubs/Hotels	×
93	Tumbarumba	Tumbarumba	217	✓	Meter Size (40mm:$869))		80 c/kL		✓
		Khancoban	217	✓	Meter Size (40mm:$869))		80 c/kL		
43	Tumut	Tumut	457	✓	Meter Size* (40mm:$1821))		123 c/kL		✓
6	Tweed	Tweed	492	✓	Uniform Access Charge			74 c/kL for >270kL/y	×
45	Upper Hunter	Murrurundi, Merriwa, Aberdeen/Scone	428	✓	Meter Size (40mm $858)		66 c/kL		✓
73	Upper Lachlan	Crookwell	550	✓	Uniform Access Charge		110 c/kL		×
		Gunning	600	✓	Uniform Access Charge		110 c/kL		
		Taralga	650	✓	Uniform Access Charge		110 c/kL		
85	Uralla	Uralla	285	✓	Uniform Access Charge		120 c/kL		×
107	Urana		207	✓	Uniform Access Charge				
9	Wagga Wagga	Wagga Wagga	666	✓		Access charge includes first 4 pan equivalent fixtures. Additional $80/equivalent fixture			×
88	Wakool	Wakool, Barham, Moulamein, Tooleybuc, Mul	454	✓		Hotels: SC+20%SC/Cistern+10%SC/Room, Clubs: SC+20%SC/Cistern, Shops/Motels/Units: SC+10%SC			×
98	Walcha	Walcha	378	✓			87 c/kL		✓
79	Walgett	Walgett	316	✓	Uniform Access Charge	Additional $315.65/Pedestal, $49.45/Cistern			×
		Lightening Ridge	299	✓	Uniform Access Charge	Additional $298.90/Pedestal, $49.45/Cistern			
		Collarenebri	342	✓	Uniform Access Charge	Additional $341.70/Pedestal, $49.45/Cistern			
96	Warren	Warren	465	✓	Uniform Access Charge	for multiple users:$233/WC/Urinal		$233/WC	×
		Nevertire	490	✓	Uniform Access Charge				
55	Warrumbungle	Coolah & Dunedo	314	✓	Uniform Access Charge				×
		Coonabarabran	354	×					
		Baradine	450	✓	Uniform Access Charge				
95	Weddin	Grenfell	195	✓	Uniform Access Charge				×
57	Wellington	Wellington, Mumbli, Guerie	270	✓	Meter Size* (40mm $1080)	minimum charge:$492	70 c/kL		×
74	Wentworth	Wentworth, Nimatjira	445	✓	Uniform Access Charge				×
16	Wingecarribee	Wingecarribee	441	✓	Meter Size* (40mm:$1765.07)		86.52 c/kL		✓
2	Wyong	Wyong	394	✓	Meter Size* (40mm:$1576.28)		71 c/kL		✓
56	Yass Valley	Yass	485	✓	Uniform Access Charge		148 c/kL		×
49	Young	Young	360	✓	Uniform Access Charge			after 2 WCs, $172.50/WC	×

Table 7C: Sewerage – 2007-08 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		120	✓	Meter Size (eg 25mm:$209, 40mm:$536)	155 c/kL	N
29	Armidale Dumaresq	Armidale	Churches & Hospitals	Nil		$85/WC, $40/Urinal		L
			Others	Nil		$42/WC, $40/Urinal		
24	Ballina	Ballina	Hospitals, Schools and Churches	300	✓	Service Connection Size* (40mm:$1200)	109 c/kL	N
100	Balranald	Balranald		228	✓	Access charge per equivalent 20 mm water connection	15c/kL	N
21	Bathurst Regional	Bathurst	Schools and Churches excluding church residen	363	✓	Service Connection Size*(25mm:$498, 40mm:$1274)	81 c/kL	N
23	Bega Valley	Bega Valley	Nursing Homes & Public Hospitals	Nil	✓	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	160 c/kL, Discharge Factor 76%, Sporting Complex 26%	L
			Non-Profit Community Organisations	Nil			160 c/kL	L
			Religious Bodies	Nil			160 c/kL	
47	Bellingen	Bellingen, Urunga, Dorrigo		485	✓	Uniform Access Charge	109c/kL, 365kL allowance if charge is levied, else 0 kL	N
53	Berrigan	Berrigan, Finley, Tocumwal, Barooga		Nil	✓	$72 per cistern/toilet		L
72	Bland	Bland			×	$100/WC		L
78	Blayney	Blayney	all	372	✓	Service connection size* (40mm $1488)	110 c/kL	N
		Millthorpe	all	636	✓	Service connection size* (40mm $2544)	110 c/kL	
89	Bogan	Nyngan	all	100	✓	Service connection size* (40mm $400)	185c/kL	N
97	Bombala	Bombala		403	✓	Uniform Access Charge	15 c/kL	N
		Delegate		341	✓	Uniform Access Charge	65 c/kL	
104	Boorowa	Boorowa		331	✓	Uniform Access Charge		N
87	Bourke	Bourke		509	✓	Uniform Access Charge		N
105	Brewarrina	Brewarrina		514	×		$44/Urinals, Additional WCs (2-5) $130, additional WC $44/WC	N
		Goodooga		224	×			
27	Byron	Byron		544+usage	✓	<1kL/d usage $544, $544 each/part additional kL/d	133 c/kL	N
91	Cabonne	Molong		183	✓	Service connection size* (40mm $514.40)	120 c/kL	N
		Canowindra		376	✓	Service connection size* (40mm $520.60)	120 c/kL	
		Eugora		319	✓	Service connection size (40mm $505.10)	120 c/kL	
		Manildra		500	×	Land Value		
		Cudal, Cumnock, Yeoval		500	×	Land Value		
92	Carrathool	Hilston, Goolgowi	Police Stations, Hospitals, Schools, etc	Nil	✓	$71.75/WC, $35.90/Urinal		L
			Churches	Nil	✓	$36/WC, $18/Urinals		
103	Central Darling	Wilcannia		360	✓	Uniform Access Charge for two fittings, $120/additional fitting		N
14	Clarence Valley			Nil	✓		162 c/kL	L
67	Cobar			260	✓	Uniform Access Charge For > 3 WCs, additional $60/WC		N
10	Coffs Harbour	Coffs Harbour	Schools/Church	584*water meter factor*discharge factor		based on water meter factor	156 c/kL	N
75	Coolamon	Coolamon		255	✓	for greater than 2 toilets, $70/WC		N
		Ganmain		255	✓	for greater than 2 toilets, $70/WC		
50	Cooma-Monaro	Cooma		599	✓			S
75	Coonamble	Coonamble			✓	Uniform Access Charge	74 c/kL	L
		Gulargambone			✓	Uniform Access Charge	78 c/kL	
58	Cootamundra	Cootamundra	community	64		Meter Size 50 mm: $256		L

Table 7C: Sewerage – 2007-08 non-rateable tariffs (continued)

	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				$84/WC, $42/Urinal		N
		Mulwala				$84/WC, $42/Urinal		
		Howlong				$84/WC, $42/Urinal		
26	Country Energy	Broken Hill	State Schools, Religious bodies				86 c/kL	L
39	Cowra	Cowra		522+114	✓	Uniform Access Charge	$57/cistern	N
54	Deniliquin	Deniliquin	Schools & Churches	484	✓	$53/WC, $40/Costern		S
18	Dubbo	Dubbo	All Non-Rateable	242	✓	Service connection size* (40mm:$968)		N
64	Dungog	Dungog	Schools & Churches	Nil		$189/WC, $157/Urinal		S
			Nursing Homes			$94/WC, $157/Urinal		
			Others			$377/WC, $157/Urinal		
15	Eurobodalla	Eurobodalla		553	✓	Meter Size(Availability Factor based)* (eg. 40mm 4x$553)		N
51	Forbes	Forbes		378		Service Connection Size 40mm:1512	120 c/kl	N
84	Gilgandra	Gilgandra		182	✓	Service Connection Size*(40mm:$730)	90 c/kL	N
60	Glen Innes Severn	Glen Innes		148	✓	Service Connection Size*(40mm:$594)	88 c/kL	N
82	Gloucester	Gloucester	Schools,Churches	295		Service connection size* (40mm:$1180)	100 c/kL	N
1	Gosford	Gosford		385	✓	Meter Size*(40mm $1540.48)	82 c/kL	N
20	Goulburn Mulwaree Council	Goulburn		330		Meter Size* (40mm:1325)	220 c/kL	N
		Marulan		900		Meter Size* (40mm:3600)	180 c/kL	
80	Greater Hume	Henty, Culcairn, Walla Walla	Burrumbuttock	88		Service Connection Size*(40mm:$352)	80 c/kL	N
			Jindera	85		Service Connection Size(40mm:$169)	80 c/kL	
			Holbrook	96		Service Connection Size(40mm:$192)	80 c/kL	
			Culcairn	96		Service Connection Size(40mm:$192)	80 c/kL	
		Holbrook	Henty	100		Service Connection Size(40mm:$200)	80 c/kL	
		Burrumbuttock, Jindera	Walla Walla	103		Service Connection Size(40mm:$206)	80 c/kL	
30	Griffith	Griffith		168		Service Connection Size(40mm:$672)	100 c/kL	N
94	Gundagai	Gundagai	All Non-Rateable	80		Service Connection*(eg 40mm:$320)	130 c/kL	N
44	Gunnedah	Gunnedah, Curlewis	Schools and Churches	Nil		$58/WC & $52/Urinal		S
			Others	Nil		$103/WC & $52/Urinal		
90	Guyra	Guyra	All Non-Rateable			$106/WC or Urinal		L
81	Gwydir	Bingara, Warialda		400	✓	Meter Size*(eg 40mm:$1600)	245 c/kL	N
76	Harden	Harden	Schools and Residences, Religious bodies			$82.50/WC, $66/Cistern		L
			Others			$165/WC, $66/Cistern		
7	Port Macquarie-Hastings	Hastings	Churches and halls	311	✓	Uniform Access Charge	74 c/kL	L
			Others	386	✓			
30A	Hawkesbury	Category 1, Vol < 1kL/d		484	✓	Uniform Access Charge		N
		Category 2, Vol : 1kL to 5 kL/d		2420		Uniform Access Charge		
		Category 3, Vol < 5kL to 10 kL/d		4821		Uniform Access Charge		
		Category 4, Vol : 10kL to 20 kL/d		9611		Uniform Access Charge		
		Category 5, Vol > 20 kL/d		9611		Uniform Access Charge	if waste generated > 20 kL/d, 175 c/kL	
86	Hay	Hay		340	✓	Uniform Access Charge	68 c/kL	N
31	Inverell	Inverell, Ashford, Delungra, Gilgai		360		Uniform Access Charge		N

Table 7C: Sewerage – 2007-08 non-rateable tariffs (continued)

	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		$45/WC, $40/Urinal		L
			Others	Nil		$80/WC, $45/Urinal		
77	Junee	Junee	School, Churches and Hospitals	Nil	✓	$35.40/WC, $26.80/Urinal		S
			Aged Care Hostel/Unit	Nil	✓	$53.80/Unit		
			Others	Nil	✓	$78.90/WC, $30.40/Urinal		
25	Kempsey	Kempsey	All	495	✓	Meter Size*(eg 40mm:$1980)	135 c/kL	N
70	Kyogle	Kyogle,Wooden Bong, Bonalbo		192	✓	Service Connection Size*(40mm:$768)+Usage, (minimum $508 including Trade waste Charges)	88 c/kL	N
59	Lachlan	Lachlan	Schools			$41.20/WC, $30.90/Urinal		L
			Others			$72.10/WC, $30.90/Urinal		
48	Leeton	Leeton	Churches &Schools	Nil		$90/WC, $37.50/Cistern		L
			Others	Nil		$47.50/WC, $37.50/Cistern		
22	Lismore	Lismore, Nimbin & Perradenya		510	✓	Uniform Access Charge		N
31	Lithgow	Lithgow,Wallerawang, Portland		510	✓	Service Connection Size(eg: 50mm:$680)	98c/kL	N
61	Liverpool Plains Shire Council	Quirindi, Werris Creek	All	188	✓	Service Connection Size*(40mm:$754))	133 c/kL	N
102	Lockhart	Lockhart		152	✓	Meter Size*(40mm:$607)	173 c/kL	N
		The Rock		215	✓	Meter Size*(40mm:$861)	90 c/kL	
5	MidCoast			488	✓	Meter Size*(eg 40mm: $1952)	166 c/kL	N
32	Mid Western Regional Council	Mudgee, Gulgong & Rylstone		447	✓	Uniform Access Charge		N
38	Moree Plains Shire	Moree, Mungindi, Balone, Bogabilla and Gurly		570	✓	Service Connection Size (40mm:$1304)	100 c/kL	N
65	Murray	Moama, Mathoura		252	✓	Service Connection Size*(40mm:$1009.40)	48 c/kL	N
101	Murrumbidgee	Darlington Point		300		Land Value		N
		Coleambally		192		Land Value		N
		Churches	Churches	26				L
41	Muswellbrook	Muswellbrook, Denman	All	185	✓	Service Connection Size*(40mm:$740))	155 c/kL	N
34	Nambucca	Nambucca	All	375	✓	Service Connection Size (40mm:$544))	155c/kL	N
46	Narrabri	Narrabri		450	✓	$68/Pedestal, $68/Cistern		N
		Wee Waa		460	✓	$69/Pedestal, $69/Cistern		
		Bogabri		350	✓	$53/Pedestal, $53/Cistern		
63	Narrandera	Narrandera	All	285		Service Connection Size* (40mm:$1140))	110 c/kL	N
62	Narromine	Narromine, Trangie	All			Nil	160 c/kL	L
83	Oberon	Oberon	Non-Rateable	100	✓	Service Connection Size*(38mm:$361))	111 c/kL	N
19	Orange	Orange	All	100	✓	Service connection Size 40mm*:$401.95+Usage	132 c/kL	N
71	Palerang	Bungendore		812	✓	Service connection Size 40mm:$1624	253 c/kL	N
		Braidwood		1495	✓	Service connection Size 40mm:$2990	259 c/kL	
		Captaind Flat		966	✓	Service connection Size 40mm:$1932	260 c/kL	
36	Parkes	Parkes	Chrches	130			100 c/kL	L
17	Queanbeyan	Queanbeyan	Schools and Churches			$70/WC		L
33	Richmond Valley	Richmond		(120+(1.50xC))xSDF	✓	150c/kL		N
3	Shoalhaven	Shoalhaven		541	✓	Meter Size (40mm:$1434))	85 c/kL	N
35	Singleton	Singleton	Non-Rateable Properties	Nil		$44.80/WC and $32.35/Urinals		L
16	Snowy River	Snowy River		396	✓	Uniform Access Charge	130 c/kL	N

Table 7C: Sewerage – 2007-08 non-rateable tariffs (continued)

	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
13	Tamworth	Tamworth		605	✓	Meter Size (40mm: $796.80)	18c/kL	N
69	Temora	Temora		211	✓	up to 3 WCs, 4 to 9 WCs $105.50/WC, >10 WCs $52.75/WC		N
68	Tenterfield	Tenterfield	Schools, Churches & Community Managed serv	Nil		$60/WC, $49/Cistern		L
			Others			$111/WC, $49/Cistern		
93	Tumbarumba	Tumbarumba		217	✓	Meter Size (40mm:$869))	80 c/kL	N
		Khancoban		217	✓	Meter Size (40mm:$869))	80 c/kL	
43	Tumut	Tumut	All	457	✓	Meter Size* (40mm:$1821))	123 c/kL	N
6	Tweed	Tweed	All	492	✓	Uniform Access Charge	74 c/kL for >270kL/y	N
45	Upper Humter Shire Council	Murrurundi		428	✓	Meter Size (40mm $858)	66 c/kL	N
73	Upper Lachlan Council	Crookwell		550	✓	Uniform Access Charge	110 c/kL	N
		Gunning		600	✓	Uniform Access Charge	110 c/kL	
		Taralga		650	✓	Uniform Access Charge	110 c/kL	
85	Uralla	Uralla		285	✓	Uniform Access Charge	120 c/kL	N
107	Urana			207		Uniform Access Charge	School 0.25ET/pupil, Nursing Home 1/8 ET/bed	N
9	Wagga Wagga	Wagga Wagga		666	✓	Includes up to 4 pan equivalent fixtures. Additional $80/equivalent fixture		N
88	Wakool	Barham, Moulamein, Murray Downs, Tooleybuc	Churches	Nil		15% of SC per cistern		L
			Hospitals/Nursing homes			1xSC+15% of SC per cistern		
			Others			1xSC		
98	Walcha	Walcha		378			87 c/kL	N
79	Walgett			220	✓			N
96	Warren	Warren		465	✓	for multiple users:$233/WC/Urinal		N
		Nevertire		490	✓			
55	Warrumbungle Shire Council		Schools & Hospitals	Nil		$80.45/WC, $40.75/Urinal		L
			Others	354				L
95	Weddin	Grenfell	Schools, Religious Bodies	Nil	✓	$45/WC, $38/Cistern		N
			Others	Nil	✓	$79/WC, $38/Cistern		
57	Wellington	Villages	Church	Nil	✓		70c / kL	L
		Wellington	Church	216		minimum charge $380	70c / kL	L
74	Wentworth	Wentworth, Nimatjira	Church	Nil	✓	$47/WC, $42Urinal		L
			Others	Nil	✓	$85/WC, $42Urinal		
16	Wingecarribee	Wingecarribee	Schools & Churches			$40/WC, $35Urinal		
			Others			$78.65/WC, $35Urinal		
2	Wyong	Wyong		394	✓	Meter Size* (40mm:$1576.28)	71 c/kL	N
56	Yass Valley	Yass	All	485			148c/kL	N
49	Young	Young	Schools and associated residences/churches	Nil	✓	$180/WC, $72/Urinal		L
			Church residences and Others	Nil		$90/WC, $72/Urinal		

Table 7D: Sewerage – Liquid trade waste fees and charges (2007-08)

	WATER UTILITY	Does LWU have complying Liquid Trade Waste Policy* ? (1) 2006/07	Complying Trade Waste Fees & Charges (Yes/No) (2)	All liquid trade waste approvals (Yes/No) (3)	ANNUAL TRADE WASTE FEE ($) Category 1 (4)	Category 1A [Prescribed pretreatment with low impact] (5)	Category 2 (6)	Category 3 (7)	Reinspection Fee $/inspection Cat/1/2/3 (8)	Category 2 Trade Waste Usage Charge (c/kL) (9)	Excess Mass Charge (c/kg) BOD (10)	Suspended Solids (11)	Oil & Grease (12)	Non-compliance Excess Mass Charge for BOD (Yes/No) (13)
11	Albury City	Yes	Yes	Yes	62					131	26	16		
29	Armidale Dumaresq	Yes*	Yes	Yes	132	132	228	570			52	65	72	
24	Ballina	Yes	Yes	Yes	64	64	128	430	94	109	54	69	200	Yes
100	Balranald		No											
21	Bathurst Regional	Yes	Yes		70		70	47	66	140	60	76	106	
23	Bega Valley	Draft - Yes*	No											
47	Bellingen	Draft	Yes		80									
53	Berrigan		No											
72	Bland		No											
78	Blayney	Yes	Yes	Yes	67		67	258	62	95	44	43	87	
89	Bogan		No											
97	Bombala		No											
104	Boorowa		Yes		130				60					
87	Bourke		No											
105	Brewarrina		No											
27	Byron	Yes	Yes	Yes	210					133				
91	Cabonne	Yes	Yes		66									
92	Carrathool		No											
103	Central Darling		No											
40	Central Tablelands (No Sge)													
14	Clarence Valley	Yes	Yes											
67	Cobar	Yes	No	Yes										
66	Cobar WB													
10	Coffs Harbour	Yes	Yes		165									
99	Coolamon		No											
50	Cooma-Monaro	Yes*	No											
75	Coonamble		No											
58	Cootamundra		No											
42	Corowa	Yes*	No											
26	Country Energy	Yes	No		145		462		145	126				
39	Cowra	Draft	No											
54	Deniliquin	Yes	Yes		64		128	300	60	120	54	69	97	
18	Dubbo	Yes*	Yes	Yes	126	126	630	630	115	130	115	90	210	
64	Dungog	Yes	No						90	39	115	110	115	
15	Eurobodalla	Yes	Yes	Yes	64			400	69	200				
12	Fish River WS (No Sge)													
51	Forbes	Yes*	Yes		104	104	104		104	55				
84	Gilgandra	Yes*	Yes	Yes					75	140				
60	Glen Innes Severn	Yes	Yes		140		140	485	68	135				
82	Gloucester	Yes*	Yes	Yes	272				82		58	76	103	
28A	Goldenfields (Reticulator) (No Sge)													
1	Gosford	Yes	Yes	Yes	179				120	138	138	138	702	
20	Goulburn Mulwaree	Yes	Yes	Yes	75	75	275	275	60	200	61	78	109	
80	Greater Hume		No											
30	Griffith	Yes	Yes	Yes	66		156	450	60	69	100	107		
94	Gundagai		Yes		70					130				
44	Gunnedah		No											
90	Guyra	Yes*	No	Yes										
81	Gwydir		No		64		64	430	60	120				
76	Harden		No											
7	Port Macquarie-Hastings	Yes*	Yes	Yes	114		114	492	69		62	78	111	
30A	Hawkesbury		No											
86	Hay	Yes*		Yes										

Table 7D: Sewerage – Liquid trade waste fees and charges (2007-08) (continued)

	WATER UTILITY	Does LWU have complying Liquid Trade Waste Policy* ? (1) 2006/07	Complying Trade Waste Fees & Charges (Yes/No) (2)	All liquid trade waste approvals (Yes/No) (3)	ANNUAL TRADE WASTE FEE ($) Category 1 (4)	Category 1A [Prescribed pretreatment with low impact] (5)	Category 2 (6)	Category 3 (7)	Reinspection Fee $/inspection Cat/1/2/3 (8)	Category 2 Trade Waste Usage Charge (c/kL) (9)	Excess Mass Charge (c/kg) BOD (10)	Suspended Solids (11)	Oil & Grease (12)	Non-compliance Excess Mass Charge for BOD (Yes/No) (13)
37	Inverell		No											
106	Jerilderie		No											
77	Junee		Yes											
25	Kempsey	Draft - Yes*	Yes	Yes	72		72	488	83	135	61	82	113	
70	Kyogle	Yes	Yes	Yes	72		72	477	68	100	54	69	97	
59	Lachlan	Draft - Yes*	No	Yes										
48	Leeton	Yes	Yes											
22	Lismore	Draft - Yes*	Yes	Yes	170		170		100		145	85	250	
31	Lithgow	Yes	Yes	Yes	128		190	348	55	120				
61	Liverpool Plains	Yes	Yes		70		70	468	66		100	100	200	
102	Lockhart		No											
5	MidCoast	Draft - Yes*	Yes	Yes	77		114	410			134	113	162	
32	Mid Western Regional		No	Yes										
38	Moree Plains	Yes	No						65					
65	Murray	Yes	Yes		100	86	200	300	100	120	54	69	97	
101	Murrumbidgee	Yes	No											
41	Muswellbrook	Draft - Yes*	No	Yes										
34	Nambucca	Yes	Yes	Yes	75		110	110	110					
46	Narrabri	Yes*	Yes	Yes	175		220	330			175			
63	Narrandera		No											
62	Narromine	Yes	No						68	116				
83	Oberon	Draft	No											
19	Orange	Yes	Yes	Yes	64		64	430	60	132	41	45	80	
71	Palerang		Yes		68			454	63	127	57	73	102	
36	Parkes	Draft - Yes*	Yes	Yes	71		71	478	67	135				
17	Queanbeyan	Yes	Yes	Yes	64		64	430	60	120				
33	Richmond Valley	Draft - Yes*	No											
8	Riverina (No Sge)													
4	Rous (No Sge)		Yes											
3	Shoalhaven	Yes	Yes	Yes	42	42	124	480	62	67	31	78	56	
35	Singleton	Yes	Yes	Yes	256				82		53	169	94	
52	Snowy River	Draft - Yes*	Yes		73									
13	Tamworth Regional	Yes	Yes	Yes	111		111	493	73	28	62	111	79	
69	Temora		No											
68	Tenterfield		No	Yes										
93	Tumbarumba	Yes	Yes	Yes	64				60	120	54	69	97	
43	Tumut	Yes	Yes	Yes	146	256	586	1017	107		120	110	200	
6	Tweed	Draft - Yes*	No	Yes	75		150	506	70	65				
45	Upper Hunter	Yes	Yes		282				85		58	76	103	
73	Upper Lachlan		No											
85	Uralla		Yes	Yes	68				120					
107	Urana		No											
9	Wagga Wagga	Draft - Yes*	Yes	Yes	70		47	685	70	66	57	38	35	
88	Wakool		No				141							
98	Walcha	Draft	Yes		69			430	69	130				
79	Walgett	Yes	No											
96	Warren	Draft	No											
55	Warrumbungle		No		68									
95	Weddin	Draft	No											
57	Wellington	Yes	Yes	Yes	68				65	120				
74	Wentworth		No											
16	Wingecarribee	Yes	Yes	Yes										
2	Wyong	Yes	Yes	Yes					42		66	54	133	
56	Yass Valley	Yes	Yes	Yes	80			450	75	120				
49	Young	Yes*	Yes		70				70		44	44	88	

Table 8: 2006-07 NSW urban water supplied

	WATER UTILITY	URBAN WATER SUPPLIED - Potable (ML) (Excludes bulk water)												URBAN WATER SUPPLIED - Non-potable (ML) (Excludes bulk water)						TOTAL URBAN WATER SUPPLIED[7] (Potable + Non-potable incl Recycled) Excl Bulk Water	BULK WATER EXPORTS (Potable + Non-potable)	WATER SOURCES (ML)				
		REVENUE WATER (Potable)							NON REVENUE WATER (Potable)					Recycled Water												
		Residential	Commercial	Industrial	Rural	Institutional	Public Parks & Gardens	Total Revenue Water (Potable) Sum (1) to (6)	Unbilled Authorised (Fire Fighting, Flushing)	Total Water Losses[3,6] Real Loss (Leakage)[6]	Apparent Loss (illegal use, meter error)	Total Loss Sum (9)+(9a)	Total Non Rev Water Max of (8)+(9b) or (7)/0.9-(7)	TOTAL URBAN WATER SUPPLIED Potable Revenue + Non Revenue Water (7) + (9c)	for Urban Water Supply[9] (Non-potable)	for Agriculture or Other Uses[10]	Total Volume Recycled = (11)+(11a)	% of Effluent Recycled	Non-potable Urban Water Excluding Recycled	TOTAL Non-Potable Urban Water (11) + (12a)	=(10)+(12b)		Surface Water	Ground Water	Bulk Purchases	Total Sourced Water Excluding Recycled =(15)+(16)+(17)	Total Sourced Water Including Recycled + Bulk Supply =Sum (11)+(17a)
		(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(9a)	(9b)	(9c)	(10)	(11) W 4	(11a)	(11b) W 14	(11c) W 15	(12a)	(12b)	(13) W 8[11]	(14) W 10	(15) W 1	(16) W 2	(17) W 5	(17a)	(17b) W 7
	Sydney Water Corporation	316,813													7,777	13,352	21,129	4			509,930	0	6,395	0	502,692	509,087	516,864
	Hunter Water Corporation	39,238													4,060	0	4,060	8			70,599	4,157	84,971	31,790	0	116,761	120,821
	Sydney Catchment Authority																					507,250	503,700	450	3,100	507,250	507,250
LWUs with > 10,000 Properties																											
1	Gosford	9,800	1,386	462	10	445	98	12,201					***1,356***	***13,557***		212	212	2			***13,557***	3,545	15,406	380	80	15,866	15,866
2	Wyong	7,568	3,321					10,889		550	489	1,039	1,039	11,928	1,233		1,233	9		1,233	13,161	1,966	4,979	511	8,404	13,894	15,127
3	Shoalhaven	6,907	1,584	2,153	575	121	139	11,479	573	635	215	850	1,423	12,902	109	1,810	1,919	27		109	13,011		14,616		78	14,694	14,803
4	Rous (Bulk Supplier) (NO SGE)	513	21		272			806	115	116		116	231	1,037							1,037	10,051	10,972			10,972	10,972
5	MidCoast (Unfiltered)	5,560	1,528	773		146	116	8,123	195	788	400	1,188	1,383	9,506		75	75	10			9,506		9,098	662		9,760	9,760
6	Tweed	6,004	1,401	143	47	209	258	8,062	96	600	770	1,370	1,466	9,528	310	30	340	5		310	9,838		10,121			10,121	10,431
7	Port Macquarie-Hastings (Unfilter	4,303	962	22	43	344	60	5,734	3	865	112	977	980	6,714				4			6,714		6,509			6,509	6,509
8	Riverina (Groundwater) (NO SGE	10,252	1,901	1,122	1,187	907	504	15,873	81	1,400	205	1,605	1,686	17,559							17,559		6,315	11,102	80	17,497	17,497
10	Coffs Harbour (Unfiltered)	3,887	1,010	94		133	92	5,216	95	392		392	487	5,703		636	636	10	5	5	5,708		5,728			5,728	5,728
11	Albury	5,741	762	286	42	436	381	7,648	38	775	164	939	977	8,625		4,468	4,468	100			8,625	436	8,752			8,752	8,752
12	Fish River WS (Unfiltered, Bulk S	228		36	258			522		690		690	690	1,212							1,212	11,249	12,101			12,101	12,101
13	Tamworth Regional	4,088	965	1,603	88	368	466	7,578		1,040		1,040	1,040	8,618		1,468	1,468	34	90	90	8,708		8,395	346		8,741	8,741
14	Clarence Valley	3,324	1,019	560	537		112	5,552	60	340	301	641	701	6,253	103		103	4		103	6,356	4,232	11,025			11,025	11,128
15	Eurobodalla (Unfiltered)	2,271	758		53	70	26	3,178	20	809	56	865	885	4,063	142	131	273	8		142	4,205		3,741			3,741	3,883
16	Wingecarribee	3,532	557	30	206	135	34	4,494	23	324	95	419	442	4,936		87	87	3			4,936	3	1,205		4,644	5,849	5,849
17	Queanbeyan (Reticulator)	3,058	298	295		23	319	3,993	88		4		***444***	***4,437***		81	81	2			***4,437***				4,082	4,082	4,082
18	Dubbo	5,976	1,029	255	213	610	589	8,672	144	1,377	185	1,562	1,706	10,378		2,658	2,658	97			10,378		8,501	2,056		10,557	10,557
19	Orange	4,536	436	162	53	260	72	5,519	28	408		585	***613***	6,132	2,836		2,836	100		2,836	8,968	1	5,469	63		5,532	8,368
20	Goulburn Mulwaree	1,150	226	263	5	179	9	1,832	345	180	201	381	726	2,558		655	655	42			2,558	5	2,145			2,145	2,145
21	Bathurst Regional	3,805	1,055	969	41	131		6,001	30		63		***667***	***6,668***		575	575	16	2	2	***6,670***	10	14,573			14,573	14,573
22	Lismore (Reticulator)	2,176	830		119			3,125		348	61	409	409	3,534		182	182	6			3,534		148		3,409	3,557	3,557
23	Bega Valley (Unfiltered)	2,067	639	77	143	140	74	3,140	18	321	263	584	602	3,742		608	608	31			3,742	9	1,640	1,968		3,608	3,608
24	Ballina (Reticulator)	2,394	681					3,075		428	376	804	804	3,879	193		193	6	193	386	4,265		134		3,753	3,887	3,946
25	Kempsey (Groundwater)	1,900	442	190	446	86	33	3,097	159	520	166	686	845	3,942	119		***119***	6		119	4,061	17	13	3,920		3,933	4,052
26	Country Energy	2,685	335	1,260		273	35	4,588			175		***510***	***5,098***	641		***641***	48	1,092	1,733	***6,831***		1,515		3,961	5,476	6,117
27	Byron (Reticulator)	1,744	690		125			2,559	15	229	48	277	292	2,851	340	484	824	29		340	3,191		444		2,366	2,810	3,150
28A	Goldenfields (Reticulator) (NO SC	2,234	525	117	2,515	148	289	5,828	40		146		***467***	***6,295***							***6,295***				5,970	5,970	5,970
28B	Goldenfields (Bulk Supplier) (NO	5,987												***10,504***					169	169	*773*	9,900	4,607	5,581	485	10,673	10,673
	Totals (excluding bulk suppliers) for LWUs with >10,000 Properties													*182,000*	*6,032*	*14,154*	*20,186*		*1,382*	*7,414*	*189,000*	*31,524*	*163,545*	*21,008*	*36,827*	*221,380*	*227,278*
LWUs with 3,001 - 10,000 Properties																											
29	Armidale Dumaresq	1,897	322			524	46	2,789			52		***310***	***3,099***		763	763	44	53	53	***3,152***		2,743			2,743	2,743
30	Griffith	4,343	1,278		773	44	700	7,138	36	486	330	816	852	7,990	32	302	334	18	682	714	8,704				8,528	8,528	8,560
31	Lithgow	***1,169***												***2,050***							***2,050***		1,496		814	2,310	2,310
32	Mid-Western Regional	1,984	829			20	300	3,133					***348***	***3,481***							***3,481***						
33	Richmond Valley	1,436	371	750	41		25	2,623		492	50	542	542	3,165		329	329	18			3,165		2,492		623	3,115	3,115
34	Nambucca (Groundwater)	859	437	37	101	55	18	1,507	9	200	28	228	237	1,744		***133***	***133***	8			1,744			1,810		1,810	1,810
35	Singleton	1,438	439	247	57	122		2,303		330	139	469	469	2,772		646	646	50			2,772		2,772			2,772	2,772
36	Parkes	1,188	180	2,618	20	130	155	4,291		465	92	557	557	4,848		160	160	21	212	212	5,060		708	4,037		4,745	4,745
37	Inverell	1,406	200	350			150	2,106			100		***238***	***2,344***							***2,344***			30	2,246	2,276	2,276
38	Moree Plains (Groundwater)	2,260	251	121			59	2,691			350		***536***	***3,227***					75	75	***3,302***	6	447	2,801		3,248	3,248
39	Cowra	1,216	422	105	388	40		2,171	156				***241***	***2,412***					95	95	***2,507***	12	2,338			2,338	2,338

Table 8: 2006-07 NSW urban water supplied (continued)

	WATER UTILITY	URBAN WATER SUPPLIED - Potable (ML) (Excludes bulk water)													URBAN WATER SUPPLIED - Non-potable (ML) (Excludes bulk water)						TOTAL URBAN WATER SUPPLIED[7] (Potable + Non-potable incl Recycled) Excl Bulk Water	BULK WATER EXPORTS (Potable + Non-potable)	WATER SOURCES (ML)				
		REVENUE WATER (Potable)							NON REVENUE WATER (Potable)					TOTAL URBAN WATER SUPPLIED Potable Revenue + Non Revenue Water (7) + (9c)	Recycled Water				Non-potable Urban Water Excluding Recycled	TOTAL Non-Potable Urban Water (11) + (12a)							
		Residential	Commercial	Industrial	Rural	Institutional	Public Parks & Gardens	Total Revenue Water (Potable) Sum (1) to (6)	Unbilled Authorised (Fire Fighting, Flushing)	Total Water Losses[3,6] Real Loss (Leakage)[6]	Apparent Loss (illegal use, meter error)	Total Loss Sum (9)+(9a)	Total Non Rev Water Max of (8)+(9b) or (7)/0.9-(7)		for Urban Water Supply[9] (Non-potable)	for Agriculture or Other Uses[10]	Total Volume Recycled = (11)+(11a)	% of Effluent Recycled			=(10)+(12b)		Surface Water	Ground Water	Bulk Purchases	Total Sourced Water Excluding Recycled =(15)+(16)+(17)	Total Sourced Water Including Recycled + Bulk Supply =Sum (11)+(17a)
		(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(9a)	(9b)	(9c)	(10)	(11) W 4	(11a)	(11b) W 14	(11c) W 15	(12a)	(12b)	(13) W 8[11]	(14) W 10	(15) W 1	(16) W 2	(17) W 5	(17a)	(17b) W 7
40	Central Tablelands (NO SGE)	790	224	186	295	44	20	1,559	50	119	15	134	184	1,743							1,743	217	1,517	443		1,960	1,960
41	Muswellbrook	1,271	565	24	1	100	62	2,023	11		29		***225***	***2,248***	654	279	933	74		654	***2,902***		2,066	31		2,097	2,751
42	Corowa	1,348	300	53	4	43	168	1,916	10	217	44	261	271	2,187		529	529	68			2,187		3,243			3,243	3,243
43	Tumut	614	69	135	5	382	8	1,213	203				***203***	***1,416***					42	42	***1,458***		1,447	40		1,487	1,487
44	Gunnedah (Groundwater)	1,523	286	572	29		286	2,696	29	200	50	250	279	2,975		456	456	83			2,975	143		2,868		2,868	2,868
45	Upper Hunter	1,000	196	199	10	12	110	1,527			30		***170***	***1,697***	282	178	460	51		282	***1,979***		1,870	340		2,210	2,492
46	Narrabri (Groundwater)	***2,052***												***3,600***		554	554	58			***3,600***			3,300		3,300	3,300
47	Bellingen (Unfiltered)	655	134		86	117		992	58	261	23	284	342	1,334							1,334	1					
48	Leeton	***1,633***												***2,865***							***2,865***		2,868			2,868	2,868
49	Young (Reticulator)	782	194	288		53	97	1,414	198	140	13	153	351	1,765		***114***	***114***	15			1,765				1,611	1,611	1,611
50	Cooma-Monaro	***969***												***1,700***							***1,700***						
51	Forbes	1,477	287	49	9	118	39	1,979	10		15		***220***	***2,199***		8	8	1	225	225	***2,424***	259	2,443	90		2,533	2,533
52	Snowy River (Unfiltered)	403	188	61	5	64	27	748		150		150	150	898					6	6	904		1,092			1,092	1,092
53	Berrigan (Dual Supply)	702	40	1	21	62	48	874	12	118	60	178	190	1,064		56	56	10	857	857	1,921		1,883			1,883	1,883
	Totals (excluding bulk suppliers) for 3,000 - 10,000 Properties													***65,000***	*968*	*4,507*	*5,475*		*2,247*	*3,215*	*68,000*	*638*	*31,425*	*15,790*	*13,822*	*61,037*	*62,005*
	LWUs with 1,501 - 3,000 Properties																										
54	Deniliquin	1,350	220	40	120	16	25	1,771	150	200	25	225	375	2,146		500	500	77	952	952	3,098	1	2,000			2,000	2,000
55	Warrumbungle	***780***	104					***884***					***98***	***982***	40	68	108	25		40	***1,022***		616	568		1,184	1,224
56	Yass Valley	541	122				23	686	30	110	16	126	156	842		171	171	52			842	4	818	28		846	846
57	Wellington	707	101			36	31	875	7	260	78	338	345	1,220		1	1	0			1,220		1,220			1,220	1,220
58	Cootamundra (Reticulator)	574	121	16	3	111	13	838		69		93	93	***931***		***185***	***185***	39			931				907	907	907
59	Lachlan	727	115	27	210	41	49	1,169	36	91	28	119	155	***1,324***	99	112	211	21	32	131	1,455	6	1,634	12	118	1,764	1,863
60	Glen Innes Severn	***473***												***830***		***13***	***13***	***2***			***830***						
61	Liverpool Plains	***542***												***950***							***950***						
62	Narromine (Groundwater)	673												***1,180***							***1,180***						
63	Narrandera (Groundwater)	832												***1,460***							***1,460***						
64	Dungog (Reticulator)	358	52		45	45	26	526	20	40	20	60	80	606		180	180	97			606	16	50		563	613	613
65	Murray (Dual Supply)	532	200	2	10	5	1	750		47	12	59	59	809		93	93	18	691	691	1,500		1,738			1,738	1,738
66	Cobar WB																					2,310					
67	Cobar	***1,248***												***2,190***		***105***	***105***	***25***			***2,190***						
68	Tenterfield	340	40	2	2	2	4	390					***43***	***433***		126	126	39			***433***	15	453			453	453
70	Kyogle	293	50	26	50	28	4	451					***50***	***501***		55	55	18			***501***		352		63	415	415
71	Palerang	***296***												***520***							***520***						
73	Upper Lachlan	350	50	3	1	20	40	464	25	30	15	45	70	534							534		280	90		370	370
74	Wentworth (Dual Supply)	165												***290***				3			***290***						
76	Harden (Reticulator)	374	72	1	32	10		489	8	38	5	43	51	540		***85***	***85***	***15***			540				832	832	832
75	Coonamble (Groundwater)	656	50	14	2	120	120	962	10	147	90	237	247	1,209	5	45	50	18		5	1,214			1,199		1,199	1,204
	Totals (excluding bulk suppliers) for 1,500 - 3,000 Properties													***19,000***	*144*	*1,739*	*1,883*		*1,675*	*1,819*	*21,000*	*42*	*9,161*	*1,897*	*2,483*	*13,541*	*13,685*
	LWUs with 200 - 1,500 Properties																										
79	Walgett (Dual Supply)	265	153					418					***46***	***464***		***517***	***517***	***83***	1,042	1,042	***1,506***		928	534		1,462	1,462
80	Greater Hume	390	12	2	140	10	25	579	2		9		***64***	***643***	100	24	124	24		100	***743***	14		209	404	613	713
81	Gwydir	325	30	1	10	32	160	558	50	120	17	137	187	745	1	29	30	17		1	746		316	401		717	718
82	Gloucester	234	57	41		11	9	352					***39***	***391***							***391***		366			366	366

Table 8: 2006-07 NSW urban water supplied (continued)

	WATER UTILITY	URBAN WATER SUPPLIED - Potable (ML) (Excludes bulk water)												URBAN WATER SUPPLIED - Non-potable (ML) (Excludes bulk water)						TOTAL URBAN WATER SUPPLIED[7] (Potable + Non-potable incl Recycled) Excl Bulk Water	BULK WATER EXPORTS (Potable + Non-potable)	WATER SOURCES (ML)				
		REVENUE WATER (Potable)							NON REVENUE WATER (Potable)					Recycled Water												
		Residential	Commercial	Industrial	Rural	Institutional	Public Parks & Gardens	Total Revenue Water (Potable) Sum (1) to (6)	Unbilled Authorised (Fire Fighting, Flushing)	Total Water Losses[3,6] Real Loss (Leakage)[6]	Apparent Loss (illegal use, meter error)	Total Loss Sum (9)+(9a)	Total Non Rev Water Max of (8)+(9b) or (7)/0.9-(7)	TOTAL URBAN WATER SUPPLIED Potable Revenue + Non Revenue Water (7) + (9c)	for Urban Water Supply[9] (Non-potable)	for Agriculture or Other Uses[10]	Total Volume Recycled = (11)+(11a)	% of Effluent Recycled	Non-potable Urban Water Excluding Recycled	TOTAL Non-Potable Urban Water (11) + (12a)	=(10)+(12b)		Surface Water	Ground Water	Bulk Purchases	Total Sourced Water Excluding Recycled =(15)+(16)+(17)	Total Sourced Water Including Recycled + Bulk Supply =Sum (11)+(17a)
		(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(9a)	(9b)	(9c)	(10)	(11) W 4	(11a)	(11b) W 14	(11c) W 15	(12a)	(12b)	(13) W 8[11]	(14) W 10	(15) W 1	(16) W 2	(17) W 5	(17a)	(17b) W 7
83	Oberon (Reticulator)	175	35	429			38	677			34		*79*	*756*							*756*				749	749	749
84	Gilgandra (Groundwater)	550	160	75	20	15	50	870	15	65	10	75	90	960		215	215	81			960	30		915		915	915
85	Uralla	230	25	20			15	290	12	30	3	33	45	335							335		400			400	400
86	Hay (Dual Supply)	208	121					329		23		37	37	*366*					1,277	1,277	1,643		1,606			1,606	1,606
87	Bourke (Dual Supply)	412	238					650					*72*	*722*					2,414	2,414	*3,136*						
88	Wakool (Dual Supply)	388	92		18		8	506		52		52	52	558					920	920	1,478		1,120		306	1,426	1,426
89	Bogan	499	241				48	788					*88*	*876*							*876*				788	788	788
90	Guyra	232	168	2		1	5	408	2		8		*45*	*453*							*453*		443		50	493	493
91	Cabonne	153	49					202	10	60	12	72	82	284		69	69	25	47	47	331		334	15		349	349
92	Carrathool (Groundwater)	162			*200*			362			*162*		*193*	*555*		8	8	8	24	*24*	*579*			451	584	1,035	1,035
93	Tumbarumba	*217*												*380*							*380*						
94	Gundagai	220	65	60	50	35	35	465	12	40	40	80	92	557	185	105	290	99		185	742		638			638	823
96	Warren (Dual Supply)	151	31			5	2	189	5	104	33	137	142	331		6	6	4	246	246	577			319	483	802	802
97	Bombala	177	9	7		7	1	201		24	1	25	25	226		*35*	*35*	*20*			226						
98	Walcha	140	45	2	2	9	11	209					*23*	*232*							*232*	2	211			211	211
100	Balranald (Dual Supply)	158	4					162	4	10	2	12	16	178					599	599	777		1,049			1,049	1,049
101	Murrumbidgee (Groundwater)	570	100	100			150	920					*102*	*1,022*	10	8	18	5	12	22	*1,044*		80	840		920	930
103	Central Darling (Dual Supply)	66	7					73	2	5	2	7	9	82					260	260	342		880	155		1,035	1,035
104	Boorowa	*210*												*210*													
105	Brewarrina	154	89					243					*27*	*270*		170	170	81			*270*		998			998	998
106	Jerilderie (Dual Supply)	83	27	2		1		113					*13*	*126*	5		*5*	6	234	239	*365*		347			347	352
	Totals (excluding bulk suppliers) for 200 - 1,500 Properties													*12,000*	*301*	*1,186*	*1,487*		*7,075*	*7,376*	*19,000*	*46*	*9,716*	*3,839*	*3,364*	*16,919*	*17,220*
	LWUs without Water Supply																										
9	Wagga Wagga (NO WS)														288	458	747	15		288							288
30A	Hawkesbury																										
69	Temora														300	10	310	91		300							300
72	Bland															*129*	*129*	*45*									
77	Junee														75	59	134	60		75							75
78	Blayney														135		135	48		135							135
95	Weddin																										
99	Coolamon															*70*	*70*	*74*									
102	Lockhart														56		56	100		2102							2100
107	Urana																										
	Total for the 79 LWUs reporting cols (1) & (2) or cols (1) & (3)	**149,000**	**34,500**	**17,500**	**9,000**	**7,600**	**6,900**		**3,200**	**20,800**	**8,000**	**28,800**	**32,000**	**256,000**	**7,450**	**20,300**	**28,300**		**12,400**	**19,800**	**276,000**	**11,000**	**186,000**	**38,800**	**54,300**	**279,500**	**286,800**
	% of Total Potable Supply (Col(10))	58%	13%	7%	4%	3%	3%		1%	8%	3%	11%	13%														
	TOTAL for all LWUs (excluding metropolitan LWUs)[4]													**275,000**	**8,000**	**22,000**	**30,000**		**12,400**	**21,000**	**296,000**	**32,000**	**214,000**	**43,000**	**56,000**	**313,000**	**320,000**

Table 8: 2006-07 NSW urban water supplied (continued)

WATER UTILITY	URBAN WATER SUPPLIED - Potable (ML) (Excludes bulk water)												URBAN WATER SUPPLIED - Non-potable (ML) (Excludes bulk water)					TOTAL URBAN WATER SUPPLIED[7] (Potable + Non-potable incl Recycled) Excl Bulk Water	BULK WATER EXPORTS (Potable + Non-potable)	WATER SOURCES (ML)				
	REVENUE WATER (Potable)							NON REVENUE WATER (Potable)					Recycled Water											
	Residential	Commercial	Industrial	Rural	Institutional	Public Parks & Gardens	Total Revenue Water (Potable) Sum (1) to (6)	Unbilled Authorised (Fire Fighting, Flushing)	Total Water Losses[3,6]			Total Non Rev Water Max of (8)+(9b) or (7)/0.9-(7)	TOTAL URBAN WATER SUPPLIED Potable Revenue + Non Revenue Water (7) + (9c)	for Urban Water Supply[9] (Non-potable)	for Agriculture or Other Uses[10]	Total Volume Recycled = (11)+(11a)	% of Effluent Recycled	Non-potable Urban Water Excluding Recycled	TOTAL Non-Potable Urban Water (11) + (12a)	=(10)+(12b)		Surface Water	Ground Water	Bulk Purchases	Total Sourced Water Excluding Recycled =(15)+(16)+(17)	Total Sourced Water Including Recycled + Bulk Supply =Sum (11)+(17a)
									Real Loss (Leakage)[6]	Apparent Loss (illegal use, meter error)	Total Loss Sum (9)+(9a)														
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(9a)	(9b)	(9c)	(10)	(11) W 4	(11a)	(11b) W 14	(11c) W 15	(12a)	(12b)	(13) W 8[11]	(14) W 10	(15) W 1	(16) W 2	(17) W 5	(17a)	(17b) W 7

Notes:

1. Source: Data provided by the 107 non-metropolitan NSW water utilities for the 2006/07 NSW Water Supply and Sewerage Benchmarking Report. 98 of these utilities are responsible for water supply. Columns (11) and (11a) report the volume of recycled water use and include a further 9 utilities which are responsible for sewerage only.
2. The volumes of water supplied by Sydney and Hunter Water Corporations and Sydney Catchment Authority were obtained from the National Performance Report 2006/07 and have not been included in the totals shown above.
3. For consistency with national performance reporting, water losses (column (9b)) includes leakage (column (9)) plus apparent losses (column (9a)).
4. Where a water utility has not reported its total potable Urban Water Supplied (column (10)) or its residential use (column(1)), the previous years' reported value has been used and is shown in ***italics bold*** (see also Note 6).
5. The total water supplied for all non-metropolitan water utilities shown in the bottom line of the above table excludes double counting where water is supplied by a bulk supplier.
6. A review of Non Revenue Water (potable) for NSW water utilities responsible for reticulating water supply to residential customers has indicated a minimum of 10% of Potable Urban Water Supplied. The values for any such utilities reporting less than 10% non revenue water (column (9c)) have therefore been increased to 10% (but are shown as blank), and the reported values for total potable urban water supplied (column (10)) have been increased accordingly (shown in ***italics bold***). Similarly, minimum leakage levels for such utilities have been found to be at least 6% of the total potable urban water supplied. Unless corroborated by evidence (eg. a reservoir drop test or detailed waste metering), reported values of leakage of less than 6% (column (9)) have been increased to 6% (but are shown as blank).
7. The total urban water supplied (column (13)) comprises the sum of the potable water supplied (column (10)) and the non-potable water supplied (column (12b)) including the recycled urban water (column (11)).
8. The above analysis shows that the total 2006/07 urban water supplied for non-metropolitan NSW was 296,000 ML (column (13)), of which 275,000 ML (column (10)) was potable water. The total non-potable urban water supplied was 21,000 ML (column (12b)) which included 8,000 ML recycled urban water supply (column (11)). The non-potable supply was mainly for outdoor uses in dual water supplies, but also includes supplies to industry and other outdoor uses. The average uses as a percentage of the total potable water supply were:
   - Residential - 58% (column (1))
   - Commercial - 13% (column (2))
   - Industrial - 7% (column (3))
   - Non Revenue Water - 13% (column (9c))
9. Recycled water used for non-potable urban water supply is shown in column (11). This is a component of the non-potable urban water supplied (column (12b)) which also includes raw water.
10. The recycled water used for agricultural uses is shown in column (11a). The total volume of recycled water for NSW non-metropolitan water utilities was 30,000 ML (column (11b)), which is about 19% of the total volume of sewage collected.
11. Where an LWU has reported data for 'residential' use but not for 'commercial' or for 'industrial' use, the 'residential' value has been reduced and a 'commercial/industrial' component has been included. In this case, the 'residential' component has been calculated based on the average percentages shown in Note 8.
12. Where an LWU has reported data for both apparent loss (col 9a) and real loss (col 9) but the reported Non-revenue Water (col 9c) is less than 10% of the total potable urban water supplied (col 10), the reported apparent loss (col 9a) and reported unbilled authorised water (col 8) have been accepted and the reported real loss (col 9) has been increased to make up the difference between the adopted and the reported Non-revenue Water (see also note 6).

Table 8A: 2006-07 water losses and non-revenue water

	WATER UTILITY	NON-REVENUE WATER[2] - Potable (ML)													REVENUE WATER[1] Potable (ML)	TOTAL URBAN WATER SUPPLIED Potable (ML)		BULK WATER EXPORTS (ML)
		WATER LOSS[3]										UNBILLED WATER[2]	TOTAL NON-REVENUE WATER (Water Loss + Unbilled Water)			NON REVENUE WATER + REVENUE WATER		
		Apparent Loss					Real Loss[4] (Leakage)		Total Water Loss[5] (Apparent Loss + Real Loss)			Fire Fighting, Mains Flushing						
		Reported			Adopted		Reported	Adopted										
		Unauthorised Consumption	Under-registration of meters	Total (1)+(2)		% of Total Potable (4)/(17)		(see Table 8)	% of Total Potable (7)/(17)	Reported (3) + (6)	Adopted (4) + (7)	% of Total Potable (10)/(17)	Reported (See Table 8)	Adopted (10) + (12)	% of Total Potable (13)/(17)	Metered and Unmetered (See Table 8)	Total Reported (9) + (12) + (15)	Total Adopted (Table 8 Col (10)) (10)+(12)+(15)	Potable and Nonpotable (See Table 8)
		(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)
	Sydney Water Corporation Hunter Water Corporation																		
LWUs with > 10,000 Properties																			
1	Gosford City Council							***813***	6%		***1,356***	10%		1,356	10%	12,201	12,201	***13,557***	3,545
2	Wyong Shire Council	489		489	489	4%	550	550	5%	1,039	1,039	9%		1,039	9%	10,889	11,928	11,928	1,966
3	Shoalhaven City Council	115	100	215	215	2%	635	635	5%	850	850	7%	573	1,423	11%	11,479	12,902	12,902	
4	Rous County Council						116	116		116	116		115	231		806	1,037	1,037	10,051
5	MidCoast County Council	205	195	400	400	4%	788	788	8%	1,188	1,188	12%	195	1,383	15%	8,123	9,506	9,506	
6	Tweed Shire Council	673	97	770	770	8%	600	600	6%	1,370	1,370	14%	96	1,466	15%	8,062	9,528	9,528	
7	Port Macquarie-Hastings (Unfiltered)	6	106	112	112	2%	865	865	13%	977	977	15%	3	980	15%	5,734	6,714	6,714	
8	Riverina Water County Council		205	205	205	1%	1,400	1,400	8%	1,605	1,605	9%	81	1,686	10%	15,873	17,559	17,559	
10	Coffs Harbour City Council						392	392	7%	392	392	7%	95	487	9%	5,216	5,703	5,703	
11	Albury City Council	9	155	164	164	2%	775	775	9%	939	939	11%	38	977	11%	7,648	8,625	8,625	436
12	Fish River Water Supply						690	690		690	690			690		522	1,212	1,212	11,249
13	Tamworth Regional Council						1,040	1,040	12%	1,040	1,040	12%		1,040	12%	7,578	8,618	8,618	
14	Clarence Valley Council	1	300	301	301	5%	340	340	5%	641	641	10%	60	701	11%	5,552	6,253	6,253	4,232
15	Eurobodalla Shire Council	4	52	56	56	1%	809	809	20%	865	865	21%	20	885	22%	3,178	4,063	4,063	
16	Wingecarribee Shire Council	5	90	95	95	2%	324	324	7%	419	419	8%	23	442	9%	4,494	4,936	4,936	3
17	Queanbeyan City Council	4		4	4		50	***266***	6%	54	***356***	8%	88	444	10%	3,993	4,135	***4,437***	
18	Dubbo City Council	9	176	185	185	2%	1,377	1,377	13%	1,562	1,562	15%	144	1,706	16%	8,672	10,378	10,378	
19	Orange City Council						408	408	7%	408	***585***	10%	28	613	10%	5,519	5,955	***6,132***	1
20	Goulburn Mulwaree Council	1	200	201	201	8%	180	180	7%	381	381	15%	345	726	28%	1,832	2,558	2,558	5
21	Bathurst Regional Council	6	57	63	63	1%	361	***399***	6%	424	***637***	10%	30	667	10%	6,001	6,455	***6,668***	10
22	Lismore City Council	4	57	61	61	2%	348	348	10%	409	409	12%		409	12%	3,125	3,534	3,534	
23	Bega Valley Shire Council	32	231	263	263	7%	321	321	9%	584	584	16%	18	602	16%	3,140	3,742	3,742	9
24	Ballina Shire Council	376		376	376	10%	428	428	11%	804	804	21%		804	21%	3,075	3,879	3,879	
25	Kempsey Shire Council	3	163	166	166	4%	520	520	13%	686	686	17%	159	845	21%	3,097	3,942	3,942	17
26	Country Energy	62	113	175	175	3%	142	***306***	6%	317	***510***	10%		510	10%	4,588	4,905	***5,098***	
27	Byron Shire Council	10	38	48	48	2%	229	229	8%	277	277	10%	15	292	10%	2,559	2,851	2,851	
28A	Goldenfields Water Reticulator	11	135	146	146	2%	281	281	4%	427	427	7%	40	467	7%	5,828	6,295	6,295	
28B	Goldenfields Water County Council						785			785							785	***10,504***	9,900
	Medians (% of LWUs basis) for LWUs with >10,000 Properties								*7%*			*10%*			*11%*				
LWUs with 3,001 - 10,000 Properties																			
29	Armidale Dumaresq Council		52	52	52	2%	9	***186***	6%	61	***310***	10%		310	10%	2,789	2,850	***3,099***	
30	Griffith City Council		330	330	330	4%	486	486	6%	816	816	10%	36	852	11%	7,138	7,990	7,990	
31	Lithgow City Council										***205***	10%		205	10%			***2,050***	
32	Mid-Western Regional Council							***209***	6%		***348***	10%		348	10%	3,133	3,133	***3,481***	
33	Richmond Valley Council	3	47	50	50	2%	492	492	16%	542	542	17%		542	17%	2,623	3,165	3,165	
34	Nambucca Shire Council	2	26	28	28	2%	200	200	11%	228	228	13%	9	237	14%	1,507	1,744	1,744	
35	Singleton Shire Council	139		139	139	5%	330	330	12%	469	469	17%		469	17%	2,303	2,772	2,772	
36	Parkes Shire Council		92	92	92	2%	465	465	10%	557	557	11%		557	11%	4,291	4,848	4,848	
37	Inverell Shire Council		100	100	100	4%	100	***138***	6%	200	***238***	10%		238	10%	2,106	2,306	***2,344***	
38	Moree Plains Shire Council	300	50	350	350	11%	68	***186***	6%	418	***536***	17%		536	17%	2,691	3,109	***3,227***	6
39	Cowra Shire Council							***144***	6%		***85***		156	241	10%	2,171	2,327	***2,412***	12

Table 8A: 2006-07 water losses and non-revenue water (continued)

	WATER UTILITY	NON-REVENUE WATER[2] - Potable (ML)													REVENUE WATER[1] Potable (ML)	TOTAL URBAN WATER SUPPLIED Potable (ML)		BULK WATER EXPORTS (ML)
		WATER LOSS[3]										UNBILLED WATER[2]	TOTAL NON-REVENUE WATER (Water Loss + Unbilled Water)			NON REVENUE WATER + REVENUE WATER		
		Apparent Loss					Real Loss[4] (Leakage)		Total Water Loss[5] (Apparent Loss + Real Loss)			Fire Fighting, Mains Flushing						
		Reported			Adopted		Reported	Adopted										
		Unauthorised Consumption	Under-registration of meters	Total (1)+(2)		% of Total Potable (4)/(17)		(see Table 8)	% of Total Potable (7)/(17)	Reported (3) + (6)	Adopted (4) + (7)	% of Total Potable (10)/(17)	Reported (See Table 8)	Adopted (10) + (12)	% of Total Potable (13)/(17)	Metered and Unmetered (See Table 8)	Total Reported (9) + (12) + (15)	Total Adopted (Table 8 Col (10)) (10)+(12)+(15)	Potable and Nonpotable (See Table 8)
		(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)
40	Central Tablelands Water	15		15	15	1%	119	119	7%	134	134	8%	50	184	11%	1,559	1,743	1,743	217
41	Muswellbrook Shire Council	2	27	29	29	1%	124	124	6%	153	***214***	10%	11	225	10%	2,023	2,187	***2,248***	
42	Corowa Shire Council	2	42	44	44	2%	217	217	10%	261	261	12%	10	271	12%	1,916	2,187	2,187	
43	Tumut Council							***94***	7%				203	203	14%	1,213	1,416	1,416	
44	Gunnedah Shire Council	25	25	50	50	2%	200	200	7%	250	250	8%	29	279	9%	2,696	2,975	2,975	143
45	Upper Hunter Shire Council	5	25	30	30	2%		***102***	6%	30	***170***	10%		170	10%	1,527	1,557	***1,697***	
46	Narrabri Shire Council										***360***	10%		360	10%			***3,600***	
47	Bellingen Shire Council	2	21	23	23	2%	261	261	20%	284	284	21%	58	342	26%	992	1,334	1,334	1
48	Leeton Shire Council										***287***	10%		287	10%			***2,865***	
49	Young Shire Council	3	10	13	13	1%	140	140	8%	153	153	9%	198	351	20%	1,414	1,765	1,765	
50	Cooma-Monaro Council										***170***	10%		170	10%			***1,700***	
51	Forbes Shire Council	5	10	15	15	1%	45	***116***	5%	60	***210***	10%	10	220	10%	1,979	2,049	***2,199***	259
52	Snowy River Shire Council						150	150	17%	150	150	17%		150	17%	748	898	898	
53	Berrigan Shire Council	10	50	60	60	6%	118	118	11%	178	178	17%	12	190	18%	874	1,064	1,064	
	Medians (% of LWUs basis) for 3,000 to 10,000 Properties								*7%*			*10%*			*11%*				
	LWUs with 1,501 - 3,000 Properties																		
54	Deniliquin Council	5	20	25	25	1%	200	200	9%	225	225	10%	150	375	17%	1,771	2,146	2,146	1
55	Warrumbungle Shire Council							***33***	3%		***98***	10%		98	10%	884	884	***982***	
56	Yass Valley Council	4	12	16	16	2%	110	110	13%	126	126	15%	30	156	19%	686	842	842	4
57	Wellington Council		78	78	78	6%	260	260	21%	338	338	28%	7	345	28%	875	1,220	1,220	
58	Cootamundra Shire Council						69	69	7%	69	***93***	10%		93	10%	838	907	***931***	
59	Lachlan Shire Council	4	24	28	28	2%	91	91	7%	119	119	9%	36	155	12%	1,169	1,324	1,324	6
60	Glen Innes Severn Shire Council										***83***	10%		83	10%			***830***	
61	Liverpool Plains Shire Council										***95***	10%		95	10%			***950***	
62	Narromine Shire Council										***118***	10%		118	10%			***1,180***	
63	Narrandera Shire Council										***146***	10%		146	10%			***1,460***	
64	Dungog Shire Council	10	10	20	20	3%	40	40	7%	60	60	10%	20	80	13%	526	606	606	16
65	Murray Shire Council	1	11	12	12	1%	47	47	6%	59	59	7%		59	7%	750	809	809	
66	Cobar Water Board																	***0***	2,310
67	Cobar Shire Council										***219***	10%		219	10%			***2,190***	
68	Tenterfield Shire Council							***25***	6%		***43***	10%		43	10%	390	390	***433***	15
70	Kyogle Council							***30***	6%		***50***	10%		50	10%	451	451	***501***	
71	Palerang Council										***52***	10%		52	10%			***520***	
73	Upper Lachlan Council	5	10	15	15	3%	30	30	6%	45	45	8%	25	70	13%	464	534	534	
74	Wentworth Shire Council										***29***	10%		29	10%			***290***	
75	Coonamble Shire Council	10	80	90	90	7%	147	147	12%	237	237	20%	10	247	20%	962	1,209	1,209	
	Medians (% of LWUs basis) for 1,500 to 3,000 Properties								*7%*			*10%*			*10%*				
	LWUs with 200 - 1,500 Properties																		
76	Harden Shire Council		5	5	5	1%	38	38	7%	43	43	8%	8	51	9%	489	540	540	
79	Walgett Shire Council							***28***	6%		***46***	10%		46	10%	418	418	***464***	
80	Greater Hume Shire Council	5	4	9	9	1%	9	***38***	6%	18	***62***	10%	2	64	10%	579	599	***643***	14
81	Gwydir Shire Council	8	9	17	17	2%	120	120	16%	137	137	18%	50	187	25%	558	745	745	
82	Gloucester Shire Council						20	***23***	6%	20	***39***	10%		39	10%	352	372	***391***	

Table 8A: 2006-07 water losses and non-revenue water (continued)

	WATER UTILITY	NON-REVENUE WATER[2] - Potable (ML)													REVENUE WATER[1] Potable (ML)	TOTAL URBAN WATER SUPPLIED Potable (ML)		BULK WATER EXPORTS (ML)
		WATER LOSS[3]										UNBILLED WATER[2]	TOTAL NON-REVENUE WATER (Water Loss + Unbilled Water)			NON REVENUE WATER + REVENUE WATER		
		Apparent Loss					Real Loss[4] (Leakage)		Total Water Loss[5] (Apparent Loss + Real Loss)			Fire Fighting, Mains Flushing						
		Reported			Adopted		Reported	Adopted										
		Unauthorised Consumption	Under-registration of meters	Total (1)+(2)		% of Total Potable (4)/(17)		(see Table 8)	% of Total Potable (7)/(17)	Reported (3) + (6)	Adopted (4) + (7)	% of Total Potable (10)/(17)	Reported (See Table 8)	Adopted (10) + (12)	% of Total Potable (13)/(17)	Metered and Unmetered (See Table 8)	Total Reported (9) + (12) + (15)	Total Adopted (Table 8 Col (10)) (10)+(12)+(15)	Potable and Nonpotable (See Table 8)
		(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)
83	Oberon Council		34	34	34	4%	37	***45***	6%	71	***79***	10%		79	10%	677	748	***756***	
84	Gilgandra Shire Council	5	5	10	10	1%	65	65	7%	75	75	8%	15	90	9%	870	960	960	30
85	Uralla Shire Council	1	2	3	3	1%	30	30	9%	33	33	10%	12	45	13%	290	335	335	
86	Hay Shire Council						23	23	6%	23	***37***	10%		37	10%	329	352	***366***	
87	Bourke Shire Council							***43***	6%		***72***	10%		72	10%	650	650	***722***	
88	Wakool Shire Council						52	52	9%	52	52	9%		52	9%	506	558	558	
89	Bogan Shire Council							***53***	6%		***88***	10%		88	10%	788	788	***876***	
90	Guyra Shire Council	2	6	8	8	2%	25	25	6%	33	***43***	10%	2	45	10%	408	443	***453***	
91	Cabonne Council	6	6	12	12	4%	60	60	21%	72	72	25%	10	82	29%	202	284	284	
92	Carrathool Shire Council	162		162	162	29%		***31***	6%	162	***193***	35%		193	35%	362	524	***555***	
93	Tumbarumba Shire Council										***38***	10%		38	10%			***380***	
94	Gundagai Shire Council	20	20	40	40	7%	40	40	7%	80	80	14%	12	92	17%	465	557	557	
96	Warren Shire Council	5	28	33	33	10%	104	104	31%	137	137	41%	5	142	43%	189	331	331	
97	Bombala Council		1	1	1		24	***24***	***11%***	***25***	***25***	***11%***		25	11%	201	226	226	
98	Walcha Council						10	***14***	6%	10	***23***	10%		23	10%	209	219	***232***	2
100	Balranald Shire Council	1	1	2	2	1%	10	10	6%	12	12	7%	4	16	9%	162	178	178	
101	Murrumbidgee Shire Council						24	***61***	6%	24	***102***	10%		102	10%	920	944	***1,022***	
103	Central Darling Shire Council	1	1	2	2	2%	5	5	6%	7	7	9%	2	9	11%	73	82	82	
104	Boorowa Council										***21***	10%		21	10%			***210***	
105	Brewarrina Shire Council							***16***	6%		***27***	10%		27	10%	243	243	***270***	
106	Jerilderie Shire Council							***8***	6%		***13***	10%		13	10%	113	113	***126***	
	Medians (% of LWUs basis) for 200 to 1,500 Properties								*6%*			*10%*			*10%*				
	Median All LWUs (% of LWUs basis)							*Real Loss (leakage)*	*7%*		*Total Water Loss*	*10%*		*Non-revenue Water*	*10%*				
	Median All LWUs (Statewide basis)								***7%***			***10%***							

Note that the medians for Real Loss (Leakage) and Non-Revenue Water are greatly influenced by the requirement to provide evidence for values less than 6% and 10% respectively (see note 6 below).

Notes:

1. Revenue water (potable) = Billed, Authorised consumption (metered and unmetered).
2. Non-revenue water (potable) = Water Losses + Unbilled, Authorised consumption (firefighting and mains flushing)
3. Water Losses (potable) = Apparent Losses (unauthorised consumption, customer meter errors) + Real Losses (leakage).
4. Real Losses in column (7) above are the same as those shown in column (8b) of Table 8.
5. Total Water Losses shown in column (10) above are the same as those shown in column (8a) of Table 8.
6. A minimum Real Loss (ie. leakage) of 6% of the potable water supplied and a minimum non-revenue water of 10% of total potable water supplied have been adopted for this report unless the utility has provided evidence which justifies the adoption of lower values (eg. a recent reservoir drop test or detailed waste metering).
7. Total adopted revenue water (potable) plus non-revenue water (potable) in column (15) above is the same as those shown in column (10) of Table 8.
8. Where an LWU has reported data for both Apparent Loss (col 3) and Real Loss (col 6) but the reported Non-revenue Water (col 9 + col 12) is less than 10% of the total potable urban water supplied (col 17), the reported Apparent Loss (col 3) and reported Unbilled Authorised water (col 12) have been accepted and the reported Real Loss (col 6) has been increased to make up the difference between the adopted and the reported Non-revenue Water (see also note 6).
9. Leakage relates only to Total Urban Water Supplied (potable) and excludes bulk water exports.
10. Under registration of customer water meters, due to worn meters, is a component of apparent water loss (column 2).

Table 8B: 2006-07 water supplied from source catchments in non-metropolitan NSW

SOURCE CATCHMENT	WATER SUPPLIED - Town Water Supply (ML)									WATER SUPPLIED - Town Water (ML)			RECYCLED WATER		Water Supplied (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	2,070	639	77	143	140	9	74	584	321	3,740		3,740		608	1,640	1,970
Bellinger	655	134		86	117	1		284	261	1,330		1,330				
Castlereagh/Macquarie	20,070	3,620	2,230	499	1,320	11,290	1,030	4,890	3,830	33,300	1,898	35,198	2,840	3,780	32,100	5,120
Clarence	7,500	2,080	680	587	161	4,230	208	1,080	762	12,500	5	12,505	103	691	17,100	
Clyde	2,270	758		53	70		26	865	809	4,060		4,060		273	3,740	
Darling	4,390	713	1,460	102	359	2,310	109	589	354	8,000	5,614	13,614	641	105	2,400	155
Gwydir	4,450	674	494	10	33	6	389	831	502	6,950	75	7,025	1	029	1,610	3,230
Hastings	4,300	962	22	43	344		60	977	865	6,710		6,710			6,510	
Hawkesbury (Country Towns only)	15,650	2,430	896	293	820	3,550	194	2,160	1,320	23,100		23,100		954	20,300	380
Hunter (Country Towns only)	4,070	1,250	470	113	279	16	198	912	607	7,320		7,320	792	1,430	6,760	371
Lachlan	6,110	1,370	3,010	936	404	494	313	1,250	1,060	13,700	611	14,311		349	9,250	4,690
Macleay	3,800	764	190	446	610	17	79	996	706	7,040	53	7,093	119	763	2,760	3,920
Manning	5,790	1,590	814		157		125	1,230	811	9,900		9,900		075	9,460	662
Moonie/Macintyre	813	147	59	31	27	15	26	45	27	1,250		1,250		139	453	
Murray	10,750	1,700	412	368	584	451	666	1,790	1,460	16,500	5,065	21,565	5	5,750	19,100	209
Murrumbidgee	24,940	5,020	2,480	2,260	1,760	4	2,020	3,540	2,730	43,300	2,878	46,178		1,010	14,800	12,460
Nambucca	859	437	37	101	55		18	228	200	1,740		1,740		133		1,810
Namoi	7,790	1,760	2,420	246	484	145	856	1,360	1,280	15,300	1,132	16,432		3,000	9,530	7,050
Shoalhaven	6,907	1,584	2,153	575	121		139	850	635	12,900		12,900	109	1,810	14,600	
Snowy	580	197	68	5	71		28	175	174	1,120	6	1,126		35	1,090	
Tuggerah Lake	7,570	3,320				1,970		1,040	550	11,900		11,900	1,230		4,980	511
Tweed/Richmond	13,750	3,970	893	332	209	10,050	283	3,520	2,210	23,000	193	23,193	849	1,020	13,300	
No Water Supply								43	38		-15	-15	160	1,420		
	155,100	**35,100**	**18,900**	**7,200**	**8,100**	**34,600**	**6,800**	**29,000**	**22,000**	**265,000**	**18,000**	**282,000**	**6,800**	**23,400**	**191,000**	**43,000**

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: 2006-07 water conservation initiatives

	WATER UTILITY	CUSTOMER FOCUSSED MEASURES					NESS FOCUSSED MEASU		OTHER MEASURES					WATER SUPPLIED					IWCM	
		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	Other Demand Management Measures	Sound Water Conservation Implemented?	Sound Drought Management Implemented?	Water Usage Charge per kL		Residential Revenue from Usage Charges	Average Annual Residential Water Supplied	Total Urban Water Supplied	Total Water Losses	Real Losses (Leakage)		Status of IWCM	
		Yes/No	Yes/No	Yes/No	Yes/No	$	Yes/No	Yes/No		(Yes/No)	(Yes/No)	Step 1 (c/kL)	Step 2 (c/kL)	(%)	(kL/property)	(ML)	(ML)	(ML)	(L/d/ connection)	Evaluation	Strategy
		(1)	(2)	(3)	(4)	(5)	(6)	(7)	(9)	(10)	(11)	(12)	(13)	(14) F4 2006/07	(15) W9 2006/07	(16) W8 2006/07	(17) 2006/07	(18) 2006/07	(19) A8 2006/07	(20) 2006/07	(21) 2006/07
11	Albury City	Yes	Yes	No	No		Yes	Yes	Full pay-for-use pricing, public education program, customer billing 3 times/a, Waterwise program, water conservation and loss management strategy, leak reduction program, reservoir drop test, effluent reuse, separate metering (new & existing multi-unit developments), monitoring programs & customer surveys, free water audits (non-residential), review of conservation initiatives.	Yes	Yes	50	100	70	276	8,240	939	775	99	✓	✓
29	Armidale Dumaresq	Yes	No	No	No		No	Yes	Full pay-for-use pricing, demand management plan, member of waterwise, public education program.	Yes	Yes	92	123	59	248	3,150			67		
24	Ballina (Reticulator)	Yes	No	Yes	Yes	500	Yes	Yes		Yes	Yes	107	160	66	198	4,270	804	428	169		
100	Balranald (Dual Supply)	Yes	No	No	No		No	No	Full pay-for-use pricing, member of waterwise, restrictions.	Yes		66		25	226	780	12		33		
21	Bathurst Regional	Yes	No	No	Yes	1500	No	No	Member of waterwise, public education program.			45	90	43	291	7,140				✓	
23	Bega Valley (Unfiltered)	Yes	No	No	No		Yes	Yes	Full pay-for-use pricing, customer billing 3-times/a, member of waterwise, public education, water restrictions, effluent reuse, water demand management officer.	Yes		210		66	161	3,740	584	321	76		
47	Bellingen (Unfiltered)	Yes	No	No	No		Yes	Yes	Full pay-for-use pricing, member of waterwise, retrofit program, public education program.	Yes		79			183	1,330	284	261	177	✓	
53	Berrigan (Dual Supply)	Yes	No	No	No		Yes	No	Public education.	Yes	Yes	90		52	236	1,920	178	118	102		
72	Bland (No WS)																				
78	Blayney (No WS)																				
89	Bogan	Yes	No	No	No		Yes	No	Full pay-for-use pricing, member of waterwise, restrictions, public education program.	Yes	Yes	72	108	58	515	630			126		
97	Bombala	No	No	No	No		No	No	Full pay-for-use pricing, member of waterwise, public education program.	Yes	Yes	48	103	24	242	230	25	24	77		
104	Boorowa	No	No	No	No		No	No	Full pay-for-use pricing, public education program.			125		41	375	360					
87	Bourke (Dual Supply)	Yes	No	No	No		No	No	Full pay-for-use pricing, member of waterwise, public education program, waterwise program with local schools.	Yes	Yes	110		32	412	2,900			101		
105	Brewarrina	No	No	No	No		Yes	No			Yes				366	1,060			82		
27	Byron (Reticulator)	Yes	Yes	Yes	Yes	1800	Yes	Yes	Full pay-for-use pricing, member of waterwise, rainwater tank subsidy, retrofit program, public education program, pressure reduction.	Yes	Yes	127		71	181	2,850	277	229	59	✓	
91	Cabonne	Yes	No	No	No		Yes	Yes	Member of waterwise, public education program.			130	290	72	161	330	72	60	143		
92	Carrathool (Groundwater)	No	No	No	Yes	500	No	No	Full pay-for-use pricing, member of waterwise, rainwater tank subsidy, restrictions, retrofit program, public education program, other.			75	85	60	378	780			81		
103	Central Darling (Dual Supply)	No	No	No	Yes		No	No	Full Pay-for-use pricing, customer billing 3 times/a, water restrictions.			300		56	96	340	7	5	20		
40	Central Tablelands (No Sge	Yes	No	No	No		No	No	Full pay-for-use pricing, member of waterwise, public education program, free showerhead exchange program.	Yes	Yes	135	202	70	204	1,740	134	119	61		
14	Clarence Valley	Yes	Yes	Yes	Yes	1,100	Yes	Yes	Full pay-for-use pricing, restrictions, retrofit program, public education program.	Yes	Yes	113	170	73	184	9,310	641	340		✓	
67	Cobar	No	No	No	No		No	No	Full Pay-for-use pricing, member of waterwise, restrictions, retrofit program, public education program.			75	130	59	709	2,310				✓	
66	Cobar WB (Bulk Supplier)	No	No	No	No		No	No													
10	Coffs Harbour (Unfiltered)	Yes	Yes	Yes	No		Yes	Yes	Full pay-for-use pricing, customer billing 3 times/a, member waterwise, building code program, 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 conservation measures.	Yes	Yes	189	227	78	179	5,800	392	392	47	✓	
99	Coolamon (No WS)																				
50	Cooma-Monaro	No	No	No	No		No	No	Full pay-for-use pricing, member waterwise, public education program, 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 conservation measures.	Yes	Yes	80	120	40	314	1,080					
75	Coonamble (Groundwater)	Yes	Yes	No	No		Yes	No	Public education program.	Yes	Yes	34	51	77	462	1,210	237	147	246		
58	Cootamundra (Reticulator)	No	Yes	No	No		Yes	No	Member of waterwise, public education program.	Yes	Yes	126	252	81	224	930		69	66		
42	Corowa	No	No	No	No		Yes	No	Full pay-for-use pricing, member of waterwise, restrictions, public education program.	Yes	Yes	55		56	319	3,600	261	217	130	✓	
26	Country Energy	Yes	Yes	No	No		Yes	Yes	Full pay-for-use pricing, member of waterwise, rainwater tank subsidy, public education program.	Yes	Yes	79	236	59	278	6,480				✓	✓
39	Cowra	Yes	Yes	No	No		Yes	Yes	Full pay-for-use pricing, member of waterwise, restrictions, public education program.	Yes	Yes	105	200	57	256	2,510			73		
54	Deniliquin	Yes	No	No	No		Yes	No	Member of waterwise, public education program, integrated water cycle management study.	Yes	Yes	25	57	20	464	3,100			154	✓	
18	Dubbo	Yes	No	No	No		Yes	Yes	Full pay-for-use pricing, member waterwise, public education program, quarterly billing, effluent reuse schemes, stormwater reuse schemes, leakage reduction program, park irrigation controls, separate metering for new multi-unit developments, restrictions, reservoir drop test, draft drought management plan, demand management strategy, demonstration waterwise garden.	Yes	Yes	87	138	83	431	10,400	1,562	1,377	292		
64	Dungog (Reticulator)	No	No	No	No		Yes	No	Member of waterwise, retrofit program, public education program.	Yes	Yes	72	145	38	198	610	60	40	53		
15	Eurobodalla (Unfiltered)	Yes	Yes	Yes	Yes	1200	Yes	No	Member of waterwise, public education program, restrictions, integrated water cycle management study.	Yes	Yes	160	240	43	126	4,060	865	809	129	✓	✓
12	Fish River WS (Bulk Supplier)	Yes	No	No	No		No	Yes			Yes					1,210	690	690			
51	Forbes	Yes	No	No	No		Yes	No	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.	Yes	Yes	64	96	67	499	2,450			115		
84	Gilgandra (Groundwater)	Yes	No	No	No		No	Yes	Full pay-for-use pricing, member of waterwise, public education program.	Yes		75		65	455	960	75	65	132		
60	Glen Innes Severn	No	No	No	No		No	No	Full pay-for-use pricing, rainwater tank subsidy, restrictions, ad hoc public education.	Yes	Yes	138	195	72	188	820				✓	
82	Gloucester	No	No	No	No		No	No	Full pay-for-use pricing, restrictions, retrofit program, public education program.	Yes	Yes	135		42	165	390			36	✓	
28B	Goldenfields (Bulk Supplies	No	No	No	No		No	No						65		170					
28A	Goldenfields (Reticulator) (	Yes	No	No	No		No	No	Full pay-for-use pricing, customer billing 3 times/a, member waterwise, public education program, restrictions, separate metering of new multi-unit developments, monitoring program, review conservation measures.			114		66	294	5,970			73		

Table 8C: 2006-07 water conservation initiatives (continued)

	WATER UTILITY	CUSTOMER FOCUSSED MEASURES					NESS FOCUSSED MEASU		OTHER MEASURES					WATER SUPPLIED					IWCM	
		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	Other Demand Management Measures	Sound Water Conservation Implemented?	Sound Drought Management Implemented?	Water Usage Charge per kL		Residential Revenue from Usage Charges	Average Annual Residential Water Supplied	Total Urban Water Supplied	Total Water Losses	Real Losses (Leakage)		Status of IWCM	
		Yes/No	Yes/No	Yes/No	Yes/No	$	Yes/No	Yes/No		(Yes/No)	(Yes/No)	Step 1 (c/kL)	Step 2 (c/kL)	(%)	(kL/property)	(ML)	(ML)	(ML)	(L/d/ connection)	Evaluation	Strategy
		(1)	(2)	(3)	(4)	(5)	(6)	(7)	(9)	(10)	(11)	(12)	(13)	(14) F4 2006/07	(15) W9 2006/07	(16) W8 2006/07	(17) 2006/07	(18) 2006/07	(19) A8 2006/07	(20) 2006/07	(21) 2006/07
1	Gosford	Yes	Yes	Yes	Yes	500	Yes	Yes	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	136		68	147	13,600				✓	✓
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	140	200	42	137	2,560	381	180	52	✓	
80	Greater Hume	Yes	Yes	No	No		Yes	Yes	Full pay-for-use pricing, restrictions, public education program.	Yes		60	80	80	300	640			66		
30	Griffith	Yes	Yes	Yes	No		No	No	Full pay-for-use pricing, restriction policy in place, public education program.	Yes		40	65	70	675	8,670	816	486	148		
94	Gundagai	Yes	No	No	No		Yes	No	Full pay-for-use pricing, member of waterwise, restrictions, public education program.		Yes	70	90	75	244	560	80	40	105		
44	Gunnedah (Groundwater)	No	No	No	No		Yes	No	Full pay-for-use pricing, member of waterwise, restrictions, public education program.	Yes	Yes	70	110	66	393	2,980	250	200	129	✓	
90	Guyra	No	No	No	No		No	Yes	Full pay-for-use pricing, restrictions, public education program.	Yes	Yes	105	120	61	221	450			67		
81	Gwydir	Yes	No	No	No		Yes	No			Yes	90	195		260	750	137	120	232	✓	✓
76	Harden (Reticulator)	Yes	No		Yes	No	Yes	Yes	Full pay-for-use pricing.			120	150	66	317	540	43	38	56		
7	Port Macquarie-Hastings (U	Yes	Yes	Yes	No		Yes	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	153	306	74	157	6,510	977	865	95	✓	
30A	Hawkesbury (No WS)																				
86	Hay (Dual Supply)	Yes	No	No	No		No	Yes	Full pay-for-use pricing, public education program, other.	Yes	Yes	63	95	31	181	1,520		23	47		
	Hunter Water	No	No	No	No		No	No	Full pay-for-use pricing, member of waterwise, rainwater tank subsidy, restrictions, retrofit program, public education program, leakage reduction, effluent reuse.	Yes	Yes	120	49	65	192	70,600			85		
37	Inverell	No	No	No	No		No	No	Full pay-for-use pricing, member of waterwise, public education program.	Yes		100	120	47	294	2,310			72		
106	Jerilderie (Dual Supply)	No	No	No	No		Yes	No	Full pay-for-use pricing, customer billing 3 times/a, member waterwise, building code program, restrictions, public education, retrofit program, effluent reuse, reservoir drop test, review conservation measures.	Yes		105	140	28	231	360			43		
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 policy.	Yes	Yes	99		38	184	4,060	686	520	298	✓	✓
70	Kyogle	Yes	Yes	No		Yes	Yes	Yes	Full pay-for-use pricing, member waterwise, investigating rainwater tank subsidies, restrictions, non-potable water supplies, quarterly billing (commercial), 90% effluent reuse at Bonalbo and Woodenbong.	Yes	Yes	105	175	56	197	500			43	✓	✓
59	Lachlan	Yes	No	No	No		Yes	Yes	Full pay-for-use pricing, restrictions, retrofit program under investigation, public education program .		Yes	93	140		364	1,360	119	91	97		
48	Leeton	Yes	No	No	No		Yes	Yes	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.	Yes	Yes	50	75	63	482	2,820					
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	135		71	174	3,560	409	348	144		
31	Lithgow	Yes	No		Yes		No	No	Full pay-for-use pricing, member of waterwise, public education program, water restrictions implemented from Drought Management Plan.	Yes	Yes	85	160	41	160	2,010				✓	
61	Liverpool Plains	No	No	No	No		No	No			Yes	64	106	75	238	930				✓	
102	Lockhart (No WS)																				
5	MidCoast (Unfiltered)	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	145	165	72	167	9,510	1,188	788	60	✓	
32	Mid Western Regional	No	No	No	No		No	No		Yes	Yes	108		48	316	2,650			84	✓	
38	Moree Plains (Groundwater	Yes	No	No	No		Yes	No	Full pay-for-use pricing, member of waterwise, restrictions, public education program (media).	Yes	Yes	72		57	592	3,180			163	✓	
65	Murray (Dual Supply)	Yes	No	No	No		No	No	Full pay-for-use pricing, restrictions, public education.		Yes	67		51	233	1,500	59	47	46	✓	
101	Murrumbidgee (Groundwat	Yes	No	No	No		Yes	No	Full pay-for-use pricing, rainwater tank guidelines, encouraging retrofit program.			22		53	760	1,030			170		
41	Muswellbrook	Yes	No	No	No		Yes	No	Full pay-for-use pricing, member of waterwise, restrictions, public education program.			124	185	68	278	2,900			73	✓	✓
34	Nambucca (Groundwater)	Yes	No		Yes	No	No	Yes	Full pay-for-use pricing, member of waterwise, restrictions, retrofit program, public education program.	Yes	Yes	110		67	156	1,740	228	200	99	✓	
46	Narrabri (Groundwater)	No	No	No	No		Yes	No	Full pay-for-use pricing, member of waterwise, restrictions, retrofit program, public education program.			35		32	544	2,280					
63	Narrandera (Groundwater)	No	No	No	No		No	No	Full pay-for-use pricing, member of waterwise, restrictions, public education program.	Yes	Yes	60		58	487	1,430					
62	Narromine (Groundwater)	No	No	No	No		No	No	Full pay-for-use pricing, member of waterwise, restrictions, public education program.		Yes	70		68	374	1,280					
83	Oberon (Reticulator)	Yes	No	No	No		No	Yes	Full pay-for-use pricing, restrictions.			108		47	155	750			90		
19	Orange	Yes	Yes	No		Yes	No	Yes	Full pay-for-use pricing, member of waterwise, rainwater tank subsidy, restrictions, public education program.	Yes	Yes	146	219	75	323	9,000		408	73	✓	
71	Palerang	No	No	No	No		No	No				110	180		170	510					
36	Parkes	Yes	No	No	No		Yes	Yes	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	70	175	53	239	5,060	557	465	238	✓	✓

Table 8C: 2006-07 water conservation initiatives (continued)

	WATER UTILITY	CUSTOMER FOCUSSED MEASURES					NESS FOCUSSED MEASU		OTHER MEASURES					WATER SUPPLIED					IWCM	
		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	Other Demand Management Measures	Sound Water Conservation Implemented?	Sound Drought Management Implemented?	Water Usage Charge per kL		Residential Revenue from Usage Charges	Average Annual Residential Water Supplied	Total Urban Water Supplied	Total Water Losses	Real Losses (Leakage)		Status of IWCM	
		Yes/No	Yes/No	Yes/No	Yes/No	$	Yes/No	Yes/No		(Yes/No)	(Yes/No)	Step 1 (c/kL)	Step 2 (c/kL)	(%)	(kL/property)	(ML)	(ML)	(ML)	(L/d/ connection)	Evaluation	Strategy
		(1)	(2)	(3)	(4)	(5)	(6)	(7)	(9)	(10)	(11)	(12)	(13)	(14) F4 2006/07	(15) W9 2006/07	(16) W8 2006/07	(17) 2006/07	(18) 2006/07	(19) A8 2006/07	(20) 2006/07	(21) 2006/07
17	Queanbeyan (Reticulator)	Yes	Ye	Yes	Ye	1197	No	No	Full pay-for-use pricing, quarterly billing, member waterwise, public education program, restrictions, rainwater tank rebate, rebate for water efficient appliances, subsidised garden mulch, free water audits, effluent reuse, retrofit program, review conservation measures, reservoir drop test.	Yes	Yes	160	215	61	211	4,530					
33	Richmond Valley	Yes	Ye	Yes	Ye	670	Yes	Yes	Full pay-for-use pricing, member of waterwise, rainwater tank subsidy, restrictions, retrofit program, public education program.		Yes	120	160	64	254	3,170	542	492	197	✓	✓
8	Riverina (Groundwater) (No	Yes	No	No	No		No	No	Full pay-for-use pricing, customer billing 3 times/a, member waterwise, building code program, restrictions, public education program, separate metering of new & existing multi-unit developments, reservoir drop test, leakage reduction program, monitoring program, review of conservation measures, meter replacement program.	Yes	Yes	75		80	410	17,600	1,605	1,400	143		
4	Rous (Bulk Supplier) (No S	Yes	Ye	Yes	Ye	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	99		78		810	116	116		✓	
3	Shoalhaven	Yes	Ye	No	Ye	650	Yes	Yes	Full pay-for-use pricing, quarterly billing, member waterwise/AWA, rainwater tank subsidy, rainwater tank subsidy (toilet/washing machine), restrictions, public education program, Water conservation Tapstar Show, retrofitting of showerheads, leak reduction program, monitoring demand, effluent reuse for agriculture.	Yes	Yes	95	143	62	165	13,000	850	635	39	✓	✓
35	Singleton	No	No	No	Ye	450	No	No	Full pay-for-use pricing, member of waterwise, restrictions, public education program.	Yes	Yes	83		51	269	2,770	469	330	138		
52	Snowy River (Unfiltered)	No	No	No	No		No	No	Full pay-for-use pricing, member of waterwise, subsidy, restrictions, DCP rainwater tanks required in new developments.			94		23	133	900	150	150	149		
	Sydney Water	No	No	No	No		No	No	Full pay-for-use pricing, member of waterwise, rainwater tank subsidy, restrictions, retrofit program, public education program, leakage reduction, effluent reuse.	Yes	Yes	134	183	82	199				94		
13	Tamworth Regional	Yes	Ye	Yes	Ye	500	Yes	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	90	135	60	229	8,710	1,040	1,040	154		
69	Temora No WS)								Effluent reuse.												
68	Tenterfield	Yes	No	No	No		No	No	Full pay-for-use pricing, member of waterwise, water restrictions, public education program, effluent reuse, leakage reduction program, retrofit program.	Yes	Yes	115		59	177	440			39		
93	Tumbarumba	No	No	No	No		No	No	Full pay-for-use pricing, restrictions, public education program.	Yes		65	109	26	214	370				✓	
43	Tumut	Yes	No	No	No		Yes	No	Full pay-for-use pricing, restrictions, public education program, metering.	Yes	Yes	85	106	69	165	1,460			58	✓	
6	Tweed	Yes	No	No	No		No	No	Full pay-for-use pricing, member of waterwise, restrictions, public education program.	Yes	Yes	123		72	214	9,880	1,370	600		✓	✓
45	Upper Hunter	Yes	Ye	Yes	Ye	400	Yes	Yes		Yes	Yes	107		52	270	1,830			66	✓	
73	Upper Lachlan	Yes	No	No	No		No	Yes		Yes	Yes	110	150	31	219	530	45		50		
85	Uralla	Yes	No	No	No		No	Yes	Full pay-for-use pricing, restrictions, considering retrofit program.		Yes	100		44	161	340	33	30			
107	Urana (No WS)																				
9	Wagga Wagga (No WS)																				
88	Wakool (Dual Supply)	Yes	No	No	No		No	No	Full pay-for-use pricing, member of waterwise, restrictions, public education program.		Yes	80	126	24	373	1,480	52	52	116		
98	Walcha	Yes	No	No	No		No	No	Full pay-for-use pricing, member of waterwise, restrictions.		Yes	181	269	82	189	230			45		
79	Walgett (Dual Supply)	No	Ye	Yes	No		Yes	No	Full pay-for-use pricing, member of waterwise, considering rainwater tank subsidy, restrictions, public education program, proposing introduction of water meters.	Yes	Yes			2	189	1,350			52	✓	
96	Warren (Dual Supply)	Yes	No	No	No		No	No	Full pay-for-use pricing, member of waterwise, restrictions, public education program.	Yes		75	113	51	178	580	137	104	271		
55	Warrumbungle	Yes	No	No	No		No	No		Yes	Yes	80		52	225	980			51		
95	Weddin (No WS)																				
57	Wellington	Yes	Ye	No	No		No	Yes	Full Pay-for-use pricing, member of waterwise, restrictions, public education program.	Yes	Yes	150	181	72	279	1,220	338	260	249		
74	Wentworth (Dual Supply)	No	No	No	No		No	No	Full pay-for-use pricing, restrictions.			115	270	52	83	1,870					
16	Wingecarribee	Yes	Ye	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	124	185	65	214	4,940	419	324		✓	
2	Wyong	Yes	Ye	Yes	Ye	1000	Yes	Yes	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	138		66	139	12,600	1,039	550	26	✓	✓
56	Yass Valley	Yes	Ye	No	Ye	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	130			197	840	126	110	106	✓	✓
49	Young (Reticulator)	Yes	No	No	No		Yes	No	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.	Yes	Yes	125	170	68	221	1,770	153	140	97		
	Total "Yes" (Retail)	**67**	**27**	**19**	**21**		**50**	**36**	**Total No. reporting "YES" (Retail ie. excluding Bulk Suppliers)**	**69**	**70**				**Total No. of Utilities reporting IWCM compliance**					**41**	**14**

Table 9: Water supply – utility characteristics

	WATER UTILITY	ASSESSMENTS - CONNECTIONS - POPULATION											ASSETS										WORKFORCE										
		Total No of Assessments			No. of Service Connections	Connected Properties - Total		Connected Properties - Residential			Population		Mains	Properties Served per km of Main	Water Treatment Works	Dams	Bores	Pumping Stations	Pumping Stations / 100km of Main	Capital Expenditure (Assets, Renewals, Plant/Equip)		Capital Works Grants	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.)	(30) / [(25) / 100]	$/prop	Total $M	($'000)	Employees/ 1000 properties	(%)	(2 or more days per year)	(% of Management Cost)	(% of Operation Cost)	(% of Maintenance Cost)	No.	Total (%)	Due to Injuries No.	(%)
			(18)				(20) C 1						(25) A 2	(26) A 3	(27) A 1	(28)	(29)	(30)	(30a)	(31) F11		(31b) F 20	(32)	(33)	(34)	(35)	(36)	(37)		(39)	(40)	
		2004/05	2005/06	2006/07	2006/07	2006/07	2006/07	2006/07	2006/07	2006/07	2006/07	2006/07	2006/07	2006/07	2006/07	2006/07	2006/07	2006/07	2006/07	2006/07	2006/07	2006/07	2006/07	2006/07	2006/07	2006/07	2006/07	2006/07	2006/07	2006/07	2006/07	2006/07	2006/07
	Sydney Water	1,685,000	1,706,200				1,721,000			1,595,000	4,309,000		20,824	83	9			155	1	133		0.0											
	Hunter Water	211,200	213,913				217,000			204,000	506,000		4,638	47	4			85	2	283		0.0											
	Sydney Catchment Authority														11	21					87.8	0.0											
	LWUs with > 10,000 Properties																																
1	Gosford	67,700	68,130	68,530	59,440	1.01	69,326	0.96	1.02	66,480	159,000		946	73	1	2	28	20	2	409	28.4	203	1.3	10	0	3	2	47	15	3	133	1
2	Wyong	59,200	62,301	60,250	58,130	0.97	58,100	0.94	0.97	54,470	145,400	170	1,107	53	1	1	12	19	2	804	46.8	2,567	1.3	4	100							
3	Shoalhaven	47,600	48,511	48,680	44,990	0.92	44,800	0.93	0.93	42,100	87,600	370	1,504	30	4	4		22	1	72	3.2		1.0	18	100	2	3	3	1	4	10	0
4	Rous (Bulk Supplier) (NO SGE)	37,300	37,300	46,800	42,890	0.96	44,920	0.90	0.96	40,470	113,100		376	119	2	2	3	11	3	723	32.5		1.4	24	53				12	3	53	0
5	MidCoast (Unfiltered)	36,400	36,927	37,280	35,730	0.96	35,790	0.93	0.96	33,380	76,600	120	1,216	29	2	2	15	26	2	504	18.0	2,450	1.7	23	100				1	5	1	0
6	Tweed	30,900	30,985	31,770	22,510	0.91	28,900	0.95	0.93	28,050	70,600	120	660	49	3	1		24	4	474	13.7		1.6	2	96	20	19	19	5	5	80	1
7	Port Macquarie-Hastings (Unfiltered	28,500	28,896	30,690	25,000	0.95	29,200	0.94	0.95	27,440	75,000	140	753	39	4	2	1	19	2	321	9.4	140	1.7	8	100	10	10	10	2	2	10	0
8	Riverina (Groundwater) (NO SGE)	27,700	27,720	28,400	26,830	0.96	27,300	0.92	0.96	25,000	64,100		1,593	17	8	3	28	37	2	310	8.5		2.1	11	100				2	3	61	0
10	Coffs Harbour (Unfiltered)	24,000	24,319	24,800	22,630	0.94	23,310	0.93	0.94	21,750	61,600	120	680	34	1	2		7	1	184	4.3		1.3	3	100				5	5	14	0
11	Albury City	21,300	21,956	21,960	21,490	1.03	22,600	0.92	1.03	20,770	47,700	110	570	40	1			19	3	142	3.2		0.5	18	55	60		49		1		
12	Fish River WS (Unfiltered, Bulk Sup	23,000	23,000	25,000	240	0.94	23,500	0.88	0.94	20,680	62,000		238		1	2		3	1				0.6	14	21			10		2		
13	Tamworth Regional	19,530	18,938	19,880	18,510	1.00	19,900	0.90	1.00	17,840	42,500	190	656	30	5	2	8	16	2	296	5.9	425	1.8	6	44				4	3	77	1
14	Clarence Valley	20,400	19,336	20,700	19,510	0.94	19,500	0.89	0.98	18,060	49,500	140	1,180	17	1			15	1	2,231	43.4	21,924										
15	Eurobodalla (Unfiltered)	19,730	19,981	20,100	17,240	0.94	18,900	0.95	0.94	18,040	35,000	340	871	22	1	1	7	15	2	193	3.7	838	1.5	4	100			4	4	4	4	0
16	Wingecarribee	19,210	18,029	18,510	16,210	0.95	17,600	0.93	0.96	16,520	35,900	120	620	28	3	2		16	3	161	2.8		1.4	4	84			7	14	3	194	3
17	Queanbeyan (Reticulator)	16,430	14,939	15,070	11,470	1.03	15,500	0.93	1.04	14,500	35,600	100	272	57	0			4	1	46	0.7		0.5	14	100		2			1		
18	Dubbo	13,800	14,000	14,080	12,940	1.11	15,630	0.89	1.11	13,860	35,100	110	451	35	1		7	9	2	235	3.7	130	1.0	7	100				2	3	6	0
19	Orange	15,010	15,208	15,600	15,370	1.00	15,600	0.90	1.00	14,040	35,300	100	481	32	2	3	2	5	1	347	5.4	704	1.2	5	100	10	5	5				
20	Goulburn Mulwaree	13,950	10,055	9,090	9,490	1.03	9,360	0.90	1.03	8,390	20,800		227	41	2	2	4	8	4	402	3.8	365							1		6	
21	Bathurst Regional	12,870	13,333	13,570	12,360	1.06	14,400	0.90	1.07	13,080	30,700	200	341	42	1	2	2	10	3	740	10.6	219	1.4	10	100					1		
22	Lismore (Reticulator)	12,910	13,111	13,040	12,630	1.05	13,700	0.91	1.06	12,520	34,600		335	41	0	1		5	1	158	2.2		0.7		70		5	5		6		
23	Bega Valley (Unfiltered)	13,230	13,724	14,190	11,530	0.97	13,800	0.92	0.98	12,810	28,000	150	576	24	0	3	11	19	3	119	1.6	16	1.5		100	5			2	3	7	0
24	Ballina (Reticulator)	13,180	15,079	14,450	11,960	0.93	13,400	0.90	0.93	12,100	33,400		338	40	1	1	2	4	1	18	0.2		1.4	11	11				1	1	25	1
25	Kempsey (Groundwater)	11,470	11,570	11,620	10,940	1.04	12,100	0.86	1.03	10,300	24,500	140	598	20	1	2	38	20	3	134	1.6		1.3	13	100	5	5	5	1	6	58	2
26	Country Energy	10,390	10,739	10,720	10,380	1.00	10,700	0.91	1.00	9,800	19,700	100	362	30	2	3		11	3	532	5.7		8.2	11	100							
27	Byron (Reticulator)	10,610	10,741	10,900	9,300	0.96	10,500	0.90	0.96	9,420	28,800	120	233	45	1			6	3	65	0.7	45	1.0	10	100				1	4	5	0
28A	Goldenfields (Reticulator) (NO SGE	10,200	10,389	11,280	10,500	0.94	10,600	0.72	0.94	7,590	20,800	110	1,825	6	1			22	1	575	6.1	33				13	5	5	2	4	78	1
28B	Goldenfields (Bulk Supplier) (NO S	18,800	18,950	18,950	17,810	0.94	17,810	0.79	0.94	14,010	37,600	100	315		1		6	15	5	33	0.6											
	Medians (% of LWUs basis excl bulk suppliers) for >10,000 Properties					*0.97*		*0.92*	*0.98*					*35*							*266*		*1.4*	*10*					*2*	*3*		
	LWUs with 3,001 - 10,000 Properties																																
29	Armidale Dumaresq	8,160	8,251	8,340	7,640	0.98	8,170	0.94	0.98	7,640	20,300	110	309	26	2	3		11	4	117	1.0		2.2	6	44		1	2	1	3	2	0
30	Griffith	8,650	8,887	9,260	9,000	0.85	7,870	0.83	0.84	6,430	24,000	110	449	18	2			3	1	356	2.8		3.1	8	50	5	5	10	3	2	19	0
31	Lithgow	7,380	7,708	7,860		0.98	7,710	0.95	0.98	7,320	20,000	100	460	17	1	1			0	53	0.4											
32	Mid-Western Regional	6,390	6,394	6,670	6,790	1.02	6,800	0.91	1.03	6,270	13,200		321	21	3	2	37	11	3	139	0.9	299	1.9		92							
33	Richmond Valley	6,720	6,992	6,690	6,850	0.97	6,490	0.87	0.97	5,660	15,100	120	197	33	1			5	3	126	0.8	5	1.7		73				1	5	1	0
34	Nambucca (Groundwater)	6,290	6,362	6,440	5,520	0.95	6,120	0.90	0.95	5,490	13,000	140	187	33	1		9	2	1	76	0.5	11	1.0		0	20	15	20	3	8		
35	Singleton	6,060	6,213	6,330	6,530	0.95	6,010	0.89	0.95	5,340	18,400	100	257	23	1			6	2	448	2.7											
36	Parkes	5,940	5,751	6,220	5,350	0.95	5,910	0.84	0.95	4,970	11,400	100	425	14	1	2	5	8	2	302	1.8	11										
37	Inverell	5,170	5,430	5,430	5,300	0.98	5,320	0.89	0.99	4,780	11,700		249	21	2		1	7	3	87	0.5		1.5	13	50			10		3		
38	Moree Plains (Groundwater)	5,160	4,575	4,560	3,150	0.97	4,420	0.87	0.96	3,820	11,400	100	100	44	6	2	11	3	3	150	0.7	140	3.6	13	100	5	3	10		1		
39	Cowra	5,250	5,517	5,500	5,470	0.95	5,220	0.91	0.95	4,750	8,600		240	22	1			4	2	320	1.7		0.4		100					3		
40	Central Tablelands (NO SGE)	5,220	5,332	5,410	5,370	0.95	5,140	0.76	0.95	3,880	11,200	110	540	10	3	2	5	32	6	305	1.6	46	3.7	16	63					5		
41	Muswellbrook	5,070	5,189	5,430	5,090	0.94	5,120	0.88	0.96	4,580	15,900		145	35	2		1	9	6	275	1.4	199	2.0	20	80		2	10		2	2	0

Table 9: Water supply – utility characteristics (continued)

	WATER UTILITY	ASSESSMENTS - CONNECTIONS - POPULATION											ASSETS										WORKFORCE									
		Total No of Assessments			No. of Service Connections	Connected Properties - Total		Connected Properties - Residential			Population		Mains	Properties Served per km of Main	Water Treatment Works	Dams	Bores	Pumping Stations	Pumping Stations / 100km of Main	Capital Expenditure (Assets, Renewals, Plant/Equip)		Capital Works Grants	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.)	(30) / [(25) / 100]	$/prop	Total $M	($'000)	Employees/ 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) C 1	(21)	(22)	(22a)	(23)	(24)	(25) A 2	(26) A 3	(27) A 1	(28)	(29)	(30)	(30a)	(31) F11	(31a)	(31b) F 20	(32)	33)	(34)	(35)	(36)	(37)	(38)	(39	(40)	
		2004/05	2005/06	2006/07	2006/07	2006/07	2006/07	2006/07	2006/07	2006/07	2006/07	2006/07	2006/07	2006/07	2006/07	2006/07	2006/07	2006/07	2006/07	2006/07	2006/07	2006/07	2006/07	2006/07	2006/07	2006/07	2006/07	2006/07	2006/07	2006/07	2006/07	2006/07
42	Corowa	4,740	4,918	5,030	4,560	0.93	4,680	0.91	0.92	4,220	10,100	190	144	32	3			8	6	60	0.3		1.1		60					1	5	0
43	Tumut	4,530	4,421	4,480	4,470	0.95	4,260	0.88	0.95	3,730	11,700	100	164	26	5	1	2	10	6				1.6		100					8	61	4
44	Gunnedah (Groundwater)	4,170	4,225	4,250	4,240	1.02	4,330	0.90	1.02	3,880	10,300	190	192	23			17	21	11	136	0.6		1.4		100	2	10	5		2		
45	Upper Hunter	4,560	4,359	4,400	4,220	0.92	4,040	0.91	0.93	3,700	8,100	120	141	29	4	1	8	11	8	73	0.3		1.7		100							
46	Narrabri (Groundwater)	4,250	4,375	4,420	3,980	0.98	4,330	0.87	0.98	3,770	10,700	100	110	39			11	12	11	79	0.3	51	3.7		100	5	5	5	4	1	2	0
47	Bellingen (Unfiltered)	4,150	4,174	4,210	4,050	0.95	4,000	0.90	0.95	3,580	9,200	100	172	23	2	1	4	6	3				2.0	25	75		5	5		0		
48	Leeton	4,260	4,319	4,320		0.92	3,970	0.85	0.92	3,390	8,400	110	138	29	3	3		6	4	86	0.3		1.3	20	80							
49	Young (Reticulator)	3,770	3,998	4,110	3,960	1.04	4,270	0.83	1.04	3,540	9,000	120	140	31				3	2	57	0.2	3	1.2		100	5	30	30	4	3	10	1
50	Cooma-Monaro	3,690	3,711	3,760		0.95	3,570	0.87	0.95	3,090	7,600		129	28					0	182	0.7											
51	Forbes	3,530	3,556	3,430	3,540	1.01	3,470	0.85	1.01	2,960	7,600	100	129	27	1		1	3	2	108	0.4	242	1.7	33	50		3	24		1		
52	Snowy River (Unfiltered)	2,370	2,716	2,720	2,750	1.43	3,880	0.78	1.43	3,020	4,700	430	137	28	6			9	7	200	0.8	125	2.3	22	0	10	5	20	1	3	1	0
53	Berrigan (Dual Supply)	3,310	3,358	3,460	3,180	0.98	3,390	0.88	0.98	2,980	6,800	110	204	17	4	4		11	5	446	1.5	95	2.1		100			7		3		
	Medians (% of LWUs basis) 3,001 to 10,000 Properties					*0.95*		*0.88*	*0.96*					*26*						*136*			*1.7*	*18*					*3*	*3*		
	LWUs with 1,501 - 3,000 Properties																															
54	Deniliquin	3,160	3,279	3,320	3,560	0.96	3,190	0.88	0.95	2,760	8,000	150	158	20	1			4	3	147	0.5		1.9	17	100			10	1	4	4	0
55	Warrumbungle	3,060	3,060	3,960	3,160	0.99	3,920	0.90	0.97	3,460	7,000	100	116	34	3	1	7	8	7	97	0.4		2.6		100							
56	Yass Valley	2,950	2,964	3,060	2,850	0.98	3,000	0.92	0.98	2,750	6,800	110	153	20	1	1	1	8	5				2.0		50			10	2	8	73	5
57	Wellington	2,880	2,880	2,920	2,860	0.98	2,870	0.88	0.98	2,530	6,300	100	85	34	1			4	5	686	2.0		2.1		33			2		1		
58	Cootamundra (Reticulator)	2,830	2,868	2,980	2,850	0.99	2,950	0.87	0.99	2,560	7,600	110	92	32					0				0.7		50					7		
59	Lachlan	2,640	2,668	2,500	2,560	1.02	2,550	0.78	1.02	2,000	5,500	100	222	11	4	4	1	8	4				2.0		100	9		15				
60	Glen Innes Severn	2,970	3,100	3,170		0.90	2,860	0.87	0.91	2,510	6,600	120	95	30	1			1	1													
61	Liverpool Plains	2,260	2,584	2,580		0.98	2,530	0.90	0.98	2,280	5,000		98	26					0	169	0.4											
62	Narromine (Groundwater)	2,130	2,119	2,160	2,150	0.95	2,050	0.88	0.95	1,800	4,800	100	60	34	2	2	15	3	5	66	0.1		2.0		25			10				
63	Narrandera (Groundwater)	2,180	2,188	2,190		0.92	2,010	0.85	0.92	1,710	4,800		66	30					0	236	0.5											
64	Dungog (Reticulator)	2,100	2,116	2,100	2,050	0.95	1,990	0.91	0.95	1,810	5,500	100	97	21	1			3	3	167	0.3		2.5		80			15	1	3	14	1
65	Murray (Dual Supply)	2,030	2,687	2,740	2,790	0.95	2,600	0.88	0.95	2,280	5,800	210	126	21	2			7	6	105	0.3		1.5		75				1	9	5	1
67	Cobar	2,020	2,342	2,210		0.95	2,090	0.84	0.95	1,760	5,200		107	20					0	322	0.7											
66	Cobar WB (Bulk Supplier)	2,020	2,020								4,800		350						0													
68	Tenterfield	2,000	2,002	2,030	1,890	0.95	1,930	1.00	0.95	1,920	3,600		68	28	1	1	1	2	3	95	0.2	11	3.1	17	100			3		2		
70	Kyogle	1,890	1,880	1,920	1,910	0.95	1,820	0.82	0.95	1,490	3,700	120	71	26	1	1	1	4	6	284	0.5	81	3.8	14	100	5	5			6		
71	Palerang	1,880	1,880	1,880		0.95	1,790	0.98	0.95	1,740	3,500		54	33					0													
73	Upper Lachlan	1,720	2,032	1,850	1,750	1.00	1,850	0.87	1.00	1,600	3,500	110	64	29	1	2	7	3	5	224	0.4					10	2	2				
74	Wentworth (Dual Supply)	1,800	2,240	2,290		0.95	2,180	0.92	0.95	2,000	4,000		167	13					0	18	0.0											
75	Coonamble (Groundwater)	1,550	1,551	1,560	1,640	1.02	1,590	0.89	1.02	1,420	3,200	110	64	25			6		0	73	0.1		2.5		0					2		
	Medians (% of LWUs basis) 1,501 to 3,000 Properties					*0.95*		*0.88*	*0.95*					*26*						*157*			*2.0*	*17*					*1*	*4*		

Table 9: Water supply – utility characteristics (continued)

	WATER UTILITY	ASSESSMENTS - CONNECTIONS - POPULATION											ASSETS										WORKFORCE										
		Total No of Assessments			No. of Service Connections	Connected Properties - Total		Connected Properties - Residential			Population		Mains	Properties Served per km of Main	Water Treatment Works	Dams	Bores	Pumping Stations	Pumping Stations / 100km of Main	Capital Expenditure (Assets, Renewals, Plant/Equip)		Capital Works Grants	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.)	(30) / [(25) / 100]	$/prop	Total $M	($'000)	Employees/ 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)	C 1 (20)	(21)	(22)	(22a)	(23)	(24)	A 2 (25)	A 3 (26)	A 1 (27)	(28)	(29)	(30)	(30a)	F11 (31)	(31a)	F 20 (31b)	(32)	33	(34)	(35)	(36)	(37)	(38)	(39)	(40)		
		2004/05	2005/06	2006/07	2006/07	2006/07	2006/07	2006/07	2006/07	2006/07	2006/07	2006/07	2006/07	2006/07	2006/07	2006/07	2006/07	2006/07	2006/07	2006/07	2006/07	2006/07	2006/07	2006/07	2006/07	2006/07	2006/07	2006/07	2006/07	2006/07	2006/07	2006/07
	LWUs with 200 - 1,500 Properties																															
76	Harden (Reticulator)	1,570	1,687	1,830	1,850	0.96	1,760	0.68	0.95	1,180	3,900	100	168	10				3	2	98	0.2		1.1		250		1		1	5	1	
79	Walgett (Dual Supply)	1,680	1,870	1,870	1,460	0.85	1,590	0.88	0.85	1,400	6,600	200	102	16	2		6	7	7													
80	Greater Hume	1,500	1,583	1,670	1,650	0.95	1,590	0.82	0.95	1,300	4,200	100	145	11	1		2	2	1	62	0.1		1.3		100	5		10		7		
81	Gwydir	1,450	1,450	1,520	1,420	0.95	1,450	0.87	0.95	1,250	2,600	120	86	17			9	1	1				2.8		100			10		1		
82	Gloucester	1,440	1,699	1,750	1,780	0.95	1,670	0.85	0.95	1,420	3,100	120	58	29	2		1	6	10	155	0.3	41	1.2		100			75		2		
83	Oberon (Reticulator)	1,340	1,339	1,340	1,360	1.01	1,350	0.83	1.02	1,130	3,000	140	36	37	1				0	56	0.1							10				
84	Gilgandra (Groundwater)	1,370	1,375	1,390	1,350	0.98	1,360	0.89	0.98	1,210	2,900	110	49	28	1		5	1	2	170	0.2	67										
85	Uralla	1,300	1,303	1,560		1.01	1,570	0.90	1.02	1,430	2,600	100	37	42	1	1		1	3	8	0.0		0.6		100	10				8		
86	Hay (Dual Supply)	1,320	1,328	1,330	1,340	0.98	1,310	0.88	0.98	1,150	2,900		47	28	1			3	6	43	0.1		1.5		100			30				
87	Bourke (Dual Supply)	1,700	1,177	1,180	1,180	1.00	1,180	0.85	1.00	1,000	2,500	100	46	26	1			2	4			59	2.5		100					3		
88	Wakool (Dual Supply)	1,330	1,343	1,410	1,230	0.95	1,340	0.78	0.95	1,040	2,800		161	8	5	1		8	5	127	0.2		3.7		100			10		0		
89	Bogan	1,190	1,046	1,050	1,140	1.01	1,060	0.91	1.01	970	2,500		47	22	1			1	2	12	0.0		3.8	25	25							
90	Guyra	1,190	1,233	1,230	1,120	0.95	1,170	0.89	0.95	1,050	2,900	110	66	18	1	2		1	2				2.6		67	2		8		1		
91	Cabonne	1,130	1,156	1,160	1,150	0.95	1,100	0.86	0.95	950	2,200	100	88	13	1	3	3	3	3	25	0.0		5.4		17				1	2	14	1
92	Carrathool (Groundwater)	1,130	1,149	1,150	1,070	0.95	1,090	0.72	0.95	790	2,000	110	474	2		3	7	14	3	221	0.2		2.7		100					5		
93	Tumbarumba	1,080	1,028	1,200		0.95	1,140	0.88	0.95	1,010	2,000		66	17					0	153	0.2											
94	Gundagai	1,000	1,039	1,040	1,040	1.02	1,060	0.85	1.02	900	2,400	210	36	29	1			1	3	44	0.0		2.8	33	100		15	10		1		
96	Warren (Dual Supply)	1,060	1,055	1,060	1,050	0.91	960	0.89	0.90	850	2,000	100	53	18			5	2	4				2.1		100					2		
97	Bombala	900	881	880	850	0.95	840	0.87	0.95	730	1,900	110	36	23	2			3	8				2.4		100					1		
98	Walcha	810	876	880	860	1.01	880	0.84	1.01	740	1,700	110	56	16	1	1		3	5				2.3		100					1		
100	Balranald (Dual Supply)	840	846	850	880	0.95	810	0.87	0.95	700	2,000	100	30	27	2			3	10	3,520	2.8		2.5		100							
101	Murrumbidgee (Groundwater)	770	777	820	990	1.03	840	0.90	1.03	750	1,800	130	29	29	1		4	3	10	15	0.0		2.4		100					0		
103	Central Darling (Dual Supply)	720	716	730	680	1.00	730	0.95	1.00	690	1,400	110	67	11	2	4	3	7	10	368	0.3		4.1		100					3		
104	Boorowa	610	659	660		0.94	620	0.91	0.94	560	1,200		100	6					0													
105	Brewarrina	550	557	560	540	0.86	480	0.88	0.86	420	1,500	130	38	13	2	1	1	4	11	25	0.0	12	2.1		100	50			1	2	5	2
106	Jerilderie (Dual Supply)	490	497	500	480	0.93	460	0.77	0.93	360	970	100	43	11	1			1	2	43	0.0	10	2.2		100					2		
	Medians (% of LWUs basis) 200 to 1,500 Properties					*0.95*		*0.87*	*0.95*					*18*							*59*		*2.4*	*29*					*1*	*2*		
	Median All LWUs (% of LWUs basis)										*Properties served per km of main*			*27*					*Capital Expenditure/prop*		*155*		*Employees*	*1.9 per 1000 properties*								
	Median All LWUs (Statewide basis)													***33***							***$302***			***1.3 per 1000 properties***								
	Totals (excluding bulk suppliers)	*796,000 assessments*				*775,000 connected properties*					*1,800,000 pop'n*		*29,500 km (including bulk suppliers)*							*Total Capital Expenditure*		*$300M (including bulk suppliers)*										

Table 10: Water supply – asset management and water resource management

	WATER UTILITY	ASSET MANAGEMENT																				WATER RESOURCE MANAGEMENT														
		Leakage (see col (9) Table 8)								Main Breaks			Unplanned Interruptions to Supply			Rehabilitations			Renewals		Mains Maintenance Cost	Total Urban Water Supplied			Non-potable Urban Water Supplied			% Water Recycled (from Table 8)		Peak Week to Average Consumption		Average Annual Residential Water Supplied		
		(L/d per connection)			(kL/km/d)	(ILI)	Reservoir Drop Test Type	Year	Result %	(per 100km of Main)			(per '000 properties)			Mains (km per 100 km)	Service Connections (%)	Water Meters (%)	($'000 per 100km of Main)	(% of CRC)	($'000 per 100km of Main)	Potable + Non-potable + Recycled (excluding Bulk Water) (ML) (from Table 8)			For outdoor uses or industry (ML) (from Table 8)			(Total Vol Recycled (Urban + Ag Use)/Total Urban Water		(%)		From Tables 8 & 9 (1) ÷ [(22a)] (kL/property)		
		(41) A 8			(41a) A 9	(41b) A 7	(41c)	(41d)	(41e)	(42) A 6			(43) C 12			(44)	(45)	(45a)	(46)	(47)	(48)	(49) W 8			(50)			(51)		(53)		(56) W9		
		2004/05	2005/06	2006/07	2006/07	2006/07	2006/07	2006/07	2006/07	2004/05	2005/06	2006/07	2004/05	2005/06	2006/07	2006/07	2006/07	2006/07	2006/07		2006/07	2004/05	2005/06	2006/07	2004/05	2005/06	2006/07	2005/06	2006/07	2005/06	2006/07	2004/05	2005/06	2006/07
	Sydney Water	86	96	94	5.8	1.5				38	35	35	234	196								522,500	526,400	509,930				4	4			211	203	199
	Hunter Water	95	87	85	4.2	1.3				42	53	37	386	376	370							69,700	69,900	70,600				7	6			197	204	192
	Sydney Catchment Authority																																			
LWUs with > 10,000 Properties																																				
1	Gosford	36	43							30	43	36	265	295	280	0.5	0.7	4.4			153	15,200	15,500	13,557				2	2	133	101	180	180	147
2	Wyong	32	29	26	1.4	1.0	Reservoir drop test	2004	5.0	5	5	4	34	31	33	0.1	0.5	9.1	7	0.0	310	14,200	14,816	13,161	30	716	1,233	7	9	126	102	178	163	139
3	Shoalhaven	70	49	39	1.2	1.0	Waste metering	2007	7.0	11	9	14	4	3		0.0		2.2	33	0.1	66	15,900	16,214	13,011	3,370	2,869	109	12	15	184	150	167	171	165
4	Rous (Bulk Supplier) (NO SGE)	1	5		0.6					13	11	10	4	3	2	1.1	0.1	0.1	543	0.5	81	900	864	1,037						123	145			
5	MidCoast (Unfiltered)	79	72	60	1.3	1.0				13	13	10				1.0					160	10,400	10,700	9,506				1	1	152	177	204	178	167
6	Tweed	78	77							7	4	10	74	59	47	0.5	0.3	2.2	335	0.4	180	9,837	9,624	9,838		181	316	3	3	123	128	221	208	199
7	Port Macquarie-Hastings (Unfiltered	95	49	95	3.1	1.8				4	5	4	15	21	12	0.4	0.1	2.5	54	0.1	92	7,320	6,617	6,714		117		5		123	120	186	171	157
8	Riverina (Groundwater) (NO SGE)	101	103	143	2.4	1.6				19	13	20	1	92	83	0.5	0.1	16.0	259	1.8	43	15,602	15,876	17,559						190	166	343	362	410
10	Coffs Harbour (Unfiltered)	46	44	47	1.6	1.0				10	9	9	33	40	37	1.9	0.0	12.8	69	0.2	114	6,124	6,370	5,708	150	423	5	8	11	126	117	186	184	179
11	Albury City	86	85	99	3.7	2.6				10	14	15				0.8	0.1	1.5	338	0.6	124	13,975	9,296	8,625	5,290			40	52	210	168	284	302	276
12	Fish River WS (Unfiltered, Bulk Supplier)				9.4					5	4	3		0	0	0.0	0.0	0.0			237	8,050	851	1,212	7,520									
13	Tamworth Regional	98	94	154	4.3	5.4				19	13	12				0.4	0.1	4.5	898	3.3	4	10,690	10,370	8,708	160	53	90	1	17	188		317	319	229
14	Clarence Valley	126	67							6	6	10	52	55	51	0.3	0.1	2.7	8	0.0	81	12,324	7,523	6,356	4,180	138	103	4	2	116		178	238	184
15	Eurobodalla (Unfiltered)	43		129	2.5	1.7				2	5	2	20		2	1.2	0.2	2.8			89	4,730	4,518	4,205	180	143		7	7	158	132	151	159	126
16	Wingecarribee	52	113							18	21		85	78	59	0.8	0.3	2.3	78	0.3	78	5,110	4,742	4,936		2		1	2	166	155	220	192	214
17	Queanbeyan (Reticulator)	83	89				Reservoir drop test	2007		3	2	6				0.6		1.5			37	4,010	4,370	4,437				2	2	168	133	185	209	211
18	Dubbo	176	98	292	8.4	5.8				6	5	5	26	38	26	0.1	0.0	11.3	139	0.3	134	9,580	8,850	10,378				26	26	198	185	462	385	431
19	Orange	95	185	73	2.3	1.0				11	12		73	70	123	0.1	0.3	3.8	818	1.8	152	8,120	8,611	8,968	3,390	3,121	2,836	57	32	152	129	221	230	323
20	Goulburn Mulwaree	41		52	2.2	1.6				15		12				0.0		3.2	687	0.8	187	2,330	2,310	2,558				49	26	103		93	143	137
21	Bathurst Regional	115	95							5	6	20		14	5	0.4	2.9				251	7,960	7,390	6,670	30	741	2	9	9	149	206	283	267	291
22	Lismore (Reticulator)	60	52	144	5.0	2.2				6	9	22	32	35	48	0.9		4.8	537	1.4		3,850	4,010	3,534				3	5			179	196	174
23	Bega Valley (Unfiltered)	53	131	76	1.5	1.1				4	8	7				0.3	0.2	2.6	94	0.4	45	3,540	4,243	3,742		438		16	16	186		178	163	161
24	Ballina (Reticulator)			169	6.0	2.9	Reservoir drop test	2005	19.0	8	3	3		4	7	0.2		4.5	53	0.1	64	4,470	3,350	4,265	330	220	386	10	5			220	209	198
25	Kempsey (Groundwater)	126	136	298	5.4	4.4				34	4	9				0.5		2.4	133	0.3	95	4,153	4,152	4,061	220	74	119	6	3	137	158	187	178	184
26	Country Energy	85	82							12	13	10				0.5	0.1	3.5	1163		373	7,230	6,566	6,831	1,870	1,176	1,733	9	9	174	138	281	317	278
27	Byron (Reticulator)	99	38	59	2.4	1.2	Waste metering	2007	8.0	33	38	9	5	1	0	0.6	1.3	9.4			30	3,005	2,942	3,191		222	340	29	26			214	190	181
28A	Goldenfields (Reticulator) (NO SGE	202	94	73	0.4	1.0				18	19	15	151	147	105	0.3	0.6	4.7			52	3,890	5,970	6,295						305		311	311	294
28B	Goldenfields (Bulk Supplier) (NO SGE)				6.8																112	2,279	1,245	773	180	134	169			192				
	Medians (% of LWUs basis excl bulk suppliers) for >10,000 Properties			*88*	*2.4*	*1.6*	Note: ILI < 1.0 is meaningless & has been increased to 1.0				9	*10*		39	*42*	*0.5*			*136*		*94*								7	*9*					
LWUs with 3,001 - 10,000 Properties																																				
29	Armidale Dumaresq	67	66	67	1.6	1.0				31		24				0.3	0.6	4.9			293	3,160	3,110	3,152	60	54	53	13	24	162	136	253	243	248
30	Griffith	162	168	148	3.0	1.2				14	14	14	37	40	25	0.9	0.8		54	0.3	44	9,420	9,550	8,704	820	737	682	8	4	178	162	685	703	675
31	Lithgow		48								7			13		0.0					214	2,140	2,050	***2,050***						101	107	181	195	160
32	Mid-Western Regional	64	78	84	1.8					11	9	9	77		41		0.0	4.1	146	0.5	217	2,420	2,890	3,481				3		180	162	286	322	316
33	Richmond Valley	73	222	197	6.8	6.0				11	13	12				2.8	3.2		371	1.0	157	3,040	3,139	3,165		19		4	10			286	207	254
34	Nambucca (Groundwater)	48	111	99	2.9	1.4				6	3	2	13	10		0.3		38.4	75	0.2	91	1,910	1,750	1,744				8	8	125	129	205	180	156
35	Singleton	81	89	138	3.5					7	18	11	347	339	333	0.3	2.1	3.7	10	0.0	51	2,750	3,140	2,772				20	23	173	181	309	335	269
36	Parkes	240	158	238	3.0		Reservoir drop test	2004	6.0	14	16	16				0.2					12	6,520	5,266	5,060	210	160	212	4	3			362	368	239
37	Inverell	68		72	1.5	1.1				10	6	6	5	4	4	0.4	0.1	0.0	161	0.6	84	2,086	1,950	***2,344***						134	124	227	231	294

Table 10: Water supply – asset management and water resource management (continued)

WATER UTILITY		ASSET MANAGEMENT																		WATER RESOURCE MANAGEMENT														
		Leakage (see col (9) Table 8)							Main Breaks			Unplanned Interruptions to Supply			Rehabilitations			Renewals		Mains Maintenance Cost	Total Urban Water Supplied			Non-potable Urban Water Supplied			% Water Recycled (from Table 8)		Peak Week to Average Consumption		Average Annual Residential Water Supplied		
		(L/d per connection)			(kL/km/d)	(ILI)	Reservoir Drop Test Type	Year	Result %	(per 100km of Main)			(per '000 properties)			Mains (km per 100 km)	Service Connections (%)	Water Meters (%)	($'000 per 100km of Main)	(% of CRC)	($'000 per 100km of Main)	Potable + Non-potable + Recycled (excluding Bulk Water) (ML) (from Table 8)			For outdoor uses or industry (ML) (from Table 8)			(Total Vol Recycled (Urban + Ag Use)/Total Urban Water		(%)		From Tables 8 & 9 (1) ÷ [(22a)] (kL/property)		
		(41) A 8			(41a) A 9	(41b) A 7	(41c)	(41d)	(41e)	(42) A 6			(43) C 12			(44)	(45)	(45a)	(46)	(47)	(48)	(49) W 8			(50)			(51)		(53)		(56) W9		
		2004/05	2005/06	2006/07	2006/07	2006/07	2006/07	2006/07	2006/07	2004/05	2005/06	2006/07	2004/05	2005/06	2006/07	2006/07	2006/07	2006/07	2006/07		2006/07	2004/05	2005/06	2006/07	2004/05	2005/06	2006/07	2005/06	2006/07	2005/06	2006/07	2004/05	2005/06	2006/07
38	Moree Plains (Groundwater)	108		163	5.1	4.7				14		78			706	5.0	0.5	1.5	85	0.2	476	3,220	3,220	3,302			75				157	420	484	592
39	Cowra	66	84	73	1.7					8	11	11				1.3	0.4	2.9			193	2,177	2,956	2,507	40	191	95			270	176	240	321	256
40	Central Tablelands (NO SGE)	66	84	61	0.6	1.0				14	17	11	87	79	60	1.7	1.6	3.6	142	0.8	47	1,866	1,913	1,743						205	226	236	241	204
41	Muswellbrook	114		73	2.5	1.4				29		32	89		83	1.1	0.1	2.4			461	3,790	2,870	2,902	1,150		654	43	32			314	344	278
42	Corowa	158	126	130	4.1	3.8				15	26	29	41	44	43	0.3	0.5	0.6	123	0.4	133	3,260	5,140	2,187		1,411		11	24	200		587	427	319
43	Tumut	59	58	58	1.6					25			139			1.3		4.7			59	2,050	1,610	1,458	90	36	42	0.1				301	310	165
44	Gunnedah (Groundwater)	112	104	129	2.9	4.0				15	11	14	4	3	4	1.1	0.3	8.1			199	2,726	2,528	2,975				20	15	201	145	367	336	393
45	Upper Hunter	96	73	66	2.0					52	48	57	3	22	25	7.1			81	0.4	296	2,790	1,780	1,979	510		138	3	25			239	294	270
46	Narrabri (Groundwater)		135								143	182		117	23	0.9	97.0	87.7	311	1.4	235	3,740	3,600	***3,600***				18	15	197	197	562	547	544
47	Bellingen (Unfiltered)	70	66	177	4.2	2.2				14	10	5				0.8		14.9				1,389	1,489	1,334						139	129	223	272	183
48	Leeton	253	170							14	19		38	38		1.4	2.5	7.6			217	3,118	2,865	***2,865***						198		524	502	482
49	Young (Reticulator)	67	70	97	2.7	1.5				13	20	21	77	23	20	0.9	1.5	16.8			132	1,630	1,625	1,765	130	111		8	6	188	162	247	242	221
50	Cooma-Monaro																		188	1.1	9	1,700	1,700	***1,700***								344	318	314
51	Forbes	127	120	115	3.2	3.2				25	35	33	195	210	134	0.2	0.2	10.2			275	2,046	2,549	2,424	150	199	225	0.1	0.3	213	182	377	446	499
52	Snowy River (Unfiltered)	120	37	149	3.0	2.2	Reservoir drop test	2007	6.0	14	13	7	1	13	3	0.0	1.0	0.5			1	2,260	540	904			6				168	542	118	133
53	Berrigan (Dual Supply)	81	153	102	1.6	2.4				30	18	35	6	12	46	0.5	0.5	6.0				2,210	1,999	1,921	1,090	892	857	2	3	217	250	591	591	465
	Medians (% of LWUs basis) for 3,000 to 10,000 Properties			*102*	*2.9*	*2.2*	Note: ILI < 1.0 is meaningless & has been increased to 1.0				15	*14*		23	*41*	*0.9*			*132*		*157*							8	*13*					
LWUs with 1,501 - 3,000 Properties																																		
54	Deniliquin	107	156	154	3.5	3.8	Reservoir drop test	2005	8.0	13	13	25		24	6	0.6	0.2		43		211	2,959	2,949	3,098	690	700	952	20	16	188	170	597	533	489
55	Warrumbungle	52	56	51	1.4						11	10		21		0.4	0.2	0.2			124	1,250	1,020	1,022				11	11			368	368	225
56	Yass Valley	98	106	106	2.0	2.8				11	11	8	4	3	11	0.7	0.6	5.6				834	856	842				16	20	147	154	195	193	197
57	Wellington	179	249	249	8.4	4.1	Reservoir drop test	2004	23	13	23	26	64	73	62	8.2	5.1	1.4	1833	6.1	336	1,020	1,120	1,220				0.1	0.1	178	167	256	241	279
58	Cootamundra (Reticulator)	53	50	66	2.1					333	132	39				0.0					136	900	1,035	931		185		22	20			239	221	224
59	Lachlan	78		97	1.1	1.3				6		6	12		11	1.4	0.7	7.2				1,403	1,430	1,455	250		32	14	8		247	382	314	364
60	Glen Innes Severn	41	51							10	16		7			0.0					155	740	830	***830***				2	2	180		187	222	188
61	Liverpool Plains	71								8			27						376	1.6	140	950	950	***950***								280	238	238
62	Narromine (Groundwater)									4	7			30		6.7	0.7	1.7	92	0.6	452	1,540	1,300	1,180	100	121				247		656	381	374
63	Narrandera (Groundwater)	109	114							18	23		70	75							247	1,440	1,460	***1,460***	50					232		445	327	487
64	Dungog (Reticulator)	56	53	53	1.1	1.0				23	37	41	259	320	326	1.9	0.7	21.2	97	1.0	31	664	604	606				33	30	110	101	175	198	198
65	Murray (Dual Supply)	54	116	46	1.0	1.1	Waste metering	2007	7.0	8	9	9	60	38	12	0.2	0.5	2.1	184	0.6	101	1,280	1,450	1,500	530	650	691	20	6	177	155	569	640	439
67	Cobar	120	176							3	6		2	4								1,660	2,345	***2,190***	200	158		5	5	150		485	675	709
66	Cobar WB (Bulk Supplier)																					4,250	4,250	0										
68	Tenterfield	47	38	39	1.1	1.0				25	18	7	37	37	36	1.2	1.8	7.8	106	0.2		405	496	433		76		19	29	128	139	163	171	177
70	Kyogle	34	37	43	1.2	1.0				11	11	7	21	14	14	0.7	0.3	3.3	32	0.1	173	470	457	501	100	41		12	11	123	104	135	158	197
71	Palerang	52	48							16	15		3	6								540	520	***520***						153		180	169	170
73	Upper Lachlan	32	36	50	1.4	1.0				10	8	5	6	4	3	0.8	1.1	4.1	642	2.2	14	330	430	534						171		148	179	219
74	Wentworth (Dual Supply)	72	32							15	21		11	12							96	2,580	1,988	290	2,190	1,690		1		694		784	630	560
75	Coonamble (Groundwater)	179	194	246	6.3	7.4				9	13	39	6	63	63	0.6	1.9	2.2			367	1,600	1,251	1,214		41		3	4		142	621	462	462
	Medians (% of LWUs basis) for 1,500 to 3,000 Properties			*60*	*1.4*	*1.2*	Note: ILI < 1.0 is meaningless & has been increased to 1.0				13	*10*		24	*13*	*0.7*			*106*		*147*							13	*11*					

Table 10: Water supply – asset management and water resource management (continued)

WATER UTILITY		ASSET MANAGEMENT																				WATER RESOURCE MANAGEMENT											
		Leakage (see col (9) Table 8)							Main Breaks			Unplanned Interruptions to Supply			Rehabilitations			Renewals		Mains Maintenance Cost	Total Urban Water Supplied			Non-potable Urban Water Supplied			% Water Recycled (from Table 8)		Peak Week to Average Consumption		Average Annual Residential Water Supplied		
		(L/d per connection)			(kL/km/d)	(ILI)	Reservoir Drop Test Type	Year	Result %	(per 100km of Main)			(per '000 properties)			Mains (km per 100 km)	Service Connections (%)	Water Meters (%)	($'000 per 100km of Main)	(% of CRC)	($'000 per 100km of Main)	Potable + Non-potable + Recycled (excluding Bulk Water) (ML) (from Table 8)			For outdoor uses or industry (ML) (from Table 8)			(Total Vol Recycled (Urban + Ag Use)/Total Urban Water		(%)		From Tables 8 & 9 (1) ÷ [(22a)] (kL/property)		
		(41) **A 8**			(41a) **A 9**	(41b) **A 7**	(41c)	(41d)	(41e)	(42) **A 6**			(43) **C 12**			(44)	(45)	(45a)	(46)	(47)	(48)	(49) **W 8**			(50)			(51)		(53)		(56) **W9**		
		2004/05	*2005/06*	*2006/07*	*2006/07*	*2006/07*	*2006/07*	*2006/07*	*2006/07*	*2004/05*	*2005/06*	*2006/07*	*2004/05*	*2005/06*	*2006/07*	*2006/07*	*2006/07*	*2006/07*	*2006/07*		*2006/07*	*2004/05*	*2005/06*	*2006/07*	*2004/05*	*2005/06*	*2006/07*	*2005/06*	*2006/07*	*2005/06*	*2006/07*	*2004/05*	*2005/06*	*2006/07*
LWUs with 200 - 1,500 Properties																																	
76	Harden (Reticulator)	87	111	56	0.6	1.0	Reservoir drop test	2006		11	10	7	27	26	1	14.9	0.7	1.7	102	0.9	67	790	875	540		85		11	16			418	424	317
79	Walgett (Dual Supply)	114	74	52	0.7	1.3				42	72	91				9.8	0.6				138	2,300	2,620	1,506	1,120	1,120	1,042	20	34		112	1,550	1560	935
80	Greater Hume	68	69	66	0.7	1.0	Reservoir drop test	2006		17	15	21	7	20	63	0.0	0.6	3.8			10	613	698	743		23		16	16		158	318	319	300
81	Gwydir	155	342	232	3.8	3.7				8	38	22	30	15	10	0.6	2.6	6.6				882	758	746		38	1		4	216	189	333	247	260
82	Gloucester	53	39	36	1.1	1.1				16	16	12	110		96	0.9	1.3	6.1	250	1.0	322	435	410	391						165	147	185	181	165
83	Oberon (Reticulator)	88	81	90	3.4					24	31	22	7	7	36	3.3	0.9	3.6	139	0.7	183	690	730	756								167	170	155
84	Gilgandra (Groundwater)	133		132	3.6	10.6	Reservoir drop test	2000	15.0	41	30	41	34	15	22	0.6	0.7				214	1,025	850	960				33	22	152	147	460	433	455
85	Uralla	65			2.2					8		27	11		25	0.5	0.4	0.6				330	330	335							249	196	196	161
86	Hay (Dual Supply)	43	47	47	1.3					17	17	32			11	2.1	0.8				191	1,660	1,700	1,643	1,310	1,318	1,277			163	114	810	1000	1290
87	Bourke (Dual Supply)	137	99	101	2.6	2.8				115	114	87	764	828	826	0.0	0.3	0.8			241	3,530	3,320	3,136	2,530	2,607	2,414			170	166	2,280	2100	2820
88	Wakool (Dual Supply)	118	114	116	0.9	2.3	Reservoir drop test	2004	7.0			0				0.0					37	860	1,620	1,478		760	920					1,520	1480	1260
89	Bogan	141	143	126	3.1	3.7	Reservoir drop test	2005		27	32	30		118		1.1					98	860	920	876							125	476	543	515
90	Guyra	67	47	67	1.1	1.0				32	27	17	65	85	51	0.2	0.3	3.8			76	570	429	453						155	150	319	248	221
91	Cabonne	35	35	143	1.9					15	14	11	28	27	18	0.0	5.5	1.1			69	330	341	331	100	99	47	24	21		129	176	159	161
92	Carrathool (Groundwater)	124	141	81	0.2					29			52			0.6	4.5		37	0.3	31	2,060	940	579	1,240	266	24		1			493	488	378
93	Tumbarumba	75	68							10	15		2	12					65	0.3	21	460	380	***380***						249		364	367	214
94	Gundagai	110	106	105	3.0	1.2				17	6	8	49	28	28	0.0	1.9	2.0			103	490	645	742		105		19	19	199	169	257	250	244
96	Warren (Dual Supply)	57	232	271	5.4	8.8				79	136	58				0.0	0.1	6.1			149	810	740	577	460	400	246		1	159	158	550	660	415
97	Bombala	85	85	77	1.8					11	24	31	82	78		0.0	6.9	0.7			72	410	445	226		35		9	15			481	467	242
98	Walcha	47	49	45	0.7	3.8				2	5	2	6	11	2	0.0	0.6	5.4			189	230	260	232						178	178	167	223	189
100	Balranald (Dual Supply)	41	35	33	1.0	1.0				68	10	13	651	647		0.0					210	1,130	770	777	930	587	599					940	820	1080
101	Murrumbidgee (Groundwater)	166	183	170	5.8	6.1				31	21	45			8	0.0	1.2				38	710	840	1,044			12	1	1			570	759	760
103	Central Darling (Dual Supply)	23	20	20	0.2	1.0				26	19	30	73	106	75	1.5	2.1	1.2			133	580	450	342	480	369	260			254	318	633	506	470
104	Boorowa									10	10										16	210	210	***210***						812		215	372	375
105	Brewarrina	137	114	82	1.2					78	65	82				0.0	0.2				163	1,200	1,170	270	780	790		15	63			525	506	366
106	Jerilderie (Dual Supply)	40	42	43	0.5					25	20	19	22	22	11	0.5	0.4	0.6			86	269	270	365	150	150	239	15	1			667	660	886
Medians (% of LWUs basis) for 200 to 1,500 Properties				*81*	*1.3*	*1.8*	Note: ILI < 1.0 is meaningless & has been increased to 1.0				20	*22*		27	*24*	*0.3*			*102*		*100*							16	*16*					
Median All LWUs (% of LWUs basis)			*Leakage*	*90*	*2.1*	*1.6*				*Main Breaks per 100km of main*		*14*	*Interruptions*		*27*	*per 1,000 properties*			*Renewals 0.5% of CRC*									*Water Recycled*	*11%*	*Av Annual Res Water Supplied*		*255*		
Median All LWUs (Statewide basis)				***73***								***11***			***36***																	***185***		
Totals for all LWUs (excluding bulk suppliers)							***15 LWUs with leakage testing***														***Total Urban Water Supplied 296,000 ML***						***23,000 ML Non-potable Urban Water Supplied***						

+ There are 11 LWUs with a dual water supply in 2006/07; Balranald, Berrigan, Bourke, Central Darling, Hay, Jerilderie, Murray, Wakool, Walgett, Warren, Wentworth.
For these 11 LWUs, note 12 on page 27 reports the approximate total potable annual residential water supplied per property.

Note: 1 LWUs with >20 connections/km should use Real Losses (L/connection/day) (column (41)) for comparison purposes.
LWUs with <20 connections/km should use Real Losses (L/km water main/day) (column (41a)) for comparison purposes.
2. Leakage relates only to Total Urban Water Supplied (potable) and excludes bulk water exports.

Table 11: Water supply – financial and efficiency

WATER UTILITY	FINANCIAL (SEE ALSO COST RECOVERY TABLE 6)																EFFICIENCY (SEE ALSO COST RECOVERY TABLE 6)											
	Total Revenue Water (excl. Capital Works Grants)		Residential Revenue		Current Replacement Cost (CRC) of System Assets			Net Debt to Equity		ERRR			Cross Subsidies		Operating Result		Externalities (Fees to State Water)	Operating Cost (OMA)				Total Cost (Operating Cost (OMA) + Depreciation)				Management Cost			
	($'000)		Res Revenue from Usage Charges (%)*	Res Water Supplied (% of water supplied excluding nonrev water)*	Written Down Cost ($M)	Current Replacement Cost ($M)	Current Replacement Cost per Assessmnt ($)	(%)		(%) see also Table 6 Col (12)			Annual Fees & Charges ($/assessment)	Developer Charge ($/assessment)	($/property)		($/property)	($/property)				($/property)				($/property)			
	(57) F 1		(58) F 4	(59)	(60)	(61)	(62)	(63) F16		(63a) F 13			(64a)	(64b)	(65)		(66)	(67) F 6**				(68) F 9**				(68a)			
	05/06	06/07	06/07	06/07	06/07	06/07	06/07	04/05	05/06	06/07	04/05	05/06	06/07	06/07	06/07	05/06	06/07	06/07	03/04	04/05	05/06	06/07	03/04	04/05	05/06	06/07	03/04	04/05	05/06	06/07
Sydney Water	710,800	810,000	82	63					46.4	44.9	3.8	2.7	1.9						234	244	224	260	409	336	311	369				
Hunter Water	90,100	102,800	62	63					13.2	23.6	3.2	5.0	3.5						158	162	147	210	206	210	205	270				
Sydney Catchment Authority	141,780	151,160																												
LWUs with > 10,000 Properties																														
1 Gosford	23,400	25,790	68	80	425	531	7,800		-6.9	2.4	-1.9	-1.3	-0.4		10	-26	-31	0.003	219	248	277	310	298	321	359	393	130	137	156	138
2 Wyong	28,700	39,184	66	59	426	576	9,600		4.0	10.4	2.2	1.4	3.2			38	-103	0.02	199	227	236	314	313	350	357	441	83	98	116	124
3 Shoalhaven	17,000	15,243	62	60	276	428	8,800		-12.0	-8.0	3.1	0.8	0.6			86	58	0.02	191	207	203	218	275	291	289	307	103	111	110	113
4 Rous (Bulk Supplier) (NO SGE)	10,900	9,634			282	419	8,900		-11.2	5.9	0.2	0.5	0.3			45	27	0.05	151	177	187	143	208	235	249	191	76	81	95	67
5 MidCoast (Unfiltered)	21,700	17,707	72	68	215	375	10,100		-11.9	-3.8	4.2	6.6	2.4			182	208	0.29	262	274	260	258	377	388	368	363	25	65	51	53
6 Tweed	14,200	20,650	72	74	349	511	16,100		-14.9	-8.3	4.2	1.1	1.4			110	212	0.02	222	243	257	289	336	357	379	546	112	123	138	142
7 Port Macquarie-Hastings (Unfilter	16,300	15,967	74	75	327	444	14,500		2.5	1.1	2.3	1.3	1.1		77	47	18	0.04	273	299	339	282	394	418	443	433	81	94	104	94
8 Riverina (Groundwater) (NO SGE	15,100	18,004	80	65	130	226	8,000		-7.8	-7.9	2.3	3.1	5.1			97	168		211	237	255	276	342	385	401	416	61	65	73	75
10 Coffs Harbour (Unfiltered)	16,900	14,184	78	75	209	279	11,300		-12.8	-5.1	6.5	5.6	2.9			342	298	0.005	217	215	215	227	299	297	297	345	97	103	102	106
11 Albury City	9,200	8,916	70	79	175	297	13,500		-3.7	-3.1	0.1	-0.2	-0.3			-8	-3	3.8	208	207	222	228	373	378	406	417	94	94	101	94
12 Fish River WS (Unfiltered, Bulk S	5,770	7,154			0	100	4,000			-12.6	1.0						87		114	77		91	216	160		154	38			31
13 Tamworth Regional	13,800	12,003	60	54	93	179	9,000		-14.1	-13.9	2.0	4.4	2.7			230	155	12.7	298	313	346	340	439	447	485	475	101	113	105	115
14 Clarence Valley	10,200	24,600	73	60	181	***263***	***12,700***		-10.1	1.8		1.0	9.8			111	124	0.03	297		291	246	463		411	357	107		171	143
15 Eurobodalla (Unfiltered)	9,850	10,130	43	71	98	149	7,400		-9.1	-10.3	3.4	1.1	1.5			87	116	0.04	300	308	317	329	426	428	433	455	153	155	171	155
16 Wingecarribee	9,480	9,693	65	79	88	147	7,900		-18.7	-17.8	4.1	4.5	3.8			170	191		163	174	199	249	263	279	312	363	80	87	101	108
17 Queanbeyan (Reticulator)	8,600	10,378	61	77	103	158	10,500		-6.4	-6.8	0.8	-0.1	0.6			14	72	0.02			428	525	318		477	625	89	47	96	97
18 Dubbo	9,730	11,017	83	69	165	189	13,400		20.4	10.4	2.2	2.9	1.1			95	80	5.6	348	367	385	444	495	505	505	585	113	140	149	162
19 Orange	12,300	12,285	75	82	118	214	13,700		-11.0	-6.1	3.6	6.0	4.6			233	269	0.1	273	325	325	300	412	464	464	439	105	114	113	109
20 Goulburn Mulwaree	5,140	6,110	73	63	122	196	21,600		8.3	3.5	0.3	1.5	1.2			47	122	0.1	343	202	276	340	455	278	409	502	144	98	109	108
21 Bathurst Regional	7,550	8,474	43	63	121	187	13,800		-10.8	-6.3	-0.1	0.3	0.5			22	32	0.1	308	357	360	403	459	503	496	545	106	139	139	147
22 Lismore (Reticulator)	7,390	5,596	71	70	69	127	9,700		-9.3	-3.8	1.4	4.2	0.6			149	41	0.02	252	302	309	306	353	357	386	352	57	79	77	80
23 Bega Valley (Unfiltered)	6,580	6,868	66	69	90	146	10,300		-19.0	-14.4	0.8	-0.2	0.0			5	38	1.3	291	317	336	348	447	469	487	501	157	175	177	167
24 Ballina (Reticulator)	5,090	5,293	66	78	79	130	9,000		-19.7	-10.3	-2.6	-1.7	0.1			-11	42	0.2	339	368	321	317	445	419	366	365	99	88	88	90
25 Kempsey (Groundwater)	6,960	6,704	38	61	183	254	21,800		-90.1	4.8	6.6	1.9	1.1			85	90	1.6	196	216	264	277	283	348	396	388	67	79	94	120
26 Country Energy	12,300	11,766	59	59	0	60	5,600				0.7	-0.1				65	-42		875	910	944	869	1089	1115	1143	1071	251	279	385	366
27 Byron (Reticulator)	4,690	4,705	71	68	129	172	15,800		-26.9	-18.9	-0.3	1.1	0.2			43	56	0.02	325	360	340	353	413	405	386	399	117	115	107	132
28A Goldenfields (Reticulator) (NO SC	9,990	6,219	66	37	86	182	16,100		-13.9	-12.8	-1.9	-2.3	-0.3			-34	125			589	717	508	620	841	1034	814	118	90	96	83
28B Goldenfields (Bulk Supplier) (NO	7,650	6,539			93	152	8,000		-13.2	-12.4	2.8	2.8	0.4			96	21		220	204	220	238	323	306	315	346	51	40	43	40
Medians (% of LWUs basis excl bulk suppliers) for >10,000 Properties									*-10.8*	*-6.1*		*1.3*	*1.1*			*86*	*85*				*300*	*303*			*403*	*425*			*108*	*114*
LWUs with 3,001 - 10,000 Properties																														
29 Armidale Dumaresq	4,350	4,680	82	68	90	95	11,400		-4.4	-2.3	-0.6	-1.1	-0.9		47	-77	-81	0.1	333	360	402	467	513	547	592	669	144	191	174	211
30 Griffith	7,450	7,310	67	61	49	80	8,600		-14.5	-14.0	5.0	3.3	3.5			238	281		415	423	503	562	568	596	687	706	151	139	205	219
31 Lithgow	3,500	3,770	83	63	23	51	6,500		-14.8	-9.2	-2.0	-1.9	-5.2			-45	-118		266	342	338	467	366	417	409	539	129	210	189	218
32 Mid-Western Regional	4,470	4,860	89	63	55	88	13,200		3.9	1.6	2.7	1.2	1.3			69	94		333	401	397	419	450	474	562	606	155	178	131	128
33 Richmond Valley	3,610	4,900	60	55	46	73	10,900		-13.0	-7.8	2.8	1.6	2.3			74	158	0.1	325	359	390	458	409	426	456	629	142	158	164	208
34 Nambucca (Groundwater)	2,620	2,330	66	57	38	65	10,100		-21.8	-15.6	3.6	4.3	2.1			196	185	0.7	187	184	169	186	251	249	235	253	86	76	70	73
35 Singleton	5,230	4,940	57	62	43	70	11,000		-32.9	-25.9	5.4	6.6	4.7			412	465	15.1	294	293	315	352	424	421	446	487	92	97	97	98

Table 11: Water supply – financial and efficiency (continued)

	WATER UTILITY	FINANCIAL (SEE ALSO COST RECOVERY TABLE 6)																EFFICIENCY (SEE ALSO COST RECOVERY TABLE 6)											
		Total Revenue Water (excl. Capital Works Grants)		Residential Revenue		Current Replacement Cost (CRC) of System Assets			Net Debt to Equity		ERRR			Cross Subsidies		Operating Result		Externalities (Fees to State Water)	Operating Cost (OMA)				Total Cost (Operating Cost (OMA) + Depreciation)				Management Cost			
		($'000)		Res Revenue from Usage Charges (%)*	Res Water Supplied (% of water supplied excluding nonrev water)*	Written Down Cost ($M)	Current Replacement Cost ($M)	Current Replacement Cost per Assessmnt ($)	(%)		(%) see also Table 6 Col (12)			Annual Fees & Charges ($/assessment)	Developer Charge ($/assessment)	($/property)		($/property)	($/property)				($/property)				($/property)			
		(57) F 1		(58) F 4	(59)	(60)	(61)	(62)	(63) F16		(63a) F 13			(64a)	(64b)	(65)		(66)	(67) F 6**				(68) F 9**				(68a)			
		05/06	06/07	06/07	06/07	06/07	06/07	06/07	04/05	05/06	06/07	04/05	05/06	06/07	06/07	06/07	05/06	06/07	06/07	03/04	04/05	05/06	06/07	03/04	04/05	05/06	06/07	03/04	04/05	05/06	06/07
36	Parkes	6,640	5,790	61	28	66	124	20,000		-30.4	-22.2		1.9	4.0	1.9			417	384	8.3	436	456	483	551	627	649	685	743	61	69	77	72
37	Inverell	3,860	4,000	79	68	39	64	11,800		-5.7	-7.4		2.3	3.5	3.1	6		204	252	0.6	365	388	369	390	496	518	499	524	109	118	119	123
38	Moree Plains (Groundwater)	3,450	3,150	78	88	35	***56***	***12,200***		1.6	1.2		1.7	1.1	1.7			73	152	1.3	386	315	593	474	438	404	704	584	161	129	197	151
39	Cowra	3,280	4,060	71	56	30	***39***	***7,100***		-1.3	1.2		-1.3	-1.6	1.4			-119	30	9.2	423	453	510	524	560	610	679	700	260	272	288	281
40	Central Tablelands (NO SGE)	3,750	3,580	52	51	51	99	18,300		12.7	6.4		1.2	0.3	0.9			-26	23		402	374	465	401	611	585	679	611	195	178	201	184
41	Muswellbrook	5,330	5,200	67	63	42	60	11,000		-25.2	-14.7		8.5	12.6	3.8			477	414		348	356	435	549	455	464	595	706	88	52	117	131
42	Corowa	2,260	2,060	68	70	28	44	8,700		-10.9	-12.5		-0.5	0.0	-1.7			36	-57	13.2	326	259	269	352	441	360	433	542	96	105	123	130
43	Tumut	2,180	2,130	76	45	33	52	11,700		-9.9	-7.2		3.1	1.1	0.3			86	66	2.7	307	254	262	321	452	392	430	473	93	82	83	88
44	Gunnedah (Groundwater)	2,140	2,470	82	56	28	45	10,500		-13.6	-11.9		2.5	3.5	3.9			152	295	0.2	225	221	232	237	296	347	314	324	72	53	71	69
45	Upper Hunter	3,020	3,140	77	65	20	30	6,900		-30.1	-28.4		5.6	6.4	6.7			287	440	0.1	304	314	364	369	400	395	448	453	117	115	139	151
46	Narrabri (Groundwater)	1,650	1,450	***90***	63	12	24	5,400		-37.1	-35.5		5.8	0.8	-1.2			100	80	1.5	176	189	195	292	248	261	267	367	67	58	58	92
47	Bellingen (Unfiltered)	2,460	***2,460***		66	0	36	8,600		-27.2			0.5	-1.6				31		0.5	238	236	235		413	411	580		140	135	125	
48	Leeton	2,630	2,780	75	63	20	44	10,300		-15.0	-15.0		2.5	3.5	3.5			168	185		366	374	357	413	481	483	463	521	88	86	93	166
49	Young (Reticulator)	2,510	2,570	65	55	14	23	5,700		-25.3	-16.7		6.4	9.8	4.0			139	154		250	350	313	362	381	405	363	410	35	35	35	35
50	Cooma-Monaro	2,340	2,500	84	63	12	21	5,700		-26.5	-26.0		6.5	6.7	6.7			217	279		326	322	334	372	421	419	437	477	92	135	147	118
51	Forbes	2,560	1,970	90	75	20	47	13,800		-22.3	-21.3		2.9	6.2	2.2			303	196	13.4	253	234	298	355	341	319	383	446	42	45	46	61
52	Snowy River (Unfiltered)	1,620	1,600	***90***	54	25	***37***	***13,500***			0.7			0.0	0.6			27	53	0.2	202		267	264	313		385	372	70		117	81
53	Berrigan (Dual Supply)	2,210	2,250	86	80	26	38	11,000		-13.7	-6.0		2.5	2.9	1.7		2	120	134	4.8	340	310	338	379	511	466	492	527	105	96	97	97
	Medians (% of LWUs basis) for 3,000 to 10,000 Properties									*-14.8*	*-12.2*			*3.3*	*2.0*			*139*	*156*				*338*	*385*			*456*	*525*			*119*	*125*
	LWUs with 1,501 - 3,000 Properties																														
54	Deniliquin	2,340	1,850	79	76	0	12	3,700		-23.6	-18.0		5.8	2.8	-0.1			108	59	11.5	304	342	446	444	461	493	592	588	123	142	200	216
55	Warrumbungle	1,090	1,450	85	90	17	42	10,500			-12.5		-2.1		-4.0				-123		369	275		383	535	414		539	141	142		60
56	Yass Valley	1,610	***1,610***		79	0	33	10,900					1.5							0.3	285	315			421	453			102	108		
57	Wellington	2,650	2,300	71	81	16	25	8,700		11.9	17.5		2.3	7.8	4.4			322	193	1.4	376	371	412	430	483	486	528	560	104	117	120	149
58	Cootamundra (Reticulator)	1,560	1,290	80	68	3	***13***	***4,200***		-7.6	-19.9		1.8	2.3	-1.4			64	-281		247	319	318	310	345	350	387	375	45	54	55	42
59	Lachlan	1,880	***1,880***		62		34	13,800		-16.3			-2.3	-0.5				46		11.9	338	512	402		505	677	593		89	109	70	
60	Glen Innes Severn	1,110	1,260	90	63	0	***27***	***8,400***		-14.3	-12.0			-0.9	-0.1			-58	-9		258		295	287	371		407	447	114		103	99
61	Liverpool Plains	1,130	890	***90***	63	10	23	8,700		-18.7	-8.7		-1.0	-0.5	-3.7			54	-83		232	301	293	379	342	420	378	497	60	85	84	119
62	Narromine (Groundwater)	1,070	1,120	***90***	63	3	10	4,400		-39.4	-40.4		0.6	4.6	6.5			78	172	2.4	307	357	322	357	391	440	406	439	116	93	103	110
63	Narrandera (Groundwater)	1,520	1,310	78	63	7	13	6,000		-37.5	-38.0		7.5	5.8	5.5			328	346	5.3	262	271	336	370	324	334	400	446	61	89	91	114
64	Dungog (Reticulator)	1,160	1,100	76	68	7	10	4,600		-20.8	-14.6		3.0	1.7	1.9			66	72	0.5	353	363	355	427	410	425	417	489	89	95	98	104
65	Murray (Dual Supply)	1,470	1,680	74	71	27	***36***	***13,200***		22.0	3.0		7.0	6.8	2.3			137	226	5.8	327	354	306	319	421	447	378	401	101	113	98	108
67	Cobar	1,610	1,880	***90***	63	13	22	9,900		-10.6	-8.3		1.5	0.4	3.5			51	221	0.4	270	327		527	416	487		679	104	104	37	47
66	Cobar WB (Bulk Supplier)		***0***																												
68	Tenterfield	970	1,070	76	87	11	32	15,800		-11.6	-7.1		-5.1	-1.6	-0.9			-19	-26	0.3	349	419	374	384	513	588	523	605	173	182	179	171
70	Kyogle	820	930	88	65	7	20	10,700		-16.5	-12.5		-0.5	-8.6	4.1			-162	147	0.2	218	240	259	304	364	386	548	386	98	108	112	117
71	Palerang	1,000	***1,000***		63	0	***10***	***5,100***		-14.5				0.7				68		0.1	232		372		367		491		72		85	
73	Upper Lachlan	1,030	1,140	***90***	75	9	19	10,100		-3.3	-3.4		1.8	1.4	3.4			65	139		303	359	324	368	417	457	405	460	58	100	94	103
74	Wentworth (Dual Supply)	2,060	1,950	90	63	18	20	8,800		7.4	0.1		0.7	2.7	2.5			123	131	17.3	542	521	472	438	832	838	726	692	110	98	93	92
75	Coonamble (Groundwater)	970	410	***90***	68	5	13	8,100		-54.0	-45.3		2.9	8.6	-2.9			343	53	0.4	145	146	186	262	243	227	272	350	20	20	20	28
	Medians (% of LWUs basis) for 1,500 to 3,000 Properties									*-15.3*	*-12.3*			*2.0*	*2.1*			*66*	*102*				*324*	*374*			*407*	*474*			*96*	*106*

Table 11: Water supply – financial and efficiency (continued)

	WATER UTILITY	FINANCIAL (SEE ALSO COST RECOVERY TABLE 6)																EFFICIENCY (SEE ALSO COST RECOVERY TABLE 6)											
		Total Revenue Water (excl. Capital Works Grants)		Residential Revenue		Current Replacement Cost (CRC) of System Assets			Net Debt to Equity			ERRR			Cross Subsidies		Operating Result		Externalities (Fees to State Water)	Operating Cost (OMA)				Total Cost (Operating Cost (OMA) + Depreciation)				Management Cost			
		($'000)		Res Revenue from Usage Charges (%)*	Res Water Supplied (% of water supplied excluding nonrev water)*	Written Down Cost ($M)	Current Replacement Cost ($M)	Current Replacement Cost per Assessmnt ($)	(%)			(%) see also Table 6 Col (12)			Annual Fees & Charges ($/assessment)	Developer Charge ($/assessment)	($/property)		($/property)	($/property)					($/property)				($/property)			
		(57) F 1		(58) F 4	(59)	(60)	(61)	(62)	(63) F16			(63a) F 13			(64a)	(64b)	(65)		(66)	(67) F 6**				(68) F 9**				(68a)			
		05/06	06/07	06/07	06/07	06/07	06/07	06/07	04/05	05/06	06/07	04/05	05/06	06/07	06/07	06/07	05/06	06/07	06/07	03/04	04/05	05/06	06/07	03/04	04/05	05/06	06/07	03/04	04/05	05/06	06/07
	LWUs with 200 - 1,500 Properties																														
76	Harden (Reticulator)	1,310	1,500	88	76	11	19	10,400	0.5	-0.7		-3.8	-2.2	0.6			-73	34	0.1	443	573	589	558	744	766	760	718	52	52	74	80
79	Walgett (Dual Supply)	1,400	1,260	***90***	63	11	25	13,400	-26.0	-16.7		-3.1	-4.8	-1.7			-115	-109	21.6	539	591	684	582	861	923	983	914	168	133	125	209
80	Greater Hume	780	820	72	67	15	23	13,800	-6.6	-5.4		1.2	-1.0	-0.3			-35	6	1.0	433	282	246	379	575	353	376	518	76	77	88	77
81	Gwydir	800	***800***		58		***12***	***7,900***	23.7				0.6				-57		1.8	322		366		430		543		69		82	
82	Gloucester	1,010	1,000	74	66	7	14	8,100	-2.4	-2.7		11.9	2.7	0.0			89	19	0.3	560	545	397	468	702	699	533	597	66	73	47	103
83	Oberon (Reticulator)	1,060	1,070	38	26	6	7	5,300	0.1	-1.5		2.0	4.5	2.6		12	135	95		350	238	240	378	593	360	362	501	50	41	52	65
84	Gilgandra (Groundwater)	690	730	81	61	9	12	9,000	-16.8	-13.4		2.5	2.9	3.7			102	188	2.4	226	289	252	235	358	423	381	304	74	79	30	30
85	Uralla	600	460	***90***	79	15	16	10,100	-14.2	-4.5		-0.4	-1.4	-2.3			5	-185	0.1	273	290	333	417	391	394	449	512	118	94	134	88
86	Hay (Dual Supply)	730	***730***	67	63	7	14	10,200	-11.9	-16.5		-1.9	-0.7	-0.1			7	54	10.2	297	311	338	355	485	513	542	558	89	93	85	83
87	Bourke (Dual Supply)	910	1,130	***90***	63	9	19	16,500	6.8	1.3		-5.7	-5.4	1.4			-165	53	0.7	517	501	613	646	823	805	888	857	94	118	129	70
88	Wakool (Dual Supply)	1,080	1,410	67	77	24	27	19,500	8.6	3.5		1.8	1.5	2.1			89	315	11.0	412	448	390	479	582	620	600	674	97	90	62	74
89	Bogan	740	1,010	***90***	63		16	15,000	-6.0	-1.1		-3.1	-5.2	-2.3			-271	-194	0.2	473	520	708	923	684	733	950	1165	202	219	256	290
90	Guyra	720	860	***90***	57	15	15	12,500	-9.0	-4.9		1.0	1.6	2.1			77	274	0.1	216	314	342	370	360	456	471	435	47	76	61	100
91	Cabonne	890	820	72	76	8	20	17,000	-22.7	-13.0		2.1	1.5	-0.5			203	108	1.9	308	343	372	557	545	571	595	781	96	114	112	119
92	Carrathool (Groundwater)	970	980	90	49	39	63	54,500	-5.2	-1.7		0.8	-1.5	0.0			-49	-33	7.8	532	500	721	752	660	653	878	910	86	100	65	133
93	Tumbarumba	720	600	74	63	9	17	14,000	-10.0	-6.1		3.0	6.7	1.8			266	109	0.6	233	262	224	258	394	430	405	383	84	92	80	112
94	Gundagai	470	530	54	47	7	13	12,600	-13.1	-8.7		0.2	0.3	1.2			48	125	6.0	350	337	342	356	411	395	396	410	75	73	81	80
96	Warren (Dual Supply)	450	470	89	80	6	11	10,500	-1.0	-2.7		-1.3	-0.4	-0.4			-53	-42	9.1	262	340	323	340	408	494	470	516	59	64	70	91
97	Bombala	440	***440***	87	88	6	12	14,000	-22.7	-13.6		3.1	1.7	1.1			98	146	0.6	239	256	343	366	315	332	421	443	58	92	114	137
98	Walcha	470	620	***90***	67	13	14	15,700	-5.8	-3.4		-0.3	-0.6	0.8			-29	131	0.1	347	385	422	442	502	542	564	585	93	121	98	106
100	Balranald (Dual Supply)	550	1,770	80	90	9	12	14,700	11.5	11.3		0.7	1.3	13.1			15	1448	13.1	282	349	397	489	439	527	581	678	67	60	67	126
101	Murrumbidgee (Groundwater)	340	320	80	62	2	5	6,300	-17.6	-23.3		1.3	2.1	2.1			105	110		194	215	195	211	307	325	307	319	103	97	100	93
103	Central Darling (Dual Supply)	680	620	90	90	9	15	19,900	-3.6	-7.9		-3.1	0.7	0.3			32	10		655	639	560	514	1014	949	844	807	75	75	75	75
104	Boorowa	340	420	***90***	63	5	11	16,600	5.1	2.8		5.7	2.2	3.6			117	285	0.3	298	326	292	292	390	420	381	369	44	50	37	37
105	Brewarrina	520	640	74	63	5	10	17,900	-18.4	-10.1		5.1	3.0	4.4	380		140	504	0.7	726	715	802	821	850	867	950	856	53	49	71	96
106	Jerilderie (Dual Supply)	310	290	68	73	4	7	14,300	-24.2	-11.5		-0.5	2.1	1.4			100	147	6.8	447	509	480	425	513	570	560	505	66	70	87	86
	Medians (% of LWUs basis) for 200 to 1,500 Properties								*-6.6*	*-4.9*		*1.3*	*1.1*				*48*	*108*				*381*	*425*			*551*	*558*			*80*	*91*
	Median All LWUs (% of LWUs basis)				*Current Replacement Cost $/Assessment*			*10,500*	*Net D/E*	*-8*		*ERRR*	*1.4*							*OMA Cost*	*$370 per property*						*Management Cost per property*			*$110*
	Median All LWUs (Statewide basis)							***10,100***		***-6***			***1.4***									***$290***	*per property*							***$115***
	Totals for all LWUs (including bulk suppliers)	***$476M Total Revenue***				***Total CRC $9340M***																									

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

** The Operating Cost and Total Cost shown in the table exclude the purchase cost of water but include part of the operating cost of the bulk water provider, apportioned according to the ratio of water purchased to total water supplied to all customers.

Table 12: Water supply – health and levels of service

	WATER UTILITY	HEALTH																LEVELS OF SERVICE																	
		Risk Based Drinking Water Quality Plan		Water Quality Compliance (%)														Water Quality Complaints			Water Service Complaints			Total Water Complaints	Customers with Restrictions for non-payment of Bills	Average Customer Outage Time			Customer Interruption Frequency			Average Duration of Interruptions			Drought Water Restrictions		
				Physical			Chemical			No. zones compliant	Microbiological (E. coli)			No. zones compliant	% Pop'n with complianc																					
		Yes? Standard (69a) H6	External Assessmnt (69b) H5	(69) 1996 NHMRC/ARMCANZ Guidelines			(70) 1996 NHMRC/ARMCANZ Guidelines			(70a) H 4	(71) 1996 NHMRC/ARMCANZ Guidelines			(71a) H 2	(71b) H 3				(per 1000 properties) (73) C 3			(per 1000 properties) (74) C 5			(per 1000 properties) Excl Billing Complaints (75)	per 1000 props (75a) C 13	(mins/property-unplanned) (76)			(No./1000 properties) (77) C 12			(Minutes) (78) C 10			(% of time) (78A)		
				04/05	05/06	06/07	04/05	05/06	06/07	06/07	04/05	05/06	06/07	06/07	06/07			04/05	05/06	06/07	04/05	05/06	06/07	06/07	06/07	04/05	05/06	06/07	04/05	05/06	06/07	04/05	05/06	06/07	04/05	05/06	06/07
	Sydney Water	ISO 9001	Yes	100			100	100	100	13 of 13	100	100	100	13 of 13	100			1	1	1		0.3	0.4		2	31	31			0.3	0.3	132	117	119			
	Hunter Water			100			100	100	100	5 of 5	100	100	100	5 of 5	100			6	7	4		10	5		3	56	18		386	376	370	144	49	176			
	Sydney Catchment Authority	ADWG	Yes																																
LWUs with > 10,000 Properties																																			
1	Gosford			100	100	100	100	100	92	0 of 1	100	100	100	1 of 1	100	13	58	56	17	15		56	0.1	45	18	17	265	295	280	168	61	65	100	100	100
2	Wyong			100	100	100	100	100	100	1 of 1	100	100	100	1 of 1	100	6	9	7	2	1	2	10	0	6	5	4	34	31	33	180	180	150	100	100	100
3	Shoalhaven			98	100	100	99	100	100	4 of 4	100	100	100	4 of 4	100	3	3	3	5	5		3	1	1	1		4	3		180	180		30	13	29
4	Rous (Bulk Supplier) (NO SGE)	ADWG		100	100	100	100	100	100	2 of 2	100	100	100	2 of 2	100		0.0					0		1	1	0.4	4	3	2	180	180	180			0
5	MidCoast (Unfiltered)			98	100	100	95	91	91	2 of 4	100	100	100	4 of 4	100		32	31	41	49	52	78	7									0	0	0
6	Tweed			100	100	100	94	94	93	2 of 3	100	100	100	3 of 3	98	7	2	1	36	38	32	32	0	9	7	6	74	59	47	120	120		0	0	0
7	Port Macquarie-Hastings (Unfiltered)			93	100	100	100	100	91	1 of 4	100	100	100	4 of 4	100	6	8	6	8	16	22	28	1	3	4	2	15	21	12	210	192	180	100	100	100
8	Riverina (Groundwater) (NO SGE)	ADWG	Yes	93	100	100	98	100	100	14 of 15	100	100	100	13 of 15	99	1	2	3	5	3	3	6	1		6	10	1	92	83	180	66		0	0	42
10	Coffs Harbour (Unfiltered)			100	100	100	100	100	100	3 of 3	100	100	100	3 of 3	100	5	11	3	11	21	25	36	6	4	5	4	33	40	37	120	120		100	100	100
11	Albury City			100	100	100	85	100	100	2 of 2	100	100	100	2 of 2	100				14	12	8	9	0							240		0	0	66
12	Fish River WS (Unfiltered, Bulk Supplier)			100	100	100	100	100	94	0 of 1	100	100	97	0 of 1			0					0	0		0.2	0.3		0.5	0.4	480	480	780	100	100	100
13	Tamworth Regional			96	100	100	98	94	94	5 of 7	97	100	100	6 of 7	100	1		2	31	40	43	45	6										100	100	90
14	Clarence Valley			83	100	100	91	100	80	4 of 7	100	100	97	4 of 7	97	8	6	8	18	18			0	8	8	6	52	55	51	150	150		32	0	0
15	Eurobodalla (Unfiltered)			88	100	100	98	100	100	0 of 1	100	100	100	1 of 1	100	17	0.1	0.4	9	49	0.3	1	0	6		1	20		2	300			79	0	56
16	Wingecarribee			100	100	100	100	92	93	2 of 3	100	100	100	3 of 3	100		7	19	29	46	44	89	6	20	19	18	85	78	59	240	240		100	100	100
17	Queanbeyan (Reticulator)			100	100		100	100		1 of 1	100	100	100	1 of 1	100	2		0	9	4	34	49	0							210	90		100	100	100
18	Dubbo			99	100	100	100	100	100	1 of 1	100	100	97	0 of 1	99	1	1	0	1	1	1	1	0	3	5	2	26	38	26	108	132	112	0	16	0
19	Orange			100	100	100	100	100	100	2 of 2	100	100	100	2 of 2	100	2	2	2	40	34	53	55	1	17	15	22	73	70	123	240	210		100	100	100
20	Goulburn Mulwaree			100	100	100	96	100	100	2 of 2	100	100	100	2 of 2	100	11				5	75	76	2							210		240	100	100	100
21	Bathurst Regional			100	100	100	100	100	100	1 of 1	100	100	100	1 of 1	99	21	11	11	4	21	79	90	0		2	1		14	5	120	120		0	0	0
22	Lismore (Reticulator)			100	100	100	98	100	100	1 of 1	100	100	100	1 of 1	97	1		3	6	3	4	4	0	4	5	6	32	35	48	115	150	150	4	0	
23	Bega Valley (Unfiltered)			100	100	100	99	100	100	3 of 6	100	100	100	6 of 6	100	5	3	4	3	6	10	14	2							120	180		61	0	17
24	Ballina (Reticulator)	Yes					100	100		3 of 3	100	100	100	1 of 1	100		0.4		3	3	15	15	0		0.4	1		4	7	120	120	120		0	0
25	Kempsey (Groundwater)			98	100	100	98	100	100	6 of 9	100	100	100	6 of 9	99	8	13	1	3	1	1	1	1								150		0	0	0
26	Country Energy			99	100	100	100	100	100	1 of 2	100	100	100	2 of 2	100	3	0	0.1	11	9	1	2	0							60			0	0	0
27	Byron (Reticulator)			100	100	100	100	100	100	1 of 1	100	100	100	1 of 1	100		1	4	5	5	4	9	2		0.3	0.1	5	1	0	30	180		0	0	0
28A	Goldenfields (Reticulator) (NO SGE)	ADWG		99	100	100	95	100	100	1 of 1	100	100	100	1 of 1	100	2	8	4	43	73	68		1	18	26	19	151	147	105	120	180		100	49	43
28B	Goldenfields (Bulk Supplier) (NO SGE	ADWG		99	100	100	95	100	100	3 of 3	100	100	100	3 of 3	100		2					0											49	0
	Medians (% of LWUs basis excl bulk suppliers) for >10,000 Properties				*100*	*100*		*100*	*100*			*100*	*100*				*3*	*3*			*5*	*21*			*5*	*4*		*38*	*37*		*150*	*150*		*0*	*42*
LWUs with 3,001 - 10,000 Properties																																			
29	Armidale Dumaresq			100	100	100	100	100	100	1 of 1	100	100	100	1 of 1	100	1		1	91			1	1							90			0	0	0
30	Griffith			100	100	100	100	93	100	2 of 2	100	100	100	2 of 2	100		2	1	2	6	4	11	0.3	9	10	5	37	40	25	240	240	180	0	0	49
31	Lithgow				100	100	100	92	100	1 of 1	100	100	100	1 of 1	100		5		16			0			2			13			120			100	100
32	Mid-Western Regional			63	100	100	84	100	100		100	100	100		100	1	0		35	23	41	42		9		5	77		41	120	120	120	100	100	
33	Richmond Valley				100	100	100	92	90	0 of 1	100	100	100	1 of 1			3	4	6	6	6	11	9								120	120	85	34	5
34	Nambucca (Groundwater)			100	100	100	100	100	100	1 of 1	100	100	100	1 of 1	100	1	4	3	5	4	9	24	2	2	1		13	10		120	120	120	100	100	100
35	Singleton			100	100	100	100	100	100	1 of 1	100	100	100	1 of 1	100	2	2	1	23	39	2	3		42	41	40	347	339	333	120	120	120	0	3	100
36	Parkes			100	100	100	100	100	100	1 of 1	100	100	100	1 of 1	100	2	3		2	3	15	15								120	120	120	97	88	100
37	Inverell			100	100	100	100	100	100	3 of 3	100	100	100	3 of 3	100	5	2	2	5	5	4	7	4		0	0	5	4	4		60	60	0	0	0
38	Moree Plains (Groundwater)				100	100	100	100	100	3 of 6	84	94	97	2 of 6		6			58	89	97	101				42			706	120		60	0		0
39	Cowra			97	100	100	100	100	100	1 of 1	95	95	100	1 of 1	100	96	58	37	40	40	27	69								120	120	180	100	34	100
40	Central Tablelands (NO SGE)			100	100	100	100	100	100	2 of 2	100	100	100	2 of 2	100	5	10	10	8	11	7	17	2	21	19	14	87	79	60	240	240	240	0	0	71
41	Muswellbrook			86	100	100	95	100	100	2 of 3	100	100	100	3 of 3	100	17		2	3	28	59	64		14		5	89		83	156		60	0	0	100

Table 12: Water supply – health and levels of service (continued)

	WATER UTILITY	HEALTH													LEVELS OF SERVICE																				
		Risk Based Drinking Water Quality Plan		Water Quality Compliance (%)											Water Quality Complaints			Water Service Complaints			Total Water Complaints	Customers with Restrictions for non-payment of Bills	Average Customer Outage Time			Customer Interruption Frequency			Average Duration of Interruptions			Drought Water Restrictions		
				Physical			Chemical			No. zones compliant	Microbiological (E. coli)			No. zones compliant	% Pop'n with complianc	(per 1000 properties)			(per 1000 properties)			(per 1000 properties)	per 1000 props	(mins/property-unplanned)			(No./1000 properties)			(Minutes)			(% of time)		
		Yes? Standard (69a) H6	External Assessmnt (69b) H5	(69) 1996 NHMRC/ARMCANZ Guidelines			(70) 1996 NHMRC/ARMCANZ Guidelines			(70a) H 4	(71) 1996 NHMRC/ARMCANZ Guidelines			(71a) H 2	(71b) H 3	(73) C 3			(74) C 5			Excl Billing Complaints (75)	(75a) C 13	(76)			(77) C 12			(78) C 10			(78A)		
				04/05	*05/06*	*06/07*	*04/05*	*05/06*	*06/07*	*06/07*	*04/05*	*05/06*	*06/07*	*06/07*	*06/07*	*04/05*	*05/06*	*06/07*	*04/05*	*05/06*	*06/07*	*06/07*	*06/07*	*04/05*	*05/06*	*06/07*	*04/05*	*05/06*	*06/07*	*04/05*	*05/06*	*06/07*	*04/05*	*05/06*	*06/07*
42	Corowa			100	100	100	100	100	95	3 of 4	100	100	100	4 of 4	100	6	6	7	19	19	3	24			5	5	41	44	43		120	120	100	100	100
43	Tumut			98	100	100	98				100	100	100	5 of 5	100	2			6	48		0	1	42			139			300		240	0	0	25
44	Gunnedah (Groundwater)				40	100	100	100	100	4 of 4	77	87	100	2 of 4	74			0	2	2	2	33			0	0	4	3	4		120	120	0	0	47
45	Upper Hunter			95	100	100	100	100	100	3 of 4	100	100	97	2 of 4	15		0	2	32	3	6	11	7		2	1	3	22	25		89	60	27	25	100
46	Narrabri (Groundwater)				100	100	100	100	100	6 of 6	100	100	100	5 of 6	99		14	23	84		9	42			17	4		117	23		150	180		0	27
47	Bellingen (Unfiltered)			100	100	100	100	100	100	2 of 2	100	100	100	2 of 2	100	4	2	2	31	46	23	28	1						120	120	120	0	0	0
48	Leeton			100	100	100	100	100	100	3 of 4	100	100	100	3 of 4	100		1	3	2	0		3		5	5		38	38		120	120		0	0	90
49	Young (Reticulator)				100	100	100	100	100	1 of 1	100	100	100	1 of 1	100			4	10	13	5	11	8	14	3	2	77	23	20	180	150	120	0	0	0
50	Cooma-Monaro				100	100	100	100	100		100	100	100						37			0													
51	Forbes			100	100	100	100	100	100	1 of 1	91	100	100	1 of 1	100		2	2	28	24	72	74	17	29	26	24	195	210	134	150	126	180	100	0	100
52	Snowy River (Unfiltered)			90	100	100	99	100	100	5 of 5	100	100	100	3 of 5	93	8			6	15	5	8			2	0	1	13	3		120	120		0	0
53	Berrigan (Dual Supply)			100	100	100	100	100	100	4 of 4	100	100	100	4 of 4	100		2	1	5	3	27	37	10	1	1	6	6	12	46	120	120	120	0	0	19
	Medians (% of LWUs basis) for 3,000 to 10,000 Properties				*100*	*100*		*100*	*100*			*100*	*100*				*2*	*2*			*7*	*15*			*3*	*5*		*23*	*41*		*120*	*120*		*0*	*49*
	LWUs with 1,501 - 3,000 Properties																																		
54	Deniliquin			100	100	100	100	100	100	1 of 1	100	92	100	1 of 1	100	4	4	17	38	41	94	119	2		3	1		24	6		120	180	0	0	96
55	Warrumbungle			100	20	41	99	80	100	4 of 8	91	100	96	7 of 8	94	3	8	38	1	3	2	53			3			21			120		100	100	100
56	Yass Valley			100	100	100	100	75	100	1 of 1	96	100	100	1 of 1	100	1	1	1	15	16	10	14	2	1	0	3	4	3	11	180	180	240	76	35	72
57	Wellington				100	100	100	100	100	2 of 2	100	100	100	2 of 2	100		11		17	7	17	128	8	8	9	7	64	73	62	120	120	120	0	0	0
58	Cootamundra (Reticulator)						99				100								61	89	124	124								120	120	120	100	100	100
59	Lachlan			100	100	100	100	100	78	1 of 3	100	97	100	3 of 3	100	16			3	7	4	9	34	1		1	12		11	120		60	100		100
60	Glen Innes Severn			100	100	100	100	52	100	2 of 2	100	95	95	0 of 2		3	2	4	42	17		4					7						25	0	
61	Liverpool Plains			100		40	100		100		100	100	100						4	8		0					27						0		
62	Narromine (Groundwater)					100			50	1 of 2	100	100	100	2 of 2	100				84	66		0			5			30			180		0	30	
63	Narrandera (Groundwater)			100	100	100	87	25	75		100	100	95			10	7		8	7		0		6	7		70	75		90	90		0	0	
64	Dungog (Reticulator)			100	100	100	100	100	100	1 of 1	100	88	100	0 of 1			0		73	29	28	118			77	78	259	320	326		240	240	0	0	0
65	Murray (Dual Supply)				100			100			100	100	100	2 of 2	100		1	0		3		2			6	1	60	38	12		150	120	0	76	73
67	Cobar				100		100	100	100		100	100	100		100				3	3		0			1		2	4			120		100	100	
66	Cobar WB (Bulk Supplier)																																		
68	Tenterfield			100	100	100	100	100	63	1 of 3	94	93	96	2 of 3	80	21	9	12	26	24	10	25	4		6	4	37	37	36		150	120	100	100	100
70	Kyogle			83	100	100	90	100	75	1 of 2	92	100	96	0 of 2		4	3	2	30	16	22	27	1		2	2	21	14	14		120	120	100	100	100
71	Palerang				100	25	100	100	100		100	100	100		65		1			53		0			1		3	6			240		100	100	
73	Upper Lachlan			100	100	100	85	89	50	1 of 4	95	90	97	2 of 4	75	2	2		18	2	2	7		1	0	0	6	4	3	120	120	120	60	68	55
74	Wentworth (Dual Supply)			100	100	33	100	100	100		95	100	100		100	4	8		20	2		0		1	1		11	12		60	60		0	0	
75	Coonamble (Groundwater)			75	100	100	50	29	100	3 of 3	100	100	100	2 of 3	96	18	96	13	97	48	119	139			4	4	6	63	63		60	60	0	0	0
	Medians (% of LWUs basis) for 1,500 to 3,000 Properties				*100*	*100*		*100*	*100*			*100*	*100*				*4*	*8*			*18*	*9*			*3*	*2*		*24*	*13*		*120*	*120*		*35*	*84*

Table 12: Water supply – health and levels of service (continued)

	WATER UTILITY	HEALTH															LEVELS OF SERVICE																	
		Risk Based Drinking Water Quality Plan		Water Quality Compliance (%)													Water Quality Complaints				Water Service Complaints			Total Water Complaints	Customers with Restrictions for non-payment of Bills	Average Customer Outage Time			Customer Interruption Frequency			Average Duration of Interruptions			Drought Water Restrictions		
				Physical			Chemical				Microbiological (E. coli)						(per 1000 properties)				(per 1000 properties)			(per 1000 properties)		(mins/property-unplanned)			(No./1000 properties)			(Minutes)			(% of time)		
		Yes? Standard (69a) H6	External Assessmnt (69b) H5	(69) 1996 NHMRC/ARMCANZ Guidelines			(70) 1996 NHMRC/ARMCANZ Guidelines			No. zones compliant (70a) H 4	(71) 1996 NHMRC/ARMCANZ Guidelines			No. zones compliant (71a) H 2	% Pop'n with compliance (71b) H 3		(73) C 3			(74) C 5			Excl Billing Complaints (75)	per 1000 props (75a) C 13	(76)			(77) C 12			(78) C 10			(78A)		
				04/05	05/06	06/07	04/05	05/06	06/07	06/07	04/05	05/06	06/07	06/07	06/07		04/05	05/06	06/07	04/05	05/06	06/07	06/07	06/07	04/05	05/06	06/07	04/05	05/06	06/07	04/05	05/06	06/07	04/05	05/06	06/07
LWUs with 200 - 1,500 Properties																																		
76	Harden (Reticulator)						100				100						15			37	21	24	39		2	3	0	27	26	1	90	120	60	0	0	12
79	Walgett (Dual Supply)			67	100	100	86	100	100	2 of 2	95	100	100	1 of 2	100		1				7		0										0	0	100
80	Greater Hume				100	100	100	100	100	1 of 1	100	100	100	1 of 1			2			4	4	6	6			4	11	7	20	63		180	180	41	41	41
81	Gwydir	ADWG		66	100	100	89	50	29	2 of 3	83	100	100	3 of 3	100		7	5	8	12	5		12	14	5	3	2	30	15	10	180	180	180	0	0	0
82	Gloucester			100	100	100	100	100	100	2 of 2	96	97	100	2 of 2	100		1	6	3	116	117	78	83	1	26		23	110		96	240		240	0	0	0
83	Oberon (Reticulator)				100	100	100	100	100	1 of 1	100	100	100	1 of 1	100			15	2	12	13	11	13		1	1	4	7	7	36	120	120	120	100	100	100
84	Gilgandra (Groundwater)			100	100	100	100	100	100	1 of 1	100	100	100	1 of 1	100		4	3	11	16	26	22	54		4	2	3	34	15	22	120	120	120	0	0	0
85	Uralla			100	100	100	100	100	100	2 of 2	94	95	96	0 of 2			11		20	2	0	2	30		1		3	11		25	120		120	0		0
86	Hay (Dual Supply)			100		100	100	100	100	1 of 1	100	100	100	1 of 1	100					12	12	11	14				3			11	480	300	300		0	58
87	Bourke (Dual Supply)				100	100	100	94	100	1 of 1	88	94	90	0 of 1			5	4	4	4	5	31	70		138	149	149	764	828	826	180	180	180	0	0	38
88	Wakool (Dual Supply)				100	100	100	94	100	7 of 8	100	100	100	7 of 8	100								0											0	100
89	Bogan				100	100		100	100	1 of 1	100	92	100	1 of 1	100			2	1				1			14			118		120	120		100	100	100
90	Guyra			100	100	100	100	100	100	1 of 1	90	93	100	1 of 1	100		1	1	1		10	10	13		8	13	6	65	85	51	120	150	120	0	0	0
91	Cabonne			100	100	100	100	100	88	0 of 1	100	100	100	1 of 1	100		20	2	5	13	87	14	23			8	4	28	27	18		300	240	0	0	0
92	Carrathool (Groundwater)			100	100	100	100	75	71	3 of 5	100	100	100	3 of 5	83		2	9	3	7	27	5	9					52						0	0	0
93	Tumbarumba				100	100	100	100	80		97	100	100		81		7	6		8	2		0			2		2	12		180	180		0	0	
94	Gundagai			100	100	100	100	100	100	1 of 1	100	100	100	1 of 1	100		10	6	6	3	3	5	20		6	3	2	49	28	28	120	120	60	77	100	100
96	Warren (Dual Supply)			100			100	100	50	1 of 3	94	81	100	2 of 3	96		6	10	18	33	45	32	80											0	0	0
97	Bombala			100	100	100	100	100	100	2 of 2	100	100	100	2 of 2	100		2	2	4	6	2	2	6			19		82	78			240		36	41	48
98	Walcha			100	100	100	100	100	100	1 of 1	100	100	100	1 of 1	100		1		2	7	5	5	16		1	1	0	6	11	2	120	78	120	0	0	48
100	Balranald (Dual Supply)			100	100	100	100	100	100	1 of 2	100	100	100	2 of 2	100		9	2		5	16	5	5			58		651	647			90		0	0	100
101	Murrumbidgee (Groundwater)				100	100		100	100	2 of 2	100	40	100	2 of 2	100		9					26	76				1			8		120	60		0	0
103	Central Darling (Dual Supply)			100	100	100	96	94	100	2 of 2	100	100	100	1 of 2	80			3	7	124	93	62	107			25	9	73	106	75		240	120	99	0	76
104	Boorowa				1	100	100	100	83		100	50	96										0								180			0	
105	Brewarrina			100	40	25	100	100	100	1 of 2	100	95	97	1 of 2	83		34	2	4	6	34	4	8											0	0	0
106	Jerilderie (Dual Supply)			100	100	100	100	100	100	1 of 1	95	91	100	1 of 1	100		4	4				2	2		7	6	1	22	22	11	300	300	120	0	0	0
	Medians (% of LWUs) for 200 to 1,500 Properties				*100*	*100*		*100*	*100*			*100*	*100*					*4*	*4*			*10*	*13*			*5*	*3*		*27*	*24*		*180*	*120*		*0*	*25*
	Median All LWUs (% of LWUs basis)			*Physical*		*100*	*Chemical*		*100*		*Microbiological*		*100*			*Quality Complaints*			*2*	*Service*		*10*			*Interruption Frequency*		*27*	*Duration*		*120*	*Water*		*48*	
	Median All LWUs (Statewide basis)					***100***			***100***				***100***						***3***	*Complaints*		***12***					***36***			***120***	*Restrictions*		***55***	
	Totals for all LWUs (including bulk suppliers)	*5 LWUs reported YES*			*85*	*complied*		*70*	*complied*			*81*	*complied*			*LWUs that reported customer restrictions for non payment of bills*			*34*					*No. of LWUs that reported water restrictions (ie. 56% of LWUs reported water restrictions)*									*55*		
					86%	*of LWUs*		*71%*	*of LWUs*			*83%*	*of LWUs*																							

NOTE: All LWUs reported 0.0 for NWI Indicator C14 (Customers with legal action for non-payment of bills)

Table 13: Water supply – benchmarking cost data (operating, management and wholesale/retails)

WATER UTILITY	OPERATION & MAINTENANCE (O&M) COST*													MANAGEMENT*				OMA*			O & M Cost Components for TYPE of ASSET															
	Total O&M Cost	Components (1) - Process					Components (2) - Type of Asset							Components				Total OMA Cost	Components		PUMPING STATION					WATER MAIN					TREATMENT					
		Maintenance	Operation	Energy	Chemicals	Bulk Purchase	Dams & Weirs	Mains	Reservoirs	Pumping Stations	Water Treatment	Other Excl Bulk Purchas		Admin	Engineering & Supervision	Total Management Cost			Head works	Distri-bution	O&M Cost	O&M Cost	Operation Cost	Maintenance Cost	Energy Cost	O&M Cost	O&M Cost	Operation Cost	Maintenance Cost		O&M Cost	Operation Cost	Maintenance Cost	Chemical			
	$/prop	($/property)					($/property)							($/property)		($/prop)	(c/kL)	($/property)			(c/kL)	($'000/pumping station)				(c/kL)	($'000/100km)				($/ML)	($/property)				
	(79a)	(79)	(80)	(81)	(82)	(82a)	(83)	(84)	(85)	(86)	(87)	(88)		(89)	(90)	(91a)	(91)	(92a)	(92)	(93)	(94)	(95)	(96)	(97)	(98)	(100)	(101)	(102)	(103)		(104)	(105)	(106)	(107)			
	2006/07						2006/07							2006/07				2006/07			2006/07					2006/07					2006/07					
LWUs with > 10,000 Properties																																				
1 Gosford	173	58	78	11		26	18	49	9	19	23	28		123	15	138	70	310			10	66	10	18	38	25	361	208	153		115	17	6			
2 Wyong	190	90	65	7	1	27	7	106	12	21	12	4		124		124	52	314	78	235	9	65	9	33	23	52	558	249	310		52	7	4	1		
3 Shoalhaven	106	31	50	16	10		1	42	5	19	33	6		88	25	113	39	218			7	39	6	2	32	14	124	58	66		113	18	5	10		
4 Rous (Bulk Supplier) (NO SGE)	76	25	30	7	14		10	7	4	8	34	13		48	19	67	27	143	78	64	3	34	3	2	28	30	81		81		139	14	6	14		
5 MidCoast (Unfiltered)	205	79	101	20	6	0	1	67	11	27	26	73		30	23	53	20	258	103	155	10	37	2	8	27	25	197	37	160		97	15	5	6		
6 Tweed	147	80	34	22	10	1	11	41	3	29	27	34		108	34	142	43	289	98	191	9	35	1	7	27	12	180		180		83	14	3	10		
7 Port Macquarie-Hastings (Unfiltered)	188	66	103	16	3		14	27	7	39	8	93		68	26	94	41	282	99	183	17	60	9	26	25	12	103	11	92		34	0	5	3		
8 Riverina (Groundwater) (NO SGE)	201	71	50	55	23	1		29	5	92	36	38		54	21	75	11	276	174	102	14	68	10	17	41	4	49	6	43		55	11	3	23		
10 Coffs Harbour (Unfiltered)	121	45	55	10	10	0	12	45	9	16	16	23		68	38	106	43	227	86	141	6	52	15	3	34	18	155	41	114		66	5	0	10		
11 Albury City	134	47	29	47	7	3		31	1	56	27	15		87	7	94	24	228	78	151	14	67		11	56	8	124		124		68	15	5	7		
12 Fish River WS (Unfiltered, Bulk Suppl	60	60												31		31	6	91	27	64				41					237				11			
13 Tamworth Regional	224	39	172	3	11		46	55	9	10	105			34	81	115	26	340			2	12		9	3	13	166	162	4		238	79	15	11		
14 Clarence Valley	103	56	31	4	12			50	4	6	16	26		79	64	143	27	246	12	233	1	8	0	3	5	16	83	2	81		30	2	2	12		
15 Eurobodalla (Unfiltered)	174	56	87	31	0		13	75	16	53	1	17		155		155	72	329			25	67	15	12	39	35	163	74	89		5	0	1	0		
16 Wingecarribee	141	45	23	20	17	36	2	28	9	21	44	0		82	26	108	39	249	147	102	8	24	1	1	22	10	78		78		158	15	12	17		
17 Queanbeyan (Reticulator)	428	9	51	2		366		43	5	2		12		97		97	34	525		525	1	9	1	1	8	15	244	207	37							
18 Dubbo	283	72	132	24	55			42	7	30	150	54		146	16	162	24	444	271	173	4	52	1	9	42	6	145	11	134		225	72	22	55		
19 Orange	190	66		13	12									72	38	109	19	300	192	108			16	3	41			67	152			44	8	12		
20 Goulburn Mulwaree	231	78	113	21	19		26	85	1	22	71	26		85	23	108	40	340			8	26	1	1	25	31	351	164	187		258	43	9	19		
21 Bathurst Regional	256	105	107	6	37		35	86	18	9	101	7		100	47	147	32	403			2	13		4	9	18	363	111	251		218	54	10	37		
22 Lismore (Reticulator)	226	13	65	4		144		44	1	7		29		65	15	80	31	306	3	303	3	18		7	11	17	182	182								
23 Bega Valley (Unfiltered)	181	58	100	23			13	54	18	50	32	14		119	48	167	61	348	167	181	18	36	10	9	17	20	129	83	45		116	24	7			
24 Ballina (Reticulator)	227	20	44	1		161		23	3	6	2	31		75	15	90	30	317			2	20	15		5	8	92	28	64		8	2				
25 Kempsey (Groundwater)	157	77	47	25	7		7	47	2	39	58	4		103	17	120	37	277	166	111	12	24	1	8	15	14	95		95		177	38	12	7		
26 Country Energy	503	245	75	137	46			131	21	178	173			187	179	366	57	869			28	174	15	25	134	28	388	14	373		271	49	78	46		
27 Byron (Reticulator)	221	42	44		4	131		18	8		18	46		108	24	132	48	353								7	80	51	30		67	12	2	4		
28A Goldenfields (Reticulator) (NO SGE)	425	150	41	28	0	205		117	12	52	1	38		41	41	83	14	508	264	244	9	25	3	9	14	19	68	16	52		1	0	0	0		
28B Goldenfields (Bulk Supplier) (NO SGE	198	70	30	79	16	3		25	11	106	35	18		20	20	40	6	238	236	2	16	125	6	25	94	31	139	27	112		55	14	6	16		
Medians (% of LWUs basis excl bulk suppliers) for >10,000 Properties	*190*	*58*	*65*	*16*	*10*	*26*	*13*	*45*	*7*	*22*	*27*	*24*		*88*	*25*	*114*	*38*	*308*	*101*	*173*	*9*	*36*	*9*	*8*	*25*	*14*	*155*	*62*	*95*		*97*	*15*	*5*	*10*		
LWUs with 3,001 - 10,000 Properties																							4													
29 Armidale Dumaresq	256	236		4	16		40	111	13	7	42	43		151	60	211	56	467	187	280	2	5		2	3	29	293		293		112		26	16		
30 Griffith	342	78		6	24	60		71	1	6	111	92		187	33	219	22	562	99	1	1	17		1	16	7	124	80	44		110	73	14	24		
31 Lithgow	249	220	4	2	5	18		128	39	5	59			171	47	218	82	467			2					48	214		214		221		54	5		
32 Mid-Western Regional	291	254	15	18		3		118	6	29	135			128		128	25	419			6	18		7	11	23	249	33	217		264		135			
33 Richmond Valley	250	57	87	12	38	55		58	4	16	89	27		122	86	208	43	458	243	215	3	20	4		16	12	192	35	157		183	46	5	38		
34 Nambucca (Groundwater)	113	63	26	23				28	7	33	13	32		50	24	73	26	186	75	112	11	100		28	72	10	91		91		47		13			
35 Singleton	254	83	124	33	6	9		54	6	72	90	23		41	57	98	21	352	176	176	16	72	4	36	33	12	127	76	51		195	64	20	6		
36 Parkes	479	102	165	179	32		13	44	16	269	74	61		44	28	72	9	551	138	413	33	199	32	35	133	5	61	49	12		91	34	9	32		
37 Inverell	267	56	117	64	30			39	8	74	89	58		70	53	123	28	390	312	78	17	56		7	49	9	84		84		204	58		30		
38 Moree Plains (Groundwater)	322	170	112	7	33		64	108	9	9	116	17		137	14	151	21	474	142	95	1	13		3	10	15	476		476		164	66	17	33		
39 Cowra	242	107	40	41	33	22		89	11	49	72			279	2	281	61	524			10	64	10		54	19	193		193		155	32	7	33		

Table 13: Water supply – benchmarking cost data (operating, management and wholesale/retails) (contd)

	WATER UTILITY	OPERATION & MAINTENANCE (O&M) COST*												MANAGEMENT*				OMA*			O & M Cost Components for TYPE of ASSET													
			Components (1) - Process					Components (2) - Type of Asset						Components					Components		PUMPING STATION					WATER MAIN				TREATMENT					
		Total O&M Cost	Maintenance	Operation	Energy	Chemicals	Bulk Purchase	Dams & Weirs	Mains	Reservoirs	Pumping Stations	Water Treatment	Other Excl Bulk Purchas	Admin	Engineering & Supervision	Total Management Cost		Total OMA Cost	Head works	Distribution	O&M Cost	O&M Cost	Operation Cost	Maintenance Cost	Energy Cost	O&M Cost	O&M Cost	Operation Cost	Maintenance Cost	O&M Cost	Operation Cost	Maintenance Cost	Chemical
		$/prop	($/property)					($/property)						($/property)		($/prop)	(c/kL)	($/property)			(c/kL)	($'000/pumping station)				(c/kL)	($'000/100km)			($/ML)	($/property)		
		(79a)	(79)	(80)	(81)	(82)	(82a)	(83)	(84)	(85)	(86)	(87)	(88)	(89)	(90)	(91a)	(91)	(92a)	(92)	(93)	(94)	(95)	(96)	(97)	(98)	(100)	(101)	(102)	(103)	(104)	(105)	(106)	(107)
		2006/07						2006/07						2006/07				2006/07			2006/07					2006/07				2006/07			
40	Central Tablelands (NO SGE)	217	133	27	35	22		34	50	4	49	68	13	162	22	184	48	401	216	184	13	8		2	6	13	47		47	179	22	24	22
41	Muswellbrook	418	288	66	27	29	8		130	56	52	135	38	61	70	131	30	549	379	170	12	29	1	13	16	30	461		461	307	12	94	29
42	Corowa	222	161	32	10	13	7		41	5	20	146	3	47	83	130	28	352	264	88	4	12		6	6	9	133		133	313	29	104	13
43	Tumut	233	160	36	19	18			23	6	34	122	47	74	14	88	24	321	128	193	9	14	1	5	8	6	59		59	331	31	73	18
44	Gunnedah (Groundwater)	168	119		49				88	3	77			33	36	69	10	237	59	178	11	16		6	10	12	199		199				
45	Upper Hunter	217	140	27	31	3	16	9	103	16	38	30	5	71	80	151	36	369			9	14	2	1	12	25	296		296	71	8	19	3
46	Narrabri (Groundwater)	200	132	22	42	3	0		64	5	70	13	47	53	39	92	11	292	175	117	8	25	3	7	15	8	253	17	235	15	8	2	3
47	Bellingen (Unfiltered)																																
48	Leeton	247	161		14	28	44							68	98	166	23	413	248	165				6	10				217			71	28
49	Young (Reticulator)	346	72	1	6	2	266		43	4	7	17	9	7	10	16	4	362	29	333	2	9		1	8	10	132		132	41	0	15	2
50	Cooma-Monaro	255	68	164	4	18			70	35	12	100	38	56	62	118	25	372			2					15	192	184	9	210	56	27	18
51	Forbes	294	115	125	1	42	12		109	4	12	157		52	9	61	8	355	220	135	2	14		13	1	15	292	17	275	219	115		42
52	Snowy River (Unfiltered)	183	15	132	30	6			29	5	45	16	88	62	19	81	35	264	150	113	19	19	4	2	13	12	82	81	1	71	10	1	6
53	Berrigan (Dual Supply)	283		251			32		95		12	144		40	57	97	31	379			4	4	4			30	157	157		460	144		
	Medians (% of LWUs basis) for 3,000 to 10,000 Properties	*252*	*119*	*53*	*19*	*20*	*17*	*34*	*70*	*6*	*33*	*89*	*38*	*65*	*39*	*125*	*25*	*385*	*176*	*168*	*8*	*17*	*4*	*6*	*12*	*12*	*192*	*62*	*157*	*181*	*33*	*19*	*20*
	LWUs with 1,501 - 3,000 Properties																																
54	Deniliquin	228	182		11	35			104	1	22	99	1	189	27	216	32	444	266	177	3	18		9	9	16	211		211	148		65	35
55	Warrumbungle	323	109	141	23	49			89	13	29	180	12	27	33	60	24	383			12	14		3	11	35	299	175	124	720	72	59	49
56	Yass Valley																																
57	Wellington	281	162	76	9	29	5		102	8	23	142		79	70	149	35	430	254	176	5	17		11	6	24	345	8	336	334	74	39	29
58	Cootamundra (Reticulator)	268	45	6			217		42	3			5	14	28	42	13	310								13	136		136				
59	Lachlan	31					31																										
60	Glen Innes Severn	188	68	63	34	22			51		37	59	40	42	57	99	34	287			13	106		9	97	18	155		155	204	27	9	22
61	Liverpool Plains	260	197	9	33	9	11	12	54	10	79	47	47	112	7	119	32	379			21					14	140		140	124	3	34	9
62	Narromine (Groundwater)	247	168		40			10	134	20	62	13	8	49	61	110	19	357		54	11	42		15	27	23	457	5	452	23	13		
63	Narrandera (Groundwater)	256	156		81	7	3		81	8	155	7	1	84	30	114	16	370			21					11	247		247	10			7
64	Dungog (Reticulator)	322	55	70	9	1	187		53	8	17	16	42	44	61	104	33	427	341	85	5	11	5		6	17	109	78	31	50	8	7	1
65	Murray (Dual Supply)	210	155	14	21	15	5		49	4	35	106	12	55	53	108	35	319			11	13	5		8	16	101		101	340		90	15
67	Cobar	479	224	7	5	33	211	68		51	11	135	4		47	47	5	527			1									129		102	33
66	Cobar WB (Bulk Supplier)																																
68	Tenterfield	213		171	15	20	7	20	61	4	31	87	3	117	55	171	73	384	154	231	13	30	16		14	26	174	174		373	67		20
70	Kyogle	185	86	26	14	3	56		68	9	14	24	14	78	39	117	43	302	196	106	5	7			7	25	173		173	88	21		3
71	Palerang																																
73	Upper Lachlan	264	33	190	24	18		7	66	12	78	85	17	73	30	103	36	368	276	92	27	48	31	2	15	23	189	175	14	294	55	12	18
74	Wentworth (Dual Supply)	346	131	144	51		20		73	20	86	114	32	69	23	92	69	438			65					55	96		96	859	106	8	
75	Coonamble (Groundwater)	234	198	5	31				147	17	53		17	28		28	4	262	157		7					19	367		367				
	Medians (% of LWUs basis) for 1,500 to 3,000 Properties	*256*	*155*	*63*	*23*	*19*	*20*	*12*	*68*	*9*	*35*	*86*	*12*	*69*	*39*	*106*	*33*	*374*	*254*	*106*	*11*	*17*	*10*	*9*	*10*	*19*	*174*	*126*	*147*	*176*	*41*	*37*	*19*

Table 13: Water supply – benchmarking cost data (operating, management and wholesale/retails) (contd)

	WATER UTILITY	OPERATION & MAINTENANCE (O&M) COST*												MANAGEMENT*				OMA*			O & M Cost Components for TYPE of ASSET													
		Total O&M Cost	Components (1) - Process					Components (2) - Type of Asset						Components				Total OMA Cost	Components		PUMPING STATION					WATER MAIN				TREATMENT				
			Maintenance	Operation	Energy	Chemicals	Bulk Purchase	Dams & Weirs	Mains	Reservoirs	Pumping Stations	Water Treatment	Other Excl Bulk Purchas	Admin	Engineering & Supervision	Total Management Cost			Head works	Distri-bution	O&M Cost	O&M Cost	Operation Cost	Maintenance Cost	Energy Cost	O&M Cost	O&M Cost	Operation Cost	Maintenance Cost	O&M Cost	Operation Cost	Maintenance Cost	Chemical
		$/prop	($/property)					($/property)						($/property)		($/prop)	(c/kL)	($/property)			(c/kL)	($'000/pumping station)				(c/kL)	($'000/100km)			($/ML)	($/property)		
		(79a)	(79)	(80)	(81)	(82)	(82a)	(83)	(84)	(85)	(86)	(87)	(88)	(89)	(90)	(91a)	(91)	(92a)	(92)	(93)	(94)	(95)	(96)	(97)	(98)	(100)	(101)	(102)	(103)	(104)	(105)	(106)	(107)
		2006/07						2006/07						2006/07				2006/07			2006/07					2006/07				2006/07			
LWUs with 200 - 1,500 Properties																																		
76	Harden (Reticulator)	478	120	16	1	8	333		64	15	11	8	47	45	35	80	26	558		558	4	6		6	0	21	67		67	26			8
79	Walgett (Dual Supply)	373	138	174		40	21		106	14	106	115	11	89	120	209	71	582			36	24	18	6		36	166	27	138	394	64	11	40
80	Greater Hume	293	54		32	1	149		67		38	26	13	50	27	77	19	371			9	31		5	26	16	73	63	10	62		25	1
81	Gwydir																																	
82	Gloucester	366	255	86	13	13			112	18	27	129	80	31	72	103	44	468	258	211	12	8	3	1	4	48	322		322	547	73	43	13
83	Oberon (Reticulator)	313	89	99		30	96		49			153	16	32	33	65	12	378	216	163						9	183		183	275	83	40	30
84	Gilgandra (Groundwater)	217	116	55	38	7			77	7	68	57	7	18		18	3	235	94	176	9	92	23	18	51	11	214		214	79	38	12	7
85	Uralla	328	31	256	4	36		8	66	18	64	168	5	50	38	88	41	417			30	100	93		7	31	278	278		788	132		36
86	Hay (Dual Supply)	273	110	123	16	17	7		69	5	71	99	22	78	5	83	30	355	242	82	25	31	22	2	7	25	191		191	353	61	21	17
87	Bourke (Dual Supply)	576	567		8				94	6	15	293	168	28	42	70	11	646	65	582	2	9		4	5	15	241		241	478		293	
88	Wakool (Dual Supply)	405	118	152	30	31	74		68	1	65	176	21	35	39	74	18	479	95	5	16	11	3	3	5	16	57	19	37	421	97	48	31
89	Bogan	633	488	67	16	47	14	40	44	30	45	140	320	290		290	35	923			5	48	7	24	17	5	98		98	169	61	32	47
90	Guyra	270	44	115	38	34	38	14	43	1	38	136		100		100	26	370	233	137	10	45			45	11	76		76	351	102		34
91	Cabonne	438	380	14	14	14	17	103	55	42	59	91	72	72	47	119	46	557			23	22		17	5	21	69		69	352	14	63	14
92	Carrathool (Groundwater)	619	235	95	259		29	4	155	8	391	32		75	58	133	28	752			81	31	4	6	20	32	36	4	31	67	21	11	
93	Tumbarumba	146	69	67	10				56	54	16	16	4	40	72	112	34	258			5					17	97	76	21	47		16	
94	Gundagai	276	101	155		20			70	8		197		65	15	80	15	356	256	100						13	206	103	103	375	111	66	20
96	Warren (Dual Supply)	250	118	69	39	20	5		112	22	72	28	10	48	43	91	26	340	136	204	21	35	9	8	19	33	204	55	149	82	4	4	20
97	Bombala	229	92	92		45			35	4	62	114	14	137		137	51	366	7	263	23	17	5	12		13	81	8	72	425	52	17	45
98	Walcha	336	230		57	50		28	120	5	88	93	2	106		106	40	442	332	111	33	26		9	17	45	189		189	350		43	50
100	Balranald (Dual Supply)	362	265	4	57	26	10		82	7	156	62	45	126		126	57	489	147	342	71	42		27	15	37	220	10	210	281		36	26
101	Murrumbidgee (Groundwater)	118	41	14	63			23	13		80	2			93	93	8	211			7	22	3	2	18	1	38		38	2		2	
103	Central Darling (Dual Supply)	510	423	3	44	41		4	122	1	73	306	4	4		4	4	514	411	103	65	8		3	5	109	133		133	2732		265	41
104	Boorowa	254	28	196	31				96	2	57	100		10	28	37	11	292			17					28	59	43	16	295	100		
105	Brewarrina	725	188	402	96	40			138	23	175	267	123	63	33	96	17	821			31	21	7	2	12	24	174	11	163	474	192	35	40
106	Jerilderie (Dual Supply)	339	255	6	52	19	6		80	11	76	155	11	35	52	86	32	425	200	225	28	35		11	24	29	86		86	573	2	134	19
	Medians (% of LWUs basis) for 200 to 1,500 Properties	*336*	*118*	*89*	*32*	*28*	*21*	*18*	*70*	*8*	*65*	*114*	*15*	*50*	*41*	*91*	*26*	*425*	*208*	*176*	*21*	*26*	*7*	*6*	*15*	*21*	*133*	*35*	*100*	*351*	*64*	*35*	*28*

* Operating cost (operation, maintenance & administration - OMA) comprises O & M Cost (operation & maintenance cost (Cols 79 to 82 or Cols 83 to 88)) plus Management Costs (administration cost (Col 89) plus engineering and supervision cost (Col 90)).

O & M cost includes a proportion of the OMA cost of the bulk supplier if appropriate or the purchase cost of water if no bulk supplier (Col 82a).

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	Properties Served per km of Main	Sewage Treatment Works	Pumping Stations	Pumping Stations per 100km of Main	Capital Expenditure (Assets, Renewals, Plant/Equip)		Capital Works Grants	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)	(3) / (8)	(No.)	(No.)	(10) / [(8) x 100]	$/prop	$M	($'000)	(Employees /1000 props)	(%)	(2 or more days per year)	(% of Management Cost)	(% of Operation Cost)	(% of Maintenance Cost)	(No.)	Total (%)	Due to Injury (No.)	(%)
			(1)		(2)	(3) C 2			(5a)	(6)	(7)	(8) A 4	(9) A 5	(10)	(11)	(12)	(13) F11	(13a)	(13b) F 21	(14)	(15)	(16)	(17)	(18)	(19)	(20)	(21)	(22)	
		2004/05	2005/06	2006/07	2006/07	2006/07	2006/07	2006/07	2006/07	2006/07	2006/07	2006/07	2006/07	2006/07	2006/07	2006/07	2006/07	2006/07	2006/07	2006/07	2006/07	2006/07	2006/07	2006/07	2006/07	2006/07	2006/07	2006/07	2006/07
	Sydney Water	1,635,000	1,656,000			1,672,000			1,557,000	4,182,000		23,520	71	30	663	3	243		0							0		0	
	Hunter Water	199,000	202,100			205,000			195,000	486,000		4,523	45	17	391	9	513		0							0		0	
LWUs with > 10,000 Properties																													
1	Gosford	65890	66,105	66,180	1.02	67,580	0.96	1.03	64,800	155,000		1,399	48	2	184	13	58	3.9	0	1.3	10	0	2	33	44	8	3	133	1
2	Wyong	57420	58,503	59,160	0.97	57,400	0.94	0.97	54,100	142,800	180	1,199	48	6	142	12	108	6.2	0	1.6	3	100				0	0	0	
3	Shoalhaven	40710	41,506	41,770	0.89	37,010	0.94	0.90	35,400	77,400	410	1,034	36	10	199	19	1,036	38.3	10,624	2.0	8	100	2	6	3	6	3	71	0
5	MidCoast	32430	32,865	33,390	0.96	32,050	0.92	0.96	29,600	75,600	110	922	35	13	205	22	816	26.2	0	1.9	23	100				5	5	21	0
6	Tweed	29020	29,044	29,950	0.91	27,300	0.95	0.93	26,500	65,800	130	636	43	8	172	27	1,413	38.5	132	1.9	2	96	26	21	12	4	6	72	1
9	Wagga Wagga	24370	22,659	21,840	1.04	22,700	0.92	1.05	21,200	57,000	110	540	42	6	36	7	190	4.3	0	0.9	5	100	10	10	10	2	0	51	1
7	Port Macquarie-Hastings	25560	26,329	27,160	0.95	25,800	0.93	0.95	24,000	68,500	120	580	44	5	155	26	764	19.7	2	1.6	5	100		2		14	5	91	1
11	Albury City	20770	21,195	21,200	0.99	21,000	0.93	0.99	19,400	47,700	110	464	45	4	57	12	70	1.5	0	1.0	19	38	64		36	0	1	0	
10	Coffs Harbour	22360	22,881	23,500	0.93	21,860	0.94	0.93	20,500	59,600	120	602	36	5	114	19	772	16.9	1,487	1.5		91			7	11	4	61	1
13	Tamworth Regional	20720	17,253	17,990	1.00	18,000	0.91	1.00	16,300	41,700	190	480	37	5	22	5	80	1.4	45	1.7		23				2	3	44	1
15	Eurobodalla	18060	18,048	18,440	0.94	17,300	0.95	0.94	16,500	35,000	340	402	43	5	124	24	236	4.1	0	2.0	3	100			5	5	4	4	0
17	Queanbeyan	15400	14,983	15,070	1.03	15,500	0.93	1.04	14,500	35,600	100	321	48	1	15	5	85	1.3	0	0.6	11	100		2		0	1	0	
19	Orange	14260	14,251	14,850	1.00	15,500	0.90	1.00	13,400	35,300	100	405	37	2	22	5	148	2.2	0	0.9	7	100	10	5	5	0	0	0	
20	Goulburn Mulwaree	13720	9,509	9,660	1.03	9,950	0.92	1.03	9,100	20,800		222	45	2	26	12	977	9.7	3							2		29	
18	Dubbo	12350	12,977	12,990	1.11	14,420	0.90	1.12	13,100	32,900	110	363	40	1	10	3	266	3.8	6	1.0	7	100				2	3	6	0
16	Wingecarribee	13980	14,032	14,700	0.95	14,000	0.93	0.96	13,200	32,100	120	455	31	5	68	15	202	2.8	353	1.9	4	92		3	6	8	5	23	0
14	Clarence Valley	13900	13,759	13,020	0.94	12,200	0.93	0.85	10,300	31,700	160	328	39	11	87	28	361	4.4	0							0		0	
21	Bathurst Regional	11790	12,593	12,960	1.08	14,000	0.91	1.08	12,700	30,700	200	355	39	1	15	4	763	10.7	0	0.7	20	100				0	2	0	
24	Ballina	13500	13,378	13,490	0.93	12,500	0.93	0.93	11,600	33,400		304	41	4	110	36	330	4.1	11	1.6	5	25				6	5	69	2
22	Lismore	11330	11,461	11,550	1.05	12,130	0.90	1.06	11,100	31,700		337	36	3	32	9	193	2.3	50	1.2		57		5	5	5	10	16	0
	Medians (% of LWUs basis excl bulk suppliers) for >10,000 Properties				*0.98*		*0.93*	*0.98*					*41*				*251*			*1.5*	*7*					*3*	*4*		
LWUs with 3,001 - 10,000 Properties																													
23	Bega Valley	10100	10,623	11,130	0.97	10,800	0.93	0.98	10,200	21,900	150	314	34	9	56	18	1,836	19.8	9.4	2.5		74	7	15	8	2	2	7	0
27	Byron	10190	10,308	10,250	0.96	9,800	0.92	0.96	9,000	28,800	120	238	41	5	81	34	530	5.2	0.0	1.6	6	100			2	2	5	12	0
26	Country Energy	9580	9,591	9,620	1.00	9,600	0.92	1.00	8,800	19,400	100	195	49	2	11	6	110	1.1		0.9		100				0	0	0	
25	Kempsey	8330	8,474	8,560	1.04	8,900	0.91	1.04	8,100	19,500	140	255	35	7	79	31	240	2.1		2.2	5	95	5	5	5	2	4	61	1
31	Lithgow	7800	7,140	7,270	0.98	7,130	0.95	0.98	6,800	20,000	100	364	20	3	32	9	3	0.0	0.3							0		0	
29	Armidale Dumaresq	7650	7,697	7,800	0.98	7,650	0.93	0.98	7,100	19,800	110	244	31	1	1	0	30	0.2		1.8	14	64		1	2	0	4	0	
30A	Hawkesbury	7510	7,557	7,280	0.98	7,110	0.89	0.99	6,400	24,000							42	0.3								0		0	
30	Griffith	8500	7,953	8,560	0.85	7,280	0.89	0.84	6,400	24,000	110	216	34	3	29	13	283	2.1		2.6	11	53				0	5	0	
33	Richmond Valley	6340	6,508	6,690	0.95	6,350	0.90	0.95	5,700	14,500	120	182	35	4	31	17	1,767	11.2	0.1	2.7		71				0	5	0	
32	Mid-Western Regional	5920	6,127	6,200	1.00	6,200	0.91	1.00	5,600	13,100	150	184	34	4	12	7	153	0.9	0.0	2.1		100				0	0	0	
34	Nambucca	6100	6,222	6,220	0.95	5,910	0.91	0.95	5,400	12,600	140	154	38	4	51	33	25	0.1	0.0	1.5			20	15	20	2	2	0	
35	Singleton	5170	5,309	5,400	0.96	5,180	0.92	0.93	4,600	14,600	100	135	38	1	14	10	80	0.4								0		0	
37	Inverell	4850	4,669	4,740	0.97	4,590	0.96	0.97	4,400	11,300	110	126	36	4	21	17	47	0.2		1.5	14	43			10	0	4	0	
41	Muswellbrook	4900	4,897	5,130	0.96	4,900	0.92	0.96	4,600	15,900		132	37	2	11	8	278	1.4		2.0	20	80		2	10	0	2	2	0

Table 14: Sewerage – utility characteristics (continued)

	WATER UTILITY	ASSESSMENTS - CONNECTIONS - POPULATION										ASSETS								WORKFORCE									
		Total No of Assessments			Connected Properties - Total		Connected Properties - Residential			Population		Sewer Mains	Properties Served per km of Main	Sewage Treatment Works	Pumping Stations	Pumping Stations per 100km of Main	Capital Expenditure (Assets, Renewals, Plant/Equip)		Capital Works Grants	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)	(3) / (8)	(No.)	(No.)	(10) / [(8) x 100]	$/prop	$M	($'000)	(Employees /1000 props)	(%)	(2 or more days per year)	(% of Management Cost)	(% of Operation Cost)	(% of Maintenance Cost)	(No.)	Total (%)	Due to Injury (No.)	(%)
			(1)		(2)	(3) C 2			(5a)	(6)	(7)	(8) A 4	(9) A 5	(10)	(11)	(12)	(13) F11	(13a)	(13b) F 21	(14)	(15)	(16)	(17)	(18)	(19)	(20)	(21)	(22)	
		2004/05	2005/06	2006/07	2006/07	2006/07	2006/07	2006/07	2006/07	2006/07	2006/07	2006/07	2006/07	2006/07	2006/07	2006/07	2006/07	2006/07	2006/07	2006/07	2006/07	2006/07	2006/07	2006/07	2006/07	2006/07	2006/07	2006/07	2006/07
36	Parkes	4870	4,949	5,070	0.95	4,810	0.87	0.95	4,200	11,400	130	98	49	2	2	2	34	0.2	0.1	6.2						0	0	0	
42	Corowa	4370	4,586	4,780	0.95	4,540	0.92	0.95	4,200	10,100	190	151	30	3	64	42	91	0.4	0.2	1.3		50				0	1	3	0
38	Moree Plains	4280	3,880	3,940	0.97	3,820	0.84	0.96	3,200	10,000	100	71	54	2	29	41	1,527	5.8	1.9	2.1	25	100	10		20	1	1	3	0
44	Gunnedah	3860	3,859	3,690	1.03	3,800	0.88	1.03	3,400	9,600	100	96	40	2	2	2	175	0.7		1.6		100	5	5	5	0	2	0	
46	Narrabri	3870	3,893	3,610	0.98	3,540	0.93	0.98	3,300	10,700	100	97	36	3	22	23	11	0.0		2.3		100	5	5	5	2	0	2	0
43	Tumut	3890	4,008	4,020	0.95	3,820	0.88	0.95	3,400	8,400	110	129	30	4	14	11				1.8		100				0	0	0	
49	Young	3250	3,349	3,450	1.04	3,590	0.89	1.04	3,200	8,300	110	84	43	1	5	6	55	0.2					10	30	30	5		10	
39	Cowra	3560	3,721	3,730	0.95	3,540	0.88	0.95	3,100	8,600	100	97	36	1	7	7	286	1.0		0.6		100				0	4	0	
45	Upper Hunter	3670	3,997	4,050	0.92	3,720	0.91	0.92	3,400	8,100	120	115	32	4	13	11	126	0.5		0.8		100				0	0	0	
52	Snowy River	2300	2,140	2,140	1.43	3,060	0.86	1.43	2,600	4,700	430	75	41	4	19	25	65	0.2	0.1	1.3						0	0	0	
51	Forbes	3200	3,141	3,170	1.00	3,170	0.89	1.00	2,800	7,600	100	88	36	1	17	19	73	0.2		1.3	25	25		6	28	0	2	0	
50	Cooma-Monaro	3330	3,341	3,390	0.95	3,220	0.87	0.95	2,800	7,500		227	14				206	0.7	0.2							0		0	
53	Berrigan	3090	3,152	3,250	0.98	3,190	0.89	0.98	2,800	6,800	110	103	31	4	45	44	37	0.1	0.0	1.9		100			14	0	4	0	
	Medians (% of LWUs basis) for 3,000 to 10,000 Properties				*0.97*		*0.91*	*0.97*					*36*				*101*			*1.8*	*14*					*0*	*2*		
	LWUs with 1,501 - 3,000 Properties																												
48	Leeton	3180	3,220	3,220	0.94	3,030	0.87	0.94	2,600	8,500	110	86	35	3	30	35	112	0.3	0.1	1.7	20	80				0	1	0	
54	Deniliquin	3050	3,233	3,260	0.96	3,130	0.88	0.95	2,700	7,500	150	70	45	1	23	33	182	0.6		1.6	20	60				1	3	7	1
47	Bellingen	3000	3,009	3,080	0.95	2,920	0.91	0.95	2,700	7,400	100	88	33	3	27	31				3.1	11	56			2	2	1	8	0
60	Glen Innes Severn	3120	2,839	2,730	0.91	2,480	0.88	0.91	2,200	6,300		91	27													0		0	
58	Cootamundra	2640	2,745	2,900	0.98	2,840	0.87	0.98	2,500	7,600	110	66	43	1	4	6	9	0.0		1.1		67				1	6	8	1
57	Wellington	2580	2,480	2,480	0.98	2,430	0.87	0.98	2,100	5,800	100	61	40	1	12	20	279	0.7	0.0	2.5					3	0	1	0	
91	Cabonne	2460	2,486	2,500	0.92	2,300	0.88	0.92	2,000	3,700	100	56	41	3	10	18	82	0.2	0.1	2.2		60				1	2	14	1
80	Greater Hume	2350	2,420	2,490	0.95	2,360	0.86	0.95	2,000	5,700	100	71	33	6	19	27	48	0.1	0.0	1.3		100		5	10	0	4	0	
59	Lachlan	2170	2,178	2,180	1.03	2,240	0.83	1.03	1,900	5,100	100	74	30	3	21	28				1.8		100				0	0	0	
65	Murray	2190	2,261	2,700	0.95	2,560	0.89	0.95	2,300	5,800	210	88	29	2	41	47	179	0.5		1.2		33		3		0	12	0	
62	Narromine	2190	2,014	2,020	0.95	1,920	0.87	0.95	1,700	5,000		49	39		0											0		0	
56	Yass Valley	2030	2,200	2,280	0.94	2,140	0.90	0.94	1,900	5,600	120	69	31	2	8	12				0.9		50			15	1	20	79	17
61	Liverpool Plains	1970	1,892	1,890	0.98	1,850	0.97	0.98	1,800	4,800		52	36				8	0.0								0		0	
55	Warrumbungle	1940	2,350	2,350	0.99	2,330	0.91	0.92	2,000	5,300	100	116	20	4	9	8	43	0.1		4.7		45	20			0	0	0	
69	Temora	1890	2,039	2,080	1.00	2,080	0.82	1.00	1,700	4,700	110	19	110	1	3	16	88	0.2								0		0	
71	Palerang	1870	1,870	1,870	0.95	1,780	0.92	0.95	1,600	3,800		49	36													0		0	
72	Bland	1810	1,900	1,920	0.95	1,830	0.85	0.95	1,600	3,900		48	38				199	0.4								0		0	
63	Narrandera	1850	1,777	1,780	0.92	1,630	0.89	0.92	1,500	4,800		36	45				275	0.4								0		0	
67	Cobar	1730	1,725	1,820	0.95	1,720	0.91	0.95	1,600	5,000		72	24				102	0.2								0		0	
74	Wentworth	1680	1,687	1,880	0.95	1,790	0.88	0.95	1,600	4,000		95	19				4	0.0								0		0	
75	Coonamble	1540	1,532	1,330	1.02	1,350	0.87	1.02	1,200	2,900	110	46	29	2	12	26	73	0.1								0		0	
	Medians (% of LWUs basis) for 1,500 to 3,000 Properties				*0.95*		*0.88*	*0.95*					*35*				*88*			*1.7*	*20*					*0*	*2*		

Table 14: Sewerage – utility characteristics (continued)

WATER UTILITY		ASSESSMENTS - CONNECTIONS - POPULATION										ASSETS								WORKFORCE									
		Total No of Assessments			Connected Properties - Total		Connected Properties - Residential			Population		Sewer Mains	Properties Served per km of Main	Sewage Treatment Works	Pumping Stations	Pumping Stations per 100km of Main	Capital Expenditure (Assets, Renewals, Plant/Equip)		Capital Works Grants	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)	(3) / (8)	(No.)	(No.)	(10) / [(8) x 100]	$/prop	$M	($'000)	(Employees /1000 props)	(%)	(2 or more days per year)	(% of Management Cost)	(% of Operation Cost)	(% of Maintenance Cost)	(No.)	Total (%)	Due to Injury (No.)	(%)
			(1)		(2)	(3) C 2			(5a)	(6)	(7)	(8) A 4	(9) A 5	(10)	(11)	(12)	(13) F11	(13a)	(13b) F 21	(14)	(15)	(16)	(17)	(18)	(19)	(20)	(21)	(22)		
		2004/05	2005/06	2006/07	2006/07	2006/07	2006/07	2006/07	2006/07	2006/07	2006/07	2006/07	2006/07	2006/07	2006/07	2006/07	2006/07	2006/07	2006/07	2006/07	2006/07	2006/07	2006/07	2006/07	2006/07	2006/07	2006/07	2006/07	2006/07
LWUs with 200 - 1,500 Properties																													
70	Kyogle	1580	1,596	1,670	0.95	1,590	0.87	0.95	1,400	3,600	120	62	26	3	9	15	1,170	1.9	0.1	4.4	14	100	5	5		0	6	0	
77	Junee	1570	1,702	1,680	0.95	1,600	0.86	0.95	1,400	4,000		91	18	2			45	0.1		1.3		100				0	1	0	
78	Blayney	1430	1,490	1,510	1.03	1,550	0.86	1.03	1,300	3,800	100	74	21	1	7	9	17	0.0		1.3		100				0	1	0	
79	Walgett	1690	1,786	1,790	0.85	1,520	0.88	0.85	1,300	6,300		50	30	3	9	18				2.6						1	40	365	40
68	Tenterfield	1500	1,489	1,560	0.95	1,480	1.00	0.95	1,500	3,400		38	39	1	3	8	106	0.2	0.0					10	5	0		0	
84	Gilgandra	1360	1,365	1,370	0.98	1,340	0.90	0.98	1,200	2,800	110	35	38	1	13	37	28	0.0		1.5		100			5	0	1	0	
73	Upper Lachlan	1330	1,377	1,380	1.00	1,380	0.86	1.00	1,200	3,500	110	42	33	2	7	17	249	0.3					5	1	1	0		0	
82	Gloucester	1350	1,558	1,590	0.95	1,510	0.84	0.95	1,300	2,700	130	47	32	1	6	13	17	0.0		2.0					60	0	18	0	
87	Bourke	1700	1,065	1,070	1.00	1,070	0.85	1.00	910	2,500	100	35	30	1	8	23	17	0.0								0		0	
86	Hay	1300	1,295	1,300	0.98	1,270	0.87	0.98	1,100	2,900	100	37	34	1	8	22	82	0.1		1.6		50			30	0	0	0	
83	Oberon	1190	1,174	1,180	1.02	1,200	0.84	1.02	1,000	3,000		38	32	1	3	8	54	0.1						5	10	0		0	
81	Gwydir	1160	1,159	1,160	0.95	1,100	0.90	0.95	990	2,600	120	41	27	2	8	20				2.7		100			10	0	1	0	
64	Dungog	1100	1,041	970	0.95	920	0.89	0.95	820	3,200	100	30	31	1	4	13	266	0.2		2.2		100		10	10	0	0	0	
85	Uralla	1010	1,016	1,020	1.00	1,020	0.88	1.01	900	2,600	100	30	34	1	4	13	116	0.1								0		0	
95	Weddin	1060	1,010	1,030	0.94	970	0.87	0.93	830	2,000	140	31	31	1			3	0.0		1.0						0	0	0	
89	Bogan	970	1,046	1,050	1.01	1,060	0.91	1.01	970	2,500		20	53	1	4	20	6	0.0		3.8	25	25	10		3	0	0	0	
76	Harden	1000	1,007	1,020	0.95	970	0.88	0.94	840	2,100	100	34	28	1	0		202	0.2		2.1		100			10	0	1	0	
88	Wakool	1010	1,109	1,170	0.95	1,110	0.74	0.95	830	2,000		47	24	4	14	30	113	0.1		3.6		100			10	0	0	0	
93	Tumbarumba	960	962	1,040	0.95	990	0.85	0.95	840	2,000		46	21		0		103	0.1								0		0	
94	Gundagai	860	894	870	1.01	880	0.91	1.01	800	2,400	130	73	12	1	5	7	12	0.0		2.3		50				0	0	0	
92	Carrathool	880	852	850	0.95	810	0.86	0.95	700	1,900	110	20	40	3	12	60	84	0.1								0		0	
96	Warren	880	883	900	0.92	830	0.88	0.92	730	1,800	100	17	49	2	8	47	129	0.1		2.4		100				0	2	0	
99	Coolamon	850	963	1,010	0.95	960	0.89	0.95	850	2,200		39	25				134	0.1								0		0	
102	Lockhart	810	810	880	0.95	830	0.74	0.95	620	1,800	100	42	20	3	6	14				1.2		100				0	0	0	
98	Walcha	760	777	780	1.01	790	0.80	1.01	630	1,700	120	30	26	1	1	3				2.5	50	100				0	1	0	
100	Balranald	800	797	800	0.95	760	0.89	0.95	680	2,000		38	20				75	0.1								0		0	
97	Bombala	790	794	800	0.95	760	0.86	0.95	650	1,800	110	35	22	2	5	14				2.6		100				0	0	0	
101	Murrumbidgee	700	707	720	1.03	740	0.93	1.05	700	1,800	110	21	35	2	12	57	87	0.1		2.7						0	0	0	
90	Guyra	740	1,010	1,010	0.95	960	0.85	0.95	820	2,700	100	36	27	1	2	6				2.1		50	2		6	0	1	0	
104	Boorowa	560	560	560	0.94	530	0.89	0.94	470	1,400		33	16													0		0	
105	Brewarrina	540	557	560	0.86	480	0.88	0.85	420	1,500	120	16	30	2	8	50				2.1		100	50			1	9	20	9
106	Jerilderie	440	447	450	0.95	420	0.78	0.95	330	970	100	12	35	1	5	42	16	0.0		2.4		100				0	2	0	
103	Central Darling	360	195	200	1.00	200	0.91	1.00	180	710	99	13	15	1	4	31				5.1						0	0	0	
107	Urana	310	317	320	0.95	300	0.97	0.95	290	720	210	15	20	2	9	60				6.6		100			5	0	4	0	
Medians (% of LWUs basis) for 200 to 1,500 Properties					*0.95*		*0.88*	*0.95*					*29*				*83*			*2.3*	*25*					*0*	*1*		
Median All LWUs (% of LWUs ba												*Properties served per km of main*	*35*			*Capital Expenditure*	*$110 per property*		*1.8 employees per 1000 properties*									
Median All LWUs (Statewide basis)													***40***				***$195 per property***			***1.6 employees per 1000 properties***									
Totals for all LWUs			*709,000*			*691,000 connected properties*				*Total population 1.68M*		*18,000 km of mains*				*Total Capital Expenditure $265M*													

Table 15: Sewerage – asset management and 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			% Sewage Treated	% Sge Treated that was compliant	STWs compliant at all times	Percentage of Total Sewage Collected					% of Sge Treated			Vol of Sewage Collected 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	Res	Non-Res	Trade Waste	Other	Primary Level	Secondary Level	Tertiary Level	(kL/property)			(%)			Total Volume Reused	Volume Reused for Urban Water	% of Total Effluent that is Reused		
		(23)			(24) A 10			(25) E 10			(26)			(27)	(28)	(29)	(30)	(31)	(32)			(33)	(33a) E 4	(33b) E 5	(34)	(35)	(36)	(37)	(38)	(39a) E 1	(39a) E 2	(39a) E 3	(39) W 12			(40) E 8			(41a) W 14	(41b)	(41c) W 15		
		04/05	05/06	06/07	04/05	05/06	06/07	04/05	05/06	06/07	04/05	05/06	06/07	06/07	06/07	06/07	06/07	06/07	04/05	05/06	06/07	06/07	06/07	06/07	06/07	06/07	06/07	06/07	06/07	06/07	06/07	06/07	04/05	05/06	06/07	04/05	05/06	06/07	06/07	06/07	04/05	05/06	06/07
	Sydney Water				83	87		3	4	3									454,262	432,542	487,100	26	100	28 of 30				5		74	4	22	212	261	291	100	100	100	21,130		3	4	4
	Hunter Water				15	13	63	51	41	53									65,139	59,918	76,338	100	99	15 of 17				3			56	44	327	297	372	57	63	100	4,060		6	7	8
LWUs with > 10,000 Properties																																											
1	Gosford	120		141	49	44	44	48	44	48								64	14,965	13,916	14,220	100	100	1 of 2	14	69	10	7		0.5	99.5		232	218	210	100	100	100	212		1	2	2
2	Wyong				56	49	38	1	0	18				0.1				123	11,327	11,822	13,034	100	99	5 of 6		70	30				91	10	203	207	227	100	100	100	1,233	1,233	0	8	9
3	Shoalhaven	38		0	30	29	35	26	20	26				0.9	0.2	317	0.6	12	6,530	6,569	7,068	100	92	8 of 10		81	18		1		38	62	180	176	191	64	100	100	1,919	109	25	30	27
5	MidCoast	142	125	59	33	33	37	1	7	7				0.2				105	7,960	6,811	7,652	100	95	9 of 12	7	74	17	2			44	56	256	216	239	100	100	100	75		1	1	10
6	Tweed	116	188	29	17	13	12	5	1	6	24	46	4	0.5	0.0	1,451	1.4	118	7,897	8,779	7,254	100	91	4 of 8	3	71	7	19			11	89	299	332	266	62	58	58	340	255	5	3	5
9	Wagga Wagga	11		701	102	127	394	20	52	37	21		90	7.4				79	5,850	5,061	5,673	84	35	3 of 5	67	33					8	92	230	214	250	100	99	100	747	15	15	16	15
7	Port Macquarie-Hastings			0	19	20	15	1	0	19				0.08		237	0.5	66	7,489	6,733	8,336	100	50	3 of 5		93	7					100	308	269	323	100	100	89			4	5	4
11	Albury City				186	194	194	19	6	8				0.4	0.6	108	0.2	168	4,479	5,326	4,285	100	86	3 of 4		79		21				100	211	245	204				4,468		100	73	100
10	Coffs Harbour	62	112	3	64	88	68	23	2	1						321	0.7	62	5,229	5,933	2,425	100	87	2 of 5	1	99					58	42	251	279	280			100	636		9	9	10
13	Tamworth Regional	24			84	49	57	16	14	49				0.1		300	1.1	130	4,712	4,774	4,254	100	98	4 of 5		78		22			100		230	280	237	200	97	96	1,468		0	2	34
15	Eurobodalla	667	41	61	48	34	63	11	13	48				1.2	0.0			29	3,114	3,217	3,349	100	100	5 of 5	10	83	4	3		1	99		183	190	193		64		273		6	10	8
17	Queanbeyan	16	215	112	92	24	113	3	0	13				1.6				23	3,400	3,886	3,716	100	100	1 of 1	10	74	10	6				100	214	252	239	100	100	100	81		4	3	2
19	Orange	211	240	68	112	126	111	13	16	20				0.1	0.1	65	0.2	41	4,475	4,235	3,036	100	81	1 of 2	9	84	29	6				100	311	294	202	100	2	79	2,836	2,836	76	74	91
20	Goulburn Mulwaree	32			5		201	20		0				4.5		399	0.9	143	1,588	1,684	1,558	100	100	2 of 2		100					70	30	112	172	157			100	655		71	71	42
18	Dubbo	67		25	64	57	65	15	9	13	16	13	16			2	0.0	6	2,849	2,852	2,717	100	57	0 of 1	3	43	42	12				100	208	198	188	100	100	100	2,658		76	81	97
16	Wingecarribee		89	135	79	116	133	1	40	53				1.3	0.0	135	0.4	175	2,716	3,220	3,085	100	81	3 of 5	20	64	12	4				100	205	241	240				87		3	2	3
14	Clarence Valley	148		84	5	20	55	11	13	13				1.3	0.4	121	0.3	125	2,392	3,403	2,626	100	86	0 of 11	10	82	8				2	98	183	263	215				103	103	11	8	4
21	Bathurst Regional		104	20	23	20	113	3	4	18	12	15	24	0.3				229	3,334	3,686	3,510	100	81	0 of 1	2	60	23	15				100	262	271	251	100	100	100	575		0	18	16
24	Ballina			82	24		26	3		4				0.6				171	3,920	3,920	3,502	100	98	1 of 4	7	28			65		70	30	312	314	279			100	193	193	8	8	6
22	Lismore	234		202	67	77	108	4	4	4	0			0.7		580	0.7	212	3,553	3,825	3,263	100	100	2 of 3	21	55	18		6		5	95	299	318	269	100	100		182		4	3	6
Medians (% of LWUs basis) for >10,000 Properties				*44*		*47*	*64*		*8*	*16*		*15*	*20*	*0.6*			*0.6*	*112*																*248*	*238*								
LWUs with 3,001 - 10,000 Properties																																											
23	Bega Valley			0	44	49	25	35	46	26					0.1	288	0.6	146	1,940	2,024	1,979	99	100	6 of 6		89	10		1		92	8	197	195	190				608		27	29	31
27	Byron	127		122	22	34	23	16	13	12	4			0.8	0.7			49	2,630	3,341	2,818	100	92	3 of 6	10	56	34				24	76	269	338	287	100	100	100	824	340	23	24	29
26	Country Energy			0	125	183	148	16	7	25				0.02	0.0	408		244	1,354	1,433	1,344	100	68	0 of 2		61	39				100		140	148	140				641	641	100	37	48
25	Kempsey			57	2	6	6	6	6	26				0.2		363	0.6	80	1,940	2,104	2,012	100	70	5 of 7	7	74	14	4	1		26	74	224	239	226	100	100	100	119	119	11	11	6
31	Lithgow		19	0		2	3											195	1,620	1,620	2,186	100	40	0 of 1		100					10	90	211		307								
29	Armidale Dumaresq				40	68	136	37	40	50				0.2	0.3	34	0.1	212	1,919	2,027	1,722	100	100	1 of 1		65	35					100	256	269	225	100	100	100	763		32	20	44
30A	Hawkesbury						0			0							0.3		2,390	2,390	***2,390***	100											325	324									
30	Griffith	119			161	132	158	21	7	6	9	12	13	0.4	0.5	327	1.1	32	2,256	2,630	1,848	100	61	1 of 3		82	7	11			11	89	334	389	254				334		18	28	18
33	Richmond Valley			0	9	12	27	2	6	2	3	3	3	0.2	0.0			149	1,804	2,106	1,808	100	98	2 of 4		100						100	299	341	285				329		33	6	18
32	Mid-Western Regional	27			98	61	32	5	61	32	46	44	27	0.3	0.2	342	1.0	207	1,340	1,340	1,884	100	20	1 of 3		100						100	226	199	304	91					7		
34	Nambucca			0	46	16	17	33	23	5								69	1,469	1,568	***1,568***	100							100				254	265	265	100	100		***133***		0	8	***8***
35	Singleton				23	32	19		16	13	15	15	14	0.2	0.3	18	0.1	184	1,278	1,285	1,292	100	58	0 of 1		100					2	98	260	255	249				646		50	50	50
37	Inverell	43		49	126		239	5		4	5	4	4		0.0	115	0.3	182	722	807	795	100	99	3 of 4	8	82	8	3			100		154	178	173								
41	Muswellbrook	29			208		1	7		16	149		4		0.1			220	1,300	1,300	1,253	100	78	0 of 2		99		1				100	278	278	256				933	654	88	88	74

Table 15: Sewerage – asset management and resource management (continued)

	WATER UTILITY	ASSET MANAGEMENT: Infiltration			Chokes & Collapses			Overflows			Interruptions to Service			Rehabilitations		Renewals		Mains Maintenance Cost	RESOURCE MANAGEMENT: Total Vol of Sewage Collected			% Sewage Treated	% Sge Treated that was compliant	STWs compliant at all times	Percentage of Total Sewage Collected					% of Sge Treated			Vol of Sewage Collected 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	Res	Non-Res	Trade Waste	Other	Primary Level	Secondary Level	Tertiary Level	(kL/property)			(%)			Total Volume Reused	Volume Reused for Urban Water	% of Total Effluent that is Reused		
		(23)			(24) A 10			(25) E 10			(26)			(27)	(28)	(29)	(30)	(31)	(32)			(33)	(33a) E 4	(33b) E 5	(34)	(35)	(36)	(37)	(38)	(39a) E 1	(39a) E 2	(39a) E 3	(39) W 12			(40) E 8			(41a) W 14	(41b)	(41c) W 15		
		04/05	05/06	06/07	04/05	05/06	06/07	04/05	05/06	06/07	04/05	05/06	06/07	06/07	06/07	06/07	06/07	06/07	04/05	05/06	06/07	06/07	06/07	06/07	06/07	06/07	06/07	06/07	06/07	06/07	06/07	06/07	04/05	05/06	06/07	04/05	05/06	06/07	06/07	06/07	04/05	05/06	06/07
36	Parkes			0	54	64	64	56	31	31				1.0				183	765	870	760	100	14	1 of 1		68	30		2			100	193	185	158				160		24	21	21
42	Corowa		93	25	39	53	25	4	5	13		13	12	0.1		62	0.3	112	698	1,073	776	100	84	2 of 3	5	87	7	1			100		177	189	171				529		62	52	68
38	Moree Plains	1,768		0	12		76	1		54	72		52	2.8	0.4			293	1,500	1,500	***1,500***	100							100				373	399	393	100					13		
44	Gunnedah	69		52	136	123	92	126	63	97	2	1	1	2.1	0.4			177	559	573	547	100	59	1 of 2	9	82	9				100		164	144	144				456		88	90	83
46	Narrabri			0		90	52		8	8			1		0.3	41	0.1	103	1,170	962	962	100	23	2 of 3		100					23	77	300	252	272		57		554			67	58
43	Tumut				131	153	212	11										113	1,097	962	***962***	100							100				297	252	252	98	100				2	0	
49	Young		50	0	128		219	210	113	219	52	17	3	1.9	0.0			74	736	742	***742***	100							100				218	213	207				***114***		18	15	***15***
39	Cowra				11	11	10	79	74	54	1	2		0.6	0.3			194	771	771	694	100	60	1 of 2		100						100	228	217	196								
45	Upper Hunter			511	64	55	90	8	28		1	66	67	0.87		249	0.6	236	878	868	897	100	100	4 of 4	66	34					42	58	260	236	241				460	138	62	5	51
52	Snowy River		136		4	85		4	4						0.0				638	474	***474***	100							100				195	122	155								
51	Forbes	14	24	6	75	67	125	6	2	6	128	210	151		0.1			132	622	691	600	100	100	1 of 1	1	75	17	7				100	193	220	190				8		0.0	1	1
50	Cooma-Monaro				49			155			112					61	0.4	129	479	479	***479***	100											151	151	149	200							
53	Berrigan	0		0	24	102	46					2	2		0.2				523	532	538	100	82	3 of 4		100					38	62	173	172	169				56		39	7	10
	Medians (% of LWUs basis) for 1,500 to 3,000 Properties			*0*			*46*		*16*	*16*		*12*	*8*	*0.4*			*0.4*	*163*																*228*	*225*								
	LWUs with 1,501 - 3,000 Properties																																										
48	Leeton	48		0	92	58		14	6		27	25							1,400	3,815	***3,815***	100	100	3 of 3		15	5	2	78			21	337	1,260	1,260		100	100					
54	Deniliquin	130		71	30	216	230	1				81	64		0.3	203		784	666	597	650	100	100	1 of 1	8	85	8				100		227	192	208				500		86	99	77
47	Bellingen		111	147	39	48	32	9	27	30					0.0				801	870	614	100	95	2 of 3	21	43	36					100	281	304	210								
60	Glen Innes Severn	5			15	29		5										75	589	861	***861***	100	100			2					2		208	333	347	100	100		13		0	2	2
58	Cootamundra		854	0	162	113	147							13.64	0.3			185	630	478	***478***	100		0 of 1					100				244	178	168				***185***		37	39	***39***
57	Wellington	67	3	2	100	19	26	145	17						0.1	30	0.1	202	411	411	437	100	100	2 of 2		93	7				100		162	169	180				1		0.0		0.2
91	Cabonne			0	46	36	50	36		9					0.1			84	315	304	281	100	93	2 of 3		100					100		139	133	122				69		50	23	25
80	Greater Hume	25	18	7	49	42	32				11	7	25					68	480	503	414	100	92	5 of 6	1	98	1					100	215	219	175			100	101		27	22	24
59	Lachlan	69		19	17						1		1	0.27	0.6				559	559	531	100	72	2 of 3	3	76	14	8				100	251	249	237				112		30	30	21
65	Murray	33	32	28	6	8	14				3			2.3		520	1.8	99	536	590	517	100	79	2 of 3	5	61	16	19			91	9	258	275	202				93		15	50	18
62	Narromine			0		31												67		570	***570***	100	100								40			298	297								
56	Yass Valley		38	13	71	72	46			3		1	1	0.3	0.4				394	417	330	100	100	2 of 2	3	87	8	2			100		198	192	154			100	171		45	32	52
61	Liverpool Plains			0	23			8			8							29	368	368	***368***	100											191	198	198								
55	Warrumbungle				87	86	172	43		86				0.2				53	514	430	440	100	89	2 of 4		100				16	84		267	153	189				108		22	26	25
69	Temora	98		16	488			159			27			5.8	0.5				345	345	340	100		0 of 1	1	99				100			186	169	163				10		100	100	91
71	Palerang	2			74	90		30	10		6	3							254	254	***254***	100											143	156	143								
72	Bland		25	0	116			179			74								277	289	***289***	100											161	160	158				***129***		49	45	***45***
63	Narrandera	181			11			3										233	519	335	***335***	100											308	205	205								
67	Cobar	2		0	1														467	423	***423***	100											284	258	245				***105***		21	25	***25***
74	Wentworth	1	4		29	27			1									14	549	826	***826***	100											344	515	462						62	3	***3***
75	Coonamble	40	51	28	6	12	17		2						0.4			170	293	303	274	100	57	0 of 2	5	83	12				15	85	186	194	203				50		24	14	18
	Medians (% of LWUs basis) for1,500 to 3,000 Properties			*0*			*39*		*8*	*19*		*7*	*13*	*1.3*			*1.0*	*84*																*198*	*202*								

Table 15: Sewerage – asset management and resource management (continued)

No.	WATER UTILITY	ASSET MANAGEMENT																	RESOURCE MANAGEMENT																								
		Infiltration (ML per 100km of Main) (23) 04/05	Infiltration 05/06	Infiltration 06/07	Chokes & Collapses (No. per 100 km of Main) (24) A 10 04/05	Chokes & Collapses 05/06	Chokes & Collapses 06/07	Overflows (No. per 100 km of Main) (25) E 10 04/05	Overflows 05/06	Overflows 06/07	Interruptions to Service (No. per '000 properties) (26) 04/05	Interruptions 05/06	Interruptions 06/07	Rehabilitations (% of Total Length) (27) 06/07	Rehabilitations (Service Connections %) (28) 06/07	Renewals ($'000 per 100 km of Main) (29) 06/07	Renewals (% of CRC) (30) 06/07	Mains Maintenance Cost ($'000 per 100 km of Main) (31) 06/07	Total Vol of Sewage Collected (ML) (32) 04/05	Total Vol 05/06	Total Vol 06/07	% Sewage Treated (%) (33) 06/07	% Sge Treated that was compliant (33a) E 4 06/07	STWs compliant at all times (33b) E 5 06/07	Percentage of Total Sewage Collected: Infiltration/inflow (34) 06/07	Res (35) 06/07	Non-Res (36) 06/07	Trade Waste (37) 06/07	Other (38) 06/07	% of Sge Treated: Primary Level (39a) E 1 06/07	Secondary Level (39a) E 2 06/07	Tertiary Level (39a) E 3 06/07	Vol of Sewage Collected per Property (kL/property) (39) W 12 04/05	Vol per Property 05/06	Vol per Property 06/07	Biosolids Reused (%) (40) E 8 04/05	Biosolids Reused 05/06	Biosolids Reused 06/07	Effluent Reused: Total Volume Reused (41a) W 14 06/07	Volume Reused for Urban Water (41b) 06/07	% of Total Effluent that is Reused (41c) W 15 04/05	% of Total Effluent Reused 05/06	% of Total Effluent Reused 06/07
	LWUs with 200 - 1,500 Properties																																										
70	Kyogle	121	266	11	96	54	27	5	16		24	13	21	1.6	0.4	3	0.0	65	293	390	310	100	76	1 of 3	2	83	15			1	81	18	175	237	195		100	100	55		21	13	18
77	Junee				87		66							0.0	0.8	44	0.2	36	270	270	225	100	100	1 of 1		100						100	188	167	141				69	10	59	59	60
78	Blayney		60	14	26	27	20												301	320	284	100	100	1 of 1	4	85	6	6			100		204	209	183				135	135	82	70	48
79	Walgett				8	22	20											44	622	622	***622***	100	100										391	410	410				***517***		83	83	***83***
68	Tenterfield			0	100	112	234				12	7	7		0.4	32	0.1		289	323	***323***	84	98	1 of 2					100			100	203	228	218				126		37	26	39
84	Gilgandra	124	143	129	24	89	77		6	9	11	11	11	0.9	0.7			109	297	280	265	81	100	1 of 1	17	60	15	8				100	240	209	197	5			215		100	100	81
73	Upper Lachlan	41		95	23	23	124				8	7	14	1.2		98	0.3	12	300	300	240	96	74	1 of 2	17	71	10	2				100	226	218	174								
82	Gloucester	97		38	89	85	34	2	85	32	55			0.2	0.7			464	234	220	***220***	100	100	1 of 1	8	82	10					100	183	149	146	100	100	100					
87	Bourke			0			474	3	3									417	300	250	141	100	25	0 of 1		100					100		235	235	132								
86	Hay			54	54	57	84				2	2						81	307	326	304	100	100	1 of 1	7	88	3	2			100		290	257	239								
83	Oberon			0	42	39	24	8	14	18		2	3		0.8	26	0.2	232	326	384	***384***	84							100			100	269	321	320		100						
81	Gwydir	207	138	27	85	184	190	41	73	85	93	9			0.2				263	235	173	100	32	0 of 2	6	82	12					100	227	213	157	64		12	30	1	17		17
64	Dungog		97	97	125	53	83	41	53	67	218	131	163	6.7	0.1	180	0.4	100	273	370	185	100	2	0 of 1	16	74	11				100		262	374	201				180		91	55	97
85	Uralla	55		43	28		33	28		7	8			0.7	0.2			90	145	145	142	95	75	0 of 1	9	87	3	1				100	143	143	140								
95	Weddin			0	132		110											68	162	162	***162***	100	100						100				162	171	168	17					18		
89	Bogan		20			10						2						100	339	622	***622***	100	100	1 of 1					100		30		346	589	589								
76	Harden			0	36	36	26	13	13				2	8.8		574	1.7	215	186	566	***566***	100		0 of 1					100				193	585	585	100	100		***85***		40	15	***15***
88	Wakool															19	0.0	32	73	147	366	100	100	4 of 4		89	11			39	8	53	76	139	329								
93	Tumbarumba	23		0	23						2					28	0.1		264	278	***278***	100	100										289	304	282								
94	Gundagai		1	1		14	16			1					0.2			12	105	105	106	99	100	1 of 1	1	75	24				100		121	116	120				105		100	100	99
92	Carrathool			0	118	100		5	5		2	1				340	0.8	220	127	97	103	100	100	3 of 3		100					100		152	115	127				8		1		8
96	Warren				327	359	271		6							271	0.4	153	172	173	153	100	100	2 of 2		100					100		212	213	184				6		0.0		4
99	Coolamon			0	8													38	95	95	***95***	100											118	104	99				***70***		74	74	***74***
102	Lockhart																	126	157	157	136	100	100	3 of 3		100					54	46	181	196	164				56	56	11		41
98	Walcha	52		63	41	38	40	38	21	27	5	4	5					143	172	183	159	100	100	1 of 1	12	67	21					100	226	233	201								
100	Balranald	3		11	11	8												32	250	250	132	97	100		3	97					100		331	313	173								
97	Bombala	38		0	9	91	54				13	3						40	171	173	***173***	100							100				227	229	228				***35***		21	20	***20***
101	Murrumbidgee				110	89	76			5		4	1					67	161	160	***160***	100	100	2 of 2					100	48	52		224	219	216			100	8		2	4	5
90	Guyra	453		44	8	28	42	3	8	6	24	10	31						164	202	127	100	75	0 of 1	13	80	8			13	87		233	181	132			100					
104	Boorowa				46	48												39	90	90	***90***	100											171	171	172								
105	Brewarrina			0	86		75							1.3				131	213	210	***210***	100	100	3 of 3					100		100		459	438	438				170		80	81	81
106	Jerilderie			742	71	33	8						2		0.2			17	88	89	***89***	100			100						100		209	210	210				5	5	45	45	6
103	Central Darling		2	0	38	66	23		15	31	58	154	128		2.1				100	100	100	100	100	1 of 1		100					100		292	513	513								
107	Urana				40	13							3					20	88	89	90	100	100	2 of 2		100					100		296	292	299								
	Medians (% of LWUs basis) for 200 to 1,500 Properties			*0*			*54*		*14*	*18*		*7*	*7*	*1.2*			*0.2*	*74*																*218*	*196*	*No. of LWUs Reusing Effluent*						*71*	

Median All LWUs (% of LWUs basis) — *Chokes & Collapses* *52* — *Overflows* *7* — *nterruptions* *2* — *Renewals 0% of CRC* — *Median % sge treated that was compliant was 95%* — *Median % of Effluent Reused* *18*

Median All LWUs (Statewide basis) — ***46*** — ***18*** — ***0*** — ***0% of CRC*** — ***10***

Totals for all LWUs ***Total volume of sewage collected = 158,000 ML*** ***Total volume of effluent reused = 30,000 ML***

Effluent % of total volume of sewage collected = 19%

No. of LWUs Reporting Biosolids Reuse 26 (ie. 26% of LWUs) ***No. of LWUs Reporting Effluent Reuse = 71 (ie. 70% of LWUs)***

NOTE: 1. Approximately 35% of councils did not report the volume of sewage collected (column (32)). For these councils the previous year's data has been adopted and is shown in bold italics.

2. A slightly higher number of councils did not report the volume of effluent reused (column (41)). For these councils, where they have previously reported effluent reuse, the previous years' value of effluent reused has been adopted.
For such Councils, the adopted value is shown in bold italics in column (41). For the remainder of Councils either not reporting or reporting zero effluent reuse, the cell is shown as blank.

3. Number of LWUs reporting effluent reuse = 71 (ie. 70% of LWUs providing sewerage services)
Number of LWUs reporting effluent reuse for Urban Water Supply (ie. not for irrigation, environmental use or agriculture) = 16 (ie. 16% of LWUs providing sewerage services)

Table 16: Sewerage – financial and efficiency

	WATER UTILITY	FINANCIAL (SEE ALSO COST RECOVERY TABLE 7)																EFFICIENCY (SEE ALSO COST RECOVERY TABLE 7)											
		Total Revenue - Sewerage (excl. Capital Works Grants)		Residential Revenue Vs Vol Collected		Current Replacement Cost (CRC) of System Assets			Net Debt to Equity			ERRR			Cross Subsidies		Operating Result		Externalities (Annual Fees to EPA)	Operating Cost (OMA)				Total Cost				Management Cost			
		($'000)		Res Revenue (% of Annual rates and charges)	Res Vol collectd (% total excl infiltration & inflow)	Written Down Cost ($'M)	Current Replacement Cost ($'M)	Current Replacement Cost per Assessmnt ($)	(%)			(%) see also Table 7 Col (11)			Annual Fees & Charges ($/assessment)	Developer Charge ($/assessment)	($/property)		($/property)	($/property)				($/property)				($/property)			
		(42) F 2		(43)	(44)	(45)	(46)	(47)	(48) F 16			(48a) F 14			(49a)	(49b)	(50)		(51)	(52) F 7				(53) F 10				(54)			
		05/06	06/07	06/07	06/07	06/07	06/07	06/07	04/05	05/06	06/07	04/05	05/06	06/07	06/07	06/07	05/06	06/07	06/07	03/04	04/05	05/06	06/07	03/04	04/05	05/06	06/07	03/04	04/05	05/06	06/07
	Sydney Water	804,100	898,600							46.4	44.9	3.8	2.7	1.9						210	211	135	190	513	325	256	345				
	Hunter Water	99,500	101,400							13.2	23.8	3.2	3.2	1.5									228			266	335				
	LWUs with > 10,000 Properties																														
1	Gosford	33,300	29,823	88	80	361	424	6,400		-6.8	-2.3	0.2	2.4	1.4		5	26	99	0.1	246	267	287	266	354	369	394	367	133	136	160	109
2	Wyong	23,400	28,537	85	70	377	494	8,300		0.1	5.8	0.2	0.3	1.4			6	10		231	233	251	284	351	363	382	406	64	68	76	90
3	Shoalhaven	26,900	27,374	88	81	399	530	12,700		4.2	0.9	4.7	2.4	2.2			283	186	0.0	323	333	335	369	449	460	461	502	127	136	128	132
5	MidCoast	26,400	24,018	82	80	379	534	16,000		27.4	8.6	5.0	3.3	1.2			215	101	0.6	325	326	383	416	546	526	590	611	85	49	57	56
6	Tweed	18,600	23,042	89	73	448	646	21,600		-19.5	-5.8	6.2	1.3	0.2			486	62	0.6	291	310	335	333	435	453	532	826	99	110	117	125
9	Wagga Wagga	12,200	11,491	73	***90***	148	230	10,500		-23.5	-9.7	9.0	10.7	3.6			206	273		151	145	189	211	192	185	242	269	33	28	53	46
7	Port Macquarie-Hastings	15,800	12,944	87	***90***	172	255	9,400		-28.1	-4.9	1.8	1.6	0.1		258	163	79		298	329	354	344	411	447	470	492	93	86	90	95
11	Albury City	10,600	10,382	75	79	140	244	11,500		9.0	1.9	0.3	0.8	0.1			-23	-190	0.8	263	272	300	330	412	417	434	488	111	99	119	112
10	Coffs Harbour	20,200	18,974	82	***90***	205	266	11,300		-5.6	-3.8	7.0	4.1	3.0			524	280	0.5	334	352	377	388	483	508	534	588	106	114	119	117
13	Tamworth Regional	13,000	12,231	83	78	60	130	7,200		-18.3	-17.9	4.9	7.7	6.4			224	265	0.1	289	231	284	322	439	351	431	466	82	86	98	132
15	Eurobodalla	9,200	10,499	89	***90***	98	145	7,900		6.7	-2.4	4.7	0.3	1.2			201	12		345	374	384	394	490	523	552	561	110	107	108	103
17	Queanbeyan	7,100	5,721	89	82	111	196	13,000		-21.9	-14.3	0.1	-0.8	0.0			96	122	1.5	226	215	251	227	304	357	393	367	74	80	90	96
19	Orange	8,700	7,673	88	***90***	90	146	9,800		-18.8	-11.1	0.2	1.0	1.0			86	77	9.6	217	259	254	261	437	480	480	458	86	89	103	103
20	Goulburn Mulwaree	6,300	7,700	74	***90***	62	99	10,200		19.7	9.6	5.3	7.1	6.2			88	282	2.9	255	208	259	290	336	273	358	384	122	79	122	124
18	Dubbo	9,100	8,677	69	44	129	152	11,700		-5.9	3.7	2.8	3.3	1.4			137	137	2.9	365	371	338	324	529	503	479	474	113	122	134	145
16	Wingecarribee	10,400	10,149	86	80	113	152	10,300		5.7	-7.0	1.7	2.9	2.7			108	138	0.4	271	284	312	325	456	466	495	507	108	128	157	128
14	Clarence Valley	8,800	8,971	84	***90***	61	144	11,100		-35.6	-7.5		3.2	5.4				326		267		369	344	377		486	460	97		151	151
21	Bathurst Regional	6,700	7,174	64	61	67	123	9,500		-12.3	-9.3	-1.4	1.1	1.2			-66	69		237	309	291	324	369	453	421	452	99	144	137	142
24	Ballina	7,600	7,384	80	30	83	161	11,900		-20.3	-12.9	-1.1	0.5	1.1			35	125	1.5	323	375	366	383	446	499	495	515	115	119	118	133
22	Lismore	8,000	7,122	75	70	165	287	24,800		-14.4	-6.0	3.5	2.6	0.9			184	179		278	279	305	331	411	414	441	467	52	56	61	77
	Medians (% of LWUs basis) for >10,000 Properties							*10,800*		*-10*	*-5*		*2*	*1.3*				*123*				*308*	*328*			*465*	*470*			*118*	115
	LWUs with 3,001 - 10,000 Properties																														
23	Bega Valley	7,000	8,180	85	89	86	143	12,800		0.7	-3.0	1.1	-0.1	0.6	9		69	-303	3.7	428	474	480	511	617	676	672	1042	199	190	187	184
27	Byron	9,300	9,534	77	62	129	172	16,800		14.4	2.1	0.1	3.1	1.9			13	107	0.2	493	568	489	516	676	757	681	716	160	156	143	138
26	Country Energy	3,600	3,584	83	61		***35***	***3,600***				-3.9	2.5				-45	41		201	201	245	234	283	282	326	315	68	81	113	107
25	Kempsey	5,500	5,704	74	80	89	147	17,200		-98.3	2.5	1.5	1.4	1.6			63	88	11.5	338	349	401	346	486	491	508	479	95	112	129	126
31	Lithgow	3,700	3,300	87	***90***	15	52	7,100		-23.2	-7.2	2.8	9.3	-12.2			45	-233	9.1	183	259	349	630	254	331	426	716	41	106	142	178
29	Armidale Dumaresq	3,800	3,700	69	65	56	59	7,600		-20.4	-11.0	0.0	-0.4	0.0		18	12	31	1.6	313	300	358	342	441	427	485	479	131	135	178	135
30A	Hawkesbury	4,100	3,800	75	0	53	100	13,800		-4.5	-4.2	-1.4	0.6	-0.3			-81	-13	9.5	348	379	379	443	522	594	498	554	154	165		
30	Griffith	4,900	***4,900***	66	82	36	64	7,500		-7.0	-6.7	0.6	0.5	1.8			58	107	1.8	357	466	482	424	509	629	670	580	122	127	146	126
33	Richmond Valley	6,100	5,500	87	***90***	60	109	16,300		-17.5	2.4	1.6	11.0	3.1			101	304		320	343	381	375	434	457	490	593	148	162	161	175
32	Mid-Western Regional	3,400	3,300	75	***90***	28	64	10,300		-21.4	-16.4	2.9	2.6	2.6			117	154	0.6	291	293	308	298	412	411	425	418	106	108	110	98
34	Nambucca	3,500	2,900	70	0	55	77	12,300		-9.1	-6.7	3.2	2.7	0.8			155	91	0.3	262	261	285	280	408	392	414	412	103	90	91	90
35	Singleton	3,100	2,900	84	***90***	23	47	8,700		-20.1	-25.8	1.3	3.2	3.9	23		116	231		191	201	223	200	349	358	381	388	49	66	72	70
37	Inverell	1,700	1,900	90	89	31	42	8,900		-26.8	-8.9	-2.3	0.2	1.3	2		-13	93		192	209	224	242	314	328	333	318	75	82	91	92
41	Muswellbrook	3,300	4,400	79	***90***	34	57	11,100		-18.7	-14.1	3.8	5.5	6.1			168	466		288	311	309	311	403	427	463	463	63	74	82	81

Table 16: Sewerage – financial and efficiency (continued)

	WATER UTILITY	FINANCIAL (SEE ALSO COST RECOVERY TABLE 7)																EFFICIENCY (SEE ALSO COST RECOVERY TABLE 7)											
		Total Revenue - Sewerage (excl. Capital Works Grants)		Residential Revenue Vs Vol Collected		Current Replacement Cost (CRC) of System Assets			Net Debt to Equity		ERRR			Cross Subsidies		Operating Result		Externalities (Annual Fees to EPA)	Operating Cost (OMA)				Total Cost				Management Cost			
		($'000)		Res Revenue (% of Annual rates and charges)	Res Vol collectd (% total excl infiltration & inflow)	Written Down Cost ($'M)	Current Replacement Cost ($'M)	Current Replacement Cost per Assessmnt ($)	(%)		(%) see also Table 7 Col (11)			Annual Fees & Charges ($/assessment)	Developer Charge ($/assessment)	($/property)		($/property)	($/property)				($/property)				($/property)			
		(42) F 2		(43)	(44)	(45)	(46)	(47)	(48) F 16		(48a) F 14			(49a)	(49b)	(50)		(51)	(52) F 7				(53) F 10				(54)			
		05/06	06/07	06/07	06/07	06/07	06/07	06/07	04/05	05/06	04/05	05/06	06/07	06/07	06/07	05/06	06/07	06/07	03/04	04/05	05/06	06/07	03/04	04/05	05/06	06/07	03/04	04/05	05/06	06/07
36	Parkes	1,900	1,600	77	68	26	49	9,600	-42.8	-19.4	2.4	5.7	1.0			104	127		142	154	162	218	210	223	231	276	28	33	34	35
42	Corowa	2,000	1,900	85	***90***	16	30	6,300	-21.2	-21.2	0.5	-0.5	0.7			77	65	0.7	252	239	254	269	351	327	394	388	85	85	94	102
38	Moree Plains	2,900	***2,900***	83	0	26	46	11,800	11.1	11.4	3.5	3.1	3.5			130	215	2.9	376	347	455	396	511	483	611	545	166	131	143	62
44	Gunnedah	1,100	***1,100***	90	***90***	21	50	13,500	-29.8	-14.7	-0.6	2.2	1.3	13		15	103		117	115	123	140	191	247	204	225	24	24	37	37
46	Narrabri	1,900	1,800	80	***90***	17	44	12,100	1.7	-2.8	-1.9	1.8	1.0			-110	44		204	259	220	282	383	431	386	460	84	51	59	98
43	Tumut	3,000	5,300	75		28	46	11,400	-21.9	-3.3	1.5	5.0	12.1			133	943	1.6	281	274	240	326	510	499	443	502	82	49	27	47
49	Young	1,500	1,300	70	0	7	30	8,700	-43.6	-37.0	15.4	17.2	12.2			245	281	3.0	121	126	101	107	150	157	135	140	33	20	20	20
39	Cowra	1,600	1,800	73	***90***	8	11	3,000	-30.0	-27.9	3.8	9.4	8.8			43	181	0.7	183	252	190	242	268	337	273	328	114	178	117	137
45	Upper Hunter	1,900	1,700	78	***90***	25	47	11,500	-23.2	-14.7	1.7	0.3	-0.1			104	92	12.3	234	287	304	345	356	420	426	467	109	128	131	150
52	Snowy River	1,800	1,700	88		17	***31***	***14,600***	-22.3	-20.4		2.2	2.3			151	201	1.7	198		290	290	323		428	429	63		73	78
51	Forbes	1,600	1,700	80	76	26	35	11,200	14.9	7.5	3.7	2.6	1.1			126	33	28.1	248	259	257	257	310	338	386	441	31	38	38	37
50	Cooma-Monaro	2,100	2,300	81		20	32	9,600	-0.4	-3.0	0.0	1.4	2.7			-19	160	0.1	366	389	367	355	545	563	544	534	110	117	112	111
53	Berrigan	1,600	1,100	87	***90***	15	37	11,400	-22.5	-12.8	-0.3	-0.7	-0.1			26	32	1.7	215	238	254	216	359	372	385	341	87	87	88	87
Medians (% of LWUs basis) for 3,000 to 10,000 Properties								*11,200*	*-21*	*-8*		*2.6*	*1.5*				*103*				*285*	*298*			*425*	*460*			*102*	98
LWUs with 1,501 - 3,000 Properties																														
48	Leeton	2,300	2,000	76	15	18	39	12,100	-26.5	-23.8	1.9	5.8	2.7			140	213		253	347	298	365	371	467	422	491	74	140	120	140
54	Deniliquin	1,800	1,700	80	***90***		***24***	***7,400***	-24.2	-20.8	1.9	2.1	0.3			98	65		285	273	320	412	409	410	450	540	100	108	101	131
47	Bellingen	1,900	***1,900***	85	54		***26***	***8,400***	-24.7		-0.7	-5.6				52		12.0	357	336	327		545	523	874		155	138	126	
60	Glen Innes Severn	1,200	1,000	90	2		***23***	***8,400***	-6.6	4.6		4.5	0.9				50	1.7	145		174	236	200		265	331	62		62	118
58	Cootamundra	1,200	921	70	0	16	27	9,300	0.8	0.2	-3.6	4.3	0.4			-74	-8	1.0	164	176	187	192	360	376	311	305	43	46	45	50
57	Wellington	1,600	1,400	81	***90***	10	21	8,300	9.7	10.0	4.8	8.5	3.9			109	136	23.8	241	240	255	296	364	354	403	407	88	95	106	134
91	Cabonne	1,300	1,200	83	***90***	11	18	7,100	-20.6	-14.0	7.0	6.2	4.6			392	231	1.0	158	173	188	204	301	315	296	314	38	46	45	50
80	Greater Hume	825	685	80	***90***	20	30	12,100	-10.6	-7.5	-0.1	-1.6	-1.4			-8	-74	3.7	197	226	239	255	305	332	398	404	67	67	90	78
59	Lachlan	912	***912***	76	78		***16***	***7,300***	-31.2		2.4	-0.1				161			183	200	197		307	322	320		51	58	27	
65	Murray	1,100	1,300	75	64	19	25	9,400	2.4	0.3	2.8	2.5	1.7			73	127	14.8	198	217	243	237	364	386	406	365	85	100	110	98
62	Narromine	1,000	983	83	0	5	13	6,400	-20.5	-32.2	-0.7	0.5	0.3				-1343		264	271	279	280	447	464	498	505	155	125	146	152
56	Yass Valley	1,400	***1,400***		90		***12***	***5,300***			10.2					274			261	286			349	376			87	90		
61	Liverpool Plains	713	645	80	0	3	18	9,500	-36.0	-17.3	-1.4		-1.3			6	16	0.4	157	187	220	232	313	333	356	368	40	44	62	94
55	Warrumbungle	773	1,100	86	***90***	14	26	10,900		-16.5	-2.4		-0.6			-83	40		299	245		301	483	457		489	111	102		70
69	Temora	461	***461***	90	***90***	8	14	6,500	-9.6	-5.1	-1.1	0.5	0.7			15	39		165	171	157	155	212	219	201	196	26	29	33	37
71	Palerang	1,400	***1,400***				***8***	***4,300***	-11.7			5.5				283			320		328		433		472		91		129	
72	Bland	1,100	840	72	0	9	17	8,800	-36.4	-24.7	1.0	4.9	-0.2			67	63	1.3	227	256	257	324	372	405	402	469	41	66	75	141
63	Narrandera	1,100	926	77		6	9	5,300	-40.5	-32.1	5.7	-0.6	2.4			212	-1508		284	310	491	409	371	398	555	481	84	137	128	145
67	Cobar	559	578	89	0	4	9	5,100	-32.8	-35.8	-4.6	-0.4	3.9			-46	126		215	236	185	142	215	355	305	256	68	20	20	20
74	Wentworth	938	870			13	15	8,000	7.1	3.1	-0.6	1.1	-0.1			-114	-93	27.9	251	244	253	279	463	481	490	491	61	63	62	56
75	Coonamble	588	455	90	87	4	16	12,400	-45.5	-42.8	-5.2	-2.9	-3.5			-52	9		165	172	143	215	400	372	344	447	21	20	20	23
Medians (% of LWUs basis) for 1,500 to 3,000 Properties								*8,300*	*-22*	*-17*		*1.1*	*0.4*				*40*				*241*	*255*			*400*	*407*			*69*	94

Table 16: Sewerage – financial and efficiency (continued)

	WATER UTILITY	FINANCIAL (SEE ALSO COST RECOVERY TABLE 7)																EFFICIENCY (SEE ALSO COST RECOVERY TABLE 7)											
		Total Revenue - Sewerage (excl. Capital Works Grants)		Residential Revenue Vs Vol Collected		Current Replacement Cost (CRC) of System Assets			Net Debt to Equity		ERRR			Cross Subsidies		Operating Result		Externalities (Annual Fees to EPA)	Operating Cost (OMA)				Total Cost				Management Cost			
		($'000)		Res Revenue (% of Annual rates and charges)	Res Vol collectd (% total excl infiltration & inflow)	Written Down Cost ($'M)	Current Replacement Cost ($'M)	Current Replacement Cost per Assessmnt ($)	(%)		(%) see also Table 7 Col (11)			Annual Fees & Charges ($/assessment) (49a)	Developer Charge ($/assessment) (49b)	($/property)		($/property)	($/property)				($/property)				($/property)			
		(42) F 2		(43)	(44)	(45)	(46)	(47)	(48) F 16		(48a) F 14			(49a)	(49b)	(50)		(51)	(52) F 7				(53) F 10				(54)			
		05/06	06/07	06/07	06/07	06/07	06/07	06/07	04/05	05/06	04/05	05/06	06/07	06/07	06/07	05/06	06/07	06/07	03/04	04/05	05/06	06/07	03/04	04/05	05/06	06/07	03/04	04/05	05/06	06/07
	LWUs with 200 - 1,500 Properties																													
70	Kyogle	769	2,500	85	85	13	23	13,500	-2.5	-3.2	-0.2	1.3	13.7			-6	1116		279	300	313	298	474	500	446	427	91	93	104	101
77	Junee	542	532	87	***90***	11	19	11,000	-15.9	-7.1	1.3	1.3	0.5			42	48	1.5	237	230	218	230	325	319	299	300	55	56	53	54
78	Blayney	989	925	82	89	14	20	13,200	-10.5	-9.9	3.3	2.5	2.0			202	196	0.5	312	302	298	301	406	460	456	413	135	136	127	129
79	Walgett	619	605			9	14	7,800	-18.2	-12.0	-1.7	-1.7	-1.2			-30	-67		226	189	194	248	466	426	418	472	82	76	73	124
68	Tenterfield	808	993	78	0	13	23	14,800	-22.7	-14.2	-3.7	-1.1	0.8			-81	151	3.2	347	416	406	410	509	585	540	596	204	222	213	214
84	Gilgandra	452	503	74	72	7	13	9,100	-11.7	-8.9	-1.3	4.8	3.8			-23	171	101.3	144	167	144	170	267	290	205	187	41	41	20	23
73	Upper Lachlan	756	829	85	86	7	13	9,200	0.0	0.1	0.3	1.0	3.3			-29	86		249	298	279	290	425	454	430	441	38	87	87	91
82	Gloucester	738	718	67	89	9	14	8,900	-30.5	-20.3	12.2	-2.6	-1.0			514	19	14.7	289	380	391	421	434	532	526	531	59	56	64	78
87	Bourke	615	600	88	***90***	6	10	9,300	-34.7	-14.1	-1.1	-0.2	-2.0			7	-68	2.2	381	263	326	472	551	435	538	683	140	89	114	58
86	Hay	573	557	78	***90***	5	15	11,700	-14.1	-18.2	-1.8	-0.3	0.6			-30	63	0.6	255	290	249	246	423	457	425	417	73	71	69	69
83	Oberon	517	496	50	0	4	5	4,100	-16.3	-16.4	0.7	-1.3	-2.3		3	65	-37		325	304	323	375	420	401	421	480	58	59	67	87
81	Gwydir	540	***540***	82	87		***14***	***12,100***				-1.7				-72		36.2	278		285		515		559		73		62	
64	Dungog	621	606	84	88	9	13	13,100	-19.1	-10.4	10.3	6.5	1.5			244	153	46.5	270	274	278	372	361	389	405	511	89	93	102	117
85	Uralla	475	499		***90***	6	7	7,000	-25.1	-11.3	0.7	-0.7	1.1			31	73		248	275	319	261	408	432	477	425	115	114	156	82
95	Weddin	174	178		0	1	7	6,700	-34.2	-42.5	4.2	-13.8	-13.2			50	-65		111	137	127	124	251	275	274	267	27	26	27	27
89	Bogan	464	426	85			***7***	***6,700***	-29.1	-16.8	3.9	2.9	0.6			139	65	13.8	190	236	237	275	297	342	335	371	126	162	149	186
76	Harden	388	424	82	0	3	12	11,600	-30.2	-3.2	-12.0	-2.3	4.3			-56	135	8.5	217	289	293	271	340	413	402	299	69	66	77	72
88	Wakool	539	506	77	89	12	20	17,200	-5.6	-3.5	2.7	3.3	1.1			160	113	37.7	272	266	204	231	407	390	315	338	101	80	47	60
93	Tumbarumba	521	412	71	0	6	13	12,400	-40.4	-21.3	2.2	-0.5	0.9			146	123		197	244	244	221	423	468	474	357	59	66	70	78
94	Gundagai	252	266	59	76	5	11	12,600	-6.1	-1.3	-1.2	0.4	0.1			-5	12		236	236	243	266	267	268	272	295	49	46	51	56
92	Carrathool	134	***134***	86	***90***	6	9	10,200	-4.5	0.0	-1.7	-1.8	-1.5			-31	-95		209	130	145	194	280	201	213	271	38	25	25	26
96	Warren	598	457	79	***90***	4	11	11,700	-32.5	-30.7	3.6	6.9	2.1			214	177		230	254	230	290	387	414	390	460	55	58	64	86
99	Coolamon	453	467	82	0	9	11	10,400	-14.3	-8.7	11.3	5.1	2.3			550	245	16.7	170	178	148	147	312	329	284	278	47	62	59	57
102	Lockhart	335	306	87	***90***	6	11	12,500		-15.3	-0.2		-2.2			0	-244	2.9	189	186		330	343	404		531	92	86		30
98	Walcha	327	354		76	6	7	9,200	-4.4	-2.8	-2.6	-1.0	0.9			-70	92		200	220	301	254	323	345	422	376	38	50	54	51
100	Balranald	325	227	84	***90***	9	12	15,400	-7.5	-6.9	0.5	0.7	-0.7			46	-45		162	154	161	172	364	356	367	381	45	34	34	50
97	Bombala	385	319	82	0	8	12	15,300	-12.1	1.1	4.7	5.5	1.8			207	202	3.1	168	203	180	168	243	277	255	240	56	78	74	61
101	Murrumbidgee	286	195	85		2	5	6,400	-24.6	-36.1	3.1	2.6	2.2			172	140	33.0	124	133	165	155	183	191	224	213	56	55	58	54
90	Guyra	498	451	88	***90***	13	13	13,200	3.2	2.2	1.1	0.6	0.9			159	48		248	273	228	334	463	496	392	351	82	97	54	189
104	Boorowa	312	241	78		3	9	15,400	-1.8	-8.3	-1.2	4.4	4.3			-61	222	4.5	177	205	171	163	287	315	298	255	25	36	21	21
105	Brewarrina	250	282	81	0	6	10	17,900	-35.5	-5.3	-1.2	4.7	1.0	86		-11	144	1.0	400	411	363	444	477	536	461	452	39	37	21	48
106	Jerilderie	297	257	70		3	6	12,800	-40.9	-24.8	6.6	6.9	3.1			239	349	5.6	257	299	311	311	322	363	377	379	87	100	104	120
103	Central Darling	84	80	81	***90***	2	3	13,900	-8.8	-8.5	-1.5	-2.1	-2.5			-61	-267	83.4	129	257	436	528	216	345	590	682	27			
107	Urana	189	172		***90***	6	7	20,600	-7.1	-5.1	0.3	0.1	0.5			-3	70			276	325	309		430	488	472	84	111	116	116
	Medians (% of LWUs basis) for 200 to 1,500 Properties							*11,900*	*-15*	*-8.9*		*0.6*	*0.9*				*86*				*247*	*271*			*404*	*381*			*67*	71
	Median All LWUs (% of LWUs basis)				*Current Replacement Cost $ per Assessment*			*10,400*	*Net D/E*	*-16*		*ERRR*	*1.1*								*OMA*	*$290 per property*						*Management Cost/property*			*$90*
	Median All LWUs (Statewide basis)							***10,900***		***-7***			***1.4***									***$320 per property***							***$110***
	Totals for all LWUs	*$404M Total Revenue*				*Total CRC*	***$7710M***																							

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

4. The Total Cost (col (53)) is OMA plus depreciation.

Table 17: Sewerage – environmental and levels of service

	WATER UTILITY	ENVIRONMENTAL														LEVELS OF SERVICE																	
		BOD				SS																											
		DEC Discharge Licence Compliance (%) (55)			90 %-ile Limit (mg/L) (56)	DEC Discharge Licence Compliance (%) (57)			90 %-ile Limit (mg/L) (58)	Compliance with Environmental Regulator (58a) E 7	Sewer Main Chokes & Collapses see Col(24) Table 15 (per 100 km of Main) (59) A 10			Sewer Overflows to the Environment see Col(25) Table 15 (per 100 km of Main) (60) E 10			Odour Complaints (per 1000 properties) (61) C 4			Service Complaints (per 1000 properties) (62) C 7			Total Complaints (Odour, service, Other, Billing) (per 1000 properties) (62a)			Average Customer Outage Time (mins/property-unplanned) (63)			Customer Interruption Frequency (per 1000 properties) (64)			Average Break/Choke Repair Time (hours) (65) C 11		
		04/05	05/06	06/07	06/07	04/05	05/06	06/07	06/07	06/07	04/05	05/06	06/07	04/05	05/06	06/07	04/05	05/06	06/07	04/05	05/06	06/07	04/05	05/06	06/07	04/05	05/06	06/07	04/05	05/06	06/07	04/05	05/06	06/07
	Sydney Water									No	83	87		3	4	3	1	1	0.4		0.3	0.3		1								1	1	2
	Hunter Water									No	15	13	63	51	41	53	2	3	1.7		29	29		32								3	3	3
	LWUs with > 10,000 Properties																																
1	Gosford	100	100	100	11	100	100	100	13	YES	49	44	46	48	44	48	1	2	1	15	0	0		2	1							3	2	2
2	Wyong	100	100	100	NL	100	100	100	50	NO	56	49	38	1	0	18	1.1	1	0.5	12	10	9		11	9							2	2	3
3	Shoalhaven	100	96	100	40	95	94	100	40	NO	30	29	35	26	20	26	1.4	0.8	1.0	16	16			22	0.2							2	2	2
5	MidCoast	98	83	100	30	96	82	100	30	NO	33	33	37	1	7	7	2.3	1.0	2.3	10	11	13		14	15									
6	Tweed	94	91	100	25	87	94	100	50	NO	17	13	12	5	1	6	1.3	1.1	2.3	12	10	6		13	7	4	8	1	24	46	4	3	3	3
9	Wagga Wagga	98	92	100	20	93	71	100	30	NO	102	127	394	20	52	37	0.1	0.1	0.1	75	89	0		89	94	2		5	21		90	1		1
7	Port Macquarie-Hastings	77	75	100	30	90	96	84	30	NO	19	20	15	1	0	19		1.0	2.8	4	5	4		6	6							1	1	0
11	Albury City	82	95	100	20	94	95	100	30	NO	186	194	194	19	6	8	0.2	0.3	0.4	39	41	43		42	44	0						2	3	2
10	Coffs Harbour	100	95	89	50	98	95	100	50	NO	64	88	68	23	2	1	0.3	0.0	0.3	30	23	26		23	26							2	2	
13	Tamworth Regional	99	53	100	30	92	48	100	30	NO	84	49	57	16	14	49		0.0	0.0	30	18	15		19	15	0		0				1	0	0
15	Eurobodalla	98	99	100	20	100	99	100	30	YES	48	34	63	11	13	48	2.9	0.2	0.1	27	0	0		0.2	0.2	0		0				5	0	0
17	Queanbeyan	100	100	100	10	100	100	100	20	Yes	92	24	113	3	0	13	0.1	0.0	0.0	19	5	26		7	27	0		0				1	1	0
19	Orange	100	100	100	20	100	100	100	50	Yes	112	126	111	13	16	20		0.1	0.0	32	46	30		46	30			0					0	0
20	Goulburn Mulwaree	100		100	20	100		100	30	No	5	0	201	20		0	1.3	0.0	0.0	31	0	54			54			0				3	0	0
18	Dubbo	92	100	100	30	92	96	100	30	NO	64	57	65	15	9	13	0.1	0.0	0.0	16	13	16		14	16	1	1	1	16	13	16	1	1	1
16	Wingecarribee	99	100	100	20	98	99	100	30	NO	79	116	133	1	40	53	0.6	0.3	1.9	35	39	52		45	70							4	4	2
14	Clarence Valley	95	90	100	50	71	78	74	50	YES	5	20	55	11	13	13	1.1	0.9	0.9	5	7	13		15	19							2	2	2
21	Bathurst Regional	100	100	100	20	90	75	85	25	NO	23	20	113	3	4	18	0.2	0.1	0.1	14	19	29		19	29	1	2	3	12	15	24	2	2	2
24	Ballina	100		100	20	100		100	100	No	24	0	26	3		4	1.0	0.0	0.7	10	0	6			7	0						6	0	2
22	Lismore	100	100	100	20	100	98	100	20	No	67	77	108	4	4	4	0.3	0.2	2.4	19	21	31		22	30	0.0		0.0				1	0	0
	Medians (% of LWUs basis) for >10,000 Properties		*98*	*100*			*96*	*100*				*39*	*64*		*8*	*16*		*0.2*	*0.5*		*12*	*15*		*15*	*18*		*2*	*0*			*20*		*1*	*2*
	LWUs with 3,001 - 10,000 Properties																																
23	Bega Valley	99	99	100	15	99	95	100	20	Yes	44	49	25	35	46	26	2.7	0.6	0.4	10	2	0		3	1			0				2	2	2
27	Byron	100	100	100	30	99	100	100	30	No	22	34	23	16	13	12	1.6	2.6	3.7	10	0	0		5	3	0		0	4			2	1	2
26	Country Energy	100	94	100	50	100	94	100	50	NO	125	183	148	16	7	25	0.1	0.2	0.3	1	0	0		0.3				0				1	1	0
25	Kempsey	99	99	100	20	96	92	85	30	NO	2	6	6	6	6	26	0.1	1.7	0.6	1	1	0		3	1							3	3	
31	Lithgow		88	100	15		83	89	30	No		2	3			0		0.0	0.3		15	10		15	10			0					1	0
29	Armidale Dumaresq	100	100	100	20	100	100	100	30	No	40	68	136	37	40	50	0.5	0.3	0.1	60	84	0		84	0.1							2	2	1
30A	Hawkesbury									No																								
30	Griffith	54	87	77	50	45	80	70	50	No	161	132	158	21	7	6	2.2	2.7	1.6	56	41	47		51	56	1	1	2	9	12	13	2	2	3
33	Richmond Valley	100	100	100	35	87	91	100	35	No	9	12	27	2	6	2	2.0	3.2	1.1	5	6	3		9	5	0	0	0	3	3	3	2	2	2
32	Mid-Western Regional	100	96	81	20	92	77	83	50	No	98	61	32	5	61	32		0.0	0.0	47	41	27		41	27	5	5	3	46	44	27	2	2	2
34	Nambucca	90	97	100	20	96	99	100	30	No	46	16	17	33	23	5	1.2	1.7	0.0	16	11	4		16	7	0		0				1	0	0
35	Singleton	100	100	100	30	100	100	100	30	No	23	32	19		16	13	0.2	0.8	0.0	17	16	2		18	2	3	3	3	15	15	14	3	3	3
37	Inverell	100	81	100	20	87	73	100	30	No	126	0	239	5		4	0.2	0.0	0.0	44	44	65		44	65	0	0	0	5	4	4	1	1	1
41	Muswellbrook	100		83	20	100		74	30	No	208		1	7		16	0.6	0.0	1.0	77		58			61	15		0	149		4	2		1
36	Parkes	66	100	100	20	42	66	66	25	No	54	64	64	56	31	31	1.3		1.7	11	13	13		17	17			0				1	1	1
42	Corowa		50	50	20		55	50	30	No	39	53	25	4	5	13	1.9	1.1	7.7	18	26	30		30	40		2	1		13	12	2	2	2

Table 17: Sewerage – environmental and levels of service (continued)

	WATER UTILITY	ENVIRONMENTAL														LEVELS OF SERVICE																	
		BOD				SS																											
		DEC Discharge Licence Compliance (%) (55)			90 %-ile Limit (mg/L) (56)	DEC Discharge Licence Compliance (%) (57)			90 %-ile Limit (mg/L) (58)	Compliance with Environmental Regulator (58a) E 7	Sewer Main Chokes & Collapses see Col(24) Table 15 (per 100 km of Main) (59) A 10			Sewer Overflows to the Environment see Col(25) Table 15 (per 100 km of Main) (60) E 10			Odour Complaints (per 1000 properties) (61) C 4			Service Complaints (per 1000 properties) (62) C 7			Total Complaints (Odour, service, Other, Billing) (per 1000 properties) (62a)			Average Customer Outage Time (mins/property-unplanned) (63)			Customer Interruption Frequency (per 1000 properties) (64)			Average Break/Choke Repair Time (hours) (65) C 11		
		04/05	05/06	06/07	06/07	04/05	05/06	06/07	06/07	06/07	04/05	05/06	06/07	04/05	05/06	06/07	04/05	05/06	06/07	04/05	05/06	06/07	04/05	05/06	06/07	04/05	05/06	06/07	04/05	05/06	06/07	04/05	05/06	06/07
38	Moree Plains	58				92				No	12		76	1		54	1.2		0.0	34		43			45	17		9	72		52	4		3
44	Gunnedah	100	100	100	20	78	77	59	30	No	136	123	92	126	63	97	0.3	0.0	0.0	42	46	1		47	1	0	0	0	2	1	1	1	1	1
46	Narrabri		100	50	41		100	100	92	No		90	52		8	8		0.5	0.8		0	6		1	7			0			1		3	2
43	Tumut	88	100	100	40	98	97	100	45	No	131	153	212	11				0.0	0.0	55	55			55		0						5	2	4
49	Young	100	100			92	92			No	128	0	219	210	113	219	0.6	0.0	0.0	78	55	26		58	28	5	2	0	52	17	3	2	2	2
39	Cowra	100	100	100	20	75	75	100	20	No	11	11	10	79	74	54	0.6	0.0	0.0	34	29	19		29	19	0	0		1	2		4	4	
45	Upper Hunter	100	100	100	20	89	90	100	30	No	64	55	90	8	28		1.2		2.1	52	32	42		34	44	0	13	8	1	66	67	2	3	2
52	Snowy River	84	85		20	77	91		30	No	4	85		4	4		1.2	2.0	0.0	18	21			18								4	2	
51	Forbes	31	92	100	10	92	100	100	15	No	75	67	125	6	2	6	0.3	0.6	0.0	72	0	4		2	4	11	38	9	128	210	151	2	3	1
50	Cooma-Monaro									No	49			155			2.2			114	0								112					
53	Berrigan	100	25	100	20	100	25	25	30	No	24	102	46			0	1.0	2.9	0.9	8	71	42		80	46	0.0	0.2	0		2	2	2	2	2
Medians (% of LWUs basis) for 3,000 to 10,000 Properties			*99*	*100*			*91*	*100*				*55*	*49*		*16*	*14*		*0.6*	*0.3*		*18*	*10*		*17*	*14*		*1*	*0*		*1*	*8*		*2*	*2*
LWUs with 1,501 - 3,000 Properties																																	
48	Leeton	100	100	100	70	100	100	100	70	No	92	58		14	6		3.7	3.0	2.0	7	7			14	2	3	3		27	25		2	2	2
54	Deniliquin	85	100	100	20	100	92	100	30	No	30	216	230	1		0		2.6	3.5	41	48	72		53	78	0	10	11		81	64	2	2	3
47	Bellingen	92	99	100	20	91	94	89.58	30	No	39	48	32	9	27	30	1.1	2.4	1.0	22	12	14		17	16	0		0				1	1	1
60	Glen Innes Severn	100	100			100	100			No	15	29		5						0	14			15								0		
58	Cootamundra	100	100			85	85			No	162	113	147			0		0.0	0.0	49	67	77		67	78	0		0				2	2	2
57	Wellington	100	100	100	15	50	100	100	15	No	100	19	26	145	17	0		0.0	0.0	24	8	2		56	58	0		0				1	1	0
91	Cabonne	100	97	100	30	100	79	85	30	No	46	36	50	36		9			0.4	10	11			14	0.4	0		0				1	0	0
80	Greater Hume	100	83	100	20	100	75	100	30	No	49	42	32			0		0.0	0.0	26	0	25			25	2	1	4	11	7	25	3	3	3
59	Lachlan	100			20	60			30	No	17					0			0.0	19	0				0		0	1		1	1		1
65	Murray		100	100	6		70	100	28	No	6	8	14			0		0.9	0.4	0	0	0		1	0.4			0	3				0	3
62	Narromine	**NL**	100	100	NL	100	100	100	NL	No	0	31						0.5		4	0			1									0	
56	Yass Valley	100		100	30	100		100	30	No	71	72	46			3	0.5	0.0	0.0	55	50	34		50	34	0	0	0		1	1	3	3	3
61	Liverpool Plains	92				37				No	23			8						8						0			8			1		
55	Warrumbungle		92	100	40		66	100	150	No	87	86	172	43		86		0.0	0.0	78	60	82		60	82							2	0	
69	Temora	100				90				No	488			159			0.5	0.0	1.0	106					1	2			27			2		
71	Palerang	95	95		20	87	85		30	No	74	90		30	10			0.0		26	1			1		0	0		6	3		1	2	
72	Bland	92	80			95	80			No	116	0		179			1.7	0.0		128	0					9			74			2	0	
63	Narrandera	100	100			33	33			No	11			3				0.6		94												2		
67	Cobar	100	100			100	100			No	1	0						0.0		1	0					0						2	2	
74	Wentworth	100	100			100	100			No	29	27			1		2.5			22	0			1		0						1	1	
75	Coonamble	92	92	100	20	41	54	55	50	No	6	12	17		2	0		0.0	0.0	16	33	23		34	24	0		0				1	0	0
Medians (% of LWUs basis) for 1,500 to 3,000 Properties				*100*			*85*	*100*				*36*	*39*		*8*	*0*		*0*	*0*		*7*	*25*		*1*	*25*		*1*	*0*		*0*	*13*		*1*	*2*

Table 17: Sewerage – environmental and levels of service (continued)

WATER UTILITY		ENVIRONMENTAL																LEVELS OF SERVICE																	
		BOD				SS																													
		DEC Discharge Licence Compliance (%) (55)			90 %-ile Limit (mg/L) (56)	DEC Discharge Licence Compliance (%) (57)			90 %-ile Limit (mg/L) (58)	Compliance with Environmental Regulator (58a) E 7	Sewer Main Chokes & Collapses see Col(24) Table 15 (per 100 km of Main) (59) A 10			Sewer Overflows to the Environment see Col(25) Table 15 (per 100 km of Main) (60) E 10			Odour Complaints (per 1000 properties) (61) C 4			Service Complaints (per 1000 properties) (62) C 7			Total Complaints (Odour, service, Other, Billing) (per 1000 properties) (62a)			Average Customer Outage Time (mins/property-unplanned) (63)			Customer Interruption Frequency (per 1000 properties) (64)			Average Break/Choke Repair Time (hours) (65) C 11		
		04/05	05/06	06/07	06/07	04/05	05/06	06/07	06/07	06/07	04/05	05/06	06/07	04/05	05/06	06/07	04/05	05/06	06/07	04/05	05/06	06/07	04/05	05/06	06/07	04/05	05/06	06/07	04/05	05/06	06/07	04/05	05/06	06/07	04/05	05/06	06/07
LWUs with 200 - 1,500 Properties																																			
70	Kyogle	66	97	100	20	37	69	81	30	No	96	54	27	5	16	0	4.7	2.0	0.0	24	13	21		25	23	1	1	1	24	13	21	1	1	1
77	Junee	100		100	30	100		100	30	No	87		66			0			0.0	101	0	89			89			0						1
78	Blayney	100	100	100	30	100	100	100	30	No	26	27	20			0	0.7	0.0	0.0	11	11	0		11		0		0				1	1	1
79	Walgett	**NL**	100	100	NL	100	100	100	NL	No	8	22	20			0		0.0		1	1	1		1	1								0	
68	Tenterfield	95	88	100	40	43	50	88	45	No	100	112	234			0		0.0	0.0	42	52	60		52	60	1	1	1	12	7	7	2	2	2
84	Gilgandra	100	100	100	20	100	75	100	16	No	24	89	77		6	9	5.3	3.7	3.0	14	34	30		46	44	1	1	1	11	11	11	1	1	1
73	Upper Lachlan	100	65	100	20	100	58	84	30	No	23	23	124			0		0.0	0.0	8	7	36		7	36	1	1	1	8	7	14	2	2	1
82	Gloucester	100	83	100	30	85	42	100	40	No	89	85	34	2	85	32	3.1	2.0	2.0	23	27	33		29	35	13		0	55			4	0	0
87	Bourke	42	33	25	15	8		33	20	No			474	3	3	0	5.5	4.7	1.9	89	140	156		145	158	0		0				3	3	0
86	Hay	100	100			90	90			No	54	57	84			0		0.0	0.0	35	32	39		33	39	1		0	2	2		8	0	0
83	Oberon	92	92	100	20	50	50	100	25	No	42	39	24	8	14	18	0.8	0.0	0.0	12	13	7		14	7		0	0		2	3	2	2	2
81	Gwydir	94	92	100	20	46	71	38	30	No	85	184	190	41	73	85	3.6	0.0	0.0	32	4	0		6		11	1		93	9		2	1	
64	Dungog		2	7	2		2	30	2	No	125	53	83	41	53	67	1.0	0.0	0.0	98	2	64		2	75	26	16	20	218	131	163	2	2	2
85	Uralla	100		100	15	100		100	20	No	28		33	28		7	1.0		1.0	11		12			18	1			8			2		
95	Weddin	**NL**	100	100	NL	100	100	100	NL	No	132		110			0	4.0		0.0	41		35			35			0				4		2
89	Bogan	**NL**	100	100	NL	100	100	100	NL	No		10						3.8	0.0	2	0	1		2	1		0			2		2	2	
76	Harden	90	92			90	33			No	36	36	26	13	13	0	7.3	0.0	0.0	24	26	16		29	18	0		0			2	2	2	2
88	Wakool	**NL**	100	100	NL	100	100	100	NL	No			0			0			0.9		0	0			1			0				0	0
93	Tumbarumba	**NL**	100	100	NL	100	100	100	NL	No	23	0								16	0			1		1			2			4	0	
94	Gundagai	**NL**	90	100	NL	100	95	100	NL	No		14	16			1		0.0	1.1		11			16	1			0					0	0
92	Carrathool	**NL**	100	100	NL	100	100	100	NL	No	118	100		5	5				2.5	38	35			35	2	0	0		2	1		2	2	
96	Warren		100	100	55	100	100	100	65	No	327	359	271		6	0			3.6	58	75	54		75	63			0					0	2
99	Coolamon									No	8									4	0											4		
102	Lockhart	100		100	20	100		100	30	No							13.0	0.0	0.0	22	17			17									0	
98	Walcha	92	92	100	20	58	75	100	30	No	41	38	40	38	21	27	3.9	0.0	0.0	20	8	21		8	21	1	0	0	5	4	5	2	1	1
100	Balranald	**NL**	100	100	NL	100	100	100	NL	No	11	8						0.0		12	11			16		0						1	0	
97	Bombala	100	100			100	100			No	9	91	54			0		0.0	0.0	42	3	0		3		1	0	0	13	3		2	2	0
101	Murrumbidgee	9		100	10	17		100	15	No	110	89	76			5		0.0	1.4	35	21	61		21	89	0	1	0		4	1	2	3	5
90	Guyra	100	100	100	15	83	100	75	20	No	8	28	42	3	8	6	1.4	0.0	0.0	28	17	16		17	16	3	1	4	24	10	31	2	2	2
104	Boorowa									No	46	48						0.0		21	30			30									0	
105	Brewarrina		100				100			No	86		75			0			0.0	73	38	44		38	44								0	
106	Jerilderie	100	100	75	20	75	75		30	No	71	33	8			0		0.0	0.0		0	2			2	0		1			2	5	5	5
103	Central Darling	**NL**	100	100	NL	100	100	100	NL	No	38	66	23		15	31	14.6	15.4	0.0	61	138	92		154	92	7.0	18.5	15	58	154	128	2	2	2
107	Urana	**NL**	100	100	NL	100	100	100	NL	No	40	13	0			0	26.9	13.3	6.6	3	10	13		23	27	0.0		0.2			3	1	1	1
Medians (% of LWUs basis) for 200 to 1,500 Properties				*100*			*75*	*100*				*38*	*42*		*14*	*0*		*0*	*0*		*12*	*21*		*16*	*31*		*1*	*0*			*7*		*1*	*1*
Median All LWUs (% of LWUs basis)		*BOD*		*100*	*%*		*SS*	*100*	*%*		*Chokes & Collapses*		*52*	*Overflows*		*7*	*Odour*		*0.1*	*Service*		*20*				*Interruption Frequency*			*1*	*Duration*		*2*		
Median All LWUs (Statewide basis)				***100***	***%***			***100***	***%***				***46***			***18***			***0.4***			***9***							***0***			***2***		
Totals for all LWUs		***72 complied with BOD licence (71% of LWUs complied)***				***58 complied with SS licence (57% of LWUs complied)***																													

Table 18: Sewerage – benchmarking cost data (operation, maintenance and management)

WATER UTILITY	OPERATION & MAINTENANCE (O&M) COST*										MANAGEMENT COST (A)*				OMA*	O&M COST COMPONENTS for TYPE of ASSET															
	Total O&M Cost	Components (1) - Process					Components (2) - Type of Asset				Components				Total OMA Cost	Components		Pumping					Sewer Main				Treatment			
		Maintenance	Operation	Energy	Chemicals	Effluent & Biosolids	Mains	Pumping Stations	Sewage Treatment	Other	Admin	Engineering & Supervision	Total Management Cost			Treatment	Reticulation	O&M Cost	O&M Cost	Operation Cost	Maintenance Cost	Energy Cost	O&M Cost	O&M Cost	Operation Cost	Maintenance Cost	O&M Cost	Operation Cost	Maintenance Cost	Chemical
	($/prop)	($/property)					($/property)				($/property)		($/prop)	(c/kL)	($/prop)	($/property)		(c/kL)	($'000/pumping station)				(c/kL)	($'000/100km)			($/ML)	($/property)		
	(66a)	(66)	(67)	(68)	(69)	(69a)	(70)	(71)	(72)	(73)	(74)	(75)	(76a)	(76)	(76b)	(77)	(78)	(79)	(80)	(81)	(82)	(83)	(85)	(86)	(87)	(88)	(89)	(90)	(91)	(92)
	2006/07						2006/07				2006/07				2006/07	2006/07		2006/07					06/07	2006/07			06/07	2006/07		
LWUs with > 10,000 Properties																														
1 Gosford	157	50	66	8		33	35	43	79		96	13	109	52	266	79	78	21	16	2	11	3	17	170	106	64	375	40	6	
2 Wyong	194	100	75	18	1		37	56	84	17	90		90	40	284	84	93	25	23	9	12	3	16	176	53	123	368	40	32	1
3 Shoalhaven	237	33	168	17	4	15	44	65	88	41	102	30	132	69	369	88	109	34	12	7	3	2	23	156	144	12	462	50	10	4
5 MidCoast	361	105	176	30	8	41	37	55	139	130	33	22	56	23	416	139	92	23	9	2	4	2	16	130	25	105	579	38	33	8
6 Tweed	208	87	78	30	6	7	28	66	102	12	93	31	125	47	333			25	10	4	5	2	10	119	1	118	385	45	26	6
9 Wagga Wagga (NO WS)	165	23	108	19	11	4	46	24	70	25	46		46	19	211	70	70	10	15	12	1	3	18	193	114	79	330	39		11
7 Port Macquarie-Hastings	249	102	77	31	7	31	26	89	116	18	64	31	95	29	344	116	115	27	15	5	8	2	8	114	48	66	358	20	40	7
11 Albury City	218	88	64	29	7	30	37	39	107	35	103	9	112	55	330	107	76	19	14	1	10	3	18	168		168	522	26	24	7
10 Coffs Harbour	271	54	135	36	7	40	32	74	134	31	70	47	117	106	388	134	106	67	14	8	3	2	29	117	55	62	483	45	19	7
13 Tamworth Regional	190	70	91	12		17	50	18	101	21	34	98	132	56	322	101	69	8	15	2	10	3	21	189	58	130	426	52	23	
15 Eurobodalla	290	55	196	29	11		47	89	106	48	103		103	54	394	106	136	46	12	7	4	2	25	156	127	29	550	63	18	11
17 Queanbeyan	130	22	70	11	16	11	41	20	64	5	96		96	40	227	64	61	8	21	13	4	4	17	200	177	23	269	18	11	16
19 Orange	158	26		22	14	11	37	12	109		62	41	103	50	165	109	49	6	8	4	3	2	18	135	94	41	535	54	11	14
20 Goulburn Mulwaree	167	44	71	11	3	38	37	32	98		94	30	124	79	290	98	69	20	12	8	2	2	24	168	24	143	440	45	6	3
18 Dubbo	179	32	114	26	7		6	22	113	38	115	30	145	77	324	113	28	12	32	9	13	10	3	24	19	6	598	67	19	7
16 Wingecarribee	197	82	59	27	24	5	57	37	104		111	18	128	58	325	104	94	17	8	4	2	2	26	175		175	469	42	17	24
14 Clarence Valley	194	140	23	20	8	4	32	46	115	1	98	53	151	70	344	115	79	22	7	1	4	2	15	120		120	533	18	77	8
21 Bathurst Regional	182	83	53	22	9	15	63	10	109		91	50	142	57	324	109	73	4	9	0	7	2	25	249	20	229	436	48	18	9
24 Ballina	250	111	73	37		30	41	69	125	15	109	24	133	48	383	125	111	25	8		6	2	15	171		171	447	64	9	
22 Lismore	254	116	67	22	27	22	71	35	121	27	41	35	77	28	331	121	106	13	13	1	10	2	26	254	42	212	450	28	28	27
Medians (% of LWUs basis) for >10,000 Properties	*76*	*75*	*22*	*8*	*17*	*37*	*41*	*106*	*25*	*93*	*30*	*115*	*53*	*328*	*107*	*79*	*20*	*13*	*4*	*5*	*2*	*18*	*168*	*54*	*112*	*449*	*44*	*19*	*8*	
LWUs with 3,001 - 10,000 Properties																														
23 Bega Valley	327	75	238	7		7	62	71	193		135	49	184	101	511	193	133	39	14	6	6	1	34	213	67	146	1060	185	1	
27 Byron	378	99	161	43	27	48	28	84	212	54	111	28	138	48	516	212	112	29	10	3	5	3	10	117	68	49	740	79	36	27
26 Country Energy	127	108	5	11	1	1	50	20	54	4	51	56	107	76	234	54	69	14	17		13	4	35	244		244	385	5	40	1
25 Kempsey	220	74	78	28	14	26	23	55	139	3	112	13	126	56	346	139	78	24	6	2	3	1	10	80		80	614	60	24	14
31 Lithgow	453	365		17		71	99	47	306		131	46	178	58	630	306	147	15	11		9	2	32	195		195	998		225	
29 Armidale Dumaresq	207	153		0	1	53	68	3	131	5	124	11	135	60	342	131	71	2	26		25	1	30	212		212	582		77	1
30A Hawkesbury (NO WS)	247	186	22	26		12	37	72	128	10	131	65		58	247	128	109	21					11				382		116	
30 Griffith	298	51		21	21	20	49	116	116	18	91	35	126	50	218			46	29	23	4	2	19	163	131	32	450	43	20	21
33 Richmond Valley	200	83	99	18			43	55	83	19	120	55	175	62	375	83	98	19	11	8	1	3	15	149		149	292	60	17	
32 Mid-Western Regional	200	183	11	5			73	20	108		98		98	32	298	108	92	6	10		9	2	24	245	38	207	354		105	
34 Nambucca (Groundwater)	190	123	34	27		7	18	47	92	34	63	26	90	34	280	92	65	18	5		4	2	7	69		69	346		72	
35 Singleton	130	77	39	14			55	19	52	4	24	46	70	28	200	52	74	8	7	0	7	0	22	211	27	184	207	26	11	
37 Inverell	150	50	81	19			50	28	72		46	46	92	53	242	72	78	16	6	5		1	29	182		182	418	59		
41 Muswellbrook	230	181	26	16	3	4	59	72	99		42	39	81	32	311	99	131	28	32		30	2	23	220		220	387	26	54	3

Table 18: Sewerage – benchmarking cost data (operation, maintenance and management) (continued)

WATER UTILITY	OPERATION & MAINTENANCE (O&M) COST*										MANAGEMENT COST (A)*				OMA*	O&M COST COMPONENTS for TYPE of ASSET														
	Total O&M Cost	Components (1) - Process					Components (2) - Type of Asset				Components				Total OMA Cost	Components		Pumping					Sewer Main				Treatment			
		Maintenance	Operation	Energy	Chemicals	Effluent & Biosolids	Mains	Pumping Stations	Sewage Treatment	Other	Admin	Engineering & Supervision	Total Management Cost			Treatment	Reticulation	O&M Cost	O&M Cost	Operation Cost	Maintenance Cost	Energy Cost	O&M Cost	O&M Cost	Operation Cost	Maintenance Cost	O&M Cost	Operation Cost	Maintenance Cost	Chemical
	($/prop)	($/property)					($/property)				($/property)		($/prop)	(c/kL)	($/prop)	($/property)		(c/kL)	($'000/pumping station)				(c/kL)	($'000/100km)			($/ML)	($/property)		
	(66a)	(66)	(67)	(68)	(69)	(69a)	(70)	(71)	(72)	(73)	(74)	(75)	(76a)	(76)	(76b)	(77)	(78)	(79)	(80)	(81)	(82)	(83)	(85)	(86)	(87)	(88)	(89)	(90)	(91)	(92)
	2006/07						2006/07				2006/07				2006/07	2006/07		2006/07					06/07	2006/07			06/07	2006/07		
36 Parkes	183	39	123	3	2	16	50		110	23	18	16	35	22	218	110	50						31	244	61	183	609	87	2	2
42 Corowa	167	92	41	15		19	37	43	85	1	25	78	102	60	269	85	80	25	3		2	1	22	112		112	500	41	22	
38 Moree Plains	334	125	149	53		6	54	55	112	112	45	18	62	16	396	112	110	14	7	2	4	2	14	293		293	285	22	43	
44 Gunnedah	103	98		5			45	6	47	5	25	12	37	25	140	47	51	4	12		9	3	31	177		177	329		44	
46 Narrabri	183	73	83	25		2	52	53	72	6	54	44	98	36	282	72	105	20	9	2	4	2	19	191	88	103	264	46	14	
43 Tumut	278	232	24	23			38	30	182	28	20	27	47	19	326	182	68	12	8	1	6	2	15	113		113	724	9	157	
49 Young	92	36	49	4	4		17	11	51	13	6	10	15	7	107	51	28	5	8	4	4	0	8	74		74	245	31	13	4
39 Cowra	105	64	32	10			53	18	34		134	3	137	70	242	34	71	9	9	4	3	2	27	194		194	171	24	5	
45 Upper Hunter	196	102	70	18		6	76	26	94		72	78	150	62	345			11	7	3	1	4	32	246	10	236	390	58	27	
52 Snowy River	212	4	160	34	13		10	51	65	86	56	22	78	50	290	65	61	33	8	5	0	3	7	41	41		420	31	3	13
51 Forbes	220	88	85	22	25		37	14	168	1	24	13	37	19	257	168	51	7	3	1		2	19	132		132	886	78	51	25
50 Cooma-Monaro	244	125	81	24	7	7	97	26	122		43	68	111	74	355	122	123	18	12	5	6	1	65	137	7	130	816	66	21	7
53 Berrigan	129		129				31	32	62	4	30	57	87	52	216	62	62	19	2	2			18	95	95		366	62		
Medians (% of LWUs basis) for 3,000 to 10,000 Properties	*95*	*78*	*18*	*7*	*10*	*50*	*37*	*99*	*10*	*54*	*37*	*98*	*50*	*282*	*99*	*78*	*17*	*9*	*3*	*5*	*2*	*22*	*179*	*61*	*163*	*390*	*46*	*27*	*7*	
LWUs with 1,501 - 3,000 Properties																														
48 Leeton	225	128	71			26	29	63	133	0	73	67	140	11	365	133	92	5	6	4	2		2	101	101		105		106	
54 Deniliquin	281	263		18			175	7	35	64	111	20	131	63	412	35	182	3	1		0	1	84	784		784	168		23	
47 Bellingen																														
60 Glen Innes Severn	118	29	60	15	14		27	4	70	16	53	64	118	34	236	70	31	1	2		1	1	8	75		75	203	44		14
58 Cootamundra	142	49	47	26	2	19	43	8	80	11	14	36	50	29	192	80	51	5	6	0	4	2	26	185		185	479	36		2
57 Wellington	162	102	33	17	11		51	26	85		78	56	134	75	296	85	77	15	5		4	1	28	202		202	474	33	30	11
91 Cabonne	154	55	86	13			20	53	80	0	20	30	50	41	204	80	74	44	12	10	1	1	17	84		84	651	40	31	
80 Greater Hume	177	160		15	2		20	32	110	14	51	28	78	45	255			18	4		3	1	12	68		68	630		99	2
59 Lachlan																														
65 Murray	139	120	1	18			34	70	33	1	56	42	98	49	237	33	104	35	4		3	1	17	99		99	150		32	
62 Narromine	128	17		12			22	56	38	11	91	61	152	51	181			19	8	7		2	8	88	20	67	126	38		
56 Yass Valley																														
61 Liverpool Plains	138	118	7	12			9	23	100	6	89	5	94	48	232	100	31	11	5	0	4	1	4	31	2	29	505	1	91	
55 Warrumbungle	231	46	153	18	14		54	24	147	6	17	52	70	37	301	147	78	13	6		5	1	28	108	54	53	777	120		14
69 Temora (NO WS)	119	30	23	12		54	23	1	95		37		37	22	155	95	24	1	1		1		14	247	247		563		29	
71 Palerang																														
72 Bland (NO WS)	184	125	31	11		16	24	33	119	7	75	66	141	89	324	119	57	21					15	92	92		754		94	
63 Narrandera	264	76		19		4	51	56	128	29	59	86	145	71	240			27	23	22	2		25	233		233	624	92	13	
67 Cobar	140	55	46	17		22		40	100			2	2	1	142	100	40	16	17		15	3					407	46	21	
74 Wentworth	223	68	60	27		68	40	81	80	22	39	17	56	12	279	80	121	17	6	1	3	2	9	76	62	14	173		11	
75 Coonamble	192	122	61	10			58	58	76		23		23	11	215	76	116	29	7	2	4	1	28	170		170	376	41	33	
Medians (% of LWUs basis) for 1,500 to 3,000 Properties	*76*	*47*	*16*	*11*	*22*	*31*	*33*	*85*	*11*	*55*	*42*	*94*	*41*	*237*	*83*	*75*	*16*	*6*	*3*	*3*	*1*	*16*	*100*	*62*	*84*	*474*	*41*	*31*	*11*	

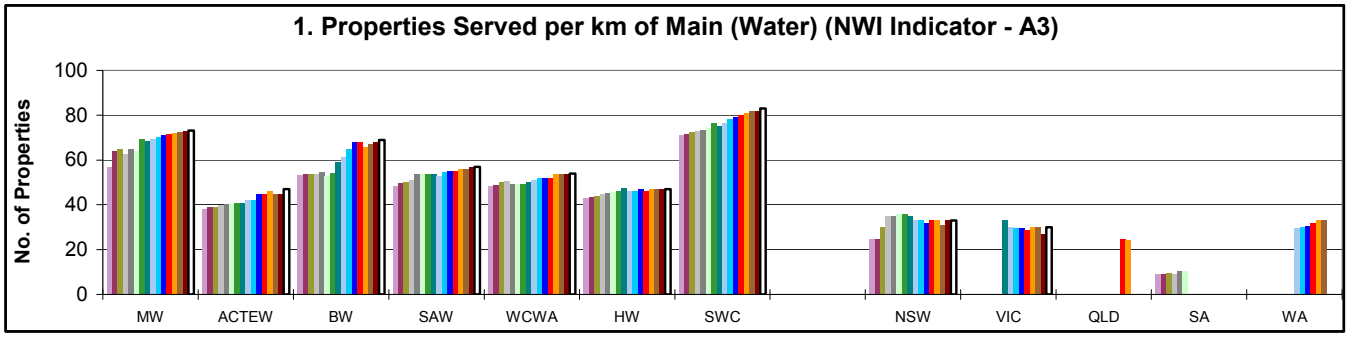
Table 18: Sewerage – benchmarking cost data (operation, maintenance and management) (continued)

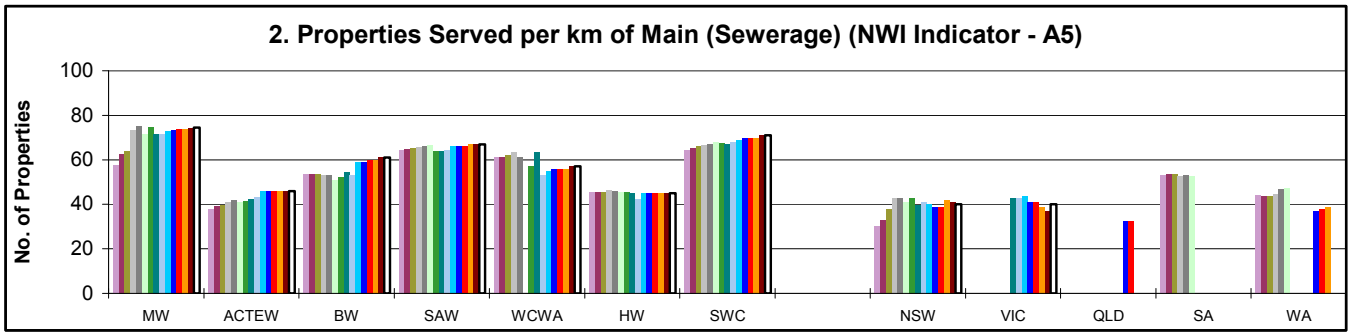
WATER UTILITY	OPERATION & MAINTENANCE (O&M) COST*										MANAGEMENT COST (A)*				OMA*	O&M COST COMPONENTS for TYPE of ASSET															
	Total O&M Cost	Components (1) - Process					Components (2) - Type of Asset				Components				Total OMA Cost	Components		Pumping					Sewer Main				Treatment				
		Maintenance	Operation	Energy	Chemicals	Effluent & Biosolids	Mains	Pumping Stations	Sewage Treatment	Other	Admin	Engineering & Supervision	Total Management Cost			Treatment	Reticulation	O&M Cost	O&M Cost	Operation Cost	Maintenance Cost	Energy Cost	O&M Cost	O&M Cost	Operation Cost	Maintenance Cost	O&M Cost	Operation Cost	Maintenance Cost	Chemical
	($/prop)	($/property)					($/property)				($/property)		($/prop)	(c/kL)	($/prop)	($/property)		(c/kL)	($'000/pumping station)				(c/kL)	($'000/100km)			($/ML)	($/property)		
	(66a)	(66)	(67)	(68)	(69)	(69a)	(70)	(71)	(72)	(73)	(74)	(75)	(76a)	(76)	(76b)	(77)	(78)	(79)	(80)	(81)	(82)	(83)	(85)	(86)	(87)	(88)	(89)	(90)	(91)	(92)
	2006/07						2006/07				2006/07				2006/07	2006/07		2006/07					06/07	2006/07			06/07	2006/07		
LWUs with 200 - 1,500 Properties																														
70 Kyogle	196	31	139	14	13		25	45	126		66	35	101	52	298	126	70	23	8	6	1	1	13	65		65	648	106		13
77 Junee (NO WS)	176	140		19		16	21		155		38	17	54	39	230	155	21						15	36		36	1102		119	
78 Blayney (NO WS)	172		152	20			41	31	99		129		129	70	301	99	72	17	7	6		1	23	86	86		542	83		
79 Walgett	124	50	74				14	39	66	5	60	64	124	30	248	66	53	9	7	4	2		4	44		44	161	43	22	
68 Tenterfield	196		180	12	4		51	17	128		140	74	214	98	410	128	68	8	8	8			24	200	200		694	111		4
84 Gilgandra	147	48	92	6			39	51	56		23		23	12	170	56	91	26	5	4	1	1	20	151	43	109	349	46	10	
73 Upper Lachlan	199	36	140	14	7	1	27	52	112	8	63	28	91	53	290	112	79	30	10	6	2	2	15	88	76	12	674	84	17	7
82 Gloucester	343	189	127	21		7	145	44	111	44	22	56	78	53	421	111	188	30	11	4	6	1	99	464		464	667	68	21	
87 Bourke	414	319	56	35		4	137	250	27		26	32	58	44	472	27	387	189	33	5	24	5	104	417		417	206	23	1	
86 Hay	177	60	95	22			25	46	91	15	69		69	29	246	91	71	19	7	4	2	1	11	86	5	81	382	54	24	
83 Oberon	288	103	137	21	27		73	20	176	19	22	66	87	27	375	176	93	6	8	5	1	2	23	232		232	651	106	28	27
81 Gwydir																														
64 Dungog	255	106	125	24			66	49	125	15	29	88	117	58	372	125	115	24	11		9	2	33	203	103	100	622	77	33	
85 Uralla	179	27	108	34	6	4	52	15	112		50	31	82	58	261	112	67	11	4	4		0	37	177	87	90	844	69		6
95 Weddin (NO WS)	97	32	60	5			22		56	20	8	19	27	16	124	56	22						13	68		68	333	40	10	
89 Bogan	89	41	20	8		21	19	28	41	1	186		186	32	275	41	47	5	8	3	3	1	3	100		100	69	8	9	
76 Harden	199	101	78	12		7	76		123		34	38	72	12	271	123	76						13	215		215	210	78	26	
88 Wakool	170	41	104	22	4		22	53	89	6	33	27	60	18	231	89	75	16	4	2	2	1	7	51	19	32	271	68	7	4
93 Tumbarumba	143	98	40	5			37	5	100		24	54	78	28	221	100	43	2					13	80	80		356	2	93	
94 Gundagai	210	92	93	10	8	7	20	49	141		56		56	46	266	141	69	41	9	4	4	1	17	25	12	12	1181	61	61	8
92 Carrathool	168	133	15	20			54	42	57	15	16	10	26	20	194	57	96	33	3		2	1	43	220		220	447		44	
96 Warren	205	117	74	14			42	67	95		40	46	86	46	290	95	110	37	7	1	5	1	23	206	53	153	503	53	34	
99 Coolamon (NO WS)	89	16	67	7			16	8	66		21	36	57	58	147	66	24	8					16	38		38	660	58		
102 Lockhart (NO WS)	300	184	99	17			150	13	111	25	16	14	30	18	330	111	164	8	2		2		92	298	171	126	676		94	
98 Walcha	204	139	58	6			54	28	121		39	11	51	25	254	121	82	14	22		20	2	27	143		143	604	58	59	
100 Balranald	122	74	28	14	7		43	72	7		50		50	29	172	7	116	42	1		1	0	25	87	55	32	39			7
97 Bombala	107	29	78				18	29	59		61		61	27	168	59	48	13	4	4	1		8	40		40	260	54	5	
101 Murrumbidgee	100	81		15	4		19	42	39			54	54	25	155	39	61	19	3		2	1	9	67		67	176		30	4
90 Guyra	145		78	23	10	33	13	14	119		27	162	189	143	334	119	26	10	7			7	9	33	33		898	66		10
104 Boorowa	142	38	95	9			25	19	99		2	19	21	12	163	99	44	11	5		4	2	14	39		39	575	95		
105 Brewarrina	396	127	233	35			44	169	173	10	21	27	48	11	444	173	213	39	10	4	4	2	10	131		131	395	152	17	
106 Jerilderie	191	160	7	24			5	54	125	7	54	66	120	57	311	125	59	26	5		4	1	2	17		17	596		111	
103 Central Darling	528	215	292	21			292	236							528		528	46	12		11	1	57	438	438					
107 Urana (NO WS)	193	169	13	10			13	146	33		23	93	116	39	309	33	159	49	5	0	4	0	4	27	7	20	111		33	
Medians (% of LWUs basis) for 200 to 1,500 Properties		*95*	*92*	*15*	*7*	*7*	*37*	*43*	*100*	*15*	*34*	*36*	*71*	*31*	*271*	*100*	*72*	*19*	*7*	*4*	*3*	*1*	*15*	*87*	*66*	*74*	*523*	*66*	*27*	*7*

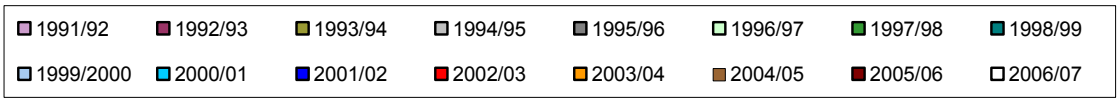
* Operating cost (operation, maintenance & administration - OMA) comprises O & M Cost (operation & maintenance cost (Cols 66 to 69 or Cols 70 to 73)) plus Management Costs (administration cost (Col 74) plus engineering and supervision cost (Col 75)).

Appendix A: National performance comparisons 1991-92 to 2006-07

Performance comparisons – Utility characteristics







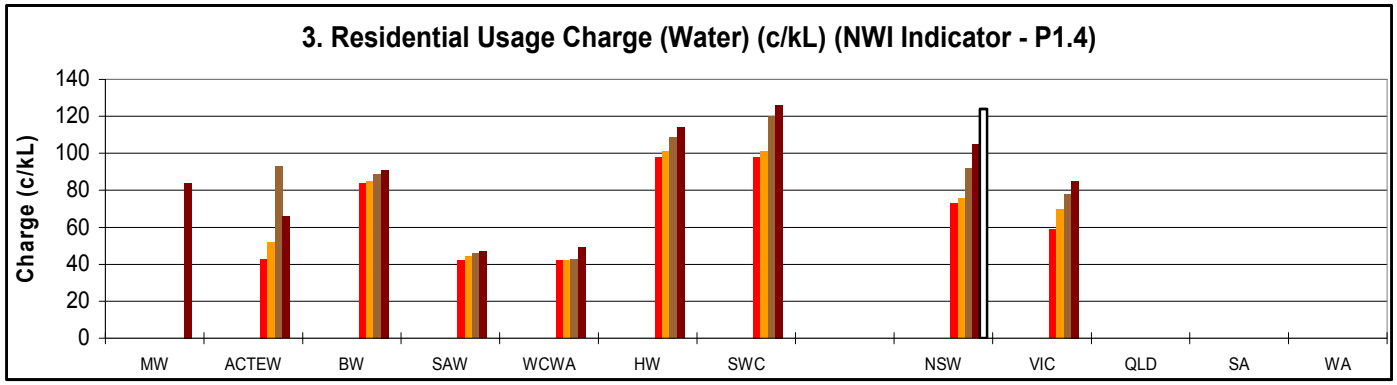
Metropolitan Water Utilities		Country Water Utilities	
MW	Melbourne Water Consolidated*	NSW	NSW Country
ACTEW	ACT Electricity and Water	VIC	VIC Country
BW	Brisbane Water	QLD	QLD Country
SAW	SA Water Corporation (Adelaide)	SA	SA Country
WCWA	WA Water Corporation (Perth)	WA	WA Country
HW	Hunter Water Corporation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

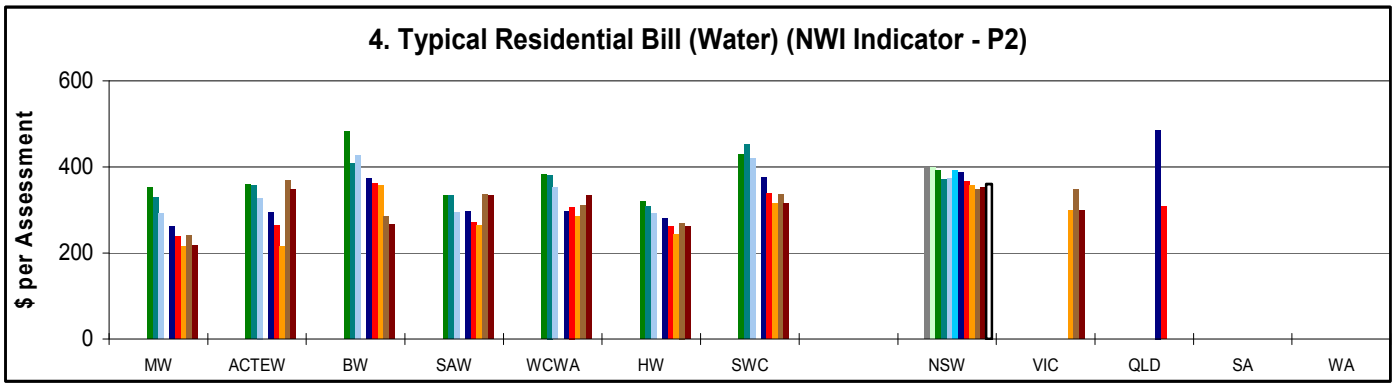
** Melbourne Water was disaggregated into 4 constituent utilities in 1994. Melbourne Water Consolidated results shown for 1994/95 to 2006/07 are either aggregated results of the constituent utilities or consolidated results reported in the National Performance Report 2006-07, WSAA Facts (see note 1) or reported in Urban Water Review (see note 2).*

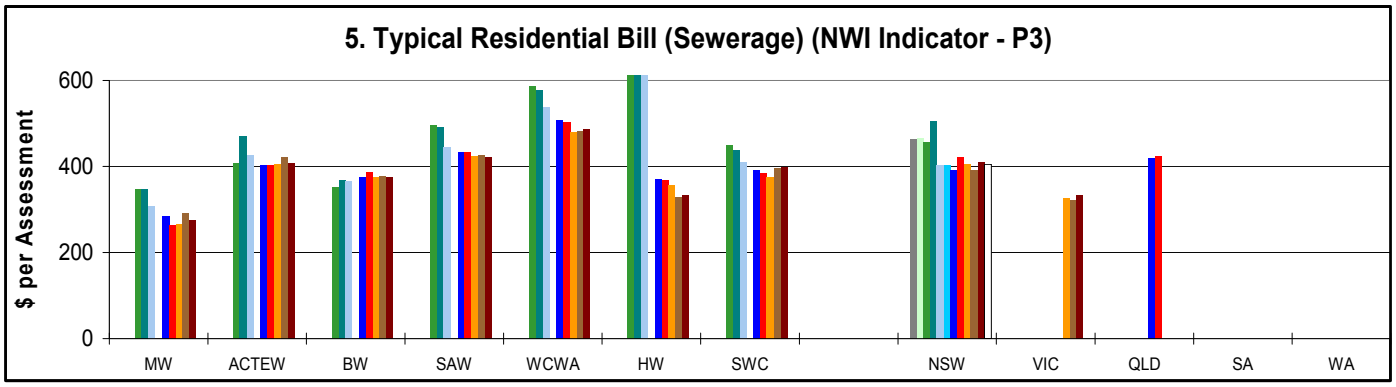
NOTES:

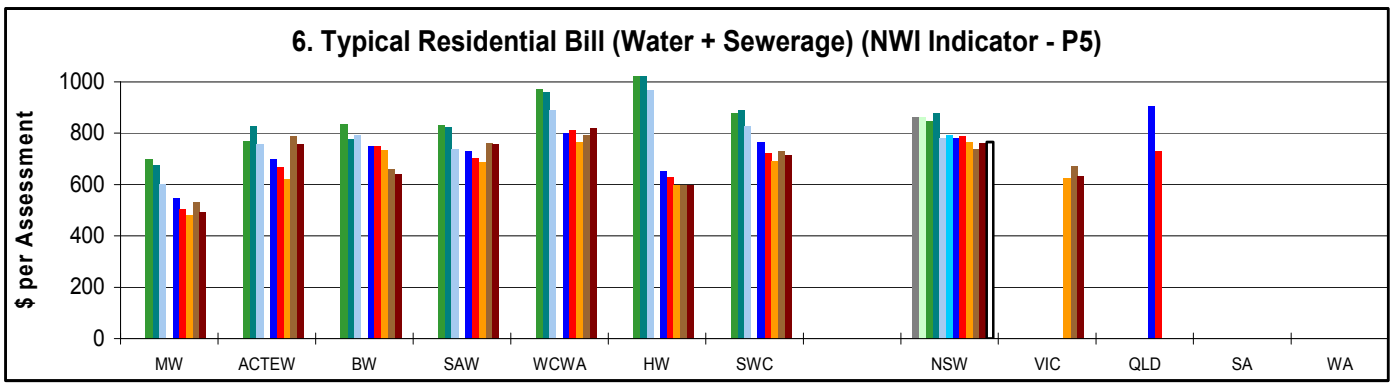
1. Results for 2001/02 to 2006/07 obtained from the *National Performance Report 2006-07* for Urban Water Utilities
   Results for the metropolitan water utilities for 1994/95 to 1999/00 obtained from "*The Australian Urban Water Industry - WSAA Facts 2005*", and from "*The Australian Urban Water Industry - WSAA Facts 1999*", Water Services Association of Australia.
2. Results for Victoria Country for 1996/97 to 2004/05 obtained from *"Urban Water Review 2004/2005"*, and "*Urban Water Review 1998*", Victorian Water Industry Association.
   Results for 2006/07 obtained from weighted average of Victorian NMUs published in the *2006/07 National Performance Report*.
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 for 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 18 large and medium utilities and exclude Brisbane City Council. These results therefore do not report the overall performance of the Queensland country utilities and have been included only for illustrative purposes.
5. Results for WA Country for 1999/2005 obtained from "*Water Performance Information on 32 Major WA Towns 1999/2003"* and also *"Water Performance Information on 32 Major WA Towns 2001/02 to 2004/05"* prepared by the Western Australia Economic Regulation Authority. The results are for regional towns and do not include Perth.

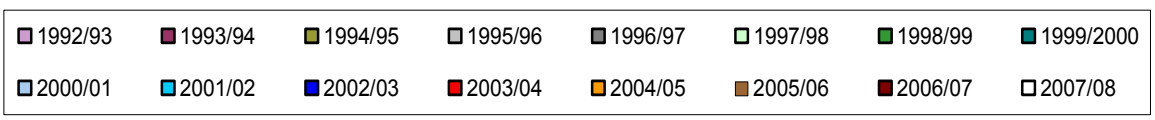
Performance comparisons – Social (bills)







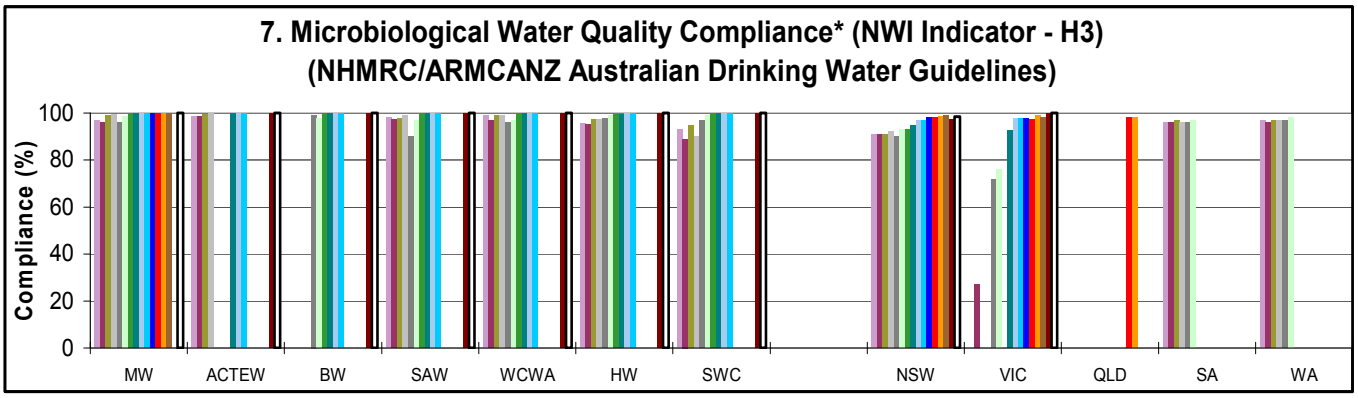


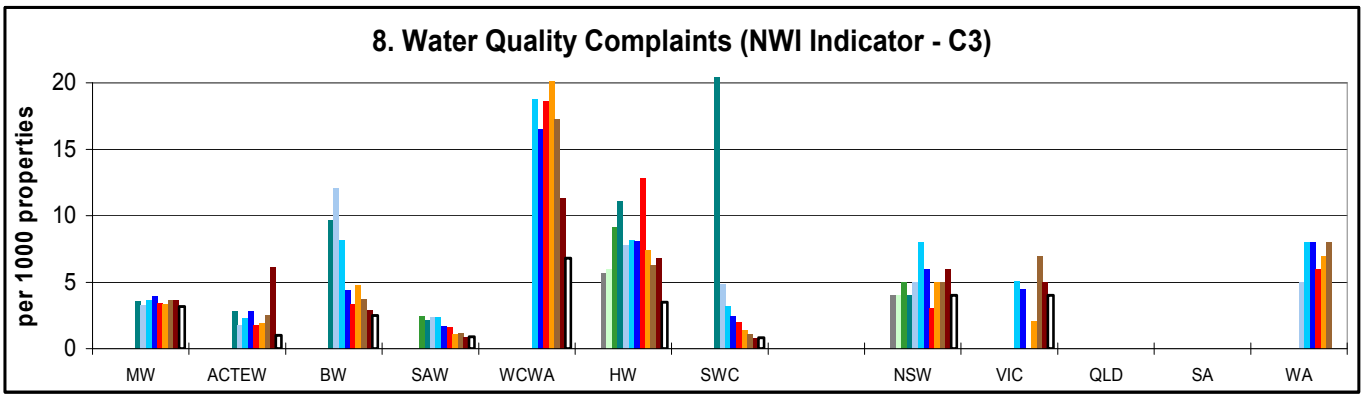


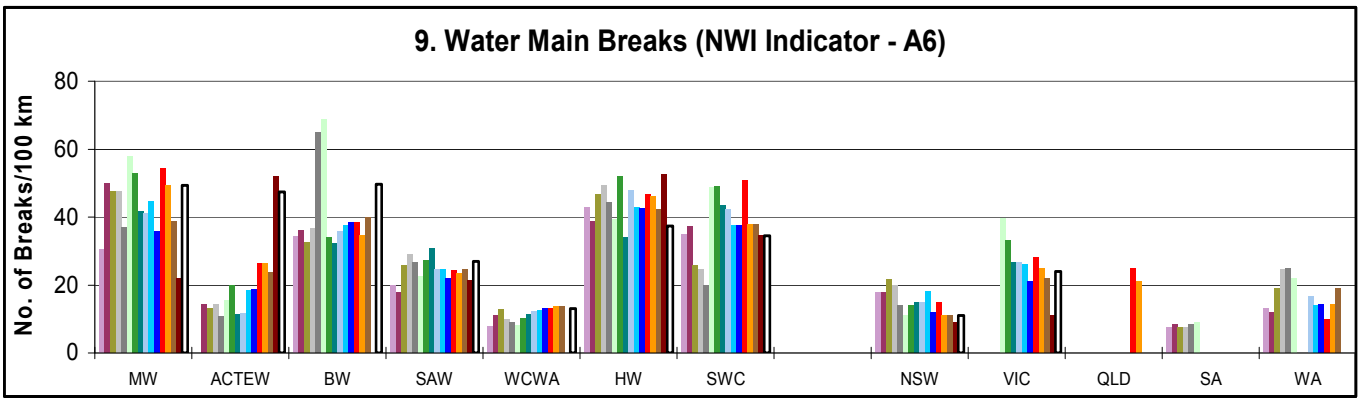
NOTES 1. The Typical Residential Bill (TRB) is the annual bill paid by a residential customer using the utility's average annual residential potable water consumption.

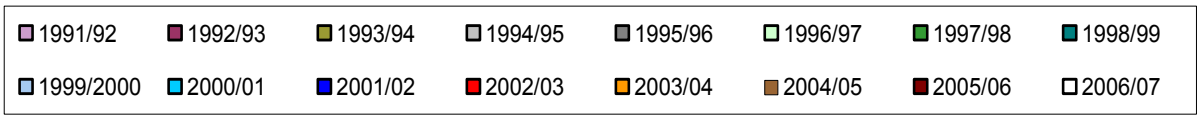
2. The TRB is the principal indicator of the overall cost of a water supply or sewerage system.

Performance comparisons – Social (water)









*** Microbiological Water Quality Compliance**

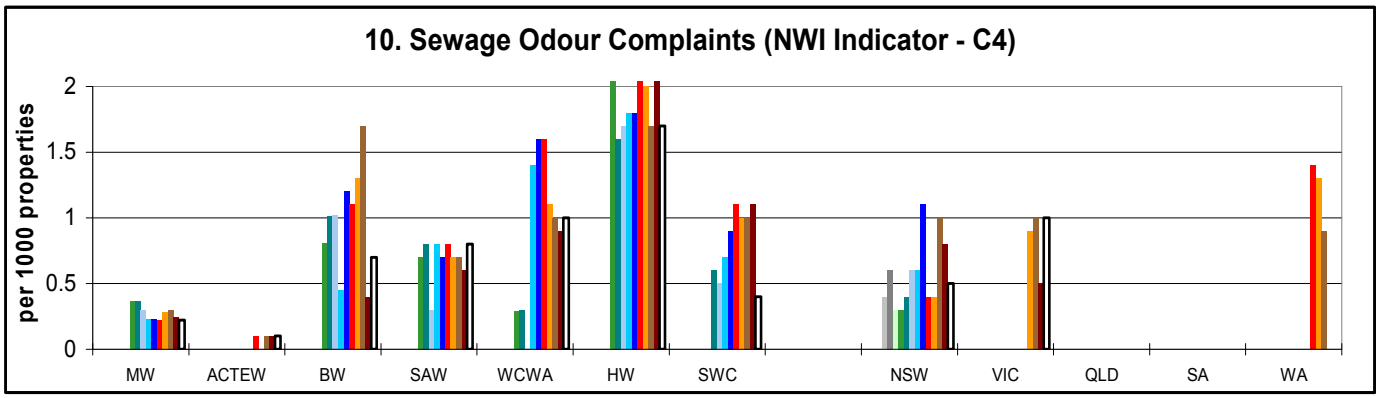
1991 to 1998 results are generally on the basis of the *1987 NHMRC/AWRC Drinking Water Quality Guidelines*.

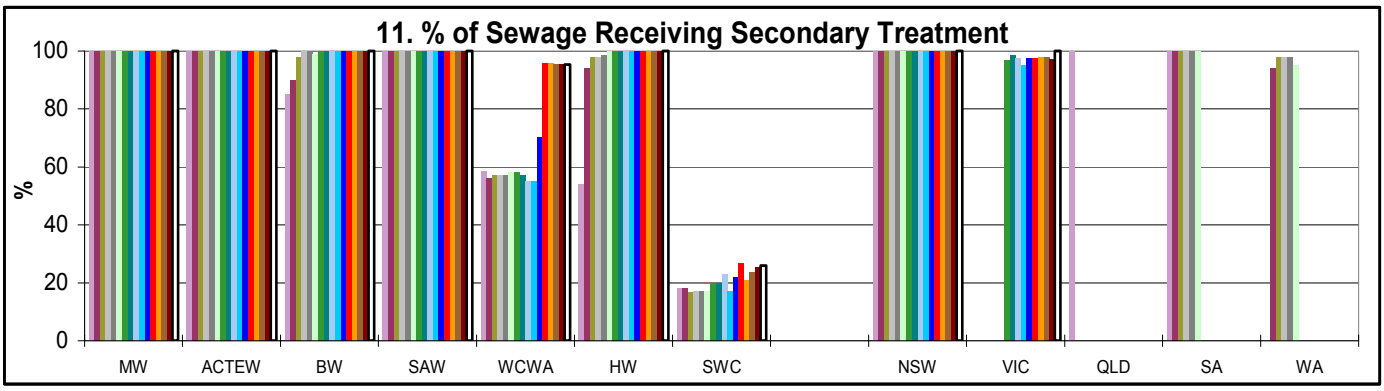
1998/99 and subsequent results are generally on the basis of E. coli in the more stringent 1996 and 2004 *NHMRC/ARMCANZ Australian Drinking Water Guidelines* (ADWG).

The exceptions are Victorian country utilities where results up to 2003/04 are on the basis of the less stringent *1984 World Health Organisation Guidelines* and which are now on the basis of the Victorian Safe Drinking Water Regulations 2005, and also Melbourne Water where prior to 2004/05 the results are on the basis of the above 1987 Guidelines and which are now on the basis of the 2004 ADWG.

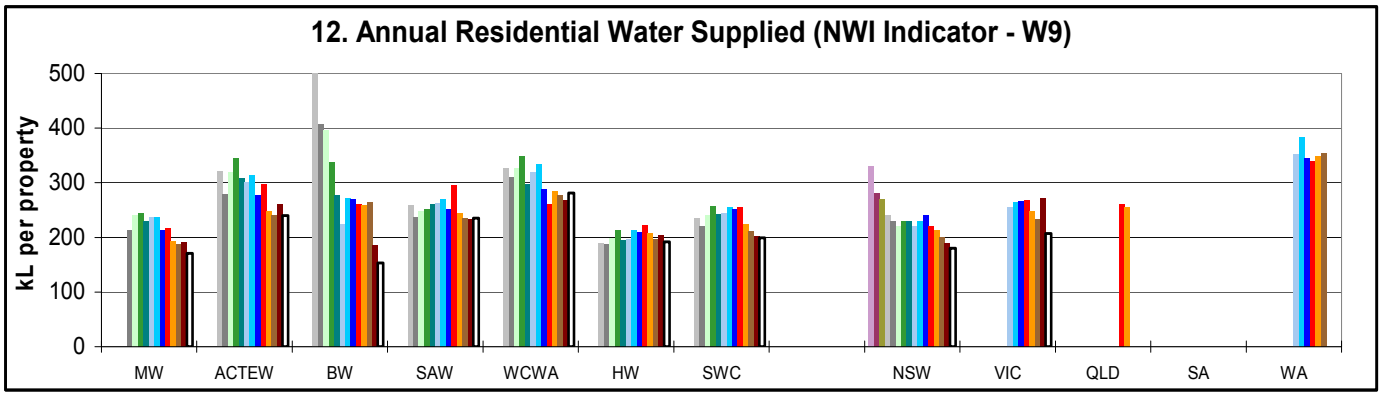
For 2005/06 and 2006/07, the results shown are for "% of population where microbiological compliance was achieved", in accordance with NWI Indicator H3.

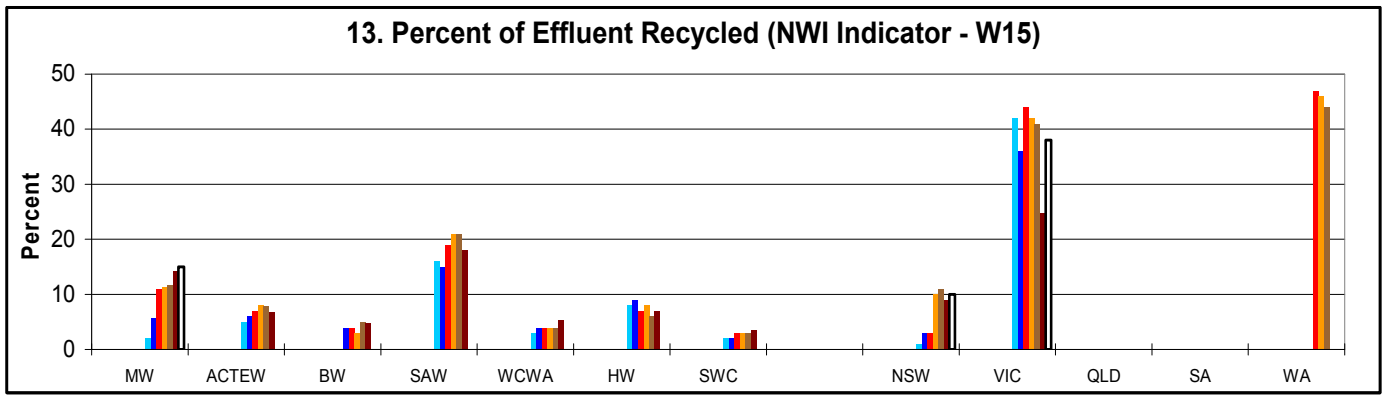
Performance comparisons – Social (sewerage)

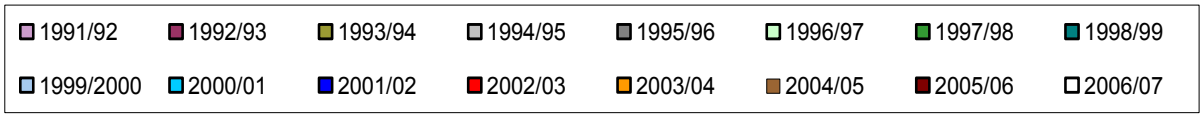




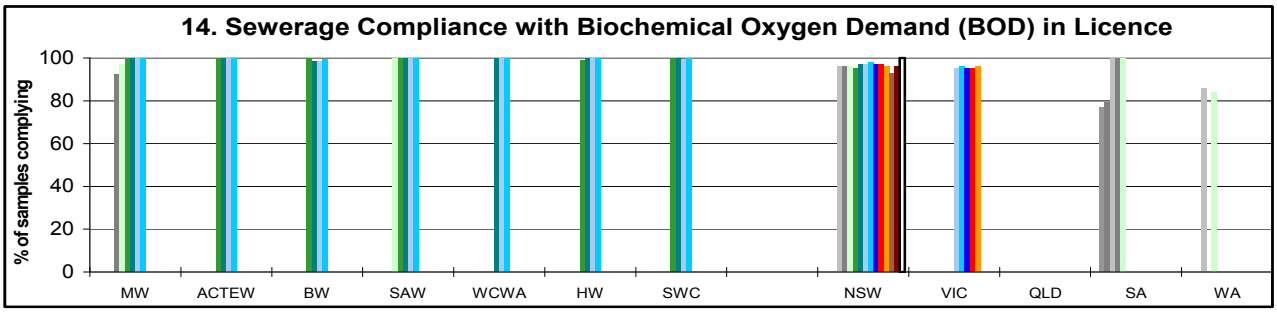
Performance comparisons – Environmental (water)

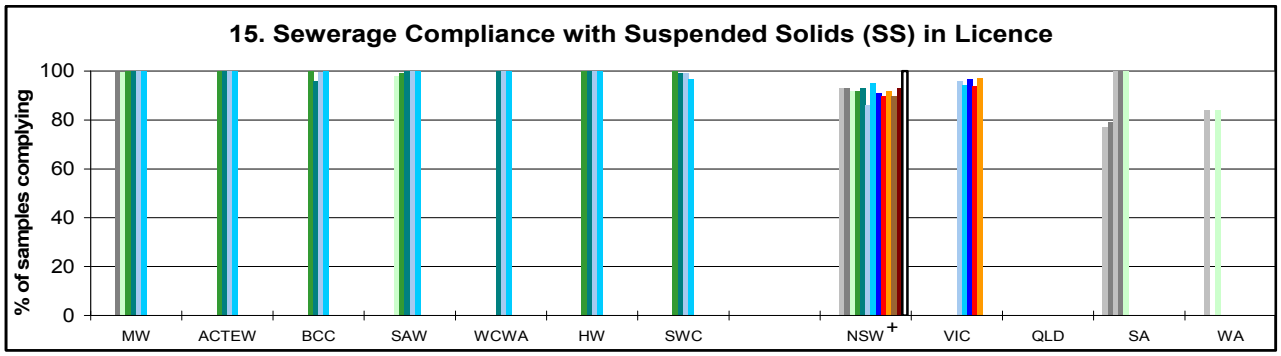


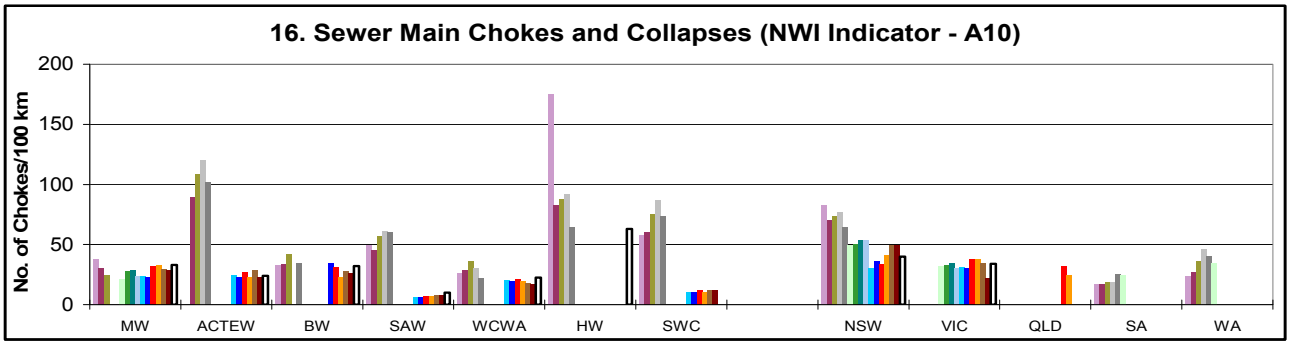


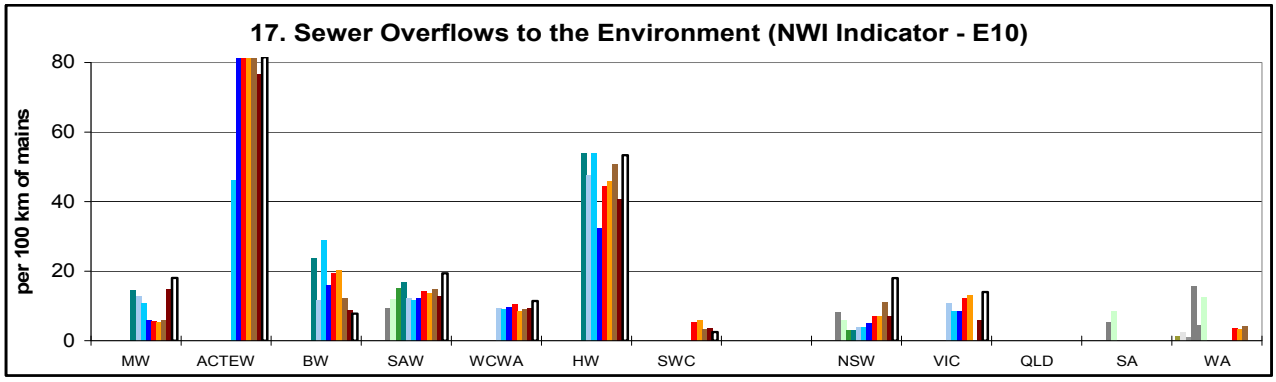


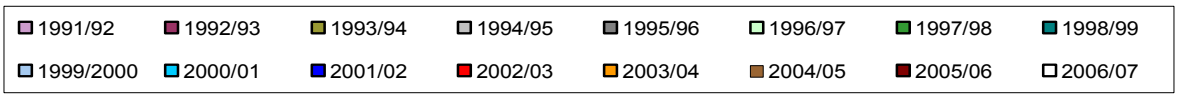
Performance comparisons – Environmental (sewerage)





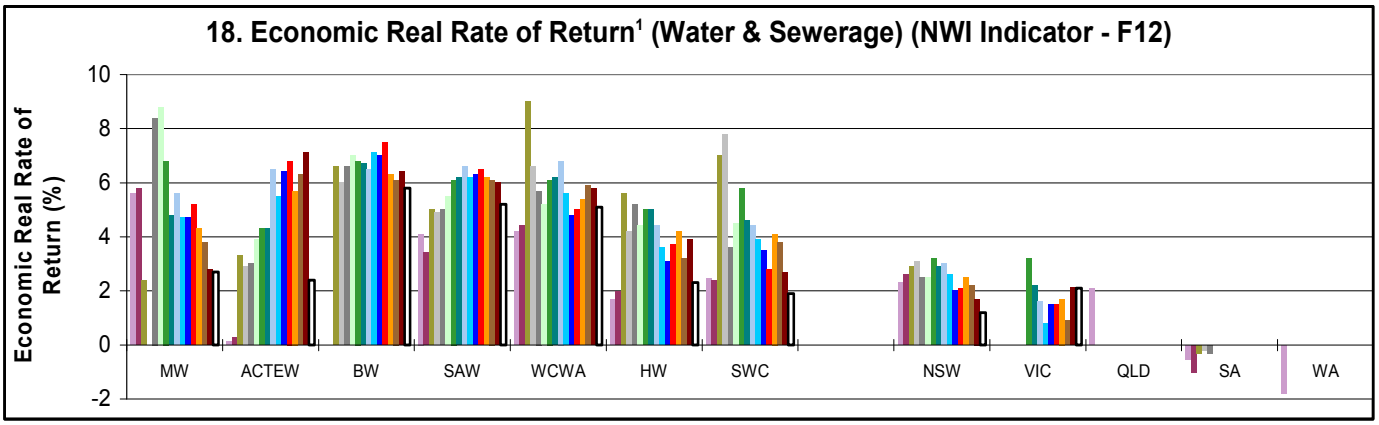


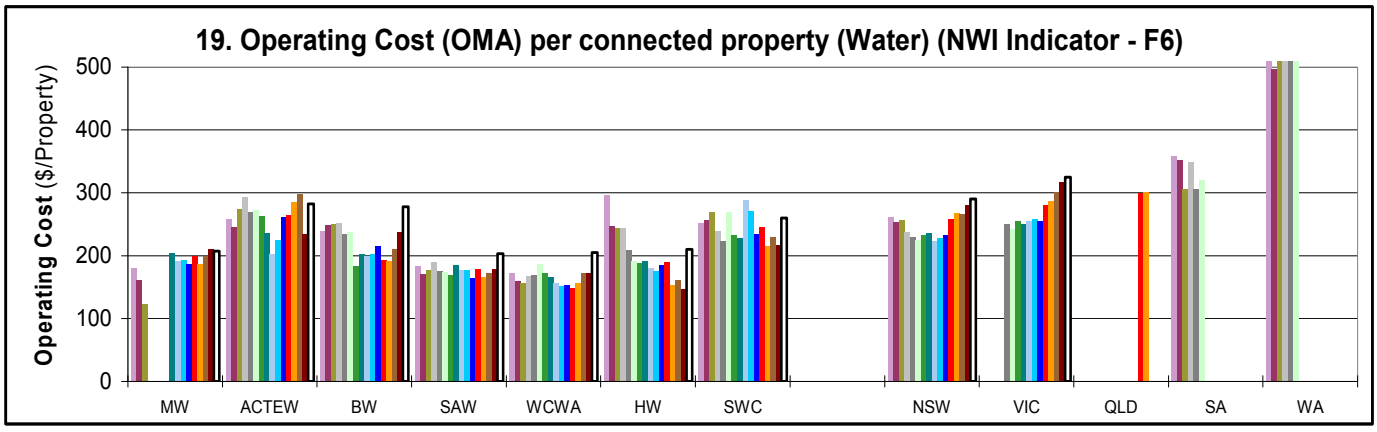


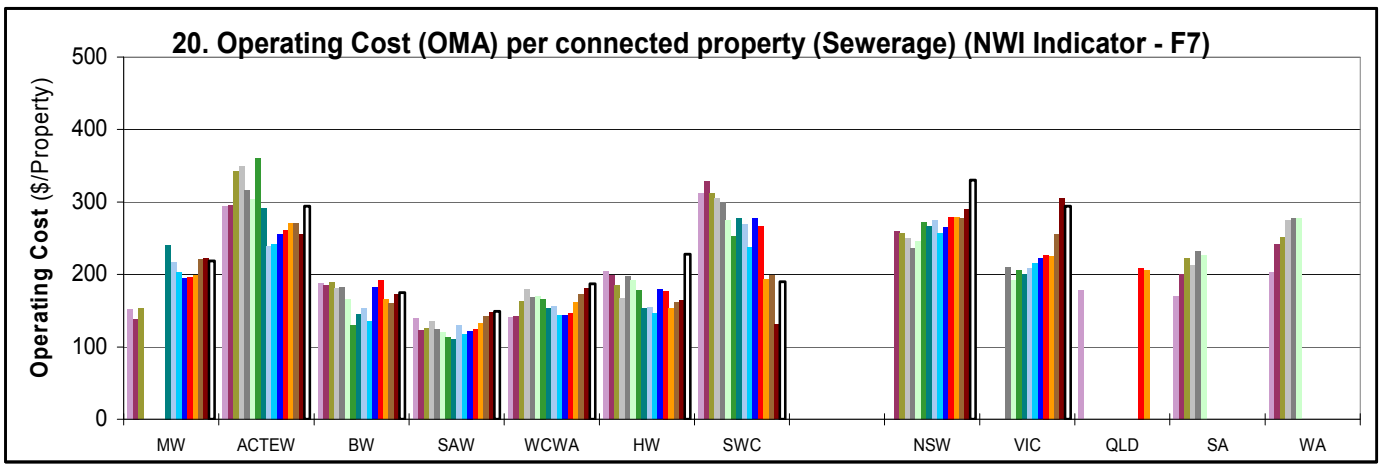


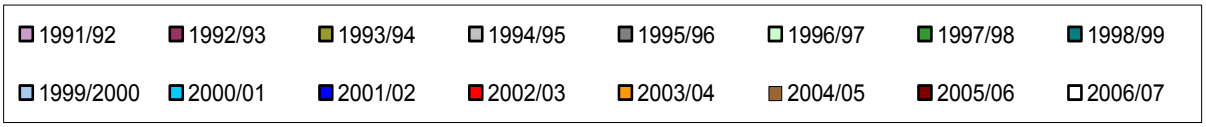
+ The major cause of non-compliance in non-metropolitan NSW is due to the growth of algae in maturation ponds being measured as suspended solids (SS). Most treatment works in non-metropolitan NSW have maturation ponds due to previous Department of Environment and Conservation (DEC) preference for ponding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





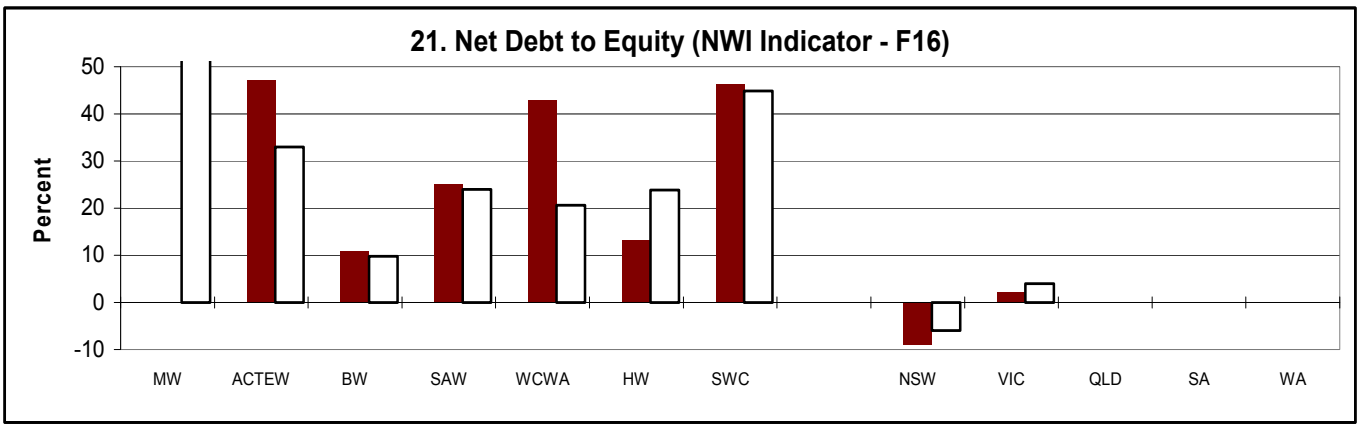


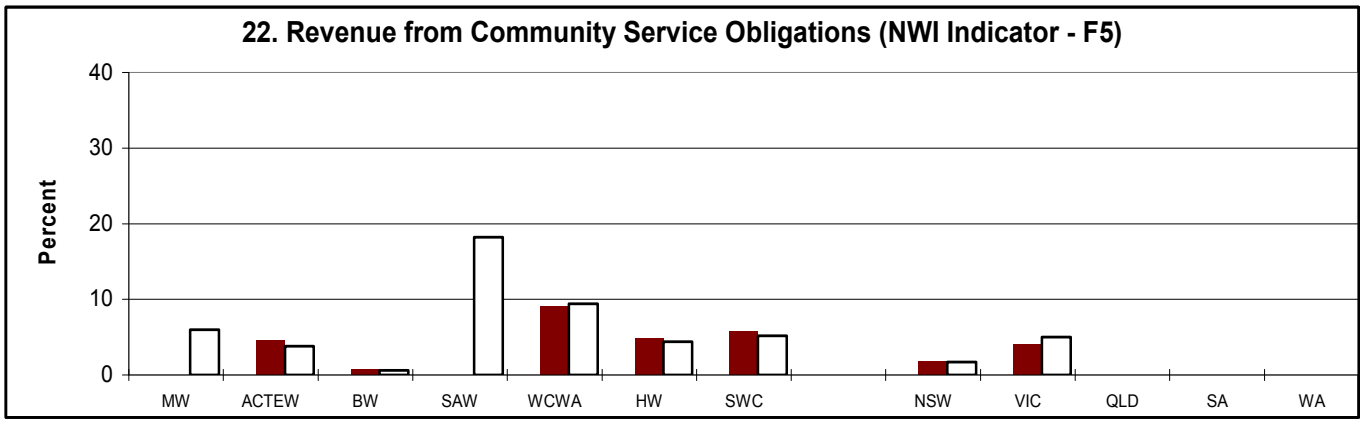


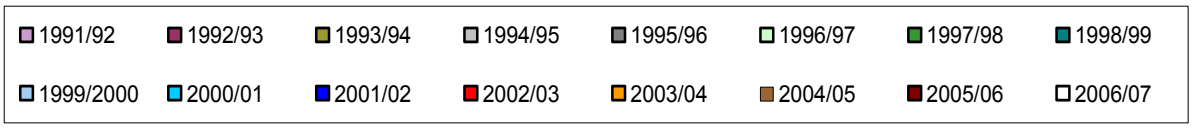
NOTES:

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 2006/07$.

Performance comparisons – Economic (continued)







Appendix B: NSW annual water supply and sewerage reporting forms

Water business data

NSW Ref	NWI Ref	Group	Indicator	0102	0203	03/04	04/05	05/06	2006/07	Accuracy Reliability	Unit	Definition	Instruction
1		Urban population served	Permanent								n	Urban population in June this reporting year	Exclude population in non-serviced areas
2		Urban population served	Peak								n	Maximum urban population anytime this reporting year	Permanent population plus temporary influx (toursts, seasonal workers). Exclude population in non-serviced areas. Populations shown for previous years may be adjusted by DWE
7		Dams	Number								n	Dams owned by the utility for seasonal water storage as distinct from daily balancing storages for distribution systems	Include on and off-stream storages
8		Dams	Capacity								ML		
9		Service reservoirs	Number								n	Distribution storage facilities used in the delivery of potable water to customers such as steel or concrete tanks used as daily balancing storages	Include clear water tanks at water treatment works
10		Service reservoirs	Capacity								ML		
11		Weirs	Number								n	Low barriers, generally within the stream banks, to divert flow to an offtake	
12		Weirs	Capacity								ML		
13		Bores	Number								n	Bore holes connecting to an aquifer from which water is drawn	
14		Bores	Capacity								ML/d		
15		Pumping stations	Number								n	Pumping stations for headworks and distribution systems	Include potable and non-potable pumping stations. Include pumping stations at treatment works that are used to deliver treated water into the distribution system. A pump station may include multiple pumps
16		Pumping stations	Capacity								ML/d		
17	A1	Treatment works	Number								n	Treatment works providing comprehensive water treatment to achieve high quality water	Include facilities that remove colour and/or turbidity as well as filtration, disinfection and pH adjustment. Exclude facilities that do not provide filtration and disinfection. Exclude secondary or booster disinfection plants. Exclude treatment plants that only provide fluoridation
18		Treatment works	Capacity								ML/d		
20	A2	Water mains	Trunk length								km	This is a required field. A trunk main is a transfer main delivering water to a distribution area	Include potable and non-potable gravity and rising mains
21	A2	Water mains	Reticulation length								km	This is a required field. A reticulation main is of relatively small pipework distributing and reticulating supply to customers	Exclude pipework associated with property water services (mains to property meter or service connections). Include potable and non-potable reticulation
22	A2	Water mains	Total length								km		
23		Renewals	Mains renewed								km	Existing mains renewed or replaced in the reporting period	Exclude maintenance work (refer to Section 5 of NSW Local Government Asset Accounting Manual, 1999)
24		Renewals	Property service connections								n		
25		Renewals	Customer water meters								n	This indicates the extent of your utility's water meter replacement program	
26	C1	Existing connections	Number of single residential connections								n	Report as a single residential connection each residence with a separate connection to the water supply	Exclude townhouses or blocks of units where there is a shared connection to the water supply, even though each townhouse or unit may be separately metered
27	C1	Existing connections	Number of multiple residential connections								n	Report as a single multiple connection each block of multiple residential units or group of townhouses where there is a single shared connection to the water supply	The number of metered units and configuration are not material to water supply connectivity for the purposes of supply performance. Examples: a block of 30 units with a single shared connection is one multiple residential connection; a block of 30 units with individual meters and separate bills for each unit but with a single shared connection to the water main is one multiple dwelling connection; retirement villages, where there is a single shared connection to the water main that services the whole of the retirement village are counted as one multiple residential dwelling
28	C1	Existing connections	Number of non-residential connections								n	All properties that are connected to the water supply other than those categorised as single residential or multiple residential	Exclude properties that have an assessment but are not connected. Examples: a hotel or serviced apartment-hotel complex is classed as one non-residential connection; a TAFE property which extends over two blocks and has six separate connections to the water main is six non-residential connections. Similarly, a school or hospital with a single connection is one non-residential connection; shopping centres where each shop is separately metered but which have a single shared connection to the water main are one non-residential connection; institutions such as nursing homes and retirement homes without individual residential properties are one non-residential connection
29		Existing connections	Number of fire connections								n	A fire connection consists of a mains connection, a length of fire service pipe off a water main and a stop valve	A fire connection is usually provided for commercial or industrial premises and is usually unmetered. A hydrant valve provided as a street hydrant in residential reticulation is not a fire connection
30		Existing connections	Total connnections								n		
31		New residential connections	New residences connected								n	Number of new residences connected this reporting year. A connection is not the same as a connected property - see extended notes to Indicator Ref 37a	Include each individual house, flat, villa, unit, townhouse etc whether separately metered or not
32	C1	Assessments and connected properties	Residential assessments. This is a required field								n	Residential bills for water supply services	Include vacant lots
33	C1	Assessments and connected properties	Non-residential assessments. This is a required field								n	Non-residential bills for water supply services	Include vacant lots

NOTE: When a utility logs into the database, columns 5 to 9 are populated with the utiliity's historical data for the previous 5 years (2001/02 to 2005/06). This historical data is not able to be altered but utilities are able to enter data in column 10 for the current year (2006/07).

Water business data (continued)

NSW Ref	NWI Ref	Group	Indicator	0102	0203	03/04	04/05	05/06	2006/07	Accuracy Reliability	Unit	Definition	Instruction
34		Assessments and connected properties	Adopted residential assessments								n	Number of residential assessments adopted by DWE	The number of assessments adopted by DWE takes into account the number of water supply assessments reported by your utility and also the number of assessments reported in Special Schedule No.3 of your annual financial statement, together with the trend in the number of assessments over the last 5 years
35		Assessments and connected properties	Adopted non-residential assessments								n	Number of non-residential assessments adopted by DWE	
36	A3,C1	Assessments and connected properties	Total adopted assessments								n		
37		Connected Property-Assessment ratios	Connected properties / total assessments								n	These ratios are based on your utility's previous performance data and are normally constant for water supply systems. The values will continue to be used unless your utility can show that another value is more appropriate	Note that "connected properties" are not the same as connections. "Connected properties" rather than assessments are used for consistency with the National Performance Framework 2006-07.. A "connected property" is one which is connected to the water supply system but which may or may not have a separate assessment. For example a company title block of 30 flats with a single "connection" and a single "assessment" would have 30 "connected properties" whilst the same block would be counted as one connection in indicator 26
37a		Connected Property-Assessment ratios	Residential assessments / total assessments								n		
38		Connected Property-Assessment ratios	Connected residential properties / residential assessments								n		
39		Unserved in reporting year	Unserved urban properties								n	Number of properties in urban zoned land in towns and villages in your utility's area of operations not served by a reticulated public water supply service	Only applies to properties in urban zones. Use recent planning maps, photographs, house counts or from census data to estimate the number of unserved urban properties. Exclude vacant land and rural properties. Exclude premises in land zoned rural residential
40		Unserved in reporting year	Unserved urban population								n	Estimated permanent population occupying unserved urban properties	
41	W1	Water sources	Off-stream dams								ML	Volume of water abstracted from off-stream dams. This is a required field	Measurement is at the point of abstraction
42	W1	Water sources	On-stream dams								ML	Volume of water abstracted from on-stream dams. This is a required field	Measurement is at the point of abstraction. Exclude volumes fed to off-stream dams for storage
43	W1	Water sources	Run-of-river pumping excluding volumes pumped to dams								ML	Volume of water abstracted from run-of-river pumping. This is a required field	Measurement is at the point of abstraction. Exclude volume pumped to an off-stream dam or to a desalination plant
44	W1	Water sources	River release from State Water dams								ML	Volume of water drawn as a release from a State Water dam. This is a required field	
45	W2	Water sources	Groundwater extraction								ML	Volume abstracted from groundwater is the sum of water abstracted from all reported sources. This is a required field	Measurement is at the point of abstraction, not delivery. Exclude groundwater artificially recharged using sources counted elsewhere (eg recycled). Exclude desalinated groundwater
46	W3	Water sources	Desalinated water								ML	Volume of water treated using a desalination plant. This is a required field	
47	W4	Water sources	Recycled water								ML	Volume of non-potable water for town water supply sourced from recycled water such as treated sewage effluent or stormwater. This is a required field	Include all recycled water supplied to customers for town water use; recycled water supplied for residential, industrial/commercial and municipal uses; recycled water supplied for agribusinesses where potable water (or the raw potable supply) would have been used; and recycled stormwater. This volume will not necessarily equal the volume of recycled treated sewage (entered as sewage treatment works indicator 23) if stormwater is also captured and recycled
48		Water sources	Total water from utility's sources								ML		
49	W5	Water sources	Bulk purchase: potable								ML	Volume of potable water purchased from a bulk supplier outside your utility's area of operations. This is a required field	
50	W5	Water sources	Bulk purchase: non-potable								ML	Volume of non-potable water purchased from a bulk supplier outside your utility's area of operations. This is a required field	
51		Water sources	Potable bulk supplier/supply scheme									Select the name of bulk supplier or bulk supply scheme, or leave as "unknown" if no purchase was made	If a bulk supplier or scheme is not included in the pick list, please notify the Manager, Performance Reporting, DWE
52		Water sources	Purchase price potable bulk water								c/kL		
53	W7	Water sources	Total water from all sources								ML		
54	W8	Authorised potable	Residential								ML	Potable water supplied to residential properties for internal and external use. This is a required field	Internal use includes bathroom, kitchen & laundry use. External use includes garden watering. Include metered and estimated unmetered water supplied
55	W8	Authorised potable	Commercial								ML	Potable water supplied to commercial customers. This is a required field	Include offices, shops, clubs, hotels, motels, caravan parks etc. Include metered and estimated unmetered water supplied
56	W8	Authorised potable	Industrial								ML	Potable water supplied to manufacturing/industrial customers. This is a required field	For industrial consumers within urban zoned land or industrial consumers that are supplied with potable water outside of urban zoned land. Include factories, mills (eg flour, paper, timber) poultry farms, feed lots, sale yards, abattoirs, mining etc. Include metered and estimated unmetered water supplied
57	W8	Authorised potable	Rural								ML	Potable water supplied to farms and hobby farms outside urban zoned land. This is a required field	Include potable water supplied for stock and domestic uses outside of urban zoned land including market gardens, agricultural irrigation. Include metered and estimated unmetered water supplied
58	W8	Authorised potable	Institutional								ML	Potable water supplied to institutional customers. This is a required field	Include hospitals, schools, nursing homes, colleges, universities, gaols etc. Include metered and estimated unmetered water supplied
59	W10	Authorised potable	Bulk sales								ML	Potable water sold to other utilities. This is a required field	

Water business data (continued)

NSW Ref	NWI Ref	Group	Indicator	0102	0203	03/04	04/05	05/06	2006/07	Accuracy Reliability	Unit	Definition	Instruction
60	W8	Authorised potable	Public parks								ML	Potable water supplied for watering public parks and gardens. This is a required field	Include watering of public parks, gardens and ovals etc. Include metered and estimated unmetered water supplied
61	W8	Authorised potable	Unbilled								ML	Metered and estimated unmetered authorised supply for which a bill is not issued to the consumer. This is a required field	Include firefighting and mains flushing as this is authorised supply and is not a water loss. The default value for unmetered, unbilled authorised supply is 0.5% of total water supplied. Examples: firefighting (customer fire connections and street hydrants); mains flushing; public parks and gardens etc
62	W8	Authorised potable	Total authorised potable supply								ML		
63	W8	Authorised non-potable	Residential								ML	Non-potable water reticulated to residential customers as part of a dual supply. This is a required field	Include metered and estimated unmetered supply. Exclude recycled water
64	W8	Authorised non-potable	Other								ML	Non-potable water for town water supply reticulated to non-residential customers as part of a dual supply. This is a required field	Include metered and estimated unmetered supply. Exclude recycled water
64b	W8	Authorised non-potable	Recycled residential								ML	Recycled water for town water supply reticulated to residential customers as part of a dual supply. This is a required field	Include metered and estimated unmetered water supplied
64c	W8	Authorised non-potable	Recycled other								ML	Recycled water for town water supply reticulated to non-residential customers as part of a dual supply. This is a required field	Include metered and estimated unmetered water supplied
64d	W8	Authorised non-potable	Total unauthorised non-potable								ML		
82		Peak water supplied	Peak day								ML	The maximum 24 hour potable water supplied in the reporting year	
83		Peak water supplied	Peak week								ML	The maximum 7 day potable water supplied in the reporting year	
65		Apparent potable losses	Unauthorised consumption								ML	Include theft and illegal use (illegal connections, illegal use of unmetered fire connections). This is a required field	Exclude firefighting and mains flushing - this is included in unbilled authorised potable supply (indicator 61). The default value for unauthorised consumption is 0.1% of total water supplied
66		Apparent potable losses	Meter inaccuracies								ML	Under-registration of customer meters and errors in system meters. This is a required field	Your utility should have in place a meter testing program and appropriate statistical analysis to determine metering error. Retail meter error defaults are: 1.5% of BACMR (billed authorised consumption, metered residential) or 1.5% of indicator 54 less estimated non-metered supply (Note: an additional sum of 0.5% of BACMR may be added to the residential meter error to account for meter non-registration); 2% of BACMN (billed authorised consumption, metered non-residential) or 2% of summed indicators 55, 56, 57, 58, 60, 61 less non-metered water supplied
67		Apparent potable losses	Total apparent losses								ML	Apparent losses are the sum of unauthorised potable supply plus meter inaccuracies	
68	A8	Real potable losses	Leakage								ML	Leakage from mains, reservoirs and connections including property service connections to customer meters. This is a required field	If leakage is less than 6% of total water supplied, your data should be carefully re-examined as leakage studies have found 6% to be a minimum for leakage for other than bulk water suppliers. Real losses represent a wasted resource and reduce the effective capacity of the supply system resulting in uneccessary operating costs
69		Total potable losses	Total potable losses								ML		
77		Leakage factors	Average system pressure								metres	Estimated average operating pressure in the distribution system. This is a required field	Pressures should be averaged over 24 hours. For multiple zones report a weighted average using average pressures and the number of connections in each zone
78		Leakage factors	Average length of private pipeline								metres	Estimated average length of private pipeline from the property boundary to the customer meter. This is a required field	Assumed to be zero if the customer meter is normally located at or close to the property boundary. If the customer meter is normally located some distance from the boundary, estimate the average length by randomly sampling an appropriate number of service connections
74		Leakage testing	Leakage test method									Select the test used or leave as "unknown" if no test was carried out	
75		Leakage testing	Year of test								year	Year that latest leakage measurement was carried out or leave as "unknown" if no test was carried out	Enter the last year if testing was undertaken over several years (eg if 2003 to 2004, enter 2004)
76		Leakage testing	Result of test: percent leakage								%	If leakage is less than 6% of total water consumption, this data should be carefully examined as leakage studies have found 6% to be a minimum for leakage for other than bulk water suppliers	
79	A7	Leakage indices	Infrastructure leakage index								n	Real loss as a fraction of unavoidable real loss. DWE will calculate this	
80		Leakage indices	Leakage to total potable volume supplied								%	Real loss as percentage of potable supply	
81	A8	Leakage indices	Loss per connection per day								L/con/d	Real losses as litres /connection / day	Note that this is leakage per connection which is not the same as leakage per connected property Calculated as ((indicator 68/indicator 30/ 365)*1000000)
84		Demand management initiatives	Customer education program								Y/N		
85		Demand management initiatives	Permanent water savings measures								Y/N	Permanent water savings measures in place to conserve water	Example: no hosing of concrete or hard surfaces at any time
86		Demand management initiatives	Effluent or stormwater reuse								Y/N		
87		Demand management initiatives	Leakage reduction program								Y/N		

Water business data (continued)

NSW Ref	NWI Ref	Group	Indicator	0102	0203	03/04	04/05	05/06	2006/07	Accuracy Reliability	Unit	Definition	Instruction
88		Demand management initiatives	Retrofit program								Y/N		
89		Demand management initiatives	Rebates for water efficient appliances								Y/N		
90		Demand management initiatives	Customer billing interval								mths	Interval between customer bills this reporting year	
91		Demand management initiatives	Other initiative										
92		Demand management initiatives	Other initiative										
93		Rainwater tanks	Rebate for tanks								Y/N		
94		Rainwater tanks	Maximum rebate available								$		
95		Restrictions	Days water restrictions due to drought								days	Include all days of water restriction regardless of the level of restriction. This is a required field	
96	C5	Complaints	Service complaints								n	Complaints relating to service quality and reliability, including leaks. Exclude water quality complaints, which are reported for each water treatment works. Exclude billing complaints. This is a required field	Include bursts, leaks, service interruptions, adequacy of service, water pressure, affordability, behaviour of staff or agents. Exclude complaints about tariff structure. A complaint is a written or verbal expression of dissatisfaction about an action, proposed action or failure to act by the water utility, its employees or contractors. Complaints from separate customers arising from the same cause count as separate complaints. Include complaints received by the water utility in person, by mail, by fax, phone, email or text message. Exclude complaints about service interruptions, this is not counted as a complaint unless the customer expresses dissatisfaction about the interruption
97		Complaints	Common service complaint 1									A complaint is a written or verbal expression of dissatisfaction about an action, proposed action or failure to act by the utility, its employees or contractors	Include complaints in person, by mail, email, fax, phone, or text messaging.
98		Complaints	Common service complaint 2										
99	C6	Complaints	Billing complaints								n	Complaints concerning account payment, financial loss or overcharging and billing errors. This is a required field	Do not include complaints on government pricing policy or complaints about the tariff or queries about how the tariff is calculated. A complaint is a written or verbal expression of dissatisfaction about an action, proposed action or failure to act by the water utility, its employees or contractors. Complaints from separate customers arising from the same cause count as separate complaints. Includes complaints received by the water utility in person, by mail, by fax, phone, email or text message. When a customer queries an account, this is not counted as a complaint unless the customer identifies that they have rung to make a complaint. If the customer rings to make an enquiry but remains dissatisfied or the enquiry identifies an error in the bill, this should be recorded as a complaint. If a customer makes repeated contact on the same billing issue this should be recorded as a complaint. If an operator is doubtful whether the customer is making an enquiry or complaint they should ask the customer whether they want a complaint to be recorded
100		Complaints	Other complaints								n	Complaints other than water quality, service or billing. This is a required field	A complaint is a written or verbal expression of dissatisfaction about an action, proposed action or failure to act by the water utility, its employees or contractors. Complaints from separate customers arising from the same cause count as separate complaints. Include complaints received by the water utility in person, by mail, by fax, phone, email or text message. Exclude complaints on government pricing policy or tariff structures
101	C3	Complaints	Water quality complaints								n	Sum of complaints for all treatment works	
102	C8	Complaints	Total complaints								n		
103	C9	Telephonist accessibility	Average connect time								sec	The average time for a caller to be connected to an operator	Do not include calls that are resolved by an automated system or hang-ups. Note if your utility does not record the "time to connect to telephone" then leave this indicator blank. For example, for a call which is initially responded via an automated system from which the customer elects to speak with an operator, the connect time to operator is the time from when the call was connected by the automated system to the time the customer is answered by an operator. The connect time starts when the call gets connected - this could be by person (in which case the connect time would be zero), by an auto attendant (IVR) or by a message informing the caller they have been put in a queue. The connect time finishes when the caller is answered by a person. If the caller hangs up before they speak to a person, the call is not counted. Similarly, if the caller's question is answered by an IVR, meaning they dont need to speak to an operator, the call is not counted. The average connect time to operator is calculated from the sum of individual wait times of callers divided by the number of callers

Water business data (continued)

NSW Ref	NWI Ref	Group	Indicator	0102	0203	03/04	04/05	05/06	2006/07	Accuracy Reliability	Unit	Definition	Instruction
104	A6	Unplanned interruptions	Pipeline breaks								n	Unplanned incidents where water is lost due to failure of a pipe, hydrant, fitting or joint material regardless of cause. It is the sum of all Priority 1 and Priority 2 breaks. This is a required field	Exclude: Breaks in the property service connection; breaks in recycled water mains; a burst or leak which causes no discernable impact on customers, property or the environment. A priority 1 break is one which causes or has the potential to cause substantial damage or harm to customers, water quality, flow rate, property or the environment. A priority 2 break is one which causes or has the potential to cause, minor damage or harm to customers, water quality, flow rate, property or the environment. Examples: - Leaking fire hydrants and/or valve which slowly trickles into gutter or forms a small wet patch with no interruption to service. No degradation to environment or surrounds. This is a Priority 3 interruption and is not counted as a pipeline break. - Leaking fire hydrant which is flooding customer property but there is no other damage and the service is not interrupted. This is a Priority 2 interruption and is counted as an interruption. - A burst causing a large amount of damage to surroundings. This is a priority 1 interruption and is counted as an interruption. â€“ An invisible leak in a main wi
105		Unplanned interruptions	Property service connection failures								n	Unplanned incidents where water is lost due to to failure of a property service connection	Exclude a burst or leak which causes no discernable impact on customers, property or the environment
106	C12	Unplanned interruptions	Properties affected								n	Unplanned interruptions are a total loss of water supply due to failure of the water asset	An unplanned interruption is when the customer has not received at least 24 hours notification of the interruption. Interruptions include both potable and recycled interruptions. Include each occurrence of interruption. Exclude interruptions caused by burst or leaks in the property service connection and interruptions where there is some reduction to service but where normal activities (eg. shower, washing machine, toilet flushing etc) are still possible
107	C10	Unplanned interruptions	Average duration								hrs	Measured from time of notification of interruption to time of restoration of normal service. Include: interruptions due to bursts or leaks in property service connections; all the period of planned interruptions where the duration exceeds planned duration. Exclude planned interruptions where planned duration is not exceeded. This is a required field	For this indicator, include interruptions caused by bursts or leaks in property service connections as this indicator reports the average duration that customers are without a water supply service. This is different to indicators 103 to 105. If the utility responds to notification of a broken main, unless the notification also indicates a loss of supply, duration commences once the break is isolated. Examples - A utility advises customers an interruption will occur and will last 3 hours. The actual duration is 5 hours. The unplanned interruption duration is 5 hours. - A customer calls advising they are without water. The interruption commences at the time of notification. - A customer calls advising of a broken main. Unless the notification also indicates a loss of supply, the interruption commences when staff arrive at the main and isolate the break. - Mains are shut down due to fire fighting requirements. This interruption is included and commences at the time the mains are shut down. Include un-notified interruptions caused by third parties
108	H1	Water quality management	Water quality guidelines									The water quality guidelines for NSW performance reporting are NHMRC/NRMMC Australian Drinking Water Guidelines (ADWG 2004)	
109	H2	Water quality management	Number of supply zones with microbiological compliance								n	DWE will report on an assessment of each zone with the microbiological requirements of the water quality guidelines. For example, DWE will report compliance as 3/4 where 3 out of 4 zones (water treatment works) complied with microbiological requirements	
110	H3	Water quality management	Percent population supplyied with microbiologically compliant water								%	DWE will report using a similar criterion to indicator above, but based on the percentage of the total population served in the complying zones	
111	H4	Water quality management	Number of supply zones with chemical compliance								n	DWE will report on an assessment of each zone with the health related chemical requirements of the water quality guidelines. For example, DEUS will report as 3/4 where 3 out of 4 zones complied with chemical requirements	It is neither physically nor economically feasible to test on an ongoing basis for all substances in a water supply system. Each water supply system will have its own key characteristics. It is therefore common for water businesses to monitor regularly for contaminants such as disinfection by-products whereas a wide range of other non-key characteristics will only be monitored irregularly. For health related chemical parameters: - for contaminants sampled 30 or greater times during the year, the 95th per centile reading of each health related monitored parameter should be used for assessments against ADWG (2004) guideline levels. - for contaminants sampled less than 30 times during the year, the maximum reading should be used for assessment against ADWG (2004) guideline levels. These should be assessed across each zone in a system and reported as the fraction of zones meeting requirements (eg. 4/6). For example, evaluation of a system with 30 zones shows there is a failure of THM's in two zones and a failure of selenium in a source water supplying six zones, one of which
112	H7	Water quality management	Public disclosure of drinking water performance								Y/N	DWE provides public disclosure through publication of the annual NSW Water Supply and Sewerage Performance Monitoring Report and Benchmarking Report	
113	H6	Water quality management	Risk-based drinking water quality plan?								Y/N	Minimum requirement for answering "yes" is a documented water quality management plan in accordance with the framework in the Australian Drinking Water Quality Guidelines 2004. Any other more rigorous statutory requirements are also satisfactory	
113a		Water quality management	Specify planning framework									State the basis for your Drinking Water Quality Management Plan	Examples: HACCP, ISO 9001, WSAA (National Water Quality Framework Continuous Improvement Tool)

Water business data (continued)

NSW Ref	NWI Ref	Group	Indicator	0102	0203	03/04	04/05	05/06	2006/07	Accuracy Reliability	Unit	Definition	Instruction
114	H5	Water quality management	External assessment of plan									State the basis for the external accreditation	For each external assessment, external third party accredited assessments must have taken place within the last 12 months. The scope of these quality systems must cover the entire water business water quality management system. If the quality system covers a more limited area, the indicated quality system must be footnoted with a description of the area covered
115		Public health incidents	Category 1 incidents								n	Incidents with nil or inconsequential public health effects	Example: a minor failure of a water treatment process or asset that results in a limited boil water notice
116		Public health incidents	Category 2 incidents								n	Incidents with a limited public health impact	Examples: non-compliance with health parameters (faecal coliforms) of 1996 NHMRC water quality guidelines of more than 7 days; system-wide boil water notice; failure of a disinfection system of more than 3 days; failure of a major treatment process or asset at a treatment works of more than 4 days; 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 of more than 2 days (if more than 7 days report as Category 3)
117		Public health incidents	Category 3 incidents								n	Incidents with a major impact on public health	Examples: outbreak of water borne disease and/or hospitalisation from water supplied by your utility's water supply system; an incident resulting in unplanned interruptions to supply of more than 7 days; pathogenic contamination of the potable water supply due to a cross connection; toxic contamination of water supply
118		Public health incidents	Category 3 incidents detail										
119		Public health investment	Capital investment to improve health performance								$k	Capital expenditure with the principal outcome of improved health performance	This indicator highlights public health improvement and innovation. Include expenditure undertaken for compliance purposes having IMPROVED performance as an outcome. Include new treatment works. Enter $111,500 as 111.5, $3,999,000 as 3999
120		Resources and training	Total workforce in water business								FTE	A full-time employee has an FTE of 1. Part-time and casual employees will have an FTE of less than one based on hours employed. This is a required field	Include water supply business workforce engaged in operation, maintenance and management including billing as well as contracted staff. Exclude staff engaged on design and construction
121		Resources and training	Female workforce								FTE		
122		Resources and training	Workforce receiving 2 or more training days								FTE	The training days FTE of water supply business employees that have undertaken at least 2 days of training in the reporting year. This number will be less than or equal to the workforce FTE	The training days FTE of a casual or part-time employee is the FTE of that employee multiplied by the number of days the employee trained in the reporting year
123		Days lost	Total days lost								days	Include water supply business employee days lost for all reasons eg. Industrial disputes, sick leave, carer's leave, industrial accidents. This is a required field	Exclude recreation leave, long-service leave, public holidays, rostered days off or flexi-leave etc. Exclude days lost for staff engaged in design or construction
124		Days lost	Confirmed injuries								n	Include water supply business injuries that resulted in a fatality, permanent disability or time lost from work of one day or more. Include injuries for equivalent contractor employees. Exclude injuries for employees engaged in design or construction	
125		Days lost	Days lost due to injury								days	Include water supply business days lost due to injuries. Include days lost for injuries for equivalent contractor employees. Exclude days lost for injuries for employees engaged in design or construction	
126		Employment assistance	Hours employment provided to long-term unemployed								hrs	These indicators recognise your utility's contribution to the community through addressing long-term unemployment in the community and increasing community skills	Utilities may have a proactive employment program that targets the long-term unemployed. This indcator reports the total number of hours and the number of persons engaged in the sewerage business
127		Employment assistance	Number of long-term unemployed engaged								n		
128		Workforce outsourced	Management costs outsourced								%	The percentages expended by the water supply business on outsourcing of management, operational and maintenance costs	
129		Workforce outsourced	Operational costs outsourced								%		
130		Workforce outsourced	Maintenance costs outsourced								%		
131		Community	Reduction in fees and charges to community organisations								$k	The value of reductions in fees or charges permitted by legislation which are provided by your water supply business to the community. Exclude pensioner rebates	Utilities may elect to provide reduced fees and charges for certain non-profit and community organisations and charities (including non-rateable properties) as permitted by legislation. This indicator reports the total amount of reductions provided to such community organisations in comparison with the standard fees and charges for non-residential customers
131a		Community	Progress toward implementing National Guideline Water Accounts								%	Estimate Council's % progress in implementing the National Guidelines for Residential Customers' Water Accounts within the next 3 years	

Water business data (continued)

NSW Ref	NWI Ref	Group	Indicator	0102	0203	03/04	04/05	05/06	2006/07	Accuracy Reliability	Unit	Definition	Instruction
132	C13	Community	Restrictions or legal action for non-payment of water bill								n	Number of restrictions and legal actions applied for non-payment of water bills in the reporting period	It is the number of customer accounts forwarded to a solicitor for legal action, subjecting the customers concerned to additional costs. Â Cases in which accounts are forwarded to a solicitor for legal action and the legal costs to the customer are subsequently waived should be included. Generally, it is linked to the issuing of a summons against the customer. Include: all cases where restriction devices are fitted to reduce water flows to a customer; restrictions or legal action taken against both residential and non-residential customers. Exclude: customers who choose to disconnect from the water supply; disconnections carried out due to unsafe infrastructure connected to the water utility's system. Note that this indicator can be misleading as some utilities may elect to not pursue non-payment. However, it is included as it is an NWI requirement
133		OMA expenses	Headworks								%	Financial data is provided by your utility in Special Schedule No.3 to the Annual Financial Statement, specifically "Operation and Maintenance Expenses". Divide this total into "headworks" and "distribution and reticulation"	
134		OMA expenses	Distribution and reticulation								%		
135		Developer charges	Typical developer charge for this reporting year								$	This is the typical developer charge determined by your utility to recover part of the cost of water supply infrastructure for new development. This is a required field	
136		Developer charges	Typical developer charge for next reporting year								$	This is a required field	
137		Environmental incidents	Category 1 incidents								n	Incidents with little or no impact on the environment	Examples: 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
138		Environmental incidents	Category 2 incidents								n	Incidents with limited and non-permanent impact on the environment	Examples: 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
139		Environmental incidents	Category 3 incidents								n	Incidents with major and irreversible impact on the environment	Examples: 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
140		Environmental incidents	Category 3 incidents detail										
141		Environmental management	Environmental management plan?								Y/N		
142		Environmental management	Plan developed in consultation with other bodies including Catchment Management Board								Y/N		
143		Environmental management	Environmental consultative process in place								Y/N		
144		Environmental management	Capital investment to improve environmental performance								$k	Capital expenditure with the principal outcome of improved environmental performance	This indicator highlights environmental improvement and innovation. Include expenditure undertaken for compliance purposes having IMPROVED performance as an outcome. Include new treatment works. Exclude renewals. Enter $111,500 as 111.5, $3,999,000 as 3999
145		Energy	Non-renewable energy								MWh	Energy derived from non-renewable sources used by your water supply business	
146		Energy	Renewable energy								MWh	Energy derived from accredited renewable sources used by your water supply business	
147		Energy	Total energy								MWh		
148	E9	Greenhouse gas emissions	Net emissions for this utility								t CO_2 eq	Net tonnes of CO_2 equivalent emissions generated by the whole of your utility for its water supply and sewerage businesses, directly and indirectly through all its operations less allowance for sequestered carbon	This indicator should be reported for the whole of the business. The emissions generated by all aspects of the utility' water and/or sewerage business should be reported ie. emissions should be determined not just from the emissions associated with operations of the water and sewerage business but also from such sources as head office lighting, heating etc. Conversion factors should be based on those provided by the Australian Greenhouse Office at www.greenhouse.gov.au

Water treatment data

NSW Ref	NWI Ref	Group	Indicator	0102	0203	03/04	04/05	05/06	2006/07	Accuracy Reliability	Unit	Definition	Instruction
T1		Works parameters	Year commissioned / augmented								year	Year of commissioning or latest major augmentation	
T2		Works parameters	Design capacity								ML/d	This is a required field	
T3		Works parameters	Type of works									Select the process used in the last stage of treatment if multiple processes are used. This is a required field	
T4		Works parameters	Comments										
T5		Works parameters	Percentage of population served								%	Estimated percent of your utility's permanent population supplied by this treatment works	
T7a		Qualifications	Operator 1 qualification									Highest qualification obtained by this operator	
T7e		Qualifications	Year of qualification / update								year	Year qualification obtained or updated	
T7b		Qualifications	Operator 2 qualification									Highest qualification obtained by this operator	
T7f		Qualifications	Year of qualification / update								year	Year qualification obtained or updated	
T7c		Qualifications	Operator 3 qualification									Highest qualification obtained by this operator	
T7g		Qualifications	Year of qualification / update								year	Year qualification obtained or updated	
T7d		Qualifications	Operator 4 qualification									Highest qualification obtained by this operator	
T7h		Qualifications	Year of qualification / update								year	Year qualification obtained or updated	
T6		Volume treated	Volume treated								ML	Volume treated by this treatment works this reporting year	
T26		E.coli	Number of system samples								n	Include samples taken at this treatment works for system performance monitoring. Exclude samples for operational monitoring. This is a required field	System performance monitoring is a wide ranging assessment of the quality of the water supplied to customers. Operational monitoring is used as a trigger for immediate corrective action to improve water quality and to check equipment is working properly. Sampling location and frequency should be scheduled sampling on the basis of Attachment 2 and the 1996 ADWG. 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
T27	H2	E.coli	Percent complying								%	Number of samples taken for system compliance monitoring divided by the total number of such samples. This is a required field	Where the licence limit specifies a 95th percentile limit and the number of samples complying divided by the total number of scheduled samples is greater than 90%, then as the compliance for the treatment works is greater than the licence limit, compliance is deemed to be 100%. It is neither physically nor economically feasible to test on an ongoing basis for all substances in a water supply system. Each water supply system will have its own key characteristics. It is therefore common for water businesses to monitor regularly for contaminants such as disinfection by-products whereas a wide range of other non-key characteristics will only be monitored irregularly. For health related physical parameters: - for parameters sampled 30 or greater times during the year, the 95th per centile reading of each health related monitored parameter should be used for assessments against ADWG (2004) guideline levels. - for parameters sampled less than 30 times during the year, the maximum reading should be used for assessment against ADWG (2004) guideline levels.
T16		Physical	Number of system performance samples								n	Include samples taken at this treatment works for system performance monitoring. Exclude samples for operational monitoring. This is a required field	System performance monitoring is a wide ranging assessment of the quality of the water supplied to customers. Operational monitoring is used as a trigger for immediate corrective action to improve water quality and to check equipment is working properly. Sampling location and frequency should be scheduled sampling on the basis of Attachment 2 and the 2004 ADWG. The number of samples reported should be those taken for system performance monitoring from representative locations in the water supply system not for operational monitoring
T17		Physical	Percent complying								%	Number of samples taken for system compliance monitoring divided by the total number of such samples. This is a required field	Where the licence limit specifies a 95th percentile limit and the number of samples complying divided by the total number of scheduled samples is greater than 90%, then as the compliance for the treatment works is greater than the licence limit, compliance is deemed to be 100%. It is neither physically nor economically feasible to test on an ongoing basis for all substances in a water supply system. Each water supply system will have its own key characteristics. It is therefore common for water businesses to monitor regularly for contaminants such as disinfection by-products whereas a wide range of other non-key characteristics will only be monitored irregularly. For health related physical parameters: - for parameters sampled 30 or greater times during the year, the 95th per centile reading of each health related monitored parameter should be used for assessments against ADWG (2004) guideline levels. - for parameters sampled less than 30 times during the year, the maximum reading should be used for assessment against ADWG (2004) guideline levels. The number of samples reported
T18		Chemical	Number of system samples								n	Include samples taken at this treatment works for system performance monitoring. Exclude samples for operational monitoring. This is a required field	System performance monitoring is a wide ranging assessment of the quality of the water supplied to customers. Operational monitoring is used as a trigger for immediate corrective action to improve water quality and to check equipment is working properly. Sampling location and frequency should be scheduled sampling on the basis of Attachment 2 and the 1996 ADWG. 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

NOTE: When a utility logs into the database, columns 5 to 9 are populated with the utiliity's historical data for the previous 5 years (2001/02 to 2005/06). This historical data is not able to be altered but utilities are able to enter data in column 10

Water treatment data (continued)

NSW Ref	NWI Ref	Group	Indicator	0102	0203	03/04	04/05	05/06	2006/07	Accuracy Reliability	Unit	Definition	Instruction
T19	H4	Chemical	Percent complying								%	Number of samples taken for system compliance monitoring divided by the total number of such samples. This is a required field	Where the licence limit specifies a 90th percentile limit and the number of samples complying divided by the total number of scheduled samples is greater than 90%, then as the compliance for the treatment works is greater than the licence limit, compliance is deemed to be 100%. It is neither physically nor economically feasible to test on an ongoing basis for all substances in a water supply system. Each water supply system will have its own key characteristics. It is therefore common for water businesses to monitor regularly for contaminants such as disinfection by-products whereas a wide range of other non-key characteristics will only be monitored irregularly. For health related physical parameters: - for parameters sampled 30 or greater times during the year, the 95th per centile reading of each health related monitored parameter should be used for assessments against ADWG (2004) guideline levels. - for parameters sampled less than 30 times during the year, the maximum reading should be used for assessment against ADWG (2004) guideline levels.
T8		Colour	Raw water maximum								HU	For this treatment works only	
T9		Colour	Raw water average								HU	For this treatment works only	
T10		Colour	Treated water maximum								HU	For this treatment works only	
T11		Colour	Treated water average								HU	For this treatment works only	
T24		Colour	Number of system performance samples								n	For this treatment works only	
T25		Colour	Percent complying								%	For this treatment works only	
T12		Turbidity	Raw water maximum								NTU	For this treatment works only	
T13		Turbidity	Raw water average								NTU	For this treatment works only	
T14		Turbidity	Treated water maximum								NTU	For this treatment works only	
T15		Turbidity	Treated water average								NTU	For this treatment works only	
T20		Turbidity	Number of system performance samples								n	For this treatment works only	
T21		Turbidity	Percent complying								%	For this treatment works only	
T22		pH	Number of system samples								n	Include samples taken at this treatment works for system performance monitoring. Exclude samples for operational monitoring	System performance monitoring is a wide ranging assessment of the quality of the water supplied to customers. Operational monitoring is used as a trigger for immediate corrective action to improve water quality and to check equipment is working properly. Sampling location and frequency should be scheduled sampling on the basis of Attachment 2 and the 1996 ADWG. 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
T23		pH	Percent complying								%	Number of samples taken for system compliance monitoring divided by the total number of such samples	Where the licence limit specifies a 90th percentile limit and the number of samples complying divided by the total number of scheduled samples is greater than 90%, then as the compliance for the treatment works is greater than the licence limit, compliance is deemed to be 100%. It is neither physically nor economically feasible to test on an ongoing basis for all substances in a water supply system. Each water supply system will have its own key characteristics. It is therefore common for water businesses to monitor regularly for contaminants such as disinfection by-products whereas a wide range of other non-key characteristics will only be monitored irregularly. For health related physical parameters: - for parameters sampled 30 or greater times during the year, the 95th per centile reading of each health related monitored parameter should be used for assessments against ADWG (2004) guideline levels. - for parameters sampled less than 30 times during the year, the maximum reading should be used for assessment against ADWG (2004) guideline levels.
T30		Non-compliance	Common reason for non-compliance										
T31		Chemical usage	Alum								tonnes	For this treatment works only	
T32		Chemical usage	Alkali								tonnes	For this treatment works only	
T33		Chemical usage	Chlorine								tonnes	For this treatment works only	
T34		Chemical usage	Flouride								tonnes	For this treatment works only	
T35		Malfunctions	Number of days chlorination system failed								days	For this treatment works only	
T36		Malfunctions	Number of days of major treatment process failure							A1	days	For this treatment works only	
T37	C3	Water quality complaints	Number of complaints								n	Water quality complaints from customers supplied by this treatment works only. This is a required field	
T38		Water quality complaints	Common complaint 1									Most frequent water quality complaint from customers supplied by this treatment works only	
T39		Water quality complaints	Common complaint 2										

Sewerage business data

NSW Ref	NWI Ref	Group	Indicator	0102	0203	03/04	04/05	05/06	2006/07	Accuracy Reliability	Unit	Definition	Instruction
1		Urban population served	Permanent							A1	n	Urban population in June this reporting year	Exclude population in non-serviced areas
2		Urban population served	Peak								n	Maximum urban population anytime this reporting year	Permanent population plus temporary influx (tourists, seasonal workers). Exclude population in non-serviced areas. Populations shown for previous years may be adjusted by DWE
3		Treatment works	Number								n	Include all primary, secondary and tertiary treatment works	
4		Treatment works	Capacity								EP		
5		Pumping stations	Number								n		
6		Pumping stations	Capacity								ML/d		
7	A4	Sewage mains	Gravity / reticulation length							A1	km	Length of mains, including trunk and reticulation mains, aqueducts etc of all diameters. This is a required field	Exclude pressure (rising) mains. Exclude property or house connections and conduits carrying treated effluent
8	A4	Sewage mains	Pressure / Rising length							A1	km	Length of pressure (rising) mains. This is a required field	
9	A4	Sewage mains	Total length								km		
10		Renewals	Mains renewed / replaced in reporting year								km	Existing mains renewed or replaced in the reporting year. Exclude maintenance work (Sect 5 of NSW Local Government Asset Accounting Manual, 1999)	
11		Renewals	Property connections renewed / replaced in reporting year								km	A house or property connection is a short sewer owned and operated by your utility which connects the main sewer and the customer sanitary drain	
12		New residential connections	New residences connected								n	Number of new residences connected this reporting year	Include each individual flat, villa, unit, townhouse etc whether separately metered or not
13	C2	Assessments	Residential							A1	n	Number of residential bills rendered by your utility for sewerage services including vacant lots. This is a required field	
14	C2	Assessments	Non-residential							A1	n	Number of non-residential bills rendered by your utility for sewerage services including vacant lots. This is a required field	
15		Assessments	Adopted residential								n	Number of residential assessments adopted by DWE	The number of assessments adopted by DWE takes into account the number of assessments reported by the sewerage business and also the number of assessments reported in financial statements, together with the trend in the number of assessments over the last 5 years
16		Assessments	Adopted non-residential								n	Number of non-residential assessments adopted by DWE	
17	A5,C2	Assessments	Total adopted								n		
18		Connected Property-Assessment ratios	Connected properties / total assessments								n	These ratios are based on your utility's previous performance data and are normally constant for sewerage service systems. The values will continue to be used unless your utility can show that another value is more appropriate	
18a		Connected Property-Assessment ratios	Residential assessments / total assessments								n		
19		Connected Property-Assessment ratios	Connected residential properties / residential assessments								n		
20		Unserved in reporting year	Unserved urban properties								n	Number of properties in urban zoned land in towns and villages in your utility's area of operations that are not served by a reticulated public sewerage service	Exclude premises in land zoned rural residential. Use recent planning maps, photographs, house counts or from census data to estimate the number of unserved urban properties
21		Unserved in reporting year	Unserved urban population								n	Estimated permanent population in unserved urban properties	
34	C7	Complaints	Sewage service / chokes							A2	n	Complaints relating to service quality and reliability. Exclude odour complaints, which are reported for each sewage treatment works. Exclude billing complaints. This is a required field	Service complaints cover sewer blockages, spills, sewerage system reliability and the behaviour of staff or agents. A complaint is a written or verbal expression of dissatisfaction about an action, proposed action or failure to act by the water utility, its employees or contractors. sewer blockages spills sewerage system reliability behaviour of staff or agents A complaint is a written or verbal expression of dissatisfaction about an action, proposed action or failure to act by the water utility, its employees or contractors. Complaints from separate customers arising from the same cause count as separate complaints. Includes complaints received by the water utility in person, by mail, by fax, phone, email or text message. When a customer reports a service interruption, this is not counted as a complaint unless the customer expresses dissatisfaction about the interruption.
35		Complaints	Common service complaint 1										

NOTE: When a utility logs into the database, columns 5 to 9 are populated with the utiliity's historical data for the previous 5 years (2001/02 to 2005/06). This historical data is not able to be altered but utilities are able to enter data in column 10

Sewerage business data (continued)

NSW Ref	NWI Ref	Group	Indicator	0102	0203	03/04	04/05	05/06	2006/07	Accuracy Reliability	Unit	Definition	Instruction
36		Complaints	Common service complaint 2										
37	C6	Complaints	Billing								n	Complaints concerning account payment, financial loss or overcharging and billing errors. This is a required field	Do not include complaints about government pricing policy, the tariff structure or queries about how the tariff is calculated
38		Complaints	Other								n	Complaints other than odour, service or billing. This is a required field	A complaint is a written or verbal expression of dissatisfaction about an action, proposed action or failure to act by the water utility, its employees or contractors. Complaints from separate customers arising from the same cause count as separate complaints. Includes complaints received by the water utility in person, by mail, by fax, phone, email or text message
39	C4	Complaints	Odour								n	Sum of odour complaints for all treatment works and pumping stations in your sewerage business	
40	C8	Complaints	Total complaints								n		
41	C9	Telephonist accessibility	Average connect time								sec	The average time for a caller to be connected to an operator	Do not include calls that are resolved by an automated system or hang-ups. Note if your utility does not record the "time to connect to telephone" then leave this indicator blank. For example, for a call which is initially responded via an automated system from which the customer elects to speak with an operator, the connect time to operator is the time from when the call was connected by the automated system to the time the customer is answered by an operator. The connect time starts when the call gets connected - this could be by person (in which case the connect time would be zero), by an auto attendant (IVR) or by a message informing the caller they have been put in a queue. The connect time finishes when the caller is answered by a person. If the caller hangs up before they speak to a person, the call is not counted. Similarly, if the caller's question is answered by an IVR, meaning they dont need to speak to an operator, the call is not counted. The average connect time to operator is calculated from the sum of individual wait times of callers divided by the number of callers.
42		Unplanned interruptions	Properties affected								n	This is a required field. An unplanned interruption is an event where a customer has not received at least 24 hours notification of an interruption which causes significant reduction of sewerage services and is due to any cause excluding breaks or chokes in the property connection service. This is a required field	Exclude reductions in the level of service where normal activities are still possible
43	C11	Unplanned interruptions	Average duration							C4	hrs	This is a required field. Measured from time of notification of interruption to time of restoration of normal service. This is a required field	This does not include planned interruptions, repair times relating to breaks, chokes and leaks in the property connection or time for site restoration. Include un-notified interruptions caused by third parties
44		Public health incidents	Category 1 incidents								n	Incidents with no or inconsequential public health effects	Example: minor failure of sewage treatment processes
45		Public health incidents	Category 2 incidents								n	Incidents with a limited public health impact	Examples: 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 of more than 4 days; an incident resulting in unplanned interruptions to service of more than 3 days (if more than 20 days, report as Category 3); a chlorine leak
46		Public health incidents	Category 3 incidents								n	Incidents with a major impact on public health	Examples: 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; sewer overflow into a water supply catchment; an incident resulting in unplanned interruptions to service of more than 20 days
47		Public health incidents	Category 3 incidents detail										
48		Public health investment	Capital investment to improve health performance								$k	Capital expenditure with the principal outcome of improved health performance	This indicator highlights public health improvement and innovation. Include expenditure undertaken for compliance purposes having IMPROVED performance as an outcome. Include backlog sewerage or new treatment works. Enter $111,500 as 111.5, $3,999,000 as 3999
49		Resources and training	Total workforce in sewerage business								FTE	A full-time employee has an FTE of 1. Part-time and casual employees will have an FTE of less than one based on hours employed. This is a required field	Include sewerage business employees engaged in operation, maintenance and management including billing. Include equivalent contractor employees. Exclude employees engaged on design and construction
50		Resources and training	Female workforce								FTE		
51		Resources and training	Workforce receiving 2 or more training days								FTE	The training days FTE of sewerage business employees that have undertaken at least 2 days of training in the reporting year. This number will be less than or equal to the workforce FTE	The training days FTE of a casual or part-time employee is the FTE of that employee multiplied by the number of days the employee trained in the reporting year

Sewerage business data (continued)

NSW Ref	NWI Ref	Group	Indicator	0102	0203	03/04	04/05	05/06	2006/07	Accuracy Reliability	Unit	Definition	Instruction
52		Days lost	Total days lost								days	Include sewerage business employee days lost for all reasons eg. Industrial disputes, sick leave, carer's leave, industrial accidents. This is a required field	Exclude recreation leave, long-service leave, public holidays, rostered days off or flexi-leave etc. Exclude days lost for staff engaged in design or construction
53		Days lost	Confirmed injuries								n	Include sewerage business injuries that resulted in a fatality, permanent disability or time lost from work of one day or more. Include injuries for equivalent contractor employees. Exclude injuries for employees engaged in design or construction	
54		Days lost	Days lost due to injury								days	Include sewerage business days lost due to injuries. Include days lost for injuries for equivalent contractor employees. Exclude days lost for injuries for employees engaged in design or construction	
55		Employment assistance	Employment provided to long-term unemployed								hrs	These indicators recognises your utility's contribution to the community through addressing long-term unemployment in the community and increasing community skills	
56		Employment assistance	Number of long-term unemployed engaged								n		
57		Workforce outsourced	Management costs outsourced								%	The percentage expended on outsourced sewerage business management	
58		Workforce outsourced	Operational costs outsourced								%	The percentage expended on outsourced sewerage business operations	
59		Workforce outsourced	Maintenance costs outsourced								%	The percentage expended on outsourced sewerage business maintenance	
60		Community	Reduction in fees and charges to community organisations								$k	The value of reductions in fees or charges permitted by legislation which are provided by the sewerage business to the community. Exclude pensioner rebates	Utilities may elect to provide reduced fees and charges for certain non-profit and community organisations and charities (including non-rateable properties) as permitted by legislation. This indicator reports the total amount of reductions provided to such community organisations in comparison with the standard fees and charges for non-residential customers.
61		Developer charges	Typical developer charge for this reporting year								$	The typical developer charge per equivalent tenement determined to recover part of the cost of sewerage infrastructure for new developments. This is a required field	
62		Developer charges	Typical developer charge for next reporting year								$	This is a required field	
63		Overflows and chokes	Sewage overflows to environment							A3	n	An overflow/surcharge in utility sewers, access chambers and pumping stations in any weather. This is a required field	Include contained and uncontained spills. Count each access chamber, pumping station etc. overflow as one overflow. Exclude spills or overflow caused by a blockage in the property connection sewer or customers house drains. Exclude overflows contained within emergency storages where there is no pollution of the environment
64	A10	Overflows and chokes	Gravity / reticulation main chokes and breaks							A2	n	Confirmed partial or total blockages or failure of the utility's sewer reticulation or trunk mains resulting in an interruption to the sewerage service. This is a required field	Exclude breaks and chokes in rising mains, property connections or chokes within customers house drains
65	A10	Overflows and chokes	Rising / pressure main chokes and breaks							A1	n	Chokes. breaks and leaks in sewer rising mains resulting in a significant interruption to the sewerage service. This is a required field	
66		Overflows and chokes	Sewer chokes and breaks attended within 5 hours								n		
67		Overflows and chokes	Chokes or breaks in property connections								n	Chokes, breaks or leaks in property connections resulting in an interruption to the sewerage service	Exclude blockages in customer's house drains (internal drains)
68		Overflows and chokes	Chokes in customer drains								n	Blockages in customer's internal drains (house drains)	
69		Environmental incidents	Category 1 incidents								n	Incidents with little or no impact on the environment	Examples: 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
70		Environmental incidents	Category 2 incidents								n	Incidents with limited and non-permanent impact on the environment	Examples: 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

Sewerage business data (continued)

NSW Ref	NWI Ref	Group	Indicator	0102	0203	03/04	04/05	05/06	2006/07	Accuracy Reliability	Unit	Definition	Instruction
71		Environmental incidents	Category 3 incidents								n	Incidents with major and irreversible impact on the environment	Examples: a dry weather sewer overflow; a major breach of environmental regulations; a major wet weather sewer overflow or an overflow for more than 3 hours; a failure of STW resulting in discharge of large volumes of untreated sewage to the environment; a major toxic chemical or sludge spill into waterways; widespread destruction of native forests/ecosystems; embankment failure of a sludge lagoon
72		Environmental incidents	Category 3 incidents detail										
73		Environmental management	Environmental management plan?								Y/N		
74		Environmental management	Plan developed in consultation with other bodies including Catchment Management Board								Y/N		
75		Environmental management	Environmental consultative process in place								Y/N		
76		Environmental management	Capital investment to improve environmental performance								$k	Capital expenditure with the principal outcome of improved environmental performance	This indicator highlights environmental improvement and innovation. Include expenditure undertaken for compliance purposes having IMPROVED performance as an outcome. Include backlog sewerage or new treatment works. Exclude renewals. Enter $111,500 as 111.5, $3,999,000 as 3999
77		Energy	Non-renewable energy								MWh		
78		Energy	Renewable energy								MWh	Energy derived from accredited renewable sources used by the sewerage business	
79		Energy	Total energy								MWh		
80	E9	Greenhouse gas emissions	Net emissions for this utility								t CO_2 eq	Net tonnes of CO2 equivalent emissions generated by the whole of your utility for its water supply and sewerage businesses, directly and indirectly through all its operations less allowance for sequestered carbon	This indicator should be reported for the whole of the business. The emissions generated by all aspects of the water and/or sewerage utility should be reported ie. emissions should be determined not just from the emissions associated with operations of the water and sewerage business but also from such sources as head office lighting, heating etc. Conversion factors should be based on those provided by the Australian Greenhouse Office at www.greenhouse.gov.au

Sewage treatment data

NSW Ref	NWI Ref	Group	Indicator	0102	0203	03/04	04/05	05/06	2006/07	Accuracy Reliability	Unit	Definition	Instruction
T1		Works parameters	Year built / augmented								year	Year of commissioning or latest major augmentation	
T2		Works parameters	Type of works									Select the primary treatment process if multiple processes are used	
T3		Works parameters	Standard of treatment										
T5		Works parameters	Nitrogen removal								Y/N	Select yes only if at least 90% of nitrogen is removed from effluent	
T6		Works parameters	Phosphorus removal								Y/N	Select yes only if this works operates either a chemical dosing facility to precipitate phosphorus or a carefully managed biological nutrient removal (BNR) system	
T10		Works parameters	Design capacity								EP		
T7a		Qualifications	Operator 1 qualification									Highest qualification obtained by this operator	
T7e		Qualifications	Year of qualification / update								year	Year qualification obtained or updated	
T7b		Qualifications	Operator 2 qualification									Highest qualification obtained by this operator	
T7f		Qualifications	Year of qualification / update								year	Year qualification obtained or updated	
T7c		Qualifications	Operator 3 qualification									Highest qualification obtained by this operator	
T7g		Qualifications	Year of qualification / update								year	Year qualification obtained or updated	
T7d		Qualifications	Operator 4 qualification									Highest qualification obtained by this operator	
T7h		Qualifications	Year of qualification / update								year	Year qualification obtained or updated	
T67		Malfunctions	Number of days of major treatment process failure								days	Include days when a significant treatment process was not operating. Exclude periods due to routine maintenance	Include loss of MLSS and odour production
T68	C4	Odour complaints	Number of complaints for this treatment works								n	A complaint is a written or verbal expression of dissatisfaction about an action, proposed action or failure to act by the utility, its employees or contractors. Complaints from separate customers arising from the same cause count as separate complaints. Includes complaints received by the water business in person, by mail, fax, phone, email or text message. Exclude complaints that have been investigated and can be shown not to arise from this treatment works	
T69	C4	Odour complaints	Number of complaints for pumping stations in this work's catchment								n	Exclude complaints that have been investigated and can be shown not to arise from pumping stations	
T8		Compliance summary	Licence expiry date								date		
T9		Compliance summary	Volume licenced								ML/d		
T64	E7	Compliance summary	Compliance with licence								Y/N		
T65		Compliance summary	Penalty or litigation for non-compliance								Y/N		
T66		Compliance summary	Details of penalty or litigation										
T49		Biochemical oxygen demand	90th percentile limit								mg/L		
T50		Biochemical oxygen demand	Percent compliance								%	Where the licence specifies a 90th percentile limit and the number of complying samples divided by the total number of scheduled samples is greater than 90%, compliance is deemed to be 100%	
T51		Total suspended solids	90th percentile limit								mg/L		
T52		Total suspended solids	Percent compliance								%	Where the licence specifies a 90th percentile limit and the number of complying samples divided by the total number of scheduled samples is greater than 90%, compliance is deemed to be 100%	
T53		Nitrogen (total)	90th percentile limit								mg/L		
T54		Nitrogen (total)	Percent compliance								%	Where the licence specifies a 90th percentile limit and the number of complying samples divided by the total number of scheduled samples is greater than 90%, compliance is deemed to be 100%	

NOTE: When a utility logs into the database, columns 5 to 9 are populated with the utiliity's historical data for the previous 5 years (2001/02 to 2005/06). This historical data is not able to be altered but utilities are able to enter data in column 10

Sewage treatment data (continued)

NSW Ref	NWI Ref	Group	Indicator	0102	0203	03/04	04/05	05/06	2006/07	Accuracy Reliability	Unit	Definition	Instruction
T57		Oil and grease	90th percentile limit								mg/L		
T58		Oil and grease	Percent compliance								%	Where the licence specifies a 90th percentile limit and the number of complying samples divided by the total number of scheduled samples is greater than 90%, compliance is deemed to be 100%	
T59		Phosphorus (total)	90th percentile limit								mg/L		
T60		Phosphorus (total)	Percent compliance								%	Where the licence specifies a 90th percentile limit and the number of complying samples divided by the total number of scheduled samples is greater than 90%, compliance is deemed to be 100%	
T61		Faecal coliforms	90th percentile limit								cfu/100 ml		
T62		Faecal coliforms	Percent compliance								%	Where the licence specifies a 90th percentile limit and the number of complying samples divided by the total number of scheduled samples is greater than 90%, compliance is deemed to be 100%	
T63		Sampling days	Number of scheduled sampling days								days	The scheduled sampling days are those specified in the treatment work's licence	
T12	W12	Volumes collected	Tankered septic tank effluent								kL		
T13	W12	Volumes collected	Tankered septic sludge / pan								kL		
T14	W12	Volumes collected	Tankered grease trap waste								kL		
T31	W12	Volumes collected	Networked infiltration / inflow								ML	Estimated groundwater infiltration and stormwater inflow	
T32	W12	Volumes collected	Networked residential								ML	Estimated networked residential sewage	
T33	W12	Volumes collected	Networked non-residential								ML	Estimated networked non-residential sewage	
T34	W12	Volumes collected	Networked trade waste								ML	Estimated networked trade waste	
T15	W12	Volumes collected	Total sewage collected								ML		
T16		Volumes treated	No treatment								ML		
T17	E1	Volumes treated	Primary treatment only								ML	Include volume processed to remove suspended solids only	
T18	E2	Volumes treated	Secondary treatment only								ML	Include volume subjected to primary treatment with further polishing of effluent to reduce biochemical oxygen demand and suspended solids. Exclude volume subject to primary treatment only	
T19	E3	Volumes treated	Tertiary treatment only								ML	Include volume subjected to secondary treatment plus extra disinfection of effluent using artificial wetland, ponds, chlorination, ozonation or UV treatment with filtering. Exclude volume subject to primary or secondary treatment only	
T20	W14	Volumes reused	Agriculture								ML	Include environmental flows if approved and substituted for raw water abstraction	
T20a	W14	Volumes reused	Horticulture / viticulture								ML		
T21	W14	Volumes reused	Municipal irrigation								ML	Include supply for watering race-courses, parks, gardens and ovals	
T22	W14	Volumes reused	Industrial / commercial								ML	Include supply for mining	
T23	W14	Volumes reused	Residential								ML	Include non-potable supply to residences	
T24	W13	Volumes reused	Treatment works processes								ML	Include supply for on-site reuse. Exclude evaporation loss	
T24b	W14	Volumes reused	Golf courses								ML		
T25	W14	Volumes reused	Total volume reused								ML		

Sewage treatment data (continued)

NSW Ref	NWI Ref	Group	Indicator	0102	0203	03/04	04/05	05/06	2006/07	Accuracy Reliability	Unit	Definition	Instruction
T25a		Charges	Usage charge for recycled town water								c/kL		
T26		Biosolids	Mass extracted								tonnes	Include stabilised organic solids extracted from effluent. Exclude screened inorganic material	
T27	E8	Biosolids	Percent of total mass reused								%	Include application as a soil conditioner on land used for agriculture or forestry, rehabilitation of mine and industrial sites and general landscaping. Include use in manufacturing other products. Include energy generation. Exclude landfill	
T29		Biosolids	Percent to landfill								%	Include injection below ground level, burial and disposal to tip or treatment works site.	
T30		Biosolids	Percent to other								%	Include incineration	
T36		Large trade waste dischargers	Number of LTWDs								n	A large trade waste discharger (LTWD) is one approved to discharge over 20 kL/d into the sewerage system	
T37		Large trade waste dischargers	Maximum daily volume								kL/d		
T38		Large trade waste dischargers	Equivalent BOD load								EP		
T39		Large trade waste dischargers	Equivalent TSS load								EP		
T40		Discharge	Volume disposed to ocean								ML	Include effluent disposed within estuaries	
T41		Discharge	Volume disposed to river / creek								ML	Include effluent disposed to wetlands connected to a river or creek. Exclude disposal within estuaries	
T42		Discharge	Volume disposed to land								ML	Include effluent disposed to evaporation basins, dunes and exfiltration beds	
T43		Flow data	Average dry weather flow - permanent population								L/s		
T44		Flow data	Average dry weather flow - peak population								L/s		
T45		Flow data	Peak dry weather flow - permanent population								L/s		
T46		Flow data	Peak dry weather flow - peak population								L/s		
T47		Flow data	Peak 24 hour wet weather flow								ML		
T48		Flow data	Peak 1 hour wet weather flow								L/s		

Australian Drinking Water Guidelines 2004 – Sampling location and frequency

Guidelines

The Australian Drinking Water Guidelines 2004 (NHMRC/NRMMC) supersede the 1996 Guidelines. The **main difference** between the 2004 Guidelines and those of 1996 is that the new Guidelines include the Framework for Management of Drinking Water Quality. The Framework incorporates a preventative risk management approach to water supply system management.

The Guidelines outline the aesthetic and health characteristics required for good quality drinking water. It is recommended that NSW local water utilities (LWUs) adopt a 'best practice' approach for the supply of drinking water using the Framework for Management of Drinking Water Quality. In addition, the *Best-Practice Management of Water Supply and Sewerage Guidelines*, 2007 strongly encourage all LWUs to prepare and implement a risk based drinking water quality management plan using relevant elements of the Framework. The measurable characteristics fall into the following categories:

- Microbiological
- Physical
- Chemical
- 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 10.16 to 10.19 (all references to pages in this attachment refer to the Guidelines). NSW Health recommends that drinking water quality monitoring rotate amongst designated sample sites throughout the distribution system. Sample sites should give good geographical representation of the water supply system and enable the comparison of water quality over time for particular sections of the system.

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 10.16 to 10.19.

The sampling frequency required for microbiological quality is provided on page 10.5 and summarised in Table 1. The frequency should be increased following repair work, interruptions to supply, at times of flooding or during/after emergency operations. With small water supply systems, periodic sanitary surveys are likely to yield more information than infrequent sampling.

Table 1 – Microbiological quality sampling frequency*

Population	Recommended no. of samples
<1,000	Refer to pages 10.14 to 10.15 of the Guidelines.
1,000 to 5,000	1 sample per week.
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, colour	Fortnightly at water treatment works or chlorinator. Monthly sample to lab in systems serving a population of 5,000 or more, otherwise biannually.
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 of a particular water supply should be undertaken more frequently as shown in Table 3 where these are significant.

Table 3 – Chemical quality sampling frequency#

Characteristic	Sampling frequency
Fluoride	Daily if the water supply is fluoridated
Iron, manganese, copper, nitrate, 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 be of concern to people on a low-sodium diet.

Radiological sampling should be assessed when a new water supply is brought into service, and then every two years for groundwater supplies and every five years for surface water supplies (page 10.14).

In order to satisfy the guidelines it may be necessary to carry out more frequent monitoring for some characteristics. Each water utility should carry out a detailed assessment of its water supply system when planning a monitoring program.

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 page 10.21 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

Guideline values for physical and chemical characteristics are shown on pages 10.22 to 10.26. Health related physical and chemical water quality is satisfactory if, over the preceding 12 months, 95 per cent of the results are less than the guideline value (page 10.20). For non health related characteristics, water quality is satisfactory if the mean of results is less than the guidelines value (page 10.20).

Examples of environmental and public health incidents

Water supply

Environmental incidents(NSW Ref 141 to 144 on page 208)

Category 1 – Minor incidents with inconsequential effects

- A reportable incident but not a breach of environmental regulations.
- An incident resulting in under four 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, e.g. non maintenance of the required environmental flows.
- An incident resulting in over four 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.

Public health incidents(NSW Ref 115 to 118 on page 207)

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 2004 NHMRC/NRMMC water quality guidelines for over seven days.
- A system-wide boil water notice.
- A failure of a disinfection system for over three days.
- A failure of major treatment processes at a treatment works for over four 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 two days (if over seven 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 seven 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

Environmental incidents (NSW Ref 69 to 72 on pages 213 and 214)

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, e.g.:
  - discharge of partially treated effluent to receiving waters
  - embankment failure of an effluent pond.
- A wet weather sewer overflow for under trhee hours.
- An incident resulting in over four 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, e.g.:
  - a major wet weather sewer overflow or an overflow for over three 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.

Public health incidents(NSW Ref 44 to 47 on page 212)

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 four days.
- An incident resulting in unplanned interruptions to service for over three 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

SPECIAL SCHEDULE NO 3
WATER SUPPLY OPERATIONS
(Gross including Internal Transactions)
for the year ended 30th June 2007

	A. EXPENSES & REVENUES	2007	2006
	EXPENSES	**$'000**	$'000
1.a.	Management - Administration		
b.	- Engineering & Supervision		
2	Operations		
a.	- Dams & Weirs - Operation Expenses		
b.	- Maintenance Expenses		
c.	- Mains - Operation Expenses		
d.	-Maintenance Expenses		
e.	- Reservoirs - Operation Expenses		
f.	- Maintenance Expenses		
g.	- Pumping Stations - Operation Expenses		
h.	- Energy Costs		
I.	- Maintenance Expenses		
j.	- Treatment - Operation Expenses		
k.	- Chemical Costs		
l.	- Maintenance Expenses		
m.	- Other - Operation Expenses		
n.	- Maintenance Expenses		
o.	- Purchase of Water		
3.a.	Depreciation - System Assets		
b.	- Plant & Equipment		
4.a.	Miscellaneous - Interest		
	- Revaluation decrements		
b.	- Other		
	- NCP Tax & Other Equivalents		
5	**Total Expenses**		
	REVENUE		
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		
10	Other Income		
11.a.	Grants - Acquisition of Assets		
b.	- Pensioner Rebates		
c.	- Other		
12.a.	Contributions - Developer Charges		
b.	- Developer Provided Assets		
c.	- Other Contributions		
13	**Total Revenues**		
14	Gain (Loss) on Disposal of Assets		
15	**OPERATING RESULT**		
15a.	Operating Result before Grants for Acquisition of Assets		

COUNCIL

SPECIAL SCHEDULE NO 3 - WATER SUPPLY OPERATIONS (cont)

		2007	2006
	B. CAPITAL TRANSACTIONS	**$'000**	$'000
	Non - Operating Expenditure		
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	Transfers to Sinking Funds		
19	**Total Non-Operating Expenditure**		
	Non-Operating Funds Employed		
20	Proceeds from Disposal of Assets		
21	Borrowings Utilised		
a.	- Loans		
b.	- Advances		
c.	- Finance Leases		
22	Transfers from Sinking Funds		
23	**Total Non-Operating Funds Employed**		

	C. RATES & CHARGES		
24	Number of Assessments		
a.	- Residential (occupied)		
b.	- Residential (unoccupied ie. vacant lot)		
c.	- Non-Residential (occupied)		
d.	- Non -Residential (unoccupied ie. vacant lot)		
25	Number of ETs for which Developer Charges were received	ET	
26	Total Amount of Pensioner Rebates	$'000	

	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, has Council removed **land value** from access charges (i.e. rates)	☐	
b	Cross subsidy **from** residential customers using less than allowance		
c	Cross subsidy **to** non-residential customers		
d	Cross subsidy **to** large connections in unmetered supplies		
28	**Developer Charges**		
a	Has Council completed a water supply Development Servicing Plan?	☐	
b	Total cross-subsidy in water supply developer charges		
29	**TOTAL OF CROSS SUBSIDIES**		

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

SPECIAL SCHEDULE NO 4
WATER SUPPLY - NET ASSETS COMMITTED
(Gross including Internal Transactions)
for the year ended 30th June 2007

		Current	Non-Current	Total
	ASSETS	$'000	$'000	$'000
30	Cash and Investments			
a.	- Developer Charges			
b.	- Specific Purpose Grants			
c.	- Accrued Leave			
d.	- Unexpended Loans			
e.	- Sinking Funds			
f.	- Other			
31	Receivables			
a.	- Specific Purpose Grants			
b.	- Rates & Availability Charges			
c.	- Other			
32	Inventories			
33	Property, Plant & Equipment			
a.	- System Assets			
b.	- Plant & Equipment			
34	Other			
35	**Total Assets**			
	LIABILITIES			
36	Bank Overdraft			
37	Creditors			
38	Borrowings			
a.	- Loans			
b.	- Advances			
c.	- Finance Leases			
39	Provisions			
	- Tax Equivalents			
a.	- Dividend			
b.	- Other			
40	**Total Liabilities**			
41	**NET ASSETS COMMITTED**			
	EQUITY			
42	Accumulated Surplus			
43	Asset Revaluation Reserve			
44	**Total Equity**			

45	Current Replacement Cost of System Assets	
46	Accumulated Current Cost Depreciation of System Assets	
47	Written Down Current Cost of System Assets	

COUNCIL

SPECIAL SCHEDULE NO 5
SEWERAGE SERVICE OPERATIONS
(Gross including Internal Transactions)
for the year ended 30th June 2007

	A. EXPENSES & REVENUES	**2007**	2006
	EXPENSES	**$'000**	$'000
1.a.	Management - Administration		
b.	- Engineering & Supervision		
2	Operations & Maintenance Expenses		
a.	-Mains - Operation Expenses		
b.	-Maintenance Expenses		
c.	- Pumping Stations - Operation Expenses		
d.	- Energy Costs		
e.	- Maintenance Expenses		
f.	- Treatment - Operation Expenses		
g.	- Chemical Costs		
h.	- Energy Costs		
I.	- Effluent Management		
j.	- Biosolids Management		
k.	- Maintenance Expenses		
l.	- Other - Operation Expenses		
m.	- Maintenance Expenses		
3.a.	Depreciation - System Assets		
b.	- Plant & Equipment		
4.a.	Miscellaneous - Interest		
	- Revaluation decrements		
b.	- Other		
	- NCP Tax & Other Equivalents		
5	**Total Expenses**		
	REVENUE		
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 & Re-inspection Fees		
9	Extra Charges		
10	Interest		
11	Other Income		
12.a.	Grants - Acquisition of Assets		
b.	- Pensioner Rebates		
c.	- Other		
13.a	Contributions - Developer Charges		
b.	- Developer Provided Assets		
c.	- Other Contributions		
14	**Total Revenues**		
15	Gain (Loss) on Disposal of Assets		
16	**OPERATING RESULT**		
16.a.	Operating Result before Grants for Acquisition of Assets		

COUNCIL

SPECIAL SCHEDULE NO 5 - SEWERAGE SERVICE OPERATIONS (cont)

		2007	2006
	B. CAPITAL TRANSACTIONS	**$'000**	$'000
	Non - Operating Expenditure		
17	Acquisition of Fixed Assets		
a.	- Subsidised Scheme		
b.	- Other New System Assets		
c.	- Renewals		
d.	- Plant & Equipment		
18	Repayment of Debt		
a.	- Loans		
b.	- Advances		
c.	- Finance Leases		
19	Transfers to Sinking Funds		
20	**Total Non-Operating Expenditure**		
	Non-Operating Funds Employed		
21	Proceeds of Disposal of Assets		
22	Borrowings Utilised		
a.	- Loans		
b.	- Advances		
c.	- Finance Leases		
23	Transfers from Sinking Funds		
24	**Total Non-Operating Funds Employed**		

	C. RATES AND CHARGES		
25	Number of Assessments		
a.	- Residential (occupied)		
b.	- Residential (unoccupied ie. vacant lot)		
c.	- Non-Residential (occupied)		
d.	- Non-Residential (unoccupied ie. vacant lot)		
26	Number of ETs for which Developer Charges were received	ET	
27	Total Amount of Pensioner Rebates	$'000	

	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, has Council removed **land value** from access charges (i.e. rates)	☐	
b	Cross subsidy **to** non-residential customers		
c	Cross subsidy **to** trade waste dischargers		
29	**Developer Charges**		
a	Has Council completed a sewerage Development Servicing Plan?	☐	
b	Total cross-subsidy in sewerage developer charges		
30	**TOTAL OF CROSS SUBSIDIES**		

Councils which have not yet implemented best practice sewerage pricing and 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

SPECIAL SCHEDULE NO 6
SEWERAGE SERVICES - NET ASSETS COMMITTED
(Gross including Internal Transactions)
for the year ended 30th June 2007

		Current	Non-Current	Total
	ASSETS	$'000	$'000	$'000
31	Cash and Investments			
a.	- Developer Charges			
b.	- Specific Purpose Grants			
c.	- Accrued Leave			
d.	- Unexpended Loans			
e.	- Sinking Funds			
f.	- Other			
32	Receivables			
a.	- Specific Purpose Grants			
b.	- Rates & Availability Charges			
c.	- Other			
33	Inventories			
34	Property, Plant & Equipment			
a.	- System Assets			
b.	- Plant & Equipment			
35	Other			
36	**Total Assets**			
	LIABILITIES			
37	Bank Overdraft			
38	Creditors			
39	Borrowings			
a.	- Loans			
b.	- Advances			
c.	- Finance Leases			
40	Provisions			
	- Tax Equivalents			
a.	- Dividend			
b.	- Other			
41	**Total Liabilities**			
42	**NET ASSETS COMMITTED**			
	EQUITY			
43	Accumulated Surplus			
44	Asset Revaluation Reserve			
45	**Total Equity**			
46	Current Replacement Cost of System Assets			
47	Accumulated Current Cost Depreciation of System Assets			
48	Written Down Current Cost of System Assets			

COUNCIL

NOTES TO AND FORMING PART OF THE SPECIAL PURPOSE STATEMENTS
for the year ended 30th June 2007

Note 2 - BEST PRACTICE MANAGEMENT DISCLOSURES - WATER SUPPLY

			2007 $
		Values shown in this Note are expressed in WHOLE DOLLARS	
		Calculation and Payment of Tax-Equivalents	
1	(i)	Calculated Tax Equivalents	
2	(ii)	No of assessments multiplied by $3/assessment	
3	(iii)	Amounts payable for Tax Equivalents	
4			
5		**Dividend from Surplus**	
6	(i)	50% of Surplus before Dividends	
7		*(Calculated in accordance with* Best Practice Management for Water Supply and Sewerage *guidelines.)*	
8	(ii)	No of assessments multiplied by $30/assessment, less tax equivalent charges/assessment	
9	(iii)	Cumulative Surplus before Dividends for 3 years to 30 June 2007, less cumulative dividends paid for 2 years to 30 June 2006	
10	(iv)	Maximum Dividend from Surplus (least of (i), (ii) and (iii))	
11	(v)	Dividend paid from Surplus	
12			
13		**Required Outcomes for 6 Criteria**	
14	(i)	Completion of Strategic Business Plan (including Financial Plan)	
15	(ii)	Pricing with full cost-recovery, without significant cross subsidies (Item 2(a) in Table 1 on page 18 of Best practice guidelines)	
16		Complying charges (Item 2(b) in Table 1)	
17		DSP with Commercial Developer Charges (Item 2(e) in Table 1)	
18		If Dual Water Supplies, Complying Charges (Item 2(g) in Table 1)	
19	(iii)	Sound Water Conservation & Demand Management Implemented	
20	(iv)	Sound Drought Management implemented	
21	(v)	Complete Performance Reporting (by 15 September each year)	
22	(vi)	Integrated Water Cycle Management Strategy (by June 2006)	
23			
24		**National Water Initiative (NWI) Financial Performance Indicators**	
25	NWI F4	Residential Revenue from Usage Charges (Water)	%
26	NWI F1	Total Revenue (Water)	$'000
27	NWI F20	Capital Works Grants (Water)	$'000
28	NWI F13	Economic Real Rate of Return (Water)	%
29	NWI F6	Operating Cost (OMA) (Water)	$'000
30	NWI F9	Total Operating Cost (Water)	$'000

COUNCIL

NOTES TO AND FORMING PART OF THE SPECIAL PURPOSE STATEMENTS
for the year ended 30th June 2007

Note 3 - BEST PRACTICE MANAGEMENT DISCLOSURES - SEWERAGE

			2007 $
		Values shown in this Note are expressed in WHOLE DOLLARS	
		Calculation and Payment of Tax-Equivalents	
1	(i)	Calculated Tax Equivalents	
2	(ii)	No of assessments multiplied by $3/assessment	
3	(iii)	Amounts payable for Tax Equivalents (lesser of (i) and (ii))	
4			
5		**Dividend from Surplus**	
6	(i)	50% of Surplus before Dividends	
7		*(Calculated in accordance with* Best Practice Management for Water Supply and Sewerage *guidelines.)*	
8	(ii)	No of assessments multiplied by $30/assessment, less tax equivalent charges/assessment	
9	(iii)	Cumulative Surplus before Dividends for 3 years to 30 June 2007, less cumulative dividends paid for 2 years to 30 June 2006	
10	(iv)	Maximum Dividend from Surplus (least of (i), (ii) and (iii))	
11	(v)	Dividend paid from Surplus	
12			
13		**Required Outcomes for 4 Criteria**	
14	(i)	Completion of Strategic Business Plan (including Financial Plan)	
15	(ii)	Pricing with full cost-recovery, without significant cross subsidies (Item 2(a) in Table 1 on page 18 of Best practice guidelines)	
16		Complying charges (a) Residential (Item 2(c) in Table 1)	
17		(b) Non-Residential (Item 2(c) in Table 1)	
18		(c) Trade Waste (Item 2(d) in Table 1)	
19		DSP with Commercial Developer Charges (Item 2(e) in Table 1)	
20		Liquid Trade Waste Approvals & Policy (Item 2(f) in Table 1)	
21	(iii)	Complete Performance Reporting (by 15 September each year)	
22	(iv)	Integrated Water Cycle Management Evaluation (by June 2007)	
23			
24		**National Water Initiative (NWI) Financial Performance Indicators**	
25	NWI F2	Total Revenue (Sewerage)	$'000
26	NWI F21	Capital Works Grants (Sewer)	$'000
27	NWI F11	Capital Expenditure (Water & Sewerage)	$'000
28	NWI F14	Economic Real Rate of Return (Sewerage)	%
29	NWI F12	Economic Real Rate of Return (Water & Sewerage)	%
30	NWI F16	Net Debt to Equity (Water & Sewerage)	%
31	NWI F17	Interest Cover (Water & Sewerage)	times
32	NWI F18	Net Profit after Tax (Water & Sewerage)	$'000
33	NWI F19	Community Service Obligations (Water & Sewerage)	$'000
34	NWI F5	Revenue from Community Service Obligations (Water & Sewerage)	%
35	NWI F7	Operating Cost (OMA) (Sewerage)	$'000
36	NWI F10	Total Cost (Sewerage)	$'000

Notes to special schedule numbers 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 distinction between capital and maintenance expenditure).

Other expenses (item 4b of Special Schedules 3 and 5) include all expenses not recorded elsewhere.

Residential charges** (items 6a, 6b and item 6 of Special Schedules 3 and 5 respectively) include all revenues from residential charges. Item 6 of Schedule 3 should be separated into 6a Access Charges (including rates if applicable) and 6b User Charges.

Non-residential charges** (items 7a, 7b of Special Schedules 3 and 5) include all revenues from non-residential charges separated into 7a Access Charges (including rates if applicable) and 7b User Charges.

Trade waste charges (item 8 of Special Schedule 5) include all revenues from trade waste charges separated into 8a Annual Fees, 8b Usage Charges and 8c Excess Mass Charges and Re-inspection Fees.

Other revenues (items 10 and 11 of Special Schedules 3 and 5 respectively) include all revenues not recorded elsewhere.

Other contributions (items 12c and 13c of Special Schedules 3 and 5 respectively) include capital contributions for water supply or sewerage services received by Council under Section 565 of the Local Government Act.

* Administration and engineering costs for the development of capital works projects should be reported as part of the capital cost of the project and not as part of the recurrent expenditure (ie. in item 16 for water supply and item 17 for sewerage, and not in items 1a and 1b).

** It is essential for councils to accurately separate their residential (item 6) and non-residential (item 7) charges.

Formulae for calculation of performance indicators in Table 5

5. 2006/07 NSW Water Utility Performance Summary

Column No.	Performance Indicator	Background to Formula	Formula
	Water Supply		
(1)	Water Supply Connected Properties (No.)	Total number of water supply connected properties (Residential plus Non-residential).	From Col (20) Table 9
(2)	Total Water Supplied (Potable + Non-potable + Recycled) (ML)	Total annual water supplied (Potable plus Non-potable plus recycled. Excludes bulk water supplied). 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 Water Supplied (Potable) (kL/ connected property)	Where an LWU has not reported potable residential water supplied, the residential water supplied has been estimated as 58% of the reported annual potable water supplied. As shown in Note 8 of Table 8, the average reported residential water supplied is 58% of the total potable water supplied.	From Col (56) Table 10
(3a)	Water Main Breaks (per 100km of main)		From Col (42) Table 10
(3b)	Average Duration of an Unplanned Interruption (mins)		From Col (78) Table 12
(4)	Revenue ($M)	Total Revenue including gain/loss on disposal of assets, less grants for acquisition of assets, less interest income [Residential Charges + Non-residential Charges + Extra Charges + Grants (excluding grants for Acquisition of Assets) + Contributions (Developer Charges + Developer Provided Assets + Other Contributions)] + Gain/loss on disposal of assets.	From Col (57) Table 11
(7)	Water Quality Compliance - Chemical (%)	Chemical water quality compliance	From Col (70) Table 12
(8)	Water Quality Compliance - Microbiological - E. coli (%)	Number of samples tested that meet the water quality requirements divided by the total number of samples tested. Note that this is the number of samples not tests, one sample may have a number of tests performed.	From Col (71) Table 12
(8a)	% Population with Microbiological Compliance		From Col (71b) Table 12
(8b)	Water Quality Complaints (per 1000 properties)		From Col (73) Table 12
	Sewerage		
(9)	Revenue ($M)	Total Revenue including gain/loss on disposal of assets, less grants for acquisition of assets and less revenue from investment activities. [Residential Charges + Non-residential Charges + Trade Waste Charges + Extra Charges + Other Revenues + Grants (less receipts from government for Acquisition of Assets) + Contributions (Developer Charges + Developer Provided Assets + Other Contributions)] + Gain/loss on disposal of assets.	From Col (42) Table 16
(10)	% Sewage that was Compliant		From Col (33a) Table 15
(10a)	Sewer Overflows		From Col (25) Table 15
(11)	Sewage Odour Complaints	Sum of odour complaints from all sewage treatment works.	From Col (61) Table 17
(12)	Recycled Water	Effluent Recycled	From Col (41a) Table 15
(12a)	Recycled Water	Percent of Effluent Recycled	From Col (41c) Table 15
	Water Supply and Sewerage		
(13a)	Net Profit After Tax		Col (32) Table 5A
(13b)	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)	Current Replacement Cost per Assessment		Col (62) Table 11 + Col (47) Table 16
(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)	Economic Real Rate of Return (%)		Col (25) Table 5A
(19a)	Net Debt to Equity		Col (26) Table 5A
(19b)	Capital Expenditure ($/property)		Col (24B) Table 5A
(19b)	Capital Expenditure ($M)		Col (31a) Table 9 + Col (13a) Table 14
(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 5A

5A. 2006/07 NSW Water Utility Performance Summary

Column No.	Performance Indicator	Background to Formula	Formula
	Water Supply & Sewerage		
(22)	Billing Complaints	Billing complaints for both water supply and sewerage businesses.	$(Q_{99\ Water} + Q_{37\ Sewerage}) \div$ Col(20) Table 9
(23)	Average Connect Time to a Telephone Operator (secs)	Connect time to a telephone operator for both water supply and sewerage businesses.	$(Q_{103\ Water}$ or $Q_{41\ Sewerage})$
(24)	Net Greenhouse Emissions (tonnes)	Net greenhouse emissions for the whole water utility.	(Q_{147})
(25)	Economic Real Rate of Return (%)	Revenue from operations (water supply and sewerage) less operating expenses (OMA + current cost depreciation) divided by written down replacement value of water supply and sewerage operational assets. Revenue from operations excludes interest income, grants for acquisition of assets or gain/loss on disposal of assets. Operational assets include system assets and plant and equipment.	$[(W_{15} - W_9 - W_{11a} - W_{14} + W_{4a} + W_{4b}) + (S_{16} + S_{4a} + S_{4b} - S_{10} - S_{12a} - S_{15})] \times 100 \div (S_{34} + W_{33})$
(26)	Net Debt to Equity	Net debt (water supply and sewerage) divided by equity (water supply and sewerage). Net debt is borrowings plus bank overdrafts less cash and investments. Equity is Total Assets less Total Liabilities.	$[(W_{36} + W_{38} - W_{30}) + (S_{37} + S_{39} - S_{31})] \times 100 \div (W_{44} + S_{45})$
(27)	Interest Cover	Earnings before interest and tax (EBIT) for the whole water utility (water supply and sewerage) divided by net interest expense for the whole water utility (water supply and sewerage). The interest cover is nil for a loss making utility. Net interest expense is interest expenses less interest income and is zero for interest income greater than interest expense.	$[(W_{15} - W_9 - W_{11a} + W_{4a}) + (S_{16} - S_{10} - S_{12a} + S_{4a})] \div (W_{4a} - W_9 + S_{4a} - S_{10})$
(29)	Dividend		From SPFR Notes 2 & 3
(30)	CSOs	Subsidy provided by government to allow for the provision of a service at less than the total cost. Eg. If legislation requires a utility to provide a $100 reduction to the water bills for pensioners for which the government provides $60, the CSO is $60.	
(31)	% Revenue from CSOs	Revenue from CSOs divided by the total revenue (including CSOs).	

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).

C. References to Q (eg. $Q_{99Water}$) refer to questions in each LWU's Water Supply or Sewerage Performance Reporting database.

Formulae for calculation of performance indicators in Tables 6 and 7

6. Water Supply - 2006/07 Charges, 2007/08 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
(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 (13) Table 8]
(7)	Typical Developer Charge 2007/08 ($/Equivalent Tenement(ET))	Upfront infrastructure contribution for new developments.	Q_{136} (see notes C & D)
(8)	Typical Residential Bill 2007/08 ($/assessment) (see note D)	Calculated using the average residential water supplied for 2006/07 multiplied by the usage charges for 2007/08 plus the access charge for 2007/08.	Col(5) x Col(14) ÷ 100 + Col(2) Table 6
(11)	Return on Assets (%)	Total revenue less grants for acquisition of assets less total expenses plus revaluation decrements plus other expenses divided by written down replacement value of operational assets. Total revenue excludes gain/loss on disposal of assets. Operational assets include system assets plus plant and equipment.	$[(W_{13} - W_{11a} - W_5 + W_{4b} + W_{4c})] \times 100 \div (W_{47})$
(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 and grants for acquisition of assets and gain/loss on disposal of assets. Operational assets include system assets plus plant and equipment.	$[(W_{15} + W_{4a} + W_{4b} + W_{4c} - W_9 - W_{11a} - W_{14})] \times 100 \div (W_{47})$
(13)	Residential Revenue from Usage Charges (% of residential bills)	Revenue from residential usage charges divided by total residential revenue (residential usage plus access charges including any rates).	$W_{6b} \times 100 \div [W_{6a} + W_{6b}]$
(14)	Average Annual Residential Water Supplied (potable) (kL/property)	Average annual residential water supplied (potable). Where an LWU has not reported residential water supplied and at least one of commercial and industrial consumption, 58% 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 2007/08 ($/Equivalent Tenement(ET))	Upfront infrastructure contribution for new developments.	Q_{62} (see notes C & D)
(8)	Typical Residential Bill 2007/08 ($/assessment) (see note D)	Calculated using the access charge for 2007/08 plus, if council has residential sewer usage charges, the average residential water consumption for 2006/07 multiplied by the usage charges and usage factor for 2007/08.	(1)
(9)	Return on Assets (%)	Total revenue less grants for acquisition of assets less total expenses plus revaluation decrements plus other expenses divided by written down replacement value of operational assets. Total revenue excludes gain/loss on disposal of assets. Operational assets include system assets plus plant and equipment.	$[(S_{14} - S_5 - S_{12a} + S_{4b} + S_{4c})] \times 100 \div (S_{48})$
(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 and gain/loss on disposal. Operational assets include system assets plus plant and equipment.	$[(S_{16} + S_{4a} + S_{4b} + S_{4c} - S_{10} - S_{12a} - S_{15})] \times 100 \div (S_{48})$
(12)	Connected Properties	Total connected properties (residential plus non-residential). Calculated from number of assessments multiplied by the ratio of connected properties to assessments.	from Col(3) Table 14

Notes:

A. References to Q (eg. $Q_{99Water}$) refer to questions in each LWU's Water Supply or Sewerage Performance Reporting database.

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 and 9

8. 2006/07 Water Supplied in Non-Metropolitan NSW

Column No.	Performance Indicator	Background to Formula	Formula
(1)	Residential	Domestic (inhouse and ex-house) potable water consumption.	Q_{54}
(2)	Commercial	Offices, shops, clubs, hotels, motels, caravan parks potable consumption.	Q_{55}
(3)	Industrial	Factories, mills, poultry, feed lots, sale yards, abbatoirs, mining potable consumption.	Q_{56}
(4)	Rural	Farms or hobby farms outside urban zoned land, includes stock and domestic uses, market gardens, agricultural irrigation potable consumption.	Q_{57}
(5)	Institutional	Hospitals, schools, colleges etc potable consumption.	Q_{58}
(6)	Public Parks and Gardens	Watering of public parks, gardens, ovals etc using potable water.	Q_{60}
(7)	Total Revenue Water (potable)		Sum (1) to (6)
(8)	Unbilled Authorised Consumption (see note C)	Includes fire fighting and flushing.	Q_{61}
(9)	Real Loss (Leakage) (see note C)	Leakage. Real loss is included in water losses.	Q_{68}
(9a)	Apparent Loss	Illegal use plus meter inaccuracies	Q_{67}
(9b)	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.	(9a) + (9)
(9c)	Total Non-revenue Water	Sum unbilled authorised consumption plus water losses	(8) + (9b) or (7)/0.9 - (7)
(10)	Total Potable Urban Water Supplied	Sum of Total Revenue water plus Total Non-revenue water.	(7) + (9c)
(12b)	Non- Potable Urban Water Supplied	Includes untreated water for industry or non-potable water component in a dual water supply system and may also include recycled water .	Q_{72}
(13)	Total Annual Urban Water Supplied	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.	$Q_{71} + Q_{72} - Q_{22} . Q_{23}$
(14)	Bulk Water Exports	Sales to other Local Water Utilities (LWUs) of potable and non-potable water.	Q_{59}
(11)	Recycled Water for Non-Potable Urban Water Supply	The volume of recycled water should be consistent with the volume shown in Q22 and Q23 of the Sewerage Treatment Report.	$Q_{22} + Q_{22}$ (sewage treatment)
(11a)	Recycled Water for Agricultural use	The volume of recycled water should be consistent with the volume shown in Q21 to Q22 of the Sewerage Treatment Report.	$Q_{20} + Q_{21}$ (sewerage treatment)
(11c)	% Effluent Recycled		[(11) + (11a)] / Q_{26} (sewerage treatment)
(15)	Surface Water Source	Surface water plus ground water plus bulk purchases should equal total annual water consumption.	Q_{41} to Q_{44}
(16)	Groundwater Source		Q_{45}
(17)	Bulk Purchases	Potable plus non-potable	$Q_{48} + Q_{49}$

9. Water Supply - Utility Characteristics

Column No.	Performance Indicator	Background to Formula	Formula
(18)	Total No. of Assessments (see note C)	Where this data is ambiguous or missing, it has been estimated from other supporting information (financial data, previous year's data).	Q_{36}
(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	Q_{30}
(19)	Ratio of Connected Properties to Assessments (see note C)	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	
(20)	Connected Properties	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 note C)	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	
(22)	Ratio of Residential Connections to Residential Assessments (see note C)	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	
(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_{1}
(24)	Peak Population		Q_{2}
(25)	Mains	Total length of mains including trunk mains and reticulation.	Q_{22}
(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_{17}
(27a)	Other Limited Treatment	Number of Chlorinators	
(28)	Dams	Number of dams.	Q_{7}
(29)	Bores	Number of water supply bores.	Q_{13}
(30)	Pumping Stations	Number of pumping stations.	Q_{15}
(30a)	Pumping Stations per 100km of main	Number of pumping stations divided by length of main.	Col(30) ÷ [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_{120}
(33)	% Female	% of equivalent full time female employees in total water supply workforce.	Q_{120} x 100 ÷ Q_{121}
(34)	% Undergoing Training	% of employees in water supply workforce undergoing training for 2 or more days during the year.	Q_{122} x 100 ÷ Q_{120}
(35)	Outsourcing % of Management Cost	% expended on outsourcing for management of water supply business.	Q_{128}
(36)	Outsourcing % of Operation Cost	% expended on outsourcing for operation of water supply business.	Q_{129}
(37)	Outsourcing % of Maintenance Cost	% expended on outsourcing for maintenance of water supply business.	Q_{130}
(38)	Number of Injuries	Number of injuries (fatality, permanent disability or time loss of one or more days) in water supply business.	Q_{124}
(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_{123} ÷ (230 x Q_{120})
(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_{125}
(40)	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_{125} x 100) / Q_{123}

Notes:

A. References to Q (eg. $Q_{99Water}$) refer to questions in each LWU's Water Supply Performance Reporting database.

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 Tables 10 and 11

10. Water Supply - 2006/07 Asset Management

Column No.	Performance Indicator	Background to Formula	Formula
(41)	Leakage	Real loss or leakage L per day per connection.	$Q_{68} \div 365 \div$ column (18a) Table 9
(41b)	Infrastructure Leakage Index (ILI)	Ratio of Current Annual Real Loss to Unavoidable Annual Real Loss	
(41c, 41d, 41e)	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.	$Q_{104} \div (Q_{22} \div 100)$
(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_{106} x 1000 ÷ Col(20) Table 9
(44)	Rehabilitation of mains	Length of mains rehabilitated per 100km of main.	$Q_{23} \div (Q_{22} \div 100)$
(45)	Rehabilitation of service connections	Number of service connections rehabilitated as % of total.	Q_{24} x 100 ÷ Col(20) Table 9
(46)	Renewals per 100km of main	Expenditure on renewals of mains per 100km of main.	$W_{16c} \div (Q_{22} \div 100)$
(47)	Renewals as % of CRC	Expenditure on renewals of mains as percentage of Current Replacement Cost (CRC) of systems assets.	W_{16c} x 100 ÷ (Col(61) Table 11 x 1000)
(48)	Mains Maintenance Cost	Expenditure on maintenance of mains per 100km of main.	$W_{2d} \div (Q_{22} \div 100)$
(49)	Total Urban 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 Urban 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 (11) on Table 8
(51)	% Water Recycled	For non-potable urban water supplied.	see column (13) 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]
(56)	Average Annual Residential Water Supplied (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 Revenue (excl Capital Works Grants) ($'000)	Total Revenue excluding grants for acquisition of assets and interest income but including gain/loss from disposal of assets [Residential Charges + Non-residential Charges + Extra Charges + Other Revenues + Grants (excluding 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 Water Supplied (% of potable water supplied excluding water losses)	% of potable water excluding water losses.	$(Q_{54} \div (Q_{62})) \times 100$
(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)	Net Debt to Equity (%)	All overdrafts, repayable borrowings, interest bearing non-repayable borrowings, advances and leases less cash and investments divided by total equity.	$(W_{36} + W_{38} - W_{30}) \times 100 \div W_{44}$
(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 (plus proportion of bulk supplier OMA or purchase cost of water if no bulk supplier) divided by total number of connected properties.	$[W_1 + W_{2(a\ to\ n)}] \div$ Col(20) Table 9 plus bulk suppliers OMA
(68)	Total Cost (OMA + Depreciation) ($/property)	Total operation, maintenance and administration costs (plus proportion of bulk supplier OMA or purchase cost of water if no bulk supplier) + 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. $Q_{99Water}$) refer to questions in each LWU's Water Supply Performance Reporting database.

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 - 2006/07 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
(70a)	No. of Zones where Chemical Compliance was Achieved	Assessment with the chemical requirements of the water quality guidelines for each zone of the system.	Report as number of zones complying out of the total number of zones
(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
(71a)	No. of Zones where Microbiological Compliance was Achieved	Assessment with the chemical requirements of the water quality guidelines for each zone of the system.	Report as number of zones complying out of the total number of zones
(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_{101} 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_{96} x 1000 ÷ Col(20) Table 9
(75)	Total Water Complaints (per 1000 properties)		Q_{102} x 1000 ÷ Col(20) Table 9
(75a)	Customers with Restrictions for Non-payment of Bills		Q_{132} 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_{106} x Q_{107} 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_{106} x 1000] ÷ Col(20) Table 9
(78)	Average Duration of Interruptions (hours)	Average duration of unplanned interruptions.	Q_{107}
(78a)	Drought Water Restrictions	Percent of time that water restrictions apply.	(Q_{95} ÷ 365) x 100

Notes:

A. References to Q (eg. $Q_{99Water}$) refer to questions in each LWU's Water Supply Performance Reporting database.

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 T16 multiplied by T17 for each treatment works. Divide the total by the sum of T16 for all treatment works.
Chemical compliance - sum for all treatment works, the product of T18 multiplied by T19 for each treatment works. Divide the total by the sum of T18 for all treatment works.

D. Sum for all treatment works, the product of T26 multiplied by T27 for each treatment works. Divide the total by the sum of T26 for all treatment works.
An LWU complied with the 2004 NHMRC/NRMMC 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 - 2006/07 Benchmarking Cost Data

Column No.	Performance Indicator	Background to Formula	Formula
(79)	Operating Cost Components - Maintenance ($/property)	Maintenance cost of all water system assets.	$[W_{2b} + W_{2d} + W_{2f} + W_{2i} + W_{2l} + W_{2n}] \div$ Col(20) Table 9
(80)	Operating Cost Components - Operation ($/property)	Operation cost of all water system assets.	$[W_{2a} + W_{2c} + W_{2e} + W_{2g} + W_{2j} + W_{2m}] \div$ Col(20) Table 9
(81)	Operating Cost Components - Energy ($/property)	Energy cost of water pumping and treatment.	$[W_{2h}] \div$ Col(20) Table 9
(82)	Operating Cost Components - Chemicals ($/property)	The chemicals cost for water treatment.	$[W_{2k}] \div$ Col(20) Table 9
(83)	Operating Cost Components - Dams & Weirs ($/property)	Operation and Maintenance cost of dams and weirs.	$[W_{2a} + W_{2b}] \div$ Col(20) Table 9
(84)	Operating Cost Components - Mains ($/property)	Operation and Maintenance cost of water mains.	$[W_{2c} + W_{2d}] \div$ Col(20) Table 9
(85)	Operating Cost Components - Reservoirs ($/property)	Operation and Maintenance cost of reservoirs.	$[W_{2e} + W_{2f}] \div$ Col(20) Table 9
(86)	Operating Cost Components - Pumping Stations ($/property)	Operation and Maintenance cost of water pumping stations.	$[W_{2g} + W_{2h} + W_{2i}] \div$ Col(20) Table 9
(87)	Operating Cost Components - Water Treatment ($/property)	Operation and Maintenance cost of water treatment works.	$[W_{2j} + W_{2k} + W_{2l}] \div$ Col(20) Table 9
(88)	Operating Cost Components - Other ($/property)	Operation and Maintenance cost of other water system assets.	$[W_{2m} + W_{2n} + W_{2o}] \div$ Col(20) Table 9
(89)	Management Cost Components - Administration ($/property)	From special schedule No. 3.	$[W_{1a}] \div$ Col(20) Table 9
(90)	Management Cost Components - Engineering & Supervision ($/property)	From special schedule No. 3.	$[W_{1b}] \div$ Col(20) Table 9
(91)	Management Cost Components - Total (c/kL)	From special schedule No. 3.	$[W_{1a} + W_{1b}] \times 100 \div$ Col(49) Table 10
(92)	Wholesale Component ($/property)	From the wholesale component estimated in the reporting forms.	$[W_1 + W_2] \times Q_{18a} \div$ Col(20) Table 9
(93)	Retail Component ($/property)	From the retail component estimated in the reporting forms.	$[W_1 + W_2] \times Q_{18b} \div$ Col(20) Table 9
(94)	Pumping Cost Components - Total Water Pumping Cost (c/kL)	From special schedule No. 3.	$[W_{2g} + W_{2h} + W_{2i}] \times 100 \div$ Col(49) Table 10
(95)	Pumping Cost Components - Total Water Pumping Cost ($/pumping station)	From special schedule No. 3.	$[W_{2g} + W_{2h} + W_{2i}] \div$ Col(28) Table 9
(96)	Pumping Cost Components - Operation ($/pumping station)	From special schedule No. 3.	$[W_{2g}] \div$ Col(28) Table 9
(97)	Pumping Cost Components - Maintenance ($/pumping station)	From special schedule No. 3.	$[W_{2i}] \div$ Col(28) Table 9
(98)	Pumping Cost Components - Energy ($/pumping station)	From special schedule No. 3.	$[W_{2h}] \div$ Col(28) Table 9
(99)	Pumping Cost Components - Energy Cost ($/property)	From special schedule No. 3.	$[W_{2h}] \div$ Col(20) Table 9
(100)	Water Main Cost Components - Total Water Main Cost (c/kL)	From special schedule No. 3.	$[W_{2c} + W_{2d}] \times 100 \div$ Col(49) Table 10
(101)	Water Main Cost Components - Total Water Main Cost ($'000/100km)	From special schedule No. 3.	$[W_{2c} + W_{2d}] \times 100 \div$ Col(25) Table 9
(102)	Water Main Cost Components - Operation ($'000/100km)	From special schedule No. 3.	$[W_{2c}] \times 100 \div$ Col(25) Table 9
(103)	Water Main Cost Components - Maintenance ($'000/100km)	From special schedule No. 3.	$[W_{2d}] \times 100 \div$ Col(25) Table 9
(104)	Treatment Cost Components - Total Water Treatment Cost (c/kL)	From special schedule No. 3.	$[W_{2j} + W_{2k} + W_{2l}] \times 100 \div$ Col(49) Table 10
(105)	Treatment Cost Components - Total Water Treatment Cost ($/property)	From special schedule No. 3.	$[W_{2j} + W_{2k} + W_{2l}] \div$ Col(20) Table 9
(106)	Treatment Cost Components - Operation ($/property)	From special schedule No. 3.	$[W_{2j}] \div$ Col(20) Table 9
(107)	Treatment Cost Components - Maintenance ($/property)	From special schedule No. 3.	$[W_{2l}] \div$ Col(20) Table 9

Notes:

A. References to Q (eg. $Q_{99Water}$) refer to questions in each LWU's Water Supply Performance Reporting database.

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 note C)	Where this data is ambiguous or missing, it has been estimated from other supporting information (financial data, previous year's data).	(Q_{17})
(2)	Ratio of Connected Properties to Assessments (see note C)	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	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	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	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_1
(7)	Peak Population		Q_2
(8)	Mains	Total length of sewer mains including reticulation, gravity and rising mains.	Q_9
(9)	Sewage Treatment Works	Number of treatment works.	Q_3
(10)	Pumping Stations	Number of sewage pumping stations.	Q_5
(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_{49}
(15)	% Female	% of equivalent full time female employees in total water supply workforce.	Q_{50} x 100 ÷ Q_{49}
(16)	% Undergoing Training	% of employees in water supply workforce undergoing training for 2 or more days during the year.	Q_{51} x 100 ÷ Q_{49}
(17)	Outsourcing % of Management Cost	% expended on outsourcing for management of sewerage business.	Q_{57}
(18)	Outsourcing % of Operation Cost	% expended on outsourcing for operation of sewerage business.	Q_{58}
(19)	Outsourcing % of Maintenance Cost	% expended on outsourcing for maintenance of sewerage business.	Q_{59}
(20)	Number of Injuries	Number of injuries (fatality, permanent disability or time loss of one or more days) in water supply business.	Q_{53}
(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 worked.	Q_{52} ÷ (230 x Q_{49})
(22)	Days Lost due to Injuries	Number of days lost due to injuries (time loss of one or more days) in sewerage business.	Q_{54}
	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_{54} x 100) / Q_{52}

Notes:

A. References to Q (eg. $Q_{99Water}$) refer to questions in each LWU's Sewerage Performance Reporting database.

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 Tables 15 and 16

15. Sewerage - 2006/07 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.	$Q_{22} \div (Q_9 \div 100)$
(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.	$Q_{64} \div (Q_9 \div 100)$
(25)	Overflows	Recorded overflows in sewers, access chambers and pumping stations. Overflows in risers and sidelines are excluded.	$Q_{63} \div (Q_9 \div 100)$
(26)	Interruptions to Service	Number of properties affected by unplanned interruptions to service per 1000 properties. Includes each occurrence.	Q_{42} x 1000 ÷ Col(3) Table 14
(27)	Rehabilitation of mains	Length of mains rehabilitated as % of total length of main.	$Q_{10} \div (Q_9 \div 100)$
(28)	Rehabilitation of service connections	Number of service connections rehabilitated as % of total.	Q_{11} x 100 ÷ Col(3) Table 14
(29)	Renewals per 100km of main	Expenditure on renewals of mains per 100km of main.	$S_{17c} \div (Q_9 \div 100)$
(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.	$S_{2b} \div (Q_9 \div 100)$
(32)	Total Volume of Sewage Collected (ML)	Total volume transported through sewerage network.	Q_{26}
(33)	Percentage of Sewage Treated	% of total sewage collected.	$(Q_{18} + Q_{19})$ x 100 ÷ Q_{26}
(34)	Infiltration	% of total sewage collected.	Q_{31} x 100 ÷ Q_{26}
(35)	Residential	% of total sewage collected.	Q_{32} x 100 ÷ Q_{26}
(36)	Non-residential	% of total sewage collected.	Q_{33} x 100 ÷ Q_{26}
(37)	Trade Waste	% of total sewage collected.	Q_{34} x 100 ÷ Q_{26}
(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		$(Q_{18} + Q_{19})$ x 100 ÷ Col(3) Table 14
(40)	Biosolids Reused	% of biosolids (sludge) to farmland, landfill etc.	Q_{27}
(41)	% of Effluent Reclaimed		Q_{25}

16. Sewerage - Financial, Efficiency

Column No.	Performance Indicator	Background to Formula	Formula
(42)	Total Revenue (excl Capital Works Grants) ($'000)	Total Revenue excluding grants for acquisition of assets and interest income but including gain/loss on disposal 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 +	$(S_{14} - S_{12a}) \div 1000$
(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.	$(Q_{32} \div (Q_{26} - Q_{31}))$ 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)	Net Debt to Equity (%)	All overdrafts, repayable borrowings, interest bearing non-repayable borrowings, advances and leases less cash and investments divided by total equity.	$(S_{37} + S_{39} - S_{31})$ 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.	$[S_1 + S_{2(a \text{ to } m)}] \div$ Col(3) Table 14
(53)	Total Cost (OMA + Depreciation) ($/property)	Total operation, maintenance and administration costs + depreciation costs (system assets plus plant & equipment) divided by total number of connected properties.	$[S_1 + S_{2(a \text{ to } m)} + S_3] \div$ Col(3) Table 14
(54)	Management Cost ($/property)	Total management costs divided by total number of connected properties.	$S_1 \div$ Col(3) Table 14

Notes:

A. References to Q (eg. $Q_{99Water}$) refer to questions in each LWU's Sewerage Performance Reporting database.

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 - 2006/07 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
(58a)	Compliance with Environmental Regulator		see note D
(59)	Sewer Main Chokes and Collapses	See Column (24) on Table 15.	$Q_{64} \div (Q_9 \div 100)$
(60)	Sewer Overflows to the Environment	See Column (25) on Table 15.	$Q_{63} \div (Q_9 \div 100)$
(61)	Odour Complaints (per 1000 properties)	Complaints are any expression of customer dissatisfaction reported in person, by phone, fax letter or email.	Q_{39} 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_{34} x 1000 ÷ Col(3) Table 14
(62a)	Total Complaints (per 1000 properties)	Sum of odour complaints, service complaints, other complaints and billing complaints.	Q_{102} 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_{42} x Q_{43} 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_{42} x 1000] ÷ Col(3) Table 14
(65)	Average Break/Choke Repair Time (Hours)	Average time taken to repair a sewerage main, from the time of arrival on site to restoration of sewerage services to customers.	Q_{43}

Notes:

A. References to Q (eg. $Q_{99Water}$) refer to questions in each LWU's Sewerage Performance Reporting database.

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 T50 multiplied by T63 for each treatment works.
Divide this total by the sum of T63 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 T52 multiplied by T63 for each treatment works.
Divide the total by the sum of T63 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 - 2006/07 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. $Q_{99Water}$) refer to questions in each LWU's Sewerage Performance Reporting database.

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: 2006-07 Local water utility TBL performance reports

Dubbo City Council water supply – page 1

Dubbo City Council | **TBL Water Supply Performance** | **2006/07**

WATER SUPPLY SYSTEM - Dubbo City Council serves a population of 35,100 (15,630 connected properties). Water is supplied from State Water's Burrendong Dam and is drawn from the Macquarie River and 7 bores (21ML/d) to supply Dubbo. The Dubbo City Council system comprises upward flow, coagulation/softening and filtration water treatment works , 16 service reservoirs (79 ML) and 9 pumping stations, 93.2 km of trunk mains and 358 km of reticulation. The water supply is fully treated.

PERFORMANCE - Dubbo City Council complied with all of the 6 Best Practice Criteria. The typical residential bill was $490 which was above the statewide median of $360 (Indicator 14). The economic real rate of return was 0.8% which was less than the statewide median (Indicator 43). The operating cost (OMA) per property was $444 which was above the statewide median of $290 (Indicator 49). Water quality complaints were less than the statewide median (Indicator 25). Compliance with microbiological water quality was 97% with 0 of 1 zones compliant (Indicator 20), physical compliance was 100% (Indicator 19) and chemical compliance was 100% with 1 of 1 zones compliant (Indicator 19a). Current replacement cost of system assets was $189M ($13,400 per assessment), cash and investments were $2.7M, debt was $18.6M and revenue was $11M (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 15 September)**	YES
(2)	**(2a) Pricing** - Full Cost-recovery, without significant cross subsidies	Yes	**(4) Sound water conservation implemented**	YES
	(2b) Pricing - Complying Residential Charges	Yes	**(5) Sound drought management implemented**	YES
	(2b) Pricing - Complying non-Residential Charges	Yes	**(6) Integrated water cycle management strategy commenced**	YES
	(2e) Pricing - DSP with Commercial Developer Charges	Yes	**COMPLIANCE WITH ALL REQUIRED CRITERIA**	YES

TRIPLE BOTTOM LINE (TBL) PERFORMANCE INDICATORS

		NWI	No.		LWU RESULT	RANKING >10,000 properties Note 1	RANKING All LWUs Note 2	STATEWIDE MEDIAN Note 3
					Col 1	Col 2	Col 3	Col 4
UTILITY	CHARACTERISTICS		1	**Population served: 35100**				
		C1	2	**Number of connected properties: 15630** Number of assessments: 14080				
			3	**Residential assessments** (% of total)	89			92
			4	**New residences connected to water supply** (%)	1.0	2	2	1.0
		A3	5	**Properties served per kilometre of water main**	35			33
			6	**Rainfall** (% of average annual rainfall)	71	4	4	88
		W8	7	**Total urban water supplied at master meters** (ML)	10,400			6,800
			8	**Peak week to average consumption** (%)	185	5	5	135
			9	**Renewals expenditure** (% of current replacement cost of system assets)	0.3	1	2	0.1
			10	**Employees per 1000 properties**	1.0	1	1	1.3
SOCIAL	CHARGES & BILLS - 2007/08	P1		**Residential tariff structure:** inclining block; independent of land value				
			12	**Residential water usage charge (c/kL) for usage (Note 5) (2006/07 values in Table 6)**	87	3	3	124
			13	**Residential access charge per assessment** ($)	116	2	2	108
		P2	14	**Typical residential bill per assessment** ($) (2006/07 values in Table 6)	490	2	4	360
			15	**Typical developer charge per equivalent tenement** ($)	4,200	2	2	4,000
	HEALTH		18	**Urban population without reticulated water supply** (%)	0.8	1	1	0.7
		H6	18a	**Risk based drinking water quality plan?**	No			
			19	**Physical water quality compliance** (%)	100	1	1	100
			19a	**Chemical water quality compliance** (%)	100	1	1	100
		H4	19b	**Number of zones with chemical compliance**	1 of 1			
			20	**Microbiological (E. coli) water quality compliance** (%)	97	**5**	**5**	100
		H3	20a	**% population with microbiological compliance**	99	4	4	100
	SERVICE LEVELS	C3	25	**Water quality complaints per 1000 properties**	0	2	2	3
		C5	26	**Water service complaints per 1000 properties**	1	1	1	12
		C12	27	**Customer interruption frequency per 1000 properties**	26	4	3	36
		C10	28	**Average duration of interruption** (min)	112	2	1	120
		A6	30	**Number of water main breaks per 100 km of water main**	5	1	1	11
			31	**Drought water restrictions** (% of time)	0	1	1	55
			32	**Total days lost** (%)	2.6	**5**	3	3.4
ENVIRONMENTAL	NATURAL RESOURCE MANAGEMENT	W9	33	**Average annual residential water supplied per property** (kL)	431	3	4	185
			33a	**Average annual residential water supplied - COASTAL** (kL/property)				165
			33b	**Average annual residential water supplied - INLAND** (kL/property)	431	3	4	305
		A8	34	**Real losses** (leakage) (L/service connection/day)	292	**5**	**5**	73
			35	**Energy consumption per Megalitre** (kiloWatt hours)	641	3	4	680
			36	**Renewable energy consumption** (% of total energy consumption)	0	2	1	0
		E9	36a	**Net greenhouse gas emissions - WS & Sge** (net tonnes CO2 - equivalents per 1000 properties)	650	**5**	**5**	230
ECONOMIC	FINANCE	F1	40	**Total revenue - water** ($'000)	11020	2	1	10100
		F4	41	**Residential revenue from usage charges** (% of residential bills)	83	1	1	67
			42	**Current replacement cost per assessment** ($)	13,400	3	2	10,100
		F13	43	**Economic real rate of return** (%)	1.1	4	3	1
			44	**Return on assets** (%)	0.8	**5**	4	1.9
		F16	45	**Net Debt to equity** (%)	10	1	1	-6.0
		F17	46	**Interest cover**	3	4	4	>100
			47	**Loan payment per property** ($)	64	2	1	15
		F18	47a	**Net profit after tax ratio - WS & Sge** (%)	15	1	3	16
	EFFICIENCY		48	**Operating cost (OMA) per 100km of main** ($'000)	1,540	**5**	**5**	1030
		F6	49	**Operating cost (OMA) per property** ($) (Note 6)	444	3	4	290
			50	**Operating cost (OMA) per kilolitre** (cents)	67	1	2	90
			51	**Management cost per property** ($)	162	**5**	**5**	115
			52	**Treatment cost per property** ($)	150	4	**5**	27
			53	**Pumping cost per property** ($)	30	2	2	21
			54	**Energy cost per property** ($)	24	2	3	15
			55	**Water main cost per property** ($)	42	2	1	49
		F11	56	**Capital Expenditure per property** ($)	235	2	2	302

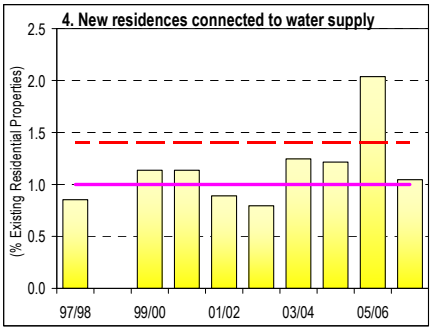
NOTES :

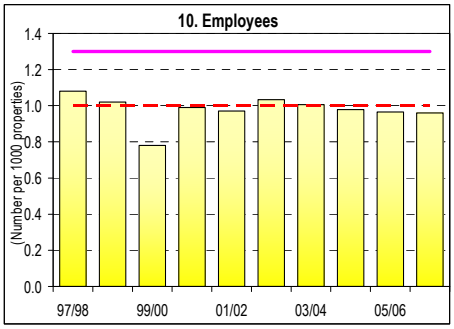
1. The ranking compared with LWUs with >10,000 properties connected properties (Col 2) is on a % of LWUs basis - relevant for comparing performance with similar sized LWUs - see attachment.
2. The ranking compared with all LWUs (Col 3) is on a % of LWUs basis - relevant for comparing performance with all other LWUs - see attachment.
3. The Statewide Median (Col 4) is on a % of connected properties basis. It best reveals statewide performance by giving due weight to larger LWUs & reducing the effect of smaller LWUs- see attachment.
4. Annual review of key projections and actions in LWU's Strategic Business Plan (SBP) are required, together with annual updating of LWU's financial plan. The SBP should be updated after 3 years.
5. Non-residential Tariff: Access Charge based on Meter Size* (eg.40mm $462), Inclining BlockNon-residential; For usage of <550 kL = 87c/kL; for usage >550 kL = 138 c/kL.
   Water supplied to non-residential customers was 31% of potable water supplied excluding non-revenue water.
   Non-residential customers provided only 20% of the revenue from annual charges and usage charges.
6. The operating cost (OMA)/property was $444. The components of operating cost were: management ($162), operation ($132), maintenance ($72), energy ($24) and chemical ($55).

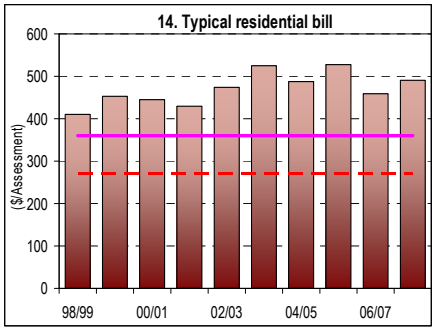
Dubbo City Council water supply – page 2

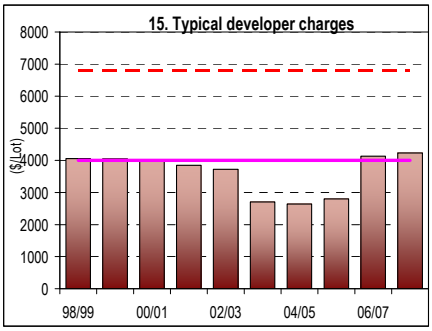
Dubbo City Council | **TBL Water Supply Performance (page 2)** | **2006/07**

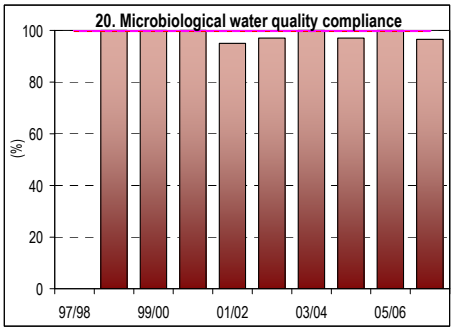
(Results shown for 10 years together with 2006/07 Statewide Median and Top 20%)

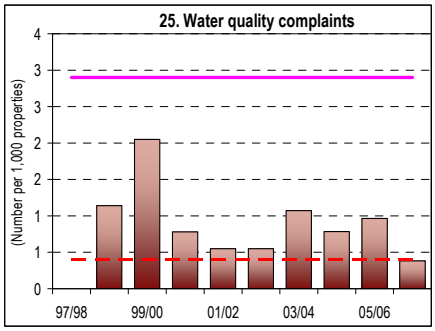


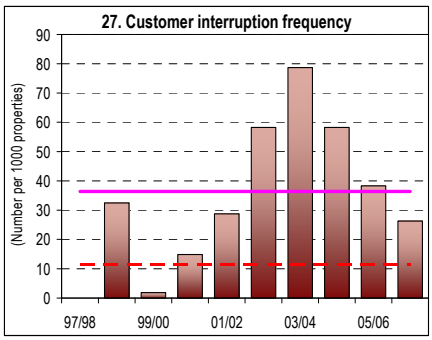


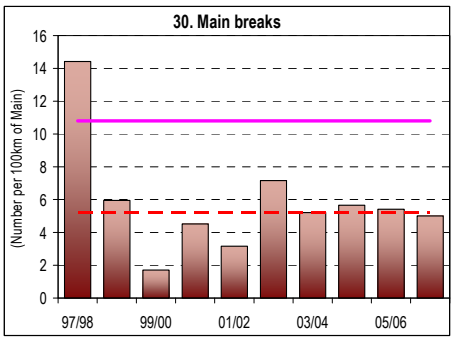


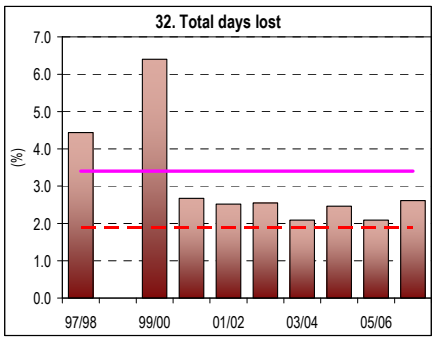


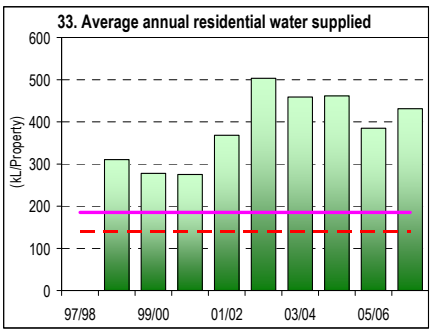


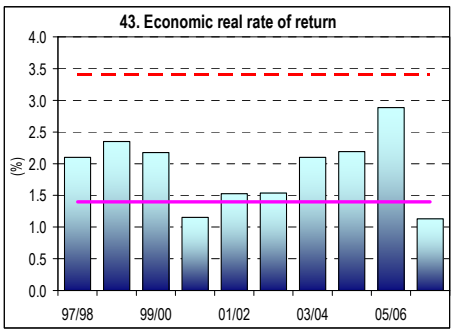


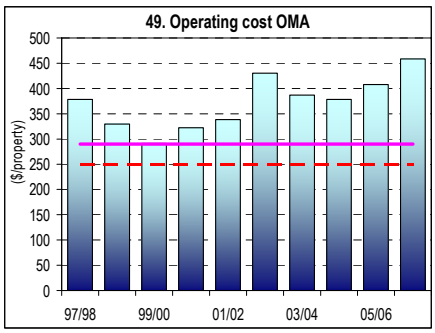


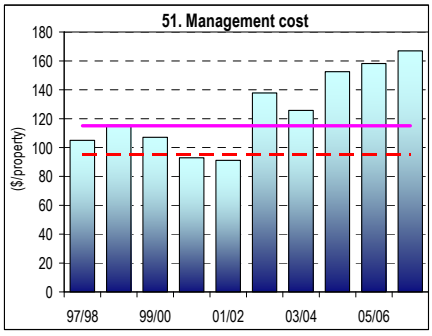


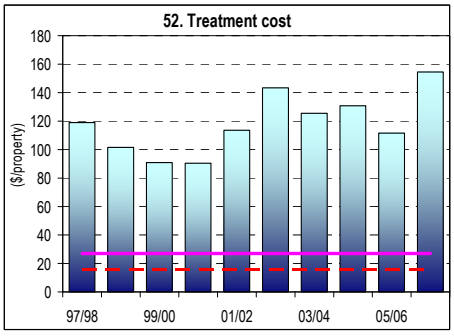


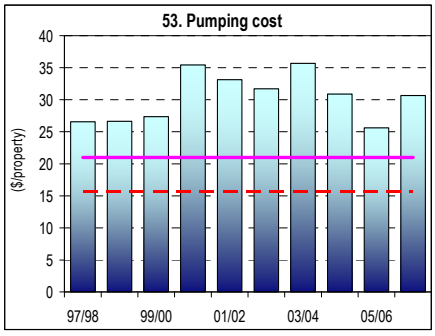












NOTES:

1. Costs are in Jan 2007$.
2. Microbiological water quality compliance 1998/99 to 2003/04 was on the basis of 1996 NHMRC/ARMCANZ Australian Drinking Water Guidelines for E. coli; from 2004/05 compliance was on the basis of the 2004 NHMRC/NRMMC Australian Drinking Water Guidelines.

LEGEND

2006/07 State Median

2006/07 Top 20%

Dubbo City Council sewerage – page 1

Dubbo City Council — TBL Sewerage Performance — 2006/07

SEWERAGE SYSTEM - Dubbo Council has 1 sewage treatment works providing advanced secondary treatment. The system comprises 40,000 EP treatment capacity (Intermittent Extended Aeration (Activated Sludge)), 10 pumping stations (57 ML/d), 55 km of rising mains and 308 km of gravity trunk mains and reticulation. Treated effluent is discharged to land and river.

PERFORMANCE - Residential growth for 2006/07 was 1.1% which is similar to the statewide median. Dubbo City Council complied with all 4 out of 4 Best Practice Criteria. The typical residential bill was $455 which was above the statewide median of $405 (Indicator 12). The economic real rate of return was equal to the statewide median (indicator 46). The operating cost per property (OMA) was $324 which was close to the statewide median of $320 (Indicator 50). Sewage odour complaints were less than the statewide median (Indicator 21). Dubbo Council reported 48 Category 2 environmental incidents (limited impact). Council did not comply with the environmental regulator for effluent discharge. The current replacement cost of system assets was $152M ($11,700 per assessment), cash and investments were $9M, debt was $3.9M and revenue was $8.7M (excluding capital works grants).

COMPLIANCE WITH BEST-PRACTICE MANAGEMENT GUIDELINES CRITERIA

(1) Complete current strategic business plan & financial plan	YES		**(2e) Pricing** - DSP with commercial developer charges	Yes
(2) **(2a) Pricing** - full cost-recovery, without significant cross subsidies	Yes		**(2f) Pricing** - Liquid trade waste approvals & policy	Yes
(2c) Pricing - Complying Residential Charges	Yes		**(3) Complete performance reporting form (by 15 September)**	YES
(2c) Pricing - Complying non-Residential Charges	Yes		**(4) Integrated water cycle management strategy commenced**	YES
(2d) Pricing - Complying Trade Waste Fees and Charges	Yes		**COMPLIANCE WITH ALL REQUIRED CRITERIA**	YES

TRIPLE BOTTOM LINE (TBL) PERFORMANCE INDICATORS

		NWI No.		LWU RESULT	RANKING >10,000 properties Note 1	RANKING All LWUs Note 2	STATEWIDE MEDIAN Note 3
UTILITY	CHARACTERISTICS		1 **Population served: 32900**				
		C2	2 **Number of connected properties: 14420** Number of assessments: 12990	Col 1	Col 2	Col 3	Col 4
			3 **Number of residential connected properties: 13100**				
			4 **New residences connected to sewerage** (%)	1.1	2	3	1.2
		A5	5 **Properties served per kilometre of main**	40			40
			6 **Volume of sewage collected** (ML)	2,720			3,600
			7 **Renewals expenditure** (% of current replacement cost of system assets)	0.0	3	2	0.0
			8 **Employees per 1000 properties**	1.0	2	1	1.6
SOCIAL	CHARGES & BILLS - 2007/08	P3	**Description of residential tariff structure:** access charge per property; independent of land value (Note 5)				
		P3.3	11 **Residential access charge / assessment** ($)	455	3	4	405
		P4	12 **Typical residential bill / assessment** ($) (2006/07 values in Table 7)	455	3	4	405
			13 **Typical developer charge / equivalent tenement** ($)	4,230	3	2	3,900
			14 **Non-residential sewer usage charge** (c/kL)	130	2	2	90
	HEALTH		16 **Urban properties without reticulated sewerage service** (%)	2.5	3	1	3.7
		E3	17 **Percent of sewage treated to a tertiary level** (%)	100	1	1	82
		E4	18 **Percent of sewage volume treated that was compliant** (%)	57	5	5	93
		E5	19 **Sewage treatment works compliant at all times**	0 of 1			
	SERVICE LEVELS	C4	21 **Odour complaints per 1000 properties**	0.0	1	1	0.4
		C7	22 **Service complaints per 1000 properties**	16	3	3	9
			23 **Customer interruption frequency per 1000 properties**	18	5	5	0
		C11	23a **Average break/choke repair time** (hours)	1	2	2	2
			25 **Total days lost** (%)	2.6	2	4	3.2
ENVIRONMENTAL	NATURAL RESOURCE MANAGEMENT	W12	26 **Volume of sewage collected per property** (kL)	188	5	5	230
		W14	26a **Total recycled water supplied** (ML)	2660	1	1	460
		W15	27 **Recycled water** (% recycled)	97	1	1	10
		E8	28 **Biosolids reuse** (%)	100	1	1	100
			30 **Energy consumption per Megalitre** (kiloWatt hours)	1023	4	5	780
			31 **Renewable energy consumption** (% of total energy consumption)	0	2	1	0
		E9	32 **Net greenhouse gas emissions - WS & Sge** (net tonnes CO2 equivalents per 1000 properties)	650	5	5	230
	ENVIRONMENTAL PERFORMANCE		33 **90 Percentile licence limits for effluent discharge:** BOD 30 mg/l; SS 30 mg/l; Total N 15 mg/l; Total P 10 mg/l				
			34 **Compliance with BOD in licence** (%)	100	1	1	100
			35 **Compliance with SS in licence** (%)	100	1	1	100
		A10	36 **Sewer main chokes and collapses per 100 km of main**	65	3	3	46
		E10	37 **Sewer overflows to the environment per 100 km of main**	13	2	4	18
		E4	38 **Sewage treated that was compliant** (%)	57	5	5	94
ECONOMIC	FINANCE	F2	42 **Total revenue - Sge** ($'000)	8680			10500
			43 **Revenue from non-residential plus trade waste charges** (% of total revenue)	31	1	1	16
			44 **Revenue from trade waste charges** (% of total revenue)	3.2	2	1	1.1
			45 **Current replacement cost per assessment ($)**	11,730	2	2	10,900
		F14	46 **Economic real rate of return** (%)	1.4	2	3	1.4
			46a **Return on assets** (%)	1.6	4	3	1.4
		F16	47 **Net Debt to equity** (%)	4	2	1	-7
		F17	48 **Interest cover**	>100	1	1	>100
			48a **Loan payment per property** ($)	28	3	2	28
		F18	48b **Net profit after tax ratio - water supply & sewerage** (%)	15	4	3	16
	EFFICIENCY		49 **Operating cost (OMA) per 100 km of main** ($'000)	1290	3	4	1290
		F7	50 **Operating cost (OMA) per property** ($) Note 8	324	2	4	320
			51 **Operating cost (OMA) per kilolitre** (cents)	172	4	4	129
			52 **Management cost per property** ($)	145	5	5	110
			53 **Treatment cost per property** ($)	124	4	4	104
			54 **Pumping cost per property** ($)	24	2	1	44
			55 **Energy cost per property** ($)	29	4	4	21
			56 **Sewer main cost per property** ($)	7	1	1	39
		F11	57 **Capital Expenditure per property** ($)	266	3	2	193

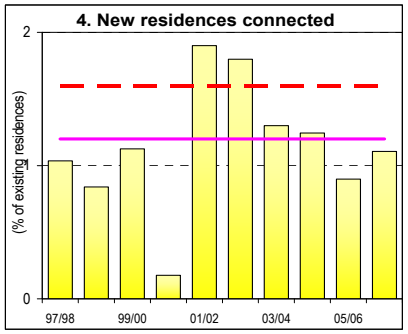
NOTES :

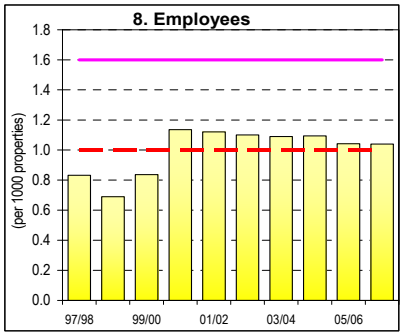
1 The ranking compared with LWUs with >10,000 properties connected properties (Col 2) is on a % of LWUs basis - relevant for comparing performance with similar sized LWUs - see attachment.
2 The ranking compared with all LWUs (Col 3) is on a % of LWUs basis - relevant for comparing performance with all other LWUs - see attachment.
3 The Statewide Median (Col 4) is on a % of connected properties basis. It best reveals statewide performance giving due weight to larger LWUs & reducing the effect of smaller LWUs- see attachment.
4 Annual review of the key projections & actions in LWU's Strategic Business Plan (SBP) are required, together with annual updating of LWU's Financial Plan. The SBP should be updated after 3 years.
5 Non-residential: Access Charge based on square of size of service connection, sewer usage charge - 130c/kL.
6 Non-residential & trade waste volume was 53% of total sewage collected; these customers only provided 31% of the revenue from annual charges, usage and trade waste charges.
7 Compliance with Total N in Licence was 100%. Compliance with Total P in Licence was 100%.
8 The operating cost (OMA)/property was $324. The components of operating cost/property were: management ($145), operation ($114), maintenance ($32), energy ($26) and chemical ($7).

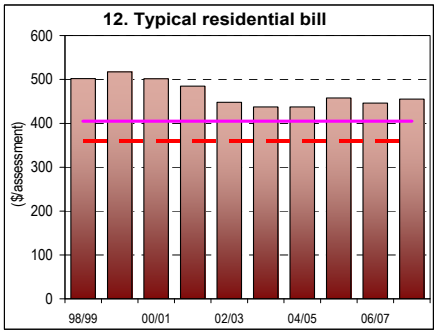
Dubbo City Council sewerage – page 2

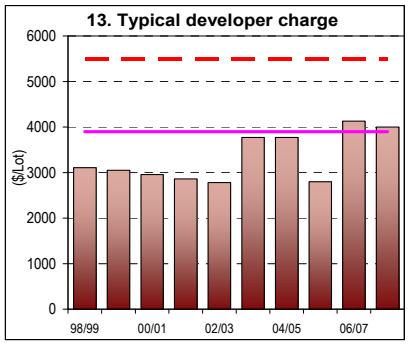
Dubbo City Council | **TBL Sewerage Performance (page 2)** | **2006/07**

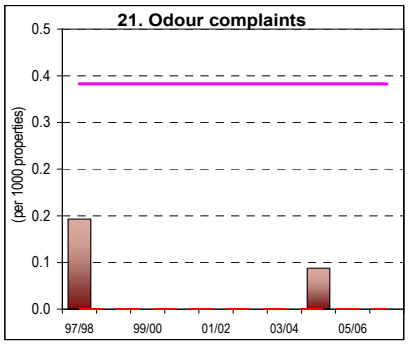
(Results shown for 10 years together with 2006/07 Statewide Median and Top 20%)

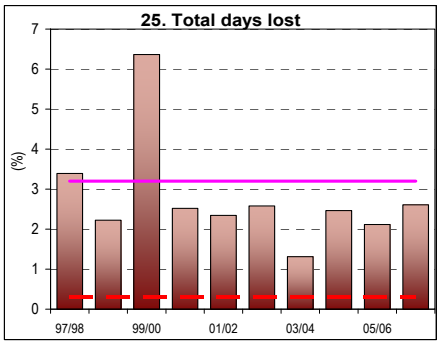


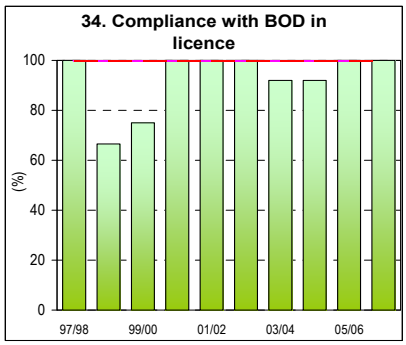


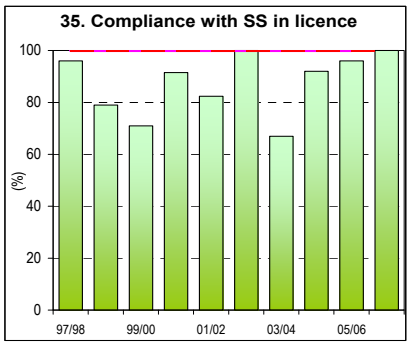


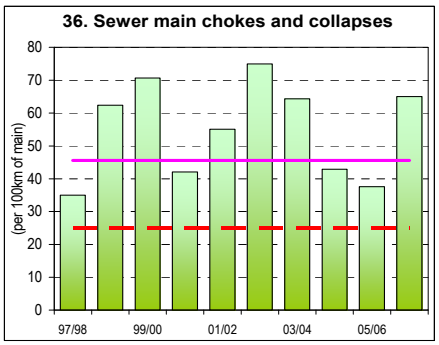


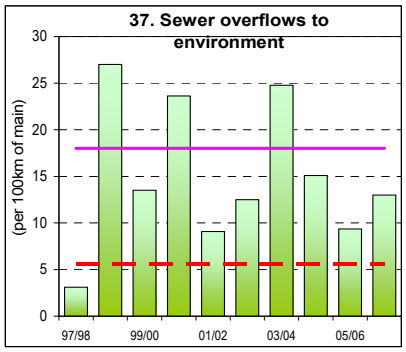


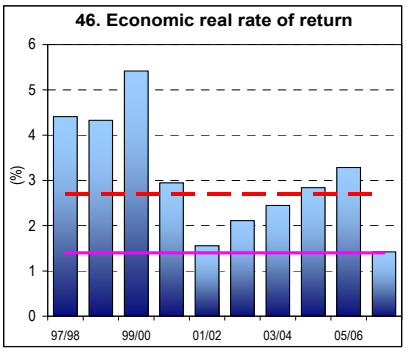


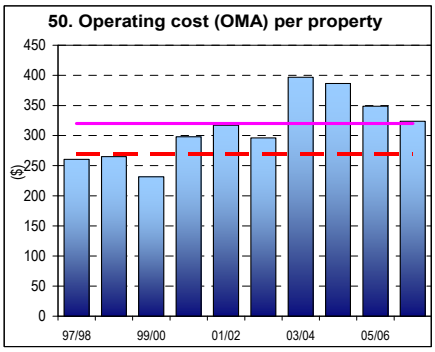


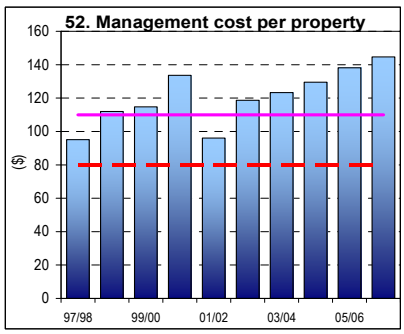


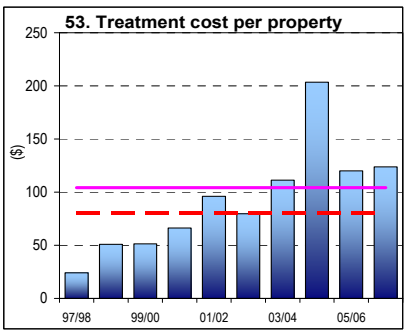


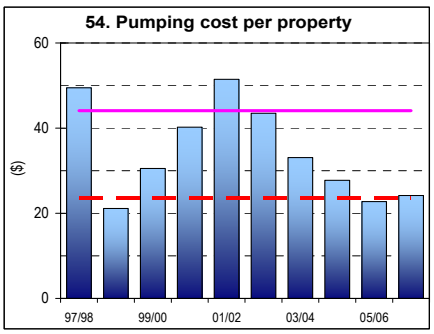












NOTES:

1. Costs are in Jan 2007$.

LEGEND

2006/07 State Median

2006/07 Top 20%

Water performance percentiles (percentage of LWUs basis) 2006-07

UTILITY CHARACTERISTICS	20%	40%	Median (50%)	60%	80%
Residential Assessments (% of total)	85	88	89	90	92
New Residential Dwellings Connected to Water Supply (%)	1.4	1.0	0.8	0.6	0.2
Properties Served per km of Main	34	29	27	24	17
Rainfall (% of average annual rainfall)	98	88	85	78	66
Total Urban Water Supplied (at Master Meters - ML)	4540	2360	1650	1220	560
Peak Week to Average Consumption (%)	130	150	160	170	180
Renewals Expenditure (% of current replacement cost of system assets)	0.6	0.2	0.0	0.0	0.0
Employees (employees per 1000 properties)	1.3	1.6	1.9	2.1	2.6
SOCIAL - Charges/Bills (2007/08)					
Residential Water Usage Charge (c/kL)	130	110	100	85	70
Residential Access Charge ($/assessment)	105	175	190	210	275
Typical Residential Bill ($/assessment)	345	420	450	480	605
Typical Developer Charge ($/equivalent tenement)	4950	3310	2650	2230	920
SOCIAL - Health					
Urban Population without Reticulated Water Supply (%)	0.0	1.8	2.4	4.1	7.9
Risk Based Drinking Water Quality Plan?					
Physical Water Quality Compliance (%)	100	100	100	100	100
Chemical Water Quality Compliance (%)	100	100	100	100	93
Number of Zones with Chemical Compliance					
Microbiological (E. coli) Water Quality Compliance (%)	100	100	100	100	100
Percent Population with Microbiological Compliance	100	100	100	100	99
SOCIAL - Levels of Service					
Water Quality Complaints (per 1000 properties)	0.0	1.6	2.3	3.0	7.7
Water Service Complaints (per 1000 properties)	3.5	6.6	10.3	19.9	39.2
Customer Interruption Frequency (per 1000 properties)	8	22	27	41	63
Average Duration of Interruption (minutes)	0	60	120	120	180
Number of Main Breaks (per 100 km of main)	3	9	11	14	30
Drought Water Restrictions (% of time)	0	0	27	55	100
Total Days Lost (%)	1	2	2	3	4
ENVIRONMENTAL					
Average Annual Residential Supplied (kL/property)	165	215	245	280	455
Average Annual Residential Supplied COASTAL (kL/property)	145	170	180	185	215
Average Annual Residential Supplied INLAND (kL/property)	225	280	310	350	490
Real Loss (leakage) (L/service connection/day)	40	60	70	100	140
Energy Consumption (kWh/ML)	220	430	510	640	830
Renewable Energy Consumption (% of Total Energy)	0	0	0	0	0
Net Greenhouse Gas Emissions - WS & Sge (net tonnes CO2 - equivalents/1000props)	160	220	260	300	450
ECONOMIC - Financial					
Total Revenue - Water ($'000)	7250	3240	2190	1610	950
Residential Revenue from Usage Charges (% of total)	75	70	60	55	45
Current Replacement Cost per Assessment ($)	14160	11720	10530	10070	7960
Economic Real Rate of Return (%)	3.6	2.1	1.4	1.1	-0.1
Return on Assets (%)	3.9	2.3	1.9	1.1	0.5
Net Debt to Equity (%)	0	-6	-8	-10	-15
Interest Cover	>100	>100	>100	>100	2
Loan Payment ($/property)	63	14	7	0	0
Net Profit After Tax Ratio - WS & Sge (%)	26	20	14	11	3
ECONOMIC - Efficiency					
Operating Cost (OMA) per 100 km of Main ($'000)	645	830	910	1030	1305
Operating Cost (OMA) per property ($/property)	280	345	370	385	470
Operating Cost (OMA) per kL (c/kL)	55	80	90	100	130
Management Cost ($/property)	80	100	110	120	150
Treatment Cost ($/property)	25	60	80	100	140
Pumping Cost ($/property)	16	29	39	50	73
Energy Cost ($/property)	8	16	21	28	42
Water Main Cost ($/property)	43	54	66	71	104
Capital Expenditure - Water Supply ($/property)	325	185	155	125	65

Notes:

1. ***20%*** ***top 20% of all NSW LWUs***
   Median (50%) median of all NSW LWUs
   80% bottom 20% of all NSW 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).

Sewerage performance percentiles (percentage of LWUs basis) 2006-07

UTILITY CHARACTERISTICS	20%	40%	Median (50%)	60%	80%
Residential Assessments (% of Total)	87	88	89	91	93
New Residential Dwellings Connected to Sewerage (%)	0.4	0.8	1.0	1.2	1.6
Properties Served per km of Main	45	40	35	35	30
Volume of Sewage Collected (ML)	2400	780	570	430	220
Renewals Expenditure (% of current replacement cost of system assets)	0.4	0.0	0.0	0.0	0.0
Employees (per 1000 properties)	1.2	1.6	1.8	2.0	2.5
SOCIAL - Charges/Bills (2007/08)					
Residential Access Charge ($/assessment)	320	375	400	430	510
Typical Residential Bill ($/assessment)	320	375	400	440	510
Typical Developer Charge ($/equivalent tenement)	4550	3100	2300	1900	1000
Non-residential sewer usage charge (c/kL)	150	111	100	90	74
SOCIAL - Health					
Urban Properties without Reticulated Sewerage Service (%)	3	6	7	9	15
Percent of sewage treated to a tertiary level (%)	100	62	9	0	0
Percent of sewage volume treated that was compliant (%)	100	100	98	89	71
Sewage treatment works compliant at all times					
SOCIAL - Levels of Service					
Odour Complaints (per 1000 properties)	0.0	0.0	0.0	0.4	1.2
Service Complaints (per 1000 properties)	2	13	20	27	46
Customer Interruption Frequency (per 1000 properties)	0	0	1	2	15
Average Duration of Interruptions (hr)	0	1	2	2	2
Total Days Lost	0	1	2	3	5
ENVIRONMENTAL					
Volume of Sewage Collected per property (kL)	2425	780	570	425	220
Total recycled water supplied (ML)	643	261	180	130	73
Effluent Reclaimed for Recycling (% of total effluent)	55	25	18	10	2
Biosolids Reuse (%)	100	0	0	0	0
Energy Consumption (kWh/ML)	210	480	600	710	1000
Renewable Energy Consumption (% of total energy consumption)	0	0	0	0	0
Net greenhouse gas emissions - WS & Sge (net tonnes CO2 equivalents per 1000 proper	160	220	260	300	450
90 Percentile Licence Limits for Effluent Discharge:					
BOD 35 mg/L; SS 40 mg/L; Total N 25 mg/L; Total P 5 mg/L					
Compliance with BOD in Licence (%)	100	100	100	100	96
Compliance with SS in Licence (%)	100	100	100	100	85
Sewer Main Chokes and Collapses (per 100 km of main)	23	37	52	68	133
Sewer Overflows to the Environment (per 100 km of main)	0	4	7	13	31
Sewage treated that was compliant (%)	100	100	98	88	71
ECONOMIC - Financial					
Total Revenue - Sge ($'000)	7100	1800	1100	840	430
Revenue from Non-residential and Trade Waste Charges (% of total revenue)	26	20	17	16	11
Revenue from Trade Waste Charges (% of total)	3	1	0	0	0
Current Replacement Cost per asssessment ($)	13100	11500	10400	9400	7100
Economic Real Rate of Return (%)	3.1	1.5	1.1	0.9	0.0
Return on Assets (%)	4.1	2.2	1.7	1.3	0.6
Net Debt to Equity (%)	0	-10	-16	-20	-29
Interest Cover	>100	>100	>100	>100	>100
Loan Payment ($/property)	81	25	14	2	0
Net Profit After Tax Ratio WS & Sge (%)	26	20	14	11	2
ECONOMIC - Efficiency					
Operating Cost (OMA) per 100 km of Main ($'000)	650	890	1010	1160	1340
Operating Cost (OMA) per property ($/property)	220	270	290	310	370
Operating Cost (OMA) per kL (c/kL)	100	120	130	150	180
Management Cost ($/property)	50	80	90	100	130
Treatment Cost ($/property)	60	90	100	110	120
Pumping Cost ($/property)	20	35	45	50	65
Energy Cost ($/property)	15	20	20	20	30
Sewer Main Cost ($/property)	20	30	40	45	55
Capital Expenditure ($/property)	280	160	110	80	40

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: 2006-07 water treatment performance

Water Utility	Source/type (Bulk Supplier)	Water Treatment Works	Treatment Works No.	Year built or Augmented	Capacity	Type of Treatment Works[2]	Volume Treated to Potable	Colour Units				Turbidity Units				Compliance with 2004 NHMRC/NRMMC Australian Drinking Water Guidelines[3, 6]												Water Quality Complaints		No. of Samples + Allocation[5]		Chlorination System Failure	Major Malfunction of Treatment Processes
								Raw Water		Treated Water		Raw Water		Treated Water		Colour		Turbidity		pH		Physical		Chemical		E. coli				Chemical	E. coli		
		37a			*ML/d* *37b*	*38a*	*ML* *38b*	*Max* *39a*	*Avg* *39b*	*Max* *39c*	*Avg* *39d*	*Max* *40a*	*Avg* *40b*	*Max* *40c*	*Avg* *40d*	*Samples* *42a*	*%* *42b*	*Samples* *42c*	*%* *42d*	*Samples* *42e*	*%* *42f*	*Samples* *42g*	*%* *42h*	*Samples* *42i*	*%* *42j*	*Samples* *42k*	*%* *42l*	*No.* *43*	*/ 1,000 Props*	*%* *44a*	*%* *44b*	*days* *45*	*days* *46*
		Albury	1001	1992	140.0	DF	8832	34	7.5	3	0.03	22.5	8.19	1.25	0.25	14	100	16	100	177	100	235	100	752	100	208	100			100	100		
		Lake Hume Chlorinator	1196	1984	1.6	CH	24	3	2	3	2	5	3	5	2.8	2	100	2	100	45	100	45	100	167	100	55	100			100	100		
Albury City Council		**Total/Weighted Average** [1]			**142**		**8856**	**34**	**7**	**3**	**0**	**23**	**8**	**5**	**0.3**	**16**	**100**	**18**	**100**	**222**	**100**	**280**	**100**	**919**	**100**	**263**	**100**						
Armidale Dumaresq Council		Armidale	1004	1988	42.0	C	**2688**	56	21	1	1	3	1	0	0	365	100	365	100	365	100	365	100	365	100	89	100	8	1.0	100	89		
Ballina Shire Council	*bulk purchase (Rous Water)*	Marom Creek	1003	1977	3.0	DF	**134**									50	100	50	100	50	100	2		6		46	100			100	88		1
	dual supply	Euston	1143	2006	1.5	CH	297															2	100	2	100	10	100			100	38		
		Balranald	1007	1988	1.1	C	167																			24	100				46		
Balranald Council		**Total/Weighted Average** [1,3]			**2.6**		464															**2**	**100**	**2**	**100**	**34**	**100**						
Bathurst Regional Council		Bathurst	1011	1989	**60.0**	C	**7136**	395	45	3	2	1,070	14	0	0	16	100	16	100	16	100	16	100	62	100	167	100	163	11.3	100	100		
	unfiltered	Yellow Pinch	1144	1988	25.0	CH	966			5	3			2	1.2	12	100	12	100	12	100	60	100	312	100	130	100	10		100	93		
	unfiltered	Bega	1145	1987	16.0	CH	1099			2	1			2	1	10	100	10	100	10	100	50	100	260	100	110	100	44		100	96		
	unfiltered	Brogo	1146	1984	6.0	CH	372			16	15			2	1	4	25	4	100	4	100	20	100	104	100	64	100	4		100	100		
	unfiltered	Kiah	1147	1972	6.0	CH	944			4	2			2	1	12	100	12	100	12	100	60	100	312	100	46	100	3		100	88		
	unfiltered	Bemboka	1148	1988	1.0	CH	38			14	10			8	8	2	100	2	100	2	100	10	100	52	100	26	100			100	100		
	unfiltered	Tilba	1149	1985	1.0	CH	12			15	13			1	1.0	2	100	2	100	2	100	10	100	52	100	50	100						
Bega Valley Shire Council		**Total/Weighted Average** [1]			**55.0**		**3431**			**16**	**4**			**8**	**1.0**	**42**	**93**	**42**	**100**	**42**	**100**	**210**	**100**	**1,092**	**100**	**426**	**100**	**61**	**4.4**				
	groundwater	Bellingen / Seaboard	1150	1993	12.0	CH	1158			1	1			3	0.5	12	100	12	100	64	100	88	100	12	100	88	100	6		100	96		
		Dorrigo	1036	1993	2.7	LS	165	55	35		3	8	6		0.3	366	100	366	100	368	100	2	100	2	100	48	100			100	92		
Bellingen Shire Council		**Total/Weighted Average** [1]			**14.7**		**1323**	**55**	**4**	**1**	**1**	**8**	**1**	**3**	**0.5**	**378**	**100**	**378**	**100**	**432**	**100**	**90**	**100**	**14**	**100**	**136**	**100**	**6**	**1.5**				
		Tocumwal	1093	1999	7.0	DAF	600	60	25	5	5	17.4	10	0.84	0.28	365	100	365	100	365	100	365	100	3	100	42	100			100	81		
		Finley	1039	1997	2.0	C	187	60	32	5	5	134	67	5	1.0	365	100	365	100	365	100	365	100	9	100	47	100	1		100	90		
		Berrigan	1012	1990	1.0	C	111	60	33	5	5	65	25	10	1.8	365	100	365	100	365	100	365	100	10	100	47	100			100	90		
		Barooga	1114	2000	1.0	DAF	129	45	29	5	5	18	9	11	1.0	365	100	365	100	365	100	365	100	3	100	42	100	1		100	81		
Berrigan Shire Council	*dual supply*	**Total/Weighted Average** [1]			**11.0**		**1027**	**60**	**28**	**5**	**5**	**134**	**22**	**11**	**0.7**	**1,460**	**100**	**1,460**	**100**	**1,460**	**100**	**1,460**	**100**	**25**	**100**	**178**	**100**	**2**	**0.6**				
Bogan Shire Council	*river abstraction (State Water)*	Nyngan	1083	1984	**8.6**	C	**788**	20	19	5	5	26	11	2	1							4	100	12	100	48	100	1	0.9	100	92		
		Bombala	1017	1983	3.2	C	285															4	100	13	100	48	100			100	92		
		Delegate	1151		1.3	CH	170													26	100	26	100	26	100	26	100	3		100	100		
Bombala Council		**Total/Weighted Average** [1]			**4.5**		**455**													**26**	**100**	**30**	**100**	**39**	**100**	**74**	**100**	**3**	**3.6**				
Boorowa Council		Boorowa	1018	1993	3.0	L																29	100	6	83	49	96			100	94		
Bourke Shire Council	*dual supply*	Bourke	1019	1988	**3.3**	C	**241**			5	2	589		1	0.3	9	100	9	100	9	100	9	100	243	100	60	90	5	4.2	100	100		
		Brewarrina	1021	1990	0.8	C	243			2	2			1	0.4	2	100	2	100	2	100	2	100	2	100	32	100	2		100	62		
	dual supply	Goodooga	1044	1996	0.5	A	100															2				24	92				92	1	1
Brewarrina Shire Council		**Total/Weighted Average** [1]			**1.3**		**343**			**2**	**1**			**1**	**0**	**2**	**100**	**2**	**100**	**2**	**100**	**4**	**25**	**2**	**100**	**56**	**96**	**2**	**4.2**			**0**	**0**
Byron Shire Council	*bulk purchase (Rous Water)*	Mullumbimby	1072	1970	**2.9**	C	**410**	73	18	36	4	29	10	10	1	49	100	23	100	51	100	61	100	52	70	47	100	18	1.7	100	90		
		Yeoval	1154		0.8	CH	41			1	1			2	1	2	100	2	100	2	100	2		2	50	13	92			100	100		
	non-potable groundwater	Cumnock	1153		2.0	CH	37			2	2			3	2	2	100	2	100	2	100	2		2	100	12	100			100	100		
	non-potable groundwater	Molong	1071	1986	2.3	C	244			1	1			1	0	2	100	2	100	2	100	2	100	2	100	52	100	5		100	100		2
	non-potable groundwater	Delgany	1152		1.4	CH	3			3	2			0	0	2	100	2	100	2	100	2	100	2	100	12	100			100	100		
Cabonne Council		**Total/Weighted Average** [1]			**6.5**		**325**			**1**	**1**			**1**	**0**	**2**	**100**	**2**	**100**	**2**	**100**	**8**	**100**	**8**	**88**	**89**	**100**	**5**	**4.5**				**2**
		Hillston	1155		5.6	CH	468			1	1			0		2	100	2	100	2	100	38	100	2	100	50	100			100	96		
	groundwater	Rankins Springs	1157		3.0	UV	141	2				22				1	100	1		1	100	1		1	100	24	92			50	92		
	groundwater	Goolgowi/Merriwagga	1156	1995	2.0	CH	206			1	1			0	1	2	100	2	100	2	100	2	100	2		24	100			100	92		
		Carrathool	1158			CH	38			1	1			4	1.0	2	100	2	100	2	100	2	100	2	100	11	100	3		100	92	6	
	groundwater	Melbergen	1159			CH																											
Carrathool Shire Council	*bulk purchase (Murrumbidgee*	**Total/Weighted Average** [1]			**10.6**		**853**	**2**		**1**	**1**	**22**		**4**	**0**	**7**	**100**	**7**	**86**	**7**	**100**	**43**	**100**	**7**	**71**	**109**	**100**	**3**	**2.7**				
		Ivanhoe	1054	1985	0.6	C	65					5	5	1	1	26	100	26	100	26	100	26	100	1	100	30	95			50	100		
		Wilcannia	1104	1985	0.5	C	55					9	6	1.0	0.5		100	50	100	50	100	50	100	50	100	50	100	5		100	96		
	dual supply	White Cliffs	1160	1992	0.2	C	43					5	3	1	1	5	100	1	100	5	100	5	100	5	100	8	100			100	31		
Central Darling Shire Council	*river abstraction (State Water)*	**Total/Weighted Average** [1]			**1.3**		**163**					**9**	**7**	**1**	**0.9**	**31**	**100**	**77**	**100**	**81**	**100**	**76**	**100**	**51**	**100**	**80**	**100**	**5**	**6.8**				
		Carcoar	1161	2002	9.0	DAF	994	190	15	6	1	30	8	2.0	0.5	365	100	365	100	365	100	24	100	24	100	151	100	48		100	87		
		Blayney	1015	1966	6.0	C	523	190	15	8	1	30	8	2	0.5	365	100	365	100	365	100	2	100	15	100	54	100	5		100	100		
	non-potable groundwater	Quandialla	1162			CH																2		2		9	100			100	75		
Central Tablelands Water		**Total/Weighted Average** [1]			**15.0**		**1517**	**190**	**15**	**8**	**1**	**30**	**8**	**2**	**0.5**	**730**	**100**	**730**	**100**	**730**	**100**	**26**	**100**	**39**	**100**	**205**	**100**	**53**	**10.3**				
		Rushforth Road (North Coast Water)	1187	1988	70.0	CH	6418			13	6			3	1.4	23	100	23	100	23	100	23	100	23	74	435	100	155		100	100		
		Wooli	1243		20.0	CH	161			5	4			1	0.5	2	100	2	100	2	100	2	100	2	100	42	100			100	81		
		Coutts Crossing	1244			CH	66			5	5			1	1.1	1	100	1	100	1	100	1	100	1	100	34	82			50	65		
		North Coast Water	1245																														
		Glenreagh	1246	2006		CH	47			20	13			3	1.6	2	100	2	100	2	100	2	100	2	100	43	93	1		100	100		
		Minnie Water	1247		8.0	CH	42			15	14			1	0.8	2	100	2	100	2	100	2	100	2	100	40	95	1		100	100		
		Copmanhurst	1293																														
Clarence Valley Council		**Total/Weighted Average** [1]			**98.0**		**6734**			**20**				**3**		**30**	**100**	**30**	**100**	**30**	**100**	**30**	**100**	**30**	**80**	**594**	**97**	**157**	**8.1**				
		Cobar	1028	1983	7.0	C	1094															2	100	2	100	14	100			17	27		
	non-potable groundwater	Euabalong Village (Non-Potable)	1163																														
	non-potable groundwater	Euabalong West (Non-Potable)	1164																														
	non-potable groundwater	Euabalong West (Non-Potable)	1165																														
	non-potable groundwater	Mt Hope (Non- Potable)	1166																														
Cobar Shire Council		**Total/Weighted Average** [1]			**7.0**		**1094**															**2**	**100**	**2**	**100**	**14**	**100**						
	unfiltered	Karangi	1167	1980	60.0	CH	5702			4	1			5	1.2	12	100	12	100	12	100	13	100	12	92	498	100	73		86	100		
	unfiltered	Nana Glen	1079	1996	0.6	C	18			1	1			0	0.3	2	100	2	100	2	100	2	100	2	100	26	100			100	100		
	unfiltered	Coramba	1168	1960	0.6	CH	31	80	25	6	5	6	1	1	1	2	100	2	100	2	100	2	100	2	100	24	100			100	92		
Coffs Harbour City Council		**Total/Weighted Average** [1]			**61.2**		**5751**	**80**	**0**	**6**	**1**	**6**	**0**	**5**	**1**	**16**	**100**	**16**	**100**	**16**	**100**	**17**	**100**	**16**	**94**	**548**	**100**	**73**	**3.1**				

For Notes see page number 252

Appendix D1: 2006-07 water treatment performance (continued)

Water Utility	Source/type (Bulk Supplier)	Water Treatment Works	Treatment Works No.	Year built or Augmented	Capacity	Type of Treatment Works[2]	Volume Treated to Potable	Colour Units				Turbidity Units				Compliance with 2004 NHMRC/NRMMC Australian Drinking Water Guidelines[3, 6]												Water Quality Complaints		No. of Samples for Allocation[5]		Chlorination System Failure	Major Malfunction of Treatment Processes
								Raw Water		Treated Water		Raw Water		Treated Water		Colour		Turbidity		pH		Physical		Chemical		E. coli				Chemical	E. coli		
		37a			*ML/d 37b*	*38a*	*ML 38b*	*Max 39a*	*Avg 39b*	*Max 39c*	*Avg 39d*	*Max 40a*	*Avg 40b*	*Max 40c*	*Avg 40d*	*Samples 42a*	*% 42b*	*Samples 42c*	*% 42d*	*Samples 42e*	*% 42f*	*Samples 42g*	*% 42h*	*Samples 42i*	*% 42j*	*Samples 42k*	*% 42l*	*No. 43*	*/ 1,000 Props*	*% 44a*	*% 44b*	*days 45*	*days 46*
		Cooma	1031	1985	15.0	C															12	100	12	100	64	100			100	100		
		Nimmitabel	1171			CH															2	100	2	100	27	100			100	100		
		Bredbo	1172			CH															2	100	2	100	26	100			100	100		
Cooma-Monaro Council		**Total/Weighted Average** [1]			15.0																16	100	16	100	117	100						
		Coonamble	1175	1993	8.1	CH	944	2	1	2	1	0	0	0	0.2	2	100	2	100	2	100	2	100	2	100	52	100	21		100	100		
		Gulargambone	1176		1.8	CH	222	5	3	5	3	0	0	0	0	2	100	2	100	2	100	2	100	2	100	50	100			100	96		
		Quambone	1177		1.5	CH	32													2	100	2	100	2	100	10	80			100	83	4	
Coonamble Shire Council		**Total/Weighted Average** [1]			11.4		1198	5	2	5	2	0.4	0.2	0.4	0.2	4	100	4	100	6	100	6	100	6	100	112	100	21	13.2			1	
		Corowa	1116	2002	15.0	DAF	1483	55	39			30	17	1	0.5	365	100	365	100	365	100	365	100	11	100	49	100	26		92	94		
		Mulwala	1073	1944	13.0	C	1431					18	10	0	0.3			365	100	365	100	365	100	12	100	49	100	2		100	94		
		Howlong	1052	1989	5.0	LS	329	335	127	2		59	16	1	0.6	365	100	365	100	365	100	365	100	12	100	50	100	5		100	96		
		Balldale	1178																			2		2		13	100			100	100		
Corowa Shire Council		**Total/Weighted Average** [1]			33.0		3243	335	31	2		59	14	1	0	730	100	1,095	100	1,095	100	1,097	100	37	95	161	100	33	7.1				
Cowra Shire Council		Cowra	1033	1985	28.0	C	2338			4	2	8	3	3	0.8	12	100	12	100	12	100	60	100	325	100	126	100	195	37.3	100	93		
		Broken Hill (Mica St)	1022	2002	36.0	C	4641				1				0.25	12	100	12	100	12	100	127	100	127	100	127	100	1		100	100		
		Menindee	1066	1997	1.1	C	99				1.5				0.4	2	100	2	100	2	100	12	100	12	100	51	100			100	98		
Country Energy	Menindee lakes (State Water)	**Total/Weighted Average** [1]			37.1		4740				1.01				0.25	14	100	14	100	14	100	139	100	139	100	178	100	1	0				
Deniliquin Council		Deniliquin	1035	1986	26.0	C	2162	150	65	8	3	48	33	0	0	12	100	12	100	12	100	74	100	12	100	74	100	55	17.3	100	100		
Dubbo City Council		John Gilbert	1037	2007	80.0	C	10378	135	25	7	0	112	10	1	0	120	100	120	100	120	100	120	100	120	97	120	97	6	0.4	100	97		
Dungog Shire Council	*bulk purchase (HWC)*	Gresford	1117	2000	0.0	MF	45															26	100	2	100	27	96			100	100		
Eurobodalla Shire Council	*unfiltered*	Eurobodalla	1181			CH														12	100	12	100	12	100	359	100	7	0.4	100	94		
Fish River Water Supply		Duckmaloi	1038	2003	11.0	MF	1089	60	30	25	13	8	3	1	0.4	8	100	8	100	8	100	16	100	32	94	144	97			100	100		
Forbes Shire Council		Forbes	1040	1966	26.0	C	2308	65	30	5	3	250	28	1	0.2	11	100	11	100	11	100	11	100	308	100	62	100	7	2.0	100	97		
Gilgandra Shire Council	*groundwater*	Gilgandra	1041	1984	5.5	C	915	3	2	1	0	40	10	2	0.5	2	100	2	100	2	100	4	100	10	100	50	100	15	11.1	100	96	1	
		Martins Lookout	1042	1982	12.0	C	731															11	100	11	100	54	94			92	100		
		Deepwater	1264		12.0	CH	36													12	100	12	100	12	100	52	95	12		100	100		
Glen Innes Severn Shire Council		**Total/Weighted Average** [1]			24.0		767													12	100	23	100	23	100	106	95	12	4.2				
		Gloucester	1043	1981	4.5	C	260	250	27	5	5	91	4	18	1	2	100	2	100	2	100	2	100	2	100	51	100	3		100	98		
		Barrington	1182	1981	0.5	CH	27	250	27	225	24	91	4	70	3.1	2	100	2	100	2	100	2	100	2	100	51	100	2		100	98		
Gloucester Shire Council		**Total/Weighted Average** [1]			5.0		287	250	27	225	7	91	4	70	1	4	100	4	100	4	100	4	100	4	100	102	100	5	3.0				
Goldenfields Water Reticulator		Oura	1183	1975	26.0	-1	4889									12	100	374	100	322	100	684	100	1,632	100	273	100	41		100	100		7
	groundwater	Jugiong	1056	1991	40.0	C	4631	200	23	5	5	83	7	0	0	366	100	365	100	367	100	1,467	100	820	100	206	100	2		100	95		
	groundwater	Mount Arthur	1184		4.3	CH	681									2	100	2	100	2	100	2	100	2	100	65	100	33		100	100		
	groundwater	Mount Daylight	1185		1.3	CH	274									2	100	2	100	2	100	2	100	2		26	100			100	100		
	non-potable dual supply	Hylands Bridge	1186		0.8		211																										
		Weethalle	1111																														
Goldenfields Water County Council		**Total/Weighted Average** [1]			46.4		5797	200	18	5	4	83	6	0	0	370	100	369	100	371	100	1,471	100	824	100	297	100	35					
Gosford City Council		Somersby	1045	1986	140.0	C	15786									12	100	12	100	12	100	12	100	12	92	394	100	3,911	56.4	100	100		
		Goulburn	1046	1975	35.0	C	2052	3,160	180	20	5	821	13	2	0	365	100	365	100	365	100	1,494	100	145	100	116	100			100	100		
		Marulan	1064	1997	1.5	MF	94	110	37	23	9	10	3	2.7	0.8	12	100	12	100	12	100	12	100	12	100	50	100			100	96		
Goulburn Mulwaree Council		**Total/Weighted Average** [1]			36.5		2146	3,160	174	23	5	821	12	3	0	377	100	377	100	377	100	1,506	100	157	100	166	100						
	bulk purchase (Albury CC)	Culcairn	1179	2007	2.8	CH	209	1	1	1	1	0	0	0	0	1	100	1	100	52	100	12	100	2	100	51	100			100	98		
		Villages	1197	2005	4.5	CH	404																	2	100	52	100						
		Burrumbuttock	1200	2007	2.8	CH																1	100	1	100	52	100			50	100		
Greater Hume Shire Council		**Total/Weighted Average** [1]			10.1		613	1	1	1	1	0	0	0	0	1	100	1	100	52	100	12	100	4	100	103	100						
		Griffith	1047	1987	60.0	DAF	7252			1	1			2	0.4	12	100	12	100	12	100	12	100	12	100	73	100	4		100	96		
		Yenda	1108	2001	2.5	MF	291			2	1			1	0	5	100	7	100	15	100	15	100	12	100	50	100			100	96		
Griffith City Council	*bulk purchase (Murrumbidgee*	**Total/Weighted Average** [1]			62.5		7543			2	1			2	0.4	17	100	19	100	27	100	27	100	24	100	123	100	4	0.5				
Gundagai Shire Council		Gundagai	1049	1988	5.0	C	600	150	50	10	5	100	20	2.0	0.3	365	100	365	100	365	100	3	100	50	100	48	100	6	5.7	100	92	2	
	untreated groundwater	Gunnedah	1188			U																12	100	12	100	54	100			100	84		
	good quality untreated groundw	Curlewis	1189	2004	1.0	CH	131															2		2	100	36	100	2		100	69	10	1
	good quality untreated groundw	Tambar Springs	1190	2006	0.5	CH	21															12	100	2	100	9	89			100	75		
	good quality untreated groundw	Mullaley	1191	2006	0.5	CH	26															2		2	100	12	88			100	100		
Gunnedah Shire Council		**Total/Weighted Average** [1]			2.0		178															28	100	18	100	111	100	2	0.5			5	1
Guyra Shire Council		Guyra	1050	1983	6.0	C	410	500	100	10	5	12	3	1	0	260	100	260	100	260	100	62	100	2	100	52	100	1	0.9	100	100		
		Bingara	1294	1940	4.0	CH	316	12	9			17	13			3	100	3		3	100	3		3		51	100	12		100	98		
		Warialda	1287	2003	3.0	CH	312			1	1			0	0	2	100	2	100	2	100	2	100	2	100	53	100			100	100		
	non-potable groundwater	Gravesend	1288	2003	0.5	CH	42	1	1			0	0			2	100	2	100	2	100	2	100	2	100	27	100			100	100		
	good quality untreated groundw	North Star	1289		0.4	CH	47	1	1			3	2			2	100	2	100	2	100	2		2		12	100			100	100		
Gwydir Shire Council		**Total/Weighted Average** [1]			7.9		717	12	4	1	1	17	6	0	0	7	100	7	53	7	100	7	100	7	57	131	100	12	8.3				
Harden Shire Council	*bulk purchase (Goldenfields)*	Harden	1194																														
	unfiltered	Hastings	1195	2005	218.0	CH	4925	36	3	1	1	5	1	1	1	7	100	1,068	100	1,069	100	1,089	100	7	29	433	100	120		100	100		
		Telegraph Point	1295	2004	0.9	MF	44	99	21	48	9	19	5	4	0.4	39	100	36	100	36	100	53	100	36	100	51	82			100	98	2	
		Comboyne	1296	2004	0.5	MF	15	70	31	27	11	20	8	1	0.3	41	100	52	100	52	100	51	100	2	100	49	88			100	100		
		Long Flat	1297	2005	0.3	MF	7	89	18	24	9	21	3	2	0	41	100	41	100	53	100	51	100	2	100	49	86			100	100		
Port Macquarie-Hastings Council		**Total/Weighted Average** [1]			451.4		11458	99	4	48	1	41	2	5	0.7	129	100	1,242	100	1,264	100	1,297	100	58	91	631	97	138	4.7			0	
Hay Shire Council	*dual supply*	Hay	1051	1988	2.1	CH	329															4	100	14	100	51	100			100	98		
Hunter Water Corporation																																	
		Copeton	1053	1982	18.0	-1	1849	195	70	4	3	9	3	1	0.2	360	100	360	100	360	100	360	100	14	100	42	100	10		100	48		
		Ashford	1005	1984	3.0	C	128													360	100	360	100	14	100	39	100			100	75		
	groundwater	Yetman	1201		0.5	CH	34														100	1	100	1	100	15	100			50	58		
Inverell Shire Council	*river abstraction (State Water)*	**Total/Weighted Average** [1]			21.5		2011	195	64	4	2	9	2	1	0	360	100	360	100	720	100	721	100	29	100	96	100	10	1.9				
Jerilderie Shire Council	*dual supply*	Jerilderie	1055	1980	0.8	C	113	500	200	15		55	33	4	0	365	100	365	100	365	100	2	100	2	100	45	100			100	87		

For Notes see page number 252

Appendix D1: 2006-07 water treatment performance (continued)

Water Utility	Source/type (Bulk Supplier)	Water Treatment Works	Treatment Works No.	Year built or Augmented	Capacity	Type of Treatment Works[2]	Volume Treated to Potable	Colour Units				Turbidity Units				Compliance with 2004 NHMRC/NRMMC Australian Drinking Water Guidelines[3, 6]										Water Quality Complaints		No. of Samples + Allocation[5]		Chlorination System Failure	Major Malfunction of Treatment Processes
								Raw Water		Treated Water		Raw Water		Treated Water		Colour		Turbidity		pH		Physical		Chemical		E. coli				Chemical	E. coli		
		37a			*ML/d* *37b*	*38a*	*ML* *38b*	*Max* *39a*	*Avg* *39b*	*Max* *39c*	*Avg* *39d*	*Max* *40a*	*Avg* *40b*	*Max* *40c*	*Avg* *40d*	*Samples* *42a*	*%* *42b*	*Samples* *42c*	*%* *42d*	*Samples* *42e*	*%* *42f*	*Samples* *42g*	*%* *42h*	*Samples* *42i*	*%* *42j*	*Samples* *42k*	*%* *42l*	*No.* *43*	*/ 1,000 Props*	*%* *44a*	*%* *44b*	*days* *45*	*days* *46*
	groundwater	Sherwood	1202	2000	38.0	CH	3933			4	1			2	0.6	12	100	12	100	200	100	200	100	336	100	189	100	1		100	76		
	groundwater	South West Rocks	1204	2006	6.0	MF	531			2	5			0	0.2	2	100	2	100	52	100	52	100	56	100	52	100	3		100	100		
		Belgrave Falls	1203		5.8	CH																26	100	1	100	26	100			50	50		
	groundwater	Stuarts Point	1206	1999	2.8	DF	172			3	1			1	0	13	100	13	100	62	100	62	100	367	100	52	100			100	100		
	groundwater	Crescent Head	1205		2.6	CH	174			19	14			3.0	3.0	2	100	2	100	53	100	53	100	56	93	52	100	2		100	100		
	groundwater	Kinchela	1207	1995	2.0	CH																										
	groundwater	Hat Head	1208	2000	1.3	CH	71			10	9			0	0	2	100	2	100	28	100	28	100	48	100	27	100			100	100		
	groundwater	Willawarrin	1209	1972	0.2	CH	13			4	2			1	0.5	5	100	5	100	31	100	31	100	120	100	27	100			100	100		
	groundwater	Bellbrook	1210	1993	0.2	CH	13			6	1			6	2.1	5	100	5	100	33	100	33	100	120	100	28	96	1		100	100		85
Kempsey Shire Council		**Total/Weighted Average**[1]			**58.9**		**4907**			**19**	**2**			**6**	**0.6**	**41**	**100**	**41**	**100**	**459**	**100**	**485**	**100**	**1,104**	**100**	**453**	**100**	**7**	**0.6**				**0**
		Kyogle	1058	1988	3.0	C	316	480	30	85	5	105	25	32	4.0	2	100	2	100	2	100	2	100	2	100	96	1		100	100		
	non-potable supply from Tente	Woodenbong	1211																			#N/A	#N/A	#N/A	#N/A	#N/A	#N/A						
	non-potable	Bonalbo	1212	1967	0.3	CH	35			11	11			2	1	2	100	2	100	2	100	2	100	2	50	51	96	2		100	98		
Kyogle Council		**Total/Weighted Average**[1]			**3.3**		**351**	**480**	**27**	**85**	**6**	**105**	**23**	**32**	**3.7**	**4**	**100**	**4**	**100**	**4**	**100**	**4**	**100**	**4**	**75**	**151**	**96**	**3**	**1.6**				
		Condobolin	1030	1941	7.5	C	1020															12	100	12	83	49	100			100	94		
		Lake Cargelligo	1059	2004	**4.5**	MF	588					643	107	1								2	100	2		52	100			100	100		2
		Tottenham	1095	1994	1.0	LS	14															4	100	4	100	39	100			100	100		
Lachlan Shire Council		**Total/Weighted Average**[1]			**13.0**		**1622**					**643**		**1**								**18**	**100**	**18**	**78**	**140**	**100**						**1**
		Leeton	1060	1993	25.0	C	2748	69	40	3	1	60	26	8	0.3	300	100	300	100	300	100	13	100	12	100	56	100	10		100	88		
		Whitton	1213		0.9	C	107	181	111	6	1	120	70	3	0.3	300	100	300	100	300	100	4	100	4	100	26	100			100	100		
		Murrami	1075	1993	0.3	C	15	141	65	8	4	88	50	4	2	300	100	300	100	300	100	4	100	4	100	24	100			100	92		
		Yanco	1106																														
Leeton Shire Council		**Total/Weighted Average**[1]			**26.2**		**2870**	**181**	**43**	**8**	**1**	**120**	**28**	**8**	**0**	**900**	**100**	**900**	**100**	**900**	**100**	**21**	**100**	**20**	**100**	**106**	**100**	**10**	**2.5**				
Lismore City Council	*bulk purchase (Rous Water)*	Nimbin	1214			CH	144	39	21	27	12	6	4	3	1	12	100	12	100	12	100	12	100	12	92	24	96			100	92		
Lithgow City Council	*bulk purchase (Fish River WS)*	Oakey Park	1062	1985	**15.0**	C	**1496**	80	25	10	3	12	3	1		365	100	365	100	12	100	13	100	13	100	72	100			100	92		
	groundwater	Werris Creek	1103	1991	2.9	CH																3	100	3	100	30	97			100	58		
		Willow Tree	1227		0.7	CH																2		2	100	15	100			100	58		
Liverpool Plains Shire Council		**Total/Weighted Average**[1]			3.6																	**5**	**40**	**5**	**100**	**45**	**100**						
	unfiltered	Bootawa Dam Chlorinator	1216	1986	70.0	CH	9368	16	9	25	4	3	2	22	3.2	921	100	921	100	922	100	3,202	100	1,546	100	1,002	100	1,060		100	100		
	groundwater	Tea Gardens	1217	1986	4.0	CH	662	15	11	16	10	2	1	5	1	164	100	164	100	165	100	509	100	508	65	181	100	1		100	100	7	14
		Bulahdelah	1023	1986	2.0	DF	169	190	98	12	3	28	9	6	1	139	100	139	100	140	100	434	100	460	86	155	100	44		100	100	3	
		Stroud	1090	1997	2.0	DF	165	120	33	2		46	5	1	0.5	164	100	164	100	165	100	509	100	515	100	180	100			100	100		
MidCoast County Council		**Total/Weighted Average**[1]			**78.0**		**10364**	**190**	**11**	**25**	**4**	**46**	**2**	**22**	**3**	**1,388**	**100**	**1,388**	**100**	**1,392**	**100**	**4,654**	**100**	**3,029**	**91**	**1,518**	**100**	**1,105**	**30.9**			**0**	**1**
		Mudgee	1121	2005	**10.0**	C	1875															12	100	12	100	70	100			100	100		
		Rylstone	1088	1971	5.0	C	439	70	35	3	1	55	10	5	1.0	52	100	2	100	1	100	2	100	2	100	69	100	4		100	100		
		Gulgong	1118	2005	4.0	C	466	20	8	5	2	10	1	5	0.2	12	100	12	100	2	100	48	100	12	100	48	100	1		100	92		
		Mudgee	1222	2005	15.0		1908	15	10	2	1	25	18	3	0.6	12	100	12	100	12	100	64	100	12	100	70	100	6					
Mid-Western Regional Council		**Total/Weighted Average**[1]			**34.0**		**4688**	**70**	**14**	**5**	**1**	**55**	**14**	**5**	**1**	**76**	**100**	**26**	**100**	**15**	**100**	**126**	**100**	**38**	**100**	**257**	**100**						
	groundwater	Broadwater Creek	1301	1986	16.0	CH																2	100	2	100	48	100			17	75		
	groundwater	Mash	1219		5.1	C																										
	groundwater	Industrial Drive	1220		**3.4**	CH																										
	dual supply	Boggabilla	1016		1.5	C																2	100	2	100	28	96			100	100		
		Mungindi	1074		0.8	C																1	100	2	100	44	93			100	85		
	groundwater	Pallmallawa	1221		**0.6**	CH																				21	100				81		
Moree Plains Shire Council		**Total/Weighted Average**[1]			**27.4**																	**5**	**100**	**6**	**100**	**141**	**97**						
		Moama	1070	1991	6.0	DAF	595																			53	100	1			100		
	dual supply	Mathoura	1065	1989	2.3	C	203																			26	100				50		
Murray Shire Council		**Total/Weighted Average**[1]			**8.3**		**798**																			**79**	**100**	**1**	**0.4**				
	groundwater	Coleambally	1226	1975	5.0	CH	240	2	2	1	1	1	1	1	1.0	2	100	2	100	2	100	2	100	2	100	52	100			100	100		
	groundwater	Darlington Point	1225			U	370	1	1	1		1	1	1		2	100	2	100	2	2	2	100	2	100	52	100			100	100		
Murrumbidgee Shire Council		**Total/Weighted Average**[1]			**5.0**		**610**									**4**	**100**	**4**	**100**	**4**	**51**	**4**	**100**	**4**	**100**	**104**	**100**						
		Muswellbrook	1078	1988	**16.0**	C	1808			1	1		88	3	0.3	52	100	52	100	52	100	52	100	467	100	186	100	53		100	100		
		Denman	1228		3.0	CH	258			2	1	324	178	24	8.0	12	100	70	41	52	100	52	100	444	92	147	100	12		100	100	1	
		Sandy Hollow	1229	2002	0.5	C,OZ	31	9	3	2	1	32	9	13.2	1.7	52	100	52	100	52	100	53	100	193	100	111	100			100	100		3
Muswellbrook Shire Council		**Total/Weighted Average**[1]			**19.5**		**2097**	**9**		**2**		**324**		**24**		**116**	**100**	**174**	**76**	**156**	**100**	**157**	**100**	**1,104**	**100**	**444**	**100**	**12**	**2.3**			**0**	**0**
Nambucca Shire Council		Nambucca	1230	1988	**23.3**	CH	1810			1	1			1	1	12	100	12	100	12	100	12	100	12	100	112	100	18	2.9	100	98		
	groundwater	Narrabri	1231		18.1	CH	2242	15	4			2	0			11	100	11	100	11	100	11	100	11	100	49	100	50		92	94		
	groundwater	Wee Waa	1232		10.1	CH	650	1	1			0	0			2	100	2	100	2	100	2	100	2	100	53	100	30		100	100		
	groundwater	Boggabri	1233		4.1	CH	260	1	1			3	3			3	100	1	100	1	100	2	100	2	100	50	100	10		100	96		
	groundwater	Gwabegar	1236		0.4	CH	12	3	3			0	0			2	100	2	100	2	100	2	100	2	100	25	100	5		100	96		
	groundwater	Bellata	1235		0.4	CH	35	1	1			2	2			1	100	1	100	1		1	100	1	100	26	92	2		50	100		
	groundwater	Pilliga	1234		1.2	CH	28	2	2			0	0			2	100	2	100	2	100	2		2	100	25	100	3		100	96		
Narrabri Shire Council		**Total/Weighted Average**[1]			**34.3**		**3227**	**15**	**3**			**3**	**1**			**21**	**100**	**19**	**100**	**19**	**95**	**20**	**100**	**20**	**100**	**228**	**100**	**100**	**23.1**				
Narrandera Shire Council	*groundwater*	Narrandera	1237		22.0	CH	1460															12	100	12	75	78	95			100	100		
		Tomingley	1094	2005	0.1	D	9															1	100	1		9	100			50	75		
	groundwater	Narromine	1238			**A**	**910**															1	100	1	100	38	100			**50**	**73**		
Narromine Shire Council		**Total/Weighted Average**[1]			**0.1**		919															**2**	**100**	**2**	**50**	**47**	**100**						
Oberon Council	*bulk purchase (Fish River WS)*	Oberon	1122	2002	6.5	M	**749**	36	23			4	2	0	0	365	100	365	100	365	100	12	100	2	100	52	100	3	2.2	100	100		
		Icely Road	1084	1982	38.0	C	5469	9	8			5	3	0	0.1	12	100	12	100	12	100	12	100	12	92	187	100	31		100	100		
		Spring Creek	1085	1931	12.0	C																										
	groundwater	Spring Hill/Lucknow	1239		0.8	CH	64									2	100	2	100	2	100	2	100	2	100	53	100			100	100		
Orange City Council		**Total/Weighted Average**[1]			**50.8**		**5533**	**9**	**7**			**5**	**3**	**0**	**0**	**14**	**100**	**14**	**100**	**14**	**100**	**14**	**100**	**14**	**93**	**240**	**100**	31	2.0				

For Notes see page number 252

Appendix D1: 2006-07 water treatment performance (continued)

Water Utility	Source/type (Bulk Supplier)	Water Treatment Works	Treatment Works No.	Year built or Augmented	Capacity	Type of Treatment Works[2]	Volume Treated to Potable	Colour Units				Turbidity Units				Compliance with 2004 NHMRC/NRMMC Australian Drinking Water Guidelines[3, 6]												Water Quality Complaints		No. of Samples > Allocation[5]		Chlorination System Failure	Major Malfunction of Treatment Processes
								Raw Water		Treated Water		Raw Water		Treated Water		Colour		Turbidity		pH		Physical		Chemical		E. coli				Chemical	E. coli		
		37a			*ML/d* *37b*	*38a*	*ML* *38b*	*Max* *39a*	*Avg* *39b*	*Max* *39c*	*Avg* *39d*	*Max* *40a*	*Avg* *40b*	*Max* *40c*	*Avg* *40d*	*Samples* *42a*	*%* *42b*	*Samples* *42c*	*%* *42d*	*Samples* *42e*	*%* *42f*	*Samples* *42g*	*%* *42h*	*Samples* *42i*	*%* *42j*	*Samples* *42k*	*%* *42l*	*No.* *43*	*/ 1,000 Props*	*%* *44a*	*%* *44b*	*days* *45*	*days* *46*
	groundwater	Braidwood	1271		10.0	CH	162															46	24	1	100	50	96			50	96		
		Bungendore	1290		1.7	CH	256															1	100	1	100	50	100			50	96		
		Captains Flat	1291	2002	**0.7**	M	46															1		1	100	26	100			50	100		
Palerang Council		**Total/Weighted Average** [1]			12.4		**464**															**48**	**25**	**3**	**100**	**126**	**100**						
Parkes Shire Council		Parkes	1086	1987	8.6	C	**2276**													12	100	116	100	12	100	106	100			100	96		
Queanbeyan City Council	*bulk purchase (ACTEW)*	Weetalabah	1292																							4	100				33		
		Casino	1027	1985	23.0	C	2456	300	51	10	2	82	10	1	0.1	121	100	170	100	149	100	931	100	583	90	149	100	29		100	100		
		Broadwater	1218			-1																											
		Lower River	1248																														
Richmond Valley Council	*bulk purchase (Rous Water)*	**Total/Weighted Average** [1]			**23.0**		**2456**	**300**	**51**	**10**	**2**	**82**	**10**	**1**	**0.1**	**121**	**100**	**170**	**100**	**149**	**100**	**931**	**100**	**583**	**90**	**149**	**100**	**29**	**4.5**					
		Hastings	1195	2005	218.0	CH	4925	36	3	1	1	5	1	1	0.7	7	100	1,068	100	1,069	100	1,089	100	7	29	433	100	120		100	100		
		Wauchope	1999	2006	6.0	MF	738	5	5	1	1	41	7	5	1.2	1	100	45	100	54	100	53	100	11	100	49	100	18		92	77		
		Telegraph Point	1295	2004	0.9	MF	44	99	21	48	9	19	5	4	0.4	39	100	36	100	36	100	53	100	36	100	51	82			100	98	2	
		Comboyne	1296	2004	0.5	MF	15	70	31	27	11	20	8	1	0.3	41	100	52	100	52	100	51	100	2	100	49	88			100	100		
		Long Flat	1297	2005	0.3	MF	7	89	18	24	9	21	3	2	0.3	41	100	41	100	53	100	51	100	2	100	49	86			100	100		
Port Macquarie-Hastings Council	*bulk supplier, retailer*	**Total/Weighted Average** [1]			**451.4**		**11458**	**99**	**4**	**48**	**1**	**41**	**2**	**5**	**0.7**	**129**	**100**	**1,242**	**100**	**1,264**	**100**	**1,297**	**100**	**58**	**91**	**631**	**97**	138	4.7				0	
		Waterworks	1098	1961	44.0	C	6236			2	1			1	0.3	12	100	12	100	206	100	230	100	373	100	202	100	26					
		West Wagga	1249	1979	32.0	C	3958	8	4	2	1	7	2	13	0.6	12	100	203	100	206	100	230	100	373	100	202	100	16					
		North Wagga	1250		25.0	A	2625	7	2	1	1	4	2	8	0.9	11	100	37	100	37	100	413	100	12	100	404	100	11		100	93		
		Ralvona	1251		4.0	A	356	12	5	1	1	3	1	13	0.5			54	100	54	100	54	100	54	100	52	100			100	100		
		Bulgary	1252		3.0	A	593	9	7	3	2	8	3	3	0.4	3	100	55	100	55	100	55	100	64	100	52	100	1		100	100		
		Gardiners Crossing	1262	1961	1.5	A	224	2	2	1	1	1	1	2	0.4	1	100	51	100	52	100	51	100	61	100	52	100	1					
		Urana	1253		1.1	C	593	480	367	28	12	210	164	3	0.4	194	100	194	100	55	100	64	100	64	100	52	100			100	100		1
		Walbundrie	1261	2005	0.9	A	44	16	5	24	5	2	1	1	0.4	26	100	27	100	27	100	27	100	26	100	26	96	1		100	100		
		Humula	1259		0.3	A, CH	7	28	16	82	10	1	1	1	0.5	26	100	27	100	27	100	27	100	28	100	26	100	1		100	100		
		Woomargama	1257		0.2	CH	19	35	15	1	1	18	3	1	0.4	1	100	28	100	28	100	28	100	28	100	26	100			100	100		
		Rand	1258																			27	100	1		26	100			50	100		
		Collingullie	1255		0.6	A, D	85	1	1	1	1	7	3	1	0.3	2	100	15	100	15	100	15	100	15	100	13	100	1		100	100		
		Tarcutta	1254		0.8	A, D	70	90	53	1	1	10	3	7	0.5	2	100	28	100	28	100	28	100	31	100	29	93	16		100	100	1	3
		Oura	1256		0.6	A	47	6	4	1	1	2	1	1	0.5	14	100	14	100	14	100	14	100	14	100	13	100	4		100	100		
		Morundah	1260		0.2	C	11			45	7	355	76	2	0.5	26	100	27	100	27	100	27	100	28	100	26	100			100	100		
Riverina Water County Council		**Total/Weighted Average** [1]			**114.2**		**14868**	**480**	**17**	**82**	**1**	**355**	**8**	**13**	**0.5**	**330**	**100**	**772**	**100**	**831**	**100**	**1,263**	**100**	**1,171**	**100**	**1,175**	**100**	**78**	**2.9**					**0**
		Nightcap	1061	1991	70.0	DAF	10444	31	13	8	3	5	3	1	0.2	52	100	52	100	52	100	52	100	52	100	52	100						
		Emigrant Creek Dam	1006	2006	7.5	MF	528	14	7	1	0	17	6	0	0.2	52	100	52	100	52	100	52	100	52	100	52	100						
Rous County Council	*bulk supplier, retailer*	**Total/Weighted Average** [1]			**77.5**		**10972**	**31**	**13**	**8**	**3**	**17**	**3**	**1**	**0.2**	**104**	**100**	**104**	**100**	**104**	**100**	**104**	**100**	**104**	**100**	**104**	**100**						
		Bamarang	1081	1999	75.0	C	7967	35	21	1	1	4	1	0.5	0.4	12	100	85	100	85	100	276	100	797	100	583	100	66		100	100		
		Flatrock	1080	1998	28.0	C	3652	35	21	3	1	4	1	6	0.8	52	100	73	100	85	100	276	100	797	100	583	100	23		100	100		
		Milton	1068	2000	11.5	C	1358	60	33	1	1	4	2	1	0.3	344	100	346	100	23	100	91	100	359	100	140	100	28		100	100		
		Kangaroo Valley	1057	1993	1.0	MF	93	125	54	7	2	18	4	2	0	11	100	23	100	23	100	91	100	359	100	51	100	1		100	98		
Shoalhaven City Council		**Total/Weighted Average** [1]			**115.5**		**13070**	**125**	**22**	**7**	**1**	**18**	**1**	**6**	**0.5**	**419**	**100**	**527**	**100**	**216**	**100**	**734**	**100**	**2,312**	**100**	**1,357**	**100**	**118**	**2.6**					
Singleton Shire Council		Obanvale	1089	1993	**30.0**	DF	**2772**	5	5	5	5	88	3	1.5	0.2	600	100	600	100	600	100	600	100	600	100	158	100	8	1.3	100	100		
	unfiltered	East Berridale	1266	2007	8.6	CH	180			3	2			0.7	0.5	2	100	2	100	2	100	3	100	65	100	53	100						
	unfiltered	East Jindabyne	1267	2007	8.6	CH	182			3	2			1	1	2	100	2	100	2	100	4	100	12	100	53	100			100	100		
	unfiltered	Jindabyne	1265	2005	8.0	CH	267			5	3			4	0.9	12	100	12	100	12	100	12	100	12	100	81	100	4		100	100	10	
	unfiltered	Adaminaby	1268	2005	2.0	CH	45			3	2			1.8	1.3	3	100	3	100	3	100	3	100	37	100	27	100			100	100		
	unfiltered	Kalkite	1270	2007	1.8	CH	19			8	7			7	3.3	2	100	2	100	2	100	4	100	12	100	37	97			100	100		
	unfiltered	Dalgety	1269	2004	0.7	CH	20			4	4			1	0.4	2	100	2	100	2	100	31	100	31	100	29	93			100	100		
Snowy River Shire Council		**Total/Weighted Average** [1]			**29.7**		**713**			**8**	**4**			**7**	**1.0**	**23**	**100**	**23**	**100**	**23**	**100**	**54**	**100**	**104**	**100**	**227**	**100**						
Sydney Water Corporation																																	
		Calala	1091	1991	80.0	C	7824	137	8	16	1	1,600	15	1	0.2	11	100	11	100	11	100	22	100	923	95	123	100	38		100	99		
		Manilla	1063	1990	4.6	C	366	32	24	16	3	7	4	3	0.6	3	100	3	100	3	100	6	100	562	89	54	100			100	100		
		Barraba	1010	1995	3.6	DAF	141	980	209	6	2	135	33	1	0.3	1	100	1	100	1	100	2	100	76	100	50	100			100	96		
	groundwater	Attunga	1241	1991	2.9	CH	96									2	100	2	100	2	100	4	100	84	100	26	100			100	100		
	groundwater	Nundle	1082	1995	0.9	LS	57	550	65	97	21	1,306	34	5	1.7	2	100	2	100	2	100	4	100	81	100	26	100			100	100		
		Bendemeer	1242		0.6	CH	27									2	100	2	100	2	100	4	100	85	100	29	97			100	100		
	groundwater	Kootingal/Moonbi	1240	1991		CH	221									2	100	2	100	2	100	4	100	85	100	28	100			100	54		
Tamworth Regional Council		**Total/Weighted Average** [1]			**92.6**		**8732**	**980**	**12**	**97**	**1**	**1,600**	**14**	**5**	**0.2**	**23**	**100**	**23**	**100**	**23**	**100**	**46**	**100**	**1,896**	**94**	**336**	**100**	38	1.9					
		Tenterfield	1092	1986	5.5	C	405	166	75	50	8	16	4	4.0	0.1	365	100	365	100	15	100	18	100	4	100	33	100	10		100	63	4	
		Urbenville	1272		1.8	CH	100													36	100	2		2	50	160	82	10		100	100	5	5
		Jennings	1298			C														12	100	4		2		24	100	4					
Tenterfield Shire Council		**Total/Weighted Average** [1]			**7.3**		**505**	**166**	**60**	**50**	**6**	**16**	**3**	**4**	**0.1**	**365**	**100**	**365**	**100**	**63**	**100**	**24**	**100**	**8**	**63**	**217**	**87**	24	12.5			4		1
		Tumbarumba	1273		4.0	CH	389															3	33	3	67	52	100			100	100		
		Khancoban	1274		2.5	CH	91															2	100	2	100	27	96			100	100		
Tumbarumba Shire Council		**Total/Weighted Average** [1]			**6.5**		480															**5**	**100**	**5**	**80**	**79**	**100**						
		Tumut	1096	1987	16.0	C	1259	250	9	5	5	130	4	7	0.2							75	100			75	100				100		
		Adelong	1113	1996	2.7	LS	135	550	106	14	1	126	8	1	0.9							43	100			43	100				83		
		Batlow	1115		2.1	MF	220	200	56	10	4	12	2	1	0.1							39	100			39	100				75		
		Talbingo	1275		2.1	DF	55	60	17	5	5	4	1	1	0.9							23	100			23	100				88		
		Brungle	1276		0.3	MF	20	100	20	20	4	153	20	1	0.3							12	100			12	100				100		
Tumut Council		**Total/Weighted Average** [1]			**23.2**		**1689**	**550**		**20**		**153**		**7**								**192**	**100**			**192**	**100**						
		Bray Park	1077	1983	60.0	C	9493	40	12	3	1	21	3	0	0.1	447	100	450	100	1,189	45	2,680	100	7,630	91	397	100	26		100	100		2
		Uki	1125	1998	0.5	C	48	44	19	6	1	120	3	1	0.2	103	100	103	100	154	100	614	100	1,290	100	103	100	3		100	100		3
		Tyalgum	1124	1969	0.3	DF	25	40	10	8	4	8	3	5	1.2	101	100	102	100	153	100	608	100	1,170	100	102	100			100	100	4	4
Tweed Shire Council		**Total/Weighted Average** [1]			**60.8**		**9566**	**44**	**12**	**8**	**1**	**120**	**3**	**5**	**0.1**	**651**	**100**	**655**	**100**	**1,496**	**56**	**3,902**	**100**	**10,090**	**93**	**602**	**100**	3	0.1			0		2

For Notes see page number 252

Appendix D1: 2006-07 water treatment performance (continued)

Water Utility	Source/type (Bulk Supplier)	Water Treatment Works	Treatment Works No.	Year built or Augmented	Capacity	Type of Treatment Works[2]	Volume Treated to Potable	Colour Units				Turbidity Units				Compliance with 2004 NHMRC/NRMMC Australian Drinking Water Guidelines[3, 6]												Water Quality Complaints		No. of Samples ÷ Allocation[5]		Chlorination System Failure	Major Malfunction of Treatment Processes
								Raw Water		Treated Water		Raw Water		Treated Water		Colour		Turbidity		pH		Physical		Chemical		E. coli				Chemical	E. coli		
		37a			*ML/d 37b*	*38a*	*ML 38b*	*Max 39a*	*Avg 39b*	*Max 39c*	*Avg 39d*	*Max 40a*	*Avg 40b*	*Max 40c*	*Avg 40d*	*Samples 42a*	*% 42b*	*Samples 42c*	*% 42d*	*Samples 42e*	*% 42f*	*Samples 42g*	*% 42h*	*Samples 42i*	*% 42j*	*Samples 42k*	*% 42l*	*No. 43*	*/ 1,000 Props*	*% 44a*	*% 44b*	*days 45*	*days 46*
		Murrurundi	1076	1983	2.4	CH	110																	48	96				92		
	groundwater	Merriwa	1067	1980	2.3	C	300			1	1			0	0.2	2	100	2	100	2	100	2	100	2	100	49	100			100	94		
	groundwater	Cassilis	1215	2001	0.6	CH	20			1	1			1	1.8	2	100	2	100	2	100	2		2	100	24	100			100	92		
		Scone And Aberdeen	1263	1982	**12.0**	CH	1740			1	1			0	0.1	8	100	8	100	8	100	8	100	8	100	152	96	10		100	100		
Upper Hunter Shire Council		**Total/Weighted Average [1]**			**17.3**		**2170**			**1**	**1**			**1**	**0.1**	**12**	**100**	**12**	**100**	**12**	**100**	**12**	**100**	**12**	**100**	**273**	**97**	10	2.5				
		Crookwell	1034	1990	3.0	C	340	60	20	3	2	4	3	0	0.3	2	100	2	100	2	100	2	100	2	100	47	100	3		100	90		
	groundwater	Gunning	1192	2005	2.0	CH	50	100	10	5	3	10	5	0.6	0.3	2	100	2	100	2	100	2	100	2	50	49	96			100	94		
		Dalton	1193	1995	1.0	CH	25			1	1			5	3	2	100	2	100	2	100	2	100	2		26	100			100	100		
		Taralga	1223	1985	2.0	U	40			7	7			1	1	2	100	2	100	2	100	2	100	2	50	30	93			100	100		
Upper Lachlan Council		**Total/Weighted Average [1]**			**8.0**		**455**	**100**	**16**	**7**	**2**	**10**	**3**	**5**	**0**	**8**	**100**	**8**	**100**	**8**	**100**	**8**	**100**	**8**	**50**	**152**	**97**						
		Kentucky Creek	1097	1985	5.0	C		26	18	13	7	10	4	2	0.6	52	100	52	100	26	100	26	100	50	100	55	95	30		100	100		
		Bundarra	1025	1994	0.8	LS														26	100	26	100	26	100	31	94	2		100	100	4	
Uralla Shire Council		**Total/Weighted Average [1]**			5.8			**26**		**13**		**10**		**2**		**52**	**100**	**52**	**100**	**52**	**100**	**52**	**100**	**76**	**100**	**86**	**94**	32	20.4			1	
	dual supply	Barham	1009	1993	**2.0**	LS	130	455	40	1		155	45	2		26	100	26	100	26	100	365	100	26	100	47	100			100	90		1
	unfiltered	Wakool Rural/Town	1277	2004	1.2	MF	106	450	300			47	35			26	100	26	100	26	100	200	100	26	100	26	100						1
		Lower Murray Water Swanhill	1278		1.0	L																											
		Murray Downs	1280		1.0	L																2	100	2	100	32	100			100	86		
		Moulamein	1120	2002	0.5	MF	33	550	200			85	30			26	100	26	100	26	100	26	100	26	100	24	100			100	92		
	unfiltered	Koraleigh	1279	2004	0.1	MF	21	200	130			60	25			26	100	26	100	26	100	260	100	26	100	26	100			100	100		
		Tooleybuc	1123	2004	0.3	MF	34	364	127			210	35			26	100	26	100	26	100	26	100	26	100	24	100			100	92		
		Wakool	1281																			2		2	100	24	100			100	92		
Wakool Shire Council	*bulk purchase (Murray Irrigatio*	**Total/Weighted Average [1]**			6.1		**324**	**550**	**576**	**1**		**210**	**139**	**2**		**130**	**100**	**130**	**100**	**130**	**100**	**316**	**100**	**82**	**100**	**130**	**100**						4
Walcha Council		Walcha	1099	1985	**4.8**	C	**211**	330	74	8	0	45	7	1	0.1	200	100	200	100	400	100	400	100	12	100	36	100	2	2.3	100	69		
	untreated artesian bore	Water Treatment Plant 1	1282	1992	**3.1**	U																		2	100	52	95						
	dual supply	Walgett	1100	1964	0.7	C	347													52	100	52	100	2	100	53	100			100	100		
	dual supply	Collarenebri	1029	1996	0.5	MF	163															2	100	2	100	54	96			100	100		
	non-potable artesian bore	Carinda	1283	2007	**0.1**	U																2		2	100	27	100			100	100		
		Rowena	1284	2005	5.0		7															12		2	100	11	100	7		100	92		
		Gingie	1285																														
Walgett Shire Council		**Total/Weighted Average [1]**			9.4		**517**													**52**	**100**	**54**	**100**	**4**	**100**	**107**	**100**						
	dual supply	Warren Chlorinator	1286		3.5	CH	319	2	1	2	1	2	1	2	1.3	2	100	2	100	2	100	2		2	50	43	100	12		100	83		
	groundwater	Nevertire	1300		0.1	CH	34	1	1	1	1	0	0	0	0.3	2	100	2	100	2	100	2		2	100	25	96	3		100	96		
	groundwater	Collie	1299		0.1	CH	6	4	3	4	3	4	2	4	2.2	2	100	2	100	2	100	4		4	25	13	100	2		100	100		
Warren Shire Council	*bulk purchase (State Water)*	**Total/Weighted Average [1]**			**3.7**		**359**	**4**	**1**	**4**	**1**	**4**	**1**	**4**	**1.2**	**6**	**100**	**6**	**100**	**6**	**100**	**8**		**8**	**50**	**81**	**100**	17	17.7				
		Coonabarabran	1032	1993	7.5	C	452															1		1	100	44	100			50	85		
		Binnaway	1014	1993	1.3	C	87															1		1	100	25	100			50	96		
	groundwater	Dunedoo	1170	1984	1.0	CH	217															1		1	100	46	100			50	88		
	groundwater	Coolah	1169	1996	1.0	CH	180															2		2	100	49	100			100	94		
	groundwater	Baradine	1008	1999	1.0	DF	171																			42	100				81		
		Mendooran	1119	1968	0.3	CH	77															24	100			28	68	150			100	30	
	groundwater	Bugaldie	1173	1960		CH	1																			11	100				92		
	groundwater	Kenebri	1174	1950		CH	1																			11	100				92		
Warrumbungle Shire Council		**Total/Weighted Average [1]**			**12.1**		**1186**															**29**	**41**	**5**	**100**	**256**	**96**	150	38.3			30	
		Wellington	1101	1993	**14.6**	LS	1214	5	3	3	1	15	4	4	1.8	365	100	365	100	365	100	365	100	12	100	54	100			100	100		
		Geurie	1048	1994	**1.5**	LS	157	21	6	1	1	35	4	1	1.0	365	100	365	100	365	100	365	100	12	100	29	100			100	56		
Wellington Council		**Total/Weighted Average [1]**			**16.1**		**1371**	**21**	**3**	**3**	**1**	**35**	**4**	**4**	**1.7**	**730**	**100**	**730**	**100**	**730**	**100**	**730**	**100**	**24**	**100**	**83**	**100**						
		Buronga/Gol-Gol/Dareton	1026	1994	3.7	L	210															1		1	100	74	100			50	95		
		Wentworth	1102	1991	1.4	C	219															2	100	2	100	50	100			100	96		
	dual supply	Pooncarie	1087	1994	0.2	L	11																			25	100				96		
Wentworth Shire Council		**Total/Weighted Average [1]**			**5.3**		440															**3**	**33**	**3**	**100**	**149**	**100**						
		Wingecaribee	1020	1989	40.0	DAF	4000	65	42	5	3	13	7	2	0.8	13	100	13	100	13	100	13	100	13	100	283	100	269					
		Bundanoon	1024	1988	10.0	DAF	475	150	56	8	3	48	18	1	0.2	1	100	1	100	1	100	1	100	1	100	50	100	32					
		Medway	1013	1982	8.0	C	464	125	32	3	3	6	1	1	0.3	11	100	11	100	14	100	14	100	14	86	88	100	31					
Wingecarribee Shire Council	*bulk purchase (SCA)*	**Total/Weighted Average [1]**			**58.0**		**4939**	**150**	**42**	**8**	**3**	**48**	**7**	**2**	**0.7**	**25**	**100**	**25**	**100**	**28**	**100**	**28**	**100**	**28**	**93**	**421**	**100**	332	18.9				
Wyong Shire Council		Mardi	1105	1994	**160.0**	DF	**5490**	65	45	8	4	6	2	2	0.6	465	100	465	100	465	100	465	100	521	100	416	100	420	7.2	100	98		
Yass Valley Council		Yass	1107	1989	**13.0**	DAF	**818**	300	35	10	5	217	14	4	0.9	365	100	365	100	365	100	365	100	13	100	83	100	2	0.7	100	94		
Young Shire Council	*bulk purchase (Goldenfields)*	**Wauchope**	1999	2006	**6.0**	MF	**738**	5	5	1	1	41	7	5	1.2	1	100	45	100	54	100	53	100	11	100	49	100	18	4.2	92	77		

Notes:

1. Where an LWU 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 LWU.
   The capacity (37b), treated volume (38b), number of samples (eg. 42a) and number of water quality complaints (43) shown in the table are the totals for all treatment works for that LWU.
   The days of chlorination system failure (45), and days of major malfunction of treatment processes (46) shown in the table are the weighted average based on treatment works capacity.
2. For **"Type of Treatment Works"** (38a); A = Aerated and Disinfected, C = Conventional Water Treatment, CH = Chlorination Only, DF = Direct Filtration, DAF = Dissolved Air Flotation, LS = Lagoon Sedimentation, MF = Microfiltration, OZ = Ozonation, UV = Ultra-Violet Disinfection.
3. Physical, Chemical and E. coli results are from the NSW Health Drinking Water Monitoring Program and also from NSW Performance Monitoring except for for the following LWUs which only have NSW Health results: Balranald, Bogan, Boorowa, Cobar, Cooma-Monaro, Liverpool Plains, Moree Plains, Murray, Narrandera, Narromine, Palerang, Queanbeyan, Tumbarumba and Wentworth.
4. The additional Physical, Chemical and E. coli results from the NSW Health Drinking Water Monitoring Program have also been included in Tables 5 and 12 and Figures 15 to 17.
5. NSW Health has provided Chemical and Microbiological monitoring allocations for each LWU. The sampling reported to NSW Health has been adjusted to include sampling reported by LWUs for NSW Performance Monitoring but not included in the Drinking Water Program (44a) and (44b). LWUs with reported sampling less than 100% of the allocation should increase their future sampling to comply with the NSW Health requirements.
6. An LWU has complied with the guidelines for microbiological water quality (ie. it is shown as 100% compliant) if at least 98% of samples had no E. coli.
   Similarly, chemical water quality is satisfactory (shown as 100% compliant) if 95% of results meet the guidelines and physical (non-health related) water quality is satisfactory if the mean value of results meets the guideline values.

Appendix D2: 2006-07 Sewage treatment performance

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		Sampling Days	Major Malfunction (Treatment Processes)
											BOD		SS		Total N		NH_3N		Oil & Grease		Total P		Faecal Coliforms		No.	No./1000 props	
			1	EP 10	3	2	Yes/No 5	Yes/No 6		ML 15	mg/L 49	% 50	mg/L 51	% 52	mg/L 53	% 54	mg/L 55	% 56	mg/L 57	% 58	mg/L 59	% 60	cfu 61	% 62	68	69	days 63	days 67
		Albury	1987	40,000	AT	BNR	Y	Y		2,004	15	100	20	100	15	100			10	100	1	100			4		12	
		Albury (Waterview)	1999	26,500	AT	CEA	Y	Y		2,466	12	100	15	100	15	100			2	100	1	75	300	100	4		12	2
		Hume Weir	1980	500	T	IEA			R	15	20	96	30	96					10	100					1		24	5
		Lara Lakes	1990	200	S	A					NL	100	NL	100														
Albury City Council		**Total/Weighted Average** [1,6]		**67,200**						**4,485**	**20**	**98**	**30**	**97**	**15**	**100**			**10**	**100**	**1**	**88**	**300**	**100**	**9**	**0.4**	**48**	**7**
Armidale Dumaresq Council		Armidale	1989	22,000	T	TF			L R	1,721	20	100	30	100					10	100					1	0.1	12	
	100% limits	Ballina	1991	12,000	AS	TF	Y		R	1,251	20	99	100	99					10	99			300	99			26	18
	100% limits	Lennox Head	1994	18,000	AS	IEA	Y			1,676	20	100	30	96					10	96			100	96	5		28	
	100% limits	Alstonville	1986	8,000	AS	IEA	Y	Y		420	20	100	30	100					10	100	1	100					13	
	100% limits	Wardell	1997	1,750	AS	IEA	Y			153	15	98	20	98					10	98			98	98			28	
Ballina Shire Council		**Total/Weighted Average** [1,6]		**39,750**						**3,500**	**20**	**99**	**100**	**98**					**10**	**98**	**1**	**100**	**300**	**98**	**5**	**0.4**	**95**	**18**
	No Discharge Licence	Balranald	1999	2,000	S	AN				128	NL	100	NL	100														
	No Discharge Licence	Euston		1,100	S	A					NL	100	NL	100														
Balranald Council		**Total/Weighted Average** [1,6]		**3,100**						**128**	**NL**	**100**	**NL**	**100**														
Bathurst Regional Council		Bathurst	1998	55,000	T	IEA, BNR	Y	Y	R	3,509	20	100	25	85	15	85					1	73	200	100	1	0.1	52	
		Merimbula	1992	15,500	AS	IEA	Y		L O	689																	12	2
		Eden	1998	8,000	AS	IEA	Y		O	348															1		12	
		Tathra	2004	6,200	T	CEA	Y	Y		164	15	100	20	100											1		12	
		Tura Beach	2006	4,500	AS	CEA	Y		L	197																	12	
		Bega	1927	4,000	S	TF	Y		L R	424																	12	
		Bermagui	1975	2,000	S	IEA	Y		O	146															2		12	
Bega Valley Shire Council		**Total/Weighted Average** [1,6]		**40,200**						**1,968**	**15**	**100**	**20**	**100**											**4**	**0.4**	**72**	**2**
		Urunga	1989	6,650	T	IEA	Y	Y	R	272	10	100	15	100	10	100			2	100		100	200	100			26	
		Bellingen	1994	5,000	T	IEA	Y	Y	R	250	10	100	15	100	10	100			2	100		84	200	100	3		26	
		Dorrigo	1970	1,500	T	TF			R	93	20	84	30	67					10	100							12	
Bellingen Shire Council		**Total/Weighted Average** [1,6]		**13,150**						**614**	**20**	**95**	**30**	**90**	**10**	**100**			**10**	**100**			**200**	**100**	**3**	**1.0**	**64**	
	No licence limits	Tocumwal	1944	4,000	T	TF			L	206	NL	100	NL	100														
		Finley	1967	3,200	T	TF			L	129	20	100	30	25											3		4	
	No licence limits	Barooga	1992	3,000	T	A			L	129	NL	100	NL	100														
	No licence limits	Berrigan	1996	1,500	T	TF			L	74	NL	100	NL	100													4	
Berrigan Shire Council		**Total/Weighted Average** [1,6]		**11,700**						**538**	**20**	**100**	**30**	**25**											**3**	**0.9**	**8**	
		West Wyalong	1986	7,200	AS	TF, IEA																						
	No licence limits	Ungarie	1961	600	AS	IEA					NL	100	NL	100														
	No licence limits	Barmedman	1940	400	S	TF					NL	100	NL	100														
Bland Shire Council		**Total/Weighted Average** [1,6]		**8,200**																								
Blayney Shire Council		Blayney	1991	7,000	AS	IEA	Y	Y	R	284	30	100	30	100	100	100			10	100	1	100	600	100			12	
Bogan Shire Council	*No licence limits*	Nyngan	1991	**3,735**	S	A			L	**185**	**NL**	**100**	**NL**	**100**													4	
		Bombala		3,000	S	TF, AN																						
	No licence limits	Delegate	1992	680	AS	IEA					NL	100	NL	100														
Bombala Council		**Total/Weighted Average** [1,6]		**3,680**																								
Boorowa Council	*No licence limits*	Boorowa		3,430	S	TF																						
Bourke Shire Council		Bourke	1982	**5,000**	S	A			L	**141**	**15**	**25**	**20**	**33**	**10**	**83**		**100**	**10**	**100**	**10**	**100**		**100**	**2**	**1.9**	12	
		Brewarrina	1971	1,600	S	TF				210																		
	No licence limits	Goodooga		1,600	S	A					NL	100	NL	100														
	No licence limits	Barwon Four					Y	Y			NL	100	NL	100														
Brewarrina Shire Council		**Total/Weighted Average** [1,6]		**3,200**						**210**																		
		Byron Bay West	2005	29,000	T	BNR	Y	Y	L R	1,550	10	100	15	100	10	100			2	85		96	200	96	8		26	
		Ocean Shores	1997	8,000	AS	IEA	Y	Y	R	499	15	100	20	100	15	100			10	100	1	100	200	100	5		26	
		Byron Bay	1973	4,700	TF	TF																						
		Mullumbimby	1999	3,200	AS	TF	Y	Y	L R	399	15	100	20	94					10	100	1	94	200	100	3		26	
		Brunswick Heads	1990	1,600	AS	TF	Y	Y	R	262	30	100	30	100					10	100			200	100			26	
		Bangalow	1990	1,400	AS	TF	Y	Y	L R	108	20	100	20	100	15	88			10	100	1	100	200	100	2		26	
Byron Shire Council		**Total/Weighted Average** [1,6]		**47,900**						**2,818**	**30**	**100**	**30**	**99**	**15**	**96**			**10**	**99**	**1**	**98**	**200**	**99**	**18**	**1.8**	**130**	
		Canowindra	1978	2,500	S	TF				130	30	100	30	100	100	100			10	100	10	100		100				
		Molong	1979	2,000	AS	IEA				122	30	100	30	85	15	91			10	100	10	91	600	85	1		12	
	No licence limits	Eugowra	1999	550	S	TF				29	NL	100	NL	100														
Cabonne Council		**Total/Weighted Average** [1,6]		**5,050**						**281**	**30**	**100**	**30**	**85**	**100**	**91**			**10**	**100**	**10**	**91**	**600**	**85**	**1**	**0.4**	**12**	
	No licence limits	Hillston	1978	1,000	AS	IEA				103	NL	100	NL	100											2			
	No licence limits	Goolgowi	1973	400	S	A					NL	100	NL	100														
	No licence limits	Rankins Springs	1986	150	S	A					NL	100	NL	100														
Carrathool Shire Council		**Total/Weighted Average** [1,6]		1,550						**103**	**NL**	**100**	**NL**	**100**											**2**	**2.5**		
Central Darling Shire Council	*No licence limits*	Wilcannia	1992	**1,510**	S	AL				**100**	**NL**	**100**	**NL**	**100**													2	
		Grafton North	1989	14,700	S	TF			R	875	20	96	30	80											3		26	
		Yamba	1983	7,500	AS	IEA	Y	Y	R	792	15	100	20	92	15	92			10	100			200	100	2		12	
		Grafton South	1989	6,400	T	TF			R	290	20	96	30	68					10	96					4		25	
		Clarenza	1988	5,000	T	IEA			R	295	20	100	30	96					100	96							25	
		Maclean	1976	3,000	T	TF			R	289	20	100	30	83					10	100							12	
		Coutts Crossing	1998	1,000	AS	IEA			L R	36	20	83	30	41					10	92							12	
		Townsend	1,983	500	S	A			R	49	50	92	50	42					10	100							12	
		Ilarwil	1991	160	S	A			R	4	50	83	50	83					10	92							12	
		Junction Hill No.1	1998	450	S	TF																						
		Junction Hill No.2	1982	500	S	IEA																						
Clarence Valley Council		**Total/Weighted Average** [1,6]		**39,210**						**2,630**	**50**	**93**	**50**	**74**	**15**	**92**			**100**	**96**			**200**	**100**	**9**	**0.7**	**136**	

For Notes see page number 258

Appendix D2: 2006-07 Sewage treatment performance (continued)

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		Sampling Days	Major Malfunction (Treatment Processes)
											BOD		SS		Total N		NH_3N		Oil & Grease		Total P		Faecal Coliforms					
											mg/L	%	mg/L	%	mg/L	%	mg/L	%	mg/L	%	mg/L	%	cfu	%				
			1	EP 10	3	2	Yes/No 5	Yes/No 6		ML 15	49	50	51	52	53	54	55	56	57	58	59	60	61	62	68	69	days 63	days 67
		Cobar	1952	8,000	S	AL																				
	No licence limits	Murrin Bridge									NL		NL													
Cobar Shire Council		**Total/Weighted Average** [1,6]		**8,000**																						
		Coffs Harbour	1986	42,000	S	IEA	Y		O	3,703	50	100	50	100					10	100					2		52	4
		Sawtell	1986	18,000	S	IEA	Y		O	1,370	20	100	30	100					10	100							52	6
		Woolgoolga	2005	18,000	AS	IEA	Y	Y	O	741	10	10	15	92	15	98			2	100	2	100	1	73	5		52	3
		Moonee/Emerald	1999	7,000	AT	BNR	Y	Y	O	169	10	90	15	100	15	94			2	100	2	98	1	52			52	5
		Corindi Beach	2000	1,500	T	IEA	Y	Y	L	79	15	100	20	81	15	100			10	100	5	100	200	75			12	3
Coffs Harbour City Council		**Total/Weighted Average** [1,6]		**86,500**						**6,062**	**50**	**89**	**50**	**98**	**15**	**96**			**10**	**100**	**5**	**99**	**200**	**74**	**7**	**0.3**	**220**	**21**
	No licence limits	Coolamon	1965	1,200	S	TF					NL	100	NL	100														
	No licence limits	Ganmain		1,000	S	A					NL	100	NL	100														
Coolamon Council		**Total/Weighted Average** [1,6]		2,200																								
		Cooma (The Glen)	1998	15,000	S	TF																						
		Nimmitabel		500	AS	IEA																						
Cooma-Monaro Council		**Total/Weighted Average** [1,6]		15,500																								
		Coonamble	1956	4,000	T	TF			L	233	20	100	50	58	20	100			10	100	10	100					12	
		Gulargambone	1975	750	AS	IEA			L	41	20	100	25	50	15	85			10	100	15	100	600	50			12	
Coonamble Council		**Total/Weighted Average** [1,6]		**4,750**						**274**	**20**	**100**	**50**	**55**	**20**	**94**			**10**	**100**	**15**	**100**	**600**	**50**			**24**	
Cootamundra Council		Cootamundra	1992	14,000	AT	CEA																						
		Corowa	1988	12,200	S	TF			L	390	20	100	30	100											27			
		Mulwala	1968	1,200	S	TF			R	247	20	50	30	50	40	100			10	100	10	50			7		12	3
	No licence limits	Howlong	1990	2,500	S	A			L	139	NL	100	NL	100											1			
Corowa Council		**Total/Weighted Average** [1,6]		**15,900**						**776**	**20**	**50**	**30**	**50**	**40**	**100**			**10**	**100**	**10**	**50**			**35**	**7.7**	**12**	**3**
		Broken Hill (Wills St)	1988		T	TF			L	1,056	50	100	50	91					10	100	10	100					26	
		Broken Hill South	1968		T	TF			L	288	50	100	50	100					10	100			600	100			26	
Country Energy		**Total/Weighted Average** [1,6]								**1,344**	**50**	**100**	**50**	**96**					**10**	**100**	**10**	**100**	**600**	**100**			**52**	
		Cowra	1977	8,000	S	TF			R	694	20	100	20	100					10	100			600	60			10	
	No licence limits	Wyangala									NL	100	NL	100														
Cowra Council		**Total/Weighted Average** [1,6]		8,000						**694**	**20**	**100**	**20**	**100**					**10**	**100**			**600**	**60**			**10**	
Deniliquin Council		Deniliquin	1996	11,500	S	TF	Y	Y		650	20	100	30	92	100	100			10	100	10	100	200	92	11	3.5	12	
Dubbo City Council		Dubbo (Troy Junction)	1985	40,000	AS	IEA	Y		L	2,717	30	100	30	100	30	100			10	100	10	100	200	57			14	
Dungog Council		Dungog	1949	2,000	S	TF			L R	185	2	7	2	30	2	2					2	8					4	
		Batemans Bay	1984	15,000	AS	IEA			O	1,816	20	100	30	100					10	100					2		12	3
		Narooma	1984	12,000	AS	CEA			O	653	20	100	30	100					10	100							6	
		Moruya	2000	8,000	T	IEA		Y	R	292	20	100	30	100	15	100			10	100	1	100					12	
		Tomakin	1984	8,000	AS	IEA			O	347	20	100	30	100					10	100							12	
		Tuross Heads		4,000	AS	C			L	240	20	100	30	100					10	100							12	
Eurobodalla Council		**Total/Weighted Average** [1,6]		**47,000**						**3,348**	**20**	**100**	**30**	**100**	**15**	**100**			**10**	**100**	**1**	**100**			**2**	**0.1**	**54**	**3**
Forbes Council		Forbes	2005	12,000	T	IEA	Y	Y	L R	600	10	100	15	100	10	100			10	100		50	200	100			12	
Gilgandra Council		Gilgandra	1960	3,000	T	TF			L	215	20	100	16	100	12	100			8	100	9	100			4	3.0	5	1
	No licence limits	Deepwater	1987	500	S	A				13	NL	100	NL	100													12	
		Glen Innes	1930	6,000	S	TF																						
Glen Innes Severn Council		**Total/Weighted Average** [1,6]		**6,500**						**13**																	**12**	
Gloucester Council		Gloucester	1985	4,600	T	TF	Y	Y	R	252	30	100	40	100	40	100									3	2.0	13	
		Kincumber	1983	180,000	AS	C	Y		O	10,594	11	100	13	100					5	100					85		365	
		Woy Woy	1989	50,000	AS	CEA	Y		O	3,626	11	100	13	100					5	100					16		365	
Gosford City Council		**Total/Weighted Average** [1,6]		**230,000**						**14,220**	**11**	**100**	**13**	**100**					**5**	**100**					**101**	**1.5**	**730**	
		Goulburn	1989	31,500	T	TF		Y		2,212	20	100	30	92						100							12	3
		Marulan	1990	500	S	A																						
Goulburn Mulwaree Council		**Total/Weighted Average** [1,6]		**32,000**						**2,212**	**20**	**100**	**30**	**92**													**12**	**3**
		Holbrook	1969	1,600	T	TF			R	140	20	100	30	75					10	100							4	
	No licence limits	Jindera	2005	1,200	T	A			L	61	NL	100	NL	100														
		Culcairn	1996	1,200	T	IEA			L	112	20	100	30	100	20	100			10	100	10	100					4	
		Henty	1971	1,000	T	IEA			L	55	20	100	30	100	20	100			10	100	10	100					4	
		Walla Walla	1981	1,000	T	IEA			L	45	20	100	30	100	20	100			10	100	10	100					4	
	No licence limits	Burrumbuttock	1990	100	T	A			L		NL	100	NL	100														
Greater Hume Council		**Total/Weighted Average** [1,6]		**6,100**						**413**	**20**	**100**	**30**	**94**	**20**	**100**			**10**	**100**	**10**	**100**					**16**	
		Griffith	1992	65,000	T	TF		Y		1,663	30	58	30	58					10	100			200	100	12		12	
		Yenda	1981	34,000	S	AL				185	50	100	50	85									600	100			6	
	No licence limits	Bilbul	1990	310	S	AL				27	NL	100	NL	100														
Griffith City Council		**Total/Weighted Average** [1,6]		**99,310**						**1,875**	**50**	**77**	**50**	**70**					**10**	**100**			**600**	**100**	**12**	**1.6**	**18**	
Gundagai Council	*No licence limits*	Gundagai	1972	3,500	S	TF			L	105	NL	100	NL	100											1	1.1	10	
		Gunnedah	1969	11,000	S	TF			L	547	20	100	30	59					10	100							12	
	No licence limits	Curlewis	1990	1,650	nil	A					NL	100	NL	100						100							1	
Gunnedah Council		**Total/Weighted Average** [1,6]		**12,650**						**547**	**20**	**100**	**30**	**59**					**10**	**100**							**13**	
Guyra Council		Guyra	2000	3,300	AS	CEA	Y	Y		127	15	100	20	75	15	100			10	92	1	92					12	
		Bingara	1970	2,000	T	TF			R	50	20	83	30	50					10	100							12	
		Warialda	1969	1,500	T	TF			L R	123	20	100	30	25					10	100							12	
Gwydir Shire Council		**Total/Weighted Average** [1,6]		**3,500**						**173**	**20**	**92**	**30**	**38**					**10**	**100**							**24**	
Harden Council		Harden Murrumburrah	1937	4,000	S	TF																						
		Port Macquarie	1993	52,000	AT	IEA	Y	Y	R	5,605	10	100	15	58	20	100			2	100	1	42	200	100	7		12	
		Camden Haven (Dunbogan)	1991	9,000	AS	TF			O	871	20	66	30	66					10	100					62		12	
		Wauchope	1991	8,000	AS	IEA	Y		R	1,087	30	100	30	83	10	100									1		12	
		Lake Cathie\Bonny Hills	1989	6,000	AT	IEA	Y		L	694	20	92	30	92					10	100							12	
		Kew/Kendall	2001	2,200	AS	IEA	Y			79	20	100	30	90									500	96	1		51	
		Lighthouse Beach																										
Port Macquarie-Hastings Council		**Total/Weighted Average** [1,6]		**77,200**						**8,336**	**30**	**95**	**30**	**84**	**20**	**100**			**10**	**100**	**1**	**42**	**500**	**96**	**71**	**2.8**	**99**	

For Notes see page number 258

Appendix D2: 2006-07 Sewage treatment performance (continued)

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		Sampling Days	Major Malfunction (Treatment Processes)
											BOD		SS		Total N		NH_3N		Oil & Grease		Total P		Faecal Coliforms					
			1	EP 10	3	2	Yes/No 5	Yes/No 6		ML 15	mg/L 49	% 50	mg/L 51	% 52	mg/L 53	% 54	mg/L 55	% 56	mg/L 57	% 58	mg/L 59	% 60	cfu 61	% 62	No. 68	No./1000 props 69	days 63	days 67
		McGraths Hill																								
		South Windsor																								
Hawkesbury City Council		**Total/Weighted Average** [1,6]																								
Hay Council		Hay	1942	3,000	S	TF	Y	Y		304																
Hunter Water Corporation	*Metropolitan utility*																									
		Inverell	1986	12,000	AS	IEA			R	700	20	100	30	100					10	100					14	
		Ashford	1970	1,000	AS	IEA			R	35	20	100	30	80					10	100					14	
		Delungra		500	AS	IEA			R	30	20	100	30	90					10	100					14	
	No licence limits	Gilgai	1990	500	S	A			R	30	NL	100	NL	100												
Inverell Council		**Total/Weighted Average** [1,6]		14,000						**795**	**20**	**100**	**30**	**90**					**10**	**100**					**42**	
Jerilderie Council		Jerilderie	1966	2,000	S	A				89	20	75	30						10	75					4	
Junee Council		Junee	1992	7,000	T	TF				225	30	100	30	100					10	100			10	100	4	
		Kempsey West	1991	12,000	S	TF	Y	Y	R	892	15	100	20	34	15	58			10	100	1	100	600	81	1	26	
		South West Rocks	1991	6,000	S	IEA			L	369	20	100	30	100					10	100					2	12	
		Kempsey South	1991	5,400	S	TF		Y	R	423	20	100	30	100					10	100					1	12	
		Hat Head	2003	2,500	T	IEA		Y	L	10	10	100	15	100	10	92			2	100		92	200	96		26	
		Crescent Head	1991	2,000	T	IEA	Y	Y	O	136	15	100	20	96	15	100			10	100	1	92	200	100		26	
		Smithtown\Gladstone	1983	2,000	S	IEA			R	92	20	100	30	100					10	100					1	12	
		Fredericktion	1980	1,000	S	IEA			R	89	20	100	30	83					10	100						12	
Kempsey Council		**Total/Weighted Average** [1,6]		**30,900**						**2,011**	**20**	**100**	**30**	**85**	**15**	**82**			**10**	**100**	**1**	**96**	**600**	**88**	**5**	**0.6**	**126**	
		Kyogle	1988	3,000	AS	TF		Y	R	243	20	100	30	75					10	100						12	
		Woodenbong	2007	662	AS	IEA	Y		L R	43	20	92	30	67					10	100						12	
		Bonalbo	2002	500	AS	IEA	Y		L R	24	20	100	30	100	10	100										12	
Kyogle Council		**Total/Weighted Average** [1,6]		**4,162**						**310**	**20**	**97**	**30**	**81**	**10**	**100**			**10**	**100**						**36**	
		Condobolin	1982	4,000	AS	IEA			L	298	20	100	30	50	40	100			10	100	10	100	1500	100		12	
		Tottenham	1979	1,000	AS	IEA	Y		L	62																
		Lake Cargelligo	1981	2,000	AS	IEA	Y		L	171																
Lachlan Council		**Total/Weighted Average** [1,6]		7,000						**531**	**20**		**30**		**40**				**10**		**10**		**1500**			**12**	
		Leeton	1987	27,000	AS	TF		Y	L	794	70	100	70	100											6		7	
		Yanco	1980	1,000	AS	IEA					30	100	40	100													14	
	No licence limits	Whitton	2000	500	S	A					NL	100	NL	100														
Leeton Council		**Total/Weighted Average** [1,6]		28,500						**794**	**70**	**100**	**70**	**100**											**6**	**2.0**	**21**	
		Lismore East	1993	30,500	AT	IEA	Y	Y	R	1,872	15	100	20	100	15	100			10	100	1	100					52	
		Lismore South	1978	22,500	S	TF	Y	Y	R	1,358	15	100	20	100	15	100			10	100	1	100			5		52	
		Nimbin	1993	600	AS	IEA	Y	Y	R	33	20	100	20	100	15	100			10	100	1	100	500	100			12	
Lismore City Council		**Total/Weighted Average** [1,6]		**53,600**						**3,263**	**20**	**100**	**20**	**100**	**15**	**100**			**10**	**100**	**1**	**100**	**500**	**100**	**5**	**0.4**	**116**	
		Lithgow	2006	23,000	T	TF	Y	Y	R	1,757	15	100	25	83	15	83			10	100	1	50	200	83	2		12	
		Portland	1990	2,500	S	TF			R	210	15	100	30	100	15				10	91	1		200	90			12	
		Wallerawang	1990	2,500	T	TF			R	219	15	100	30	83	15	66			10	100	1		200	58			12	
City of Lithgow		**Total/Weighted Average** [1,6]		**28,000**						**2,186**	**15**	**100**	**30**	**89**	**15**	**50**			**10**	**97**	**1**	**17**	**200**	**77**	**2**	**0.3**	**36**	
		Quirindi	1984	7,000	AS	TF, IEA																						
		Werris Creek	1969	3,200	S	A, BNR																						
Liverpool Plains Council		**Total/Weighted Average** [1,6]		10,200																								
		Lockhart	1967	3,000	T	TF		Y		62	20	100	30	100					10	100						4		
		The Rock	1979	2,000	AS	IEA	Y	Y		74	20	100	30	100					10	100						4		
	No licence limits	Yerong Creek	2004	250	S	A					NL	100	NL	100														
Lockhart Council		**Total/Weighted Average** [1,6]		5,250						**136**	**20**	**100**	**30**	**100**					**10**	**100**						**8**		
		Forster	1995	32,000	AT	IEA	Y	Y	O	2,346	30	100	30	100					10	96					33		12	
		Dawson River	1999	30,000	T	CEA	Y		R	2,165	30	100	30	100											24		12	
		Hallidays Point	2007	25,000	AT	CEA	Y	Y	L	926	30	100	20	100					10	100					4		4	1
		Tea Gardens	1996	14,000	AT	IEA	Y	Y	L	411	10	100	15	100	10	73			5	96	1	65	10	96	1		26	4
		Tuncurry	1970	10,000	S	TF			L	525	25	100	25	83	30	100			12	100	8	100			4		12	
		Harrington	1994	8,000	AS	CEA	Y		L	202	20	100	30	100											3		12	
		Wingham	1992	7,100	AS	IEA	Y		R	512	30	100	30	100											4		12	
		Old Bar	2004	7,000	T	CEA	Y	Y	L	356	20	100	30	100					10	92							12	2
		Bulahdelah	1995	3,000	AT	IEA	Y	Y	R	104	10	100	15	96					10	100		96	200	96	1		17	
		Stroud	2002	1,000	AS	IEA	Y		R	73	15	100	30	100	15	100			10	100							12	
	No licence limits	Manning Point	2003	600	T	IEA	Y	Y	L	24	NL	100	NL	100														
		Lansdowne	2002	600	AS	IEA	Y		R	27	30	100	30	100					10	100			200	67			3	
		Coopernook	2002	600	AS	IEA	Y			30	30	100	30	100					10	100			200	100	1		1	
MidCoast County Council		**Total/Weighted Average** [1,6]		**138,900**						**7,701**	**30**	**100**	**30**	**98**	**30**	**91**			**12**	**98**	**8**	**93**	**200**	**92**	**75**	**2.3**	**135**	**7**
		Mudgee	1934	10,000	T	TF				953	20	92	30	83	15	58			10	100	1						14	
		Gulgong	1997	3,000	AS	IEA				69	20	100	50	100	20	100			10	100	10	92					14	
		Kandos	1972	2,500	T	TF			R	1,337	20	25	30	67	15	42			10	100	6	25					12	
		Rylstone	1972	1,250	T	TF			R	546	20	100	30	67	15	75			10	100	6	33					12	
Mid-Western Regional Council		**Total/Weighted Average** [1,6]		16,750						**2,905**	**20**	**81**	**50**	**83**	**20**	**72**			**10**	**100**	**10**	**57**					**52**	
		Moree	1986	11,000	S	TF																						
	No licence limits	Mungindi	1998	1,000	AS	IEA					NL	100	NL	100														
Moree Plains Council		**Total/Weighted Average** [1,6]		12,000																								
		Moama	1997	10,000	S	A				467	6	100	28	100					6	100	12	100	2000	75	1			
	No licence limits	Mathoura	1997	1,600	S	A				100	NL	100	NL	100													2	
	No licence limits	Cumragunga									NL	100	NL	100														
Murray Council		**Total/Weighted Average** [1,6]		**11,600**						**567**	**6**	**100**	**28**	**100**											**1**	**0.4**	**2**	

For Notes see page number 258

Appendix D2: 2006-07 Sewage treatment performance (continued)

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		Sampling Days	Major Malfunction (Treatment Processes)
											BOD		SS		Total N		NH_3N		Oil & Grease		Total P		Faecal Coliforms		No.	No./1000 props		
			1	EP 10	3	2	Yes/No 5	Yes/No 6		ML 15	mg/L 49	% 50	mg/L 51	% 52	mg/L 53	% 54	mg/L 55	% 56	mg/L 57	% 58	mg/L 59	% 60	cfu 61	% 62	68	69	days 63	days 67
		Darlington Point	1982	1,000	T	C	Y	Y	L R	85	10	100	15	100	10	100					10	100	200	100			90	
		Coleambally	1975	600	P	AL			L	80	10	100	15	100	10	100					10	100	200	100	1		90	
Murrumbidgee Council		**Total/Weighted Average [1,6]**		**1,600**						**165**	**10**	**100**	**15**	**100**	**10**	**100**					**10**	**100**	**200**	**100**	**1**	**1.4**	**180**	
		Muswellbrook	1986	20,000	S	TF				1,808	20	80	30	88					10	90					5		15	1
		Denman		2,000	AS	IEA				179	20	87	30	56					10	90							12	
Muswellbrook Council		**Total/Weighted Average [1,6]**		**22,000**						**1,987**	**20**	**83**	**30**	**74**					**10**	**90**					**5**	**1.0**	27	1
		Nambucca Heads	1986	10,000	AS	IEA	Y	Y			20	100	30	100					10	100							26	
		Macksville	1998	5,500	T	IEA	Y	Y			15	100	20	100	15	100					1	100	200	100			26	
		Scotts Head	1985	2,000	AS	IEA	Y				20	100	30	77					10	100							12	
		Bowraville	1985	1,200	T	TF					20	75	30	67					10	100							12	
Nambucca Council		**Total/Weighted Average [1,6]**		**18,700**							**20**	**96**	**30**	**90**	**15**	**100**			**10**	**100**	**1**	**100**	**200**	**100**			**76**	
		Narrabri	1996	8,300	S	TF			L	743	41	50	92	90	20	100			11	90	10	100	3882	70			11	
	No licence limits	Wee Waa	1972	1,500	S	TF			L	167	NL	100	NL	100											3			
	No licence limits	Boggabri	1956	1,000	S	TF			L	52	NL	100	NL	100														
Narrabri Council		**Total/Weighted Average [1,6]**		**10,800**						**962**	**41**	**50**	**92**	**90**	**20**	**100**			**11**	**90**	**10**	**100**	**3882**	**70**	**3**	**0.8**	**11**	
Narrandera Council		Narrandera	1977	6,000	AS	IEA																						
	No licence limits	Narromine	2005	5,000	S	A			L		NL	100	NL	100		100				100		100					6	
	No licence limits	Trangie	1979	1,000	AS	IEA			L	230	NL	100	NL	100														
Narromine Council		**Total/Weighted Average [1,6]**		**6,000**						**230**	**NL**	**100**	**NL**	**100**													**6**	
Oberon Council		Oberon	1989	7,000	S	TF		Y	R	324	20	100	25	100	15				10	100	1	50	200	100			12	
		Orange	1988	60,000	AS	CEA	Y	Y	R	3,012	20	100	25	100	15	100			10	100	1	81	400	94			12	
		Spring Hill	1990	1,000	AS	CEA			L	26	20	100	50	100													12	
Orange City Council		**Total/Weighted Average [1,6]**		**61,000**						**3,038**	**20**	**100**	**50**	**100**	**15**	**100**			**10**	**100**	**1**	**81**	**400**	**94**			**24**	
		Braidwood		300	S	TF																						
		Bungendore		2,000	AS	IEA																						
		Captains Flat		500	AS	IEA																						
Palerang Council		**Total/Weighted Average [1,6]**		2,800							**20**		**30**															
		Parkes	1994	14,500	AS	C		Y	L R	750	20	100	25	66	15	100			10	100	1				5		12	
	No licence limits	Peak Hill	1983	2,000	AS	C			L	120	NL	100	NL	100											3			
Parkes Council		**Total/Weighted Average [1,6]**		16,500						**870**	**20**	**100**	**25**	**66**	**15**	**100**			**10**	**100**	**1**				**8**	**1.7**	**12**	
		Queanbeyan	1986	34,500	AS	TF	Y	Y	L R	3,716	10	100	20	100	35	100				100		100	1000	100			365	
		Weetalabah																										
Queanbeyan City Council		**Total/Weighted Average [1,6]**		**34,500**						**3,716**	**10**	**100**	**20**	**100**	**35**	**100**							**1000**	**100**			**365**	
		Casino	1986	13,300	T	TF	Y		R	1,031	20	100	30	100					10	100					5		26	
		Evans Head	2006	3,700	T	TF			R	630	35	100	35	100					10	100					2		26	
		Coraki	1968	1,200	T	TF			R	139	20	100	30	83					10	100							13	
		Rileys Hill	1996	200	T	CEA	Y	Y	R	7	15	100	20	100	15	100			10	100	1	35	200	100			14	
Richmond Valley Council		**Total/Weighted Average [1,6]**		**18,400**						**1,807**	**35**	**100**	**35**	**97**	**15**	**100**			**10**	**100**	**1**	**35**	**200**	**100**	**7**	**1.1**	**79**	
		Milton Ulladulla	2006	31,500	T	IEA	Y		O	1,055	15	100	20	100					2	100			200	75			12	
		Nowra	1989	21,000	AS	TF	Y		R	1,735	40	92	40	100					10	100							12	
		St Georges Basin	1992	16,000	AS	IEA	Y	Y	O	1,017	10	100	15	100	15	100			2	100			200	100	2		5	
		Huskisson	2002	14,000	T	IEA	Y	Y	O	636	10	100	15	100	5	100			2	100			200	100			5	
		Bomaderry	1990	12,500	AS	TF	Y		R	682	20	100	40	58					10	100					1		12	
		Culburra	2002	10,500	T	IEA	Y	Y	O	678	10	100	15	100	15	100			2	100			200	100			5	
		Sussex Inlet	1990	8,000	T	IEA	Y	Y	O	505	20	100	30	100					10	100					4		12	
		Callala	2000	6,000	T	IEA	Y	Y	O	232	10	100	15	100	15	100			2	100			200	100			5	
		Shoalhaven Heads	1983	4,000	AS	IEA	Y		R	239	30	100	30	100					10	100					2		12	
		Berry	2006	3,000	T	IEA	Y	Y	R	262	20	100	30	100					10	100							12	
Shoalhaven City Council		**Total/Weighted Average [1,6]**		**126,500**						**7,041**	**40**	**98**	**40**	**92**	**15**	**100**			**10**	**100**			**200**	**91**	**9**	**0.2**	**92**	
Singleton Council		Singleton	1988	20,000	AS	IEA	Y			1,292	30	100	30	100	15	75			10	100	10	58					12	
		Jindabyne		2,900	AT	IEA																						
		Berridale	1983	750	AS	AN																						
		Adaminaby	1972	750	S	TF	Y	Y			20	86	30	76													13	
	No licence limits	Interlaken									NL	100	NL	100														
Snowy River Council		**Total/Weighted Average [1,6]**		**4,400**							**20**		**30**														**13**	
Sydney Water Corporation	*Metropolitan utility*																											
		Tamworth (Westdale)	1996	33,000	AS	IEA	Y	Y	R	2,703	30	100	25	96													54	
	No licence limits	Tamworth (Swan St)	1968	15,000	S	TF		Y	L	1,168	NL	100	NL	100											2		54	
		Manilla	1955	2,850	S	TF			L	131	20	75	30	50											2		4	1
	No licence limits	Kootingal	1992	2,000	S	A			L	118	NL	100	NL	100													12	
		Barraba	1956	1,500	S	TF			L	134	20	100	30	100													14	
Tamworth Regional Council		**Total/Weighted Average [1,6]**		**54,350**						**4,254**	**30**	**99**	**30**	**94**											**4**	**0.2**	**138**	**1**
Temora Council		Temora	2005	5,500	P	A			L	350															**2**	**1.0**		
		Tenterfield	1983	1,900	T	TF				254	40	100	45	100													15	
		Urbenville	1988	500	T	IEA			R	19	20	100	30	70					10	100							15	
Tenterfield Council		**Total/Weighted Average [1,6]**		**2,400**						**272**	**40**	**100**	**45**	**88**					**10**	**100**							**30**	
	No licence limits	Khancoban	1998	5,000	S	TF					NL	100	NL	100														
	No licence limits	Tumbarumba		3,500	T	TF					NL	100	NL	100														
Tumbarumba Council		**Total/Weighted Average [1,6]**		**8,500**							**NL**	**100**	**NL**	**100**														

For Notes see page number 258

Appendix D2: 2006-07 Sewage treatment performance (continued)

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		Sampling Days	Major Malfunction (Treatment Processes)
											BOD		SS		Total N		NH_3N		Oil & Grease		Total P		Faecal Coliforms		No.	No./1000 props	
				EP			Yes/No	Yes/No		ML	mg/L	%	mg/L	%	mg/L	%	mg/L	%	mg/L	%	mg/L	%	cfu	%			days	days
			1	10	3	2	5	6		15	49	50	51	52	53	54	55	56	57	58	59	60	61	62	68	69	63	67
		Tumut	1994	7,500	S	TF, A					40	100	45	100					10	100	2	100					6	
		Batlow	1968	1,400	S	TF					40	100	45	100					10	100							6	
		Talbingo	1995	1,100	AT	EA, BNR					25	100	35	100	25	100			10	100	1	100					2	
		Adelong	1967	1,400	AS	A	Y	Y			20	100	40	100	30	100			10	100							5	
Tumut Council		**Total/Weighted Average**[1,6]		**11,400**							**40**	**100**	**45**	**100**	**30**	**100**			**10**	**100**	**2**	**100**					**19**	
		Banora Point	1995	62,500	AT	BNR	Y	Y	L R	3,663	15	100	20	100					10	100			10000	100	1		52	3
		Murwillumbah	2000	16,000	AT	IEA	Y	Y	L R	959	10	100	15	100	10	100			2	85	1	62	200	100			26	2
		Hastings Point	2005	16,000	T	IEA	Y	Y	L	852	25	100	25	100					10	100					12		26	6
		Kingscliff	2004	14,000	T	IEA	Y	Y	L R	971	25	100	25	100					10	100							26	1
		Tweed Heads	1988	12,000	S	TF	Y		L R	749	25	62	25	81					10	100					1		26	6
		Tumbulgum	1996	700	AT	IEA	Y	Y	R	30	15	100	20	100	15	100					1	68	200	85			26	2
		Uki	2004	600	T	CEA	Y	Y	L	13	15	100	20	100	5	100			10	100	1		600	100			12	2
		Tyalgum	1990	500	AS	IEA	Y		L	17	25	100	50	100					10	100							12	
Tweed Council		**Total/Weighted Average**[1,6]		**122,300**						**7,254**	**25**	**94**	**50**	**97**	**15**	**100**			**10**	**100**	**1**	**53**	**10000**	**100**	**14**	**0.5**	**206**	**22**
		Scone	1988	7,000	AS	TF			L	520	20	100	30	100					10	100					6		12	
		Aberdeen	1983	4,000	AS	C			R	240	20	100	30	100					10	100					2		12	
		Merriwa	1970	1,600	S	TF		Y	L R	69	20	100	30	100					10	100							4	
		Murrurundi	1979	1,000	AS	IEA			R	68																		
Upper Hunter Council		**Total/Weighted Average**[1,6]		13,600						897	20	100	30	100					10	100					**8**	**2.1**	28	
		Crookwell	1996	4,200	T		Y	Y	R	180	20	92	30	67	15	100			10	100	1	75	200	83			12	
		Gunning	1976	1,000	T	IEA	Y		R	50	20	100	30	100					10	100							12	
Upper Lachlan Council		**Total/Weighted Average**[1,6]		**5,200**						**230**	**20**	**96**	**30**	**84**	**15**	**100**			**10**	**100**	**1**	**75**	**200**	**83**			**24**	
Uralla Council		Uralla	1994	4,000	AS	CEA	Y	Y	R	135	15	91	20	100	10	75			10	100	1	100	200	100	**1**	**1.0**	12	
	No licence limits	Urana		754	S	A				55	NL	100	NL	100											2		51	
	No licence limits	Oaklands		520	S	A				35	NL	100	NL	100													51	
Urana Council		**Total/Weighted Average**[1,6]		**1,274**						**90**	**NL**	**100**	**NL**	**100**											**2**	**6.6**	**102**	
		Wagga (Narrung St)	1992	67,200	AS	TF	Y	Y	L R	3,408	10	92	15	100	10	25			2	75		50			1		12	
		Wagga (Kooringal)	1992	20,000	AS	TF		Y	L R	1,078	10	100	15	92	10	67			2	50		25					12	
		Forest Hill	1974	3,500	AS	AL			L	300	20	100	30	100					10	100							4	
	No licence limits	Uranquinty	1984	1,000	S	AL					NL	100	NL	100														
	No licence limits	Tarcutta	1988	500	S	AL			L		NL	100	NL	100														
Wagga Wagga City Council		**Total/Weighted Average**[1,6]		**92,200**						**4,786**	**20**	**97**	**30**	**97**	**10**	**46**			**10**	**80**					**1**	**0.0**	**28**	
	No licence limits	Barham	1967	1,600	S					120	NL	100	NL	100											1			
	No licence limits	Moulamein	1967	700	AS	IEA	Y	Y	L	30	NL	100	NL	100														
	No licence limits	Murray Downs	1979	260	T	IEA		Y	L	73	NL	100	NL	100													365	3
	No licence limits	Tooleybuc		500	P	A	Y	Y	L	143	NL	100	NL	100													360	
Wakool Council		**Total/Weighted Average**[1,6]		**3,060**						**366**	**NL**	**100**	**NL**	**100**											**1**	**0.9**	**725**	**3**
Walcha Council		Walcha	1971	2,400	S	TF			R	159	20	100	30	92													12	
		Walgett	1958	3,200	S	TF																						
		Lightning Ridge	1979	1,000	S						NL	100	NL	100														
		Collarenebri	1970	600	S																							
Walgett Council		**Total/Weighted Average**[1,6]		**4,800**							**NL**	**100**	**NL**	**100**														
		Warren	1958	2,180	S	TF				153	55	100	65	100	30	100			10	100	10	100			3		4	
		Nevertire	1983	200	S	A				4																		
Warren Council		**Total/Weighted Average**[1,6]		**2,380**						**157**	**55**	**100**	**65**	**100**	**30**	**100**			**10**	**100**	**10**	**100**			**3**	**3.6**	**4**	
		Coonabarabran	1964	3,500	S	TF	Y	Y		264	40	100	30	100	20	92			10	100	10	100					12	
		Coolah	1970	1,000	P	AN	Y	Y		71	40	50	150	100	15	50			3	100	3	50					2	3
	No licence limits	Baradine	1997	1,000	P	A				21	NL	100	NL	100													2	
		Dunedoo	1970	800	S	CEA	Y	Y		84	20	100	30	50	15	100			10	100	1	100					2	
Warrumbungle Shire Council		**Total/Weighted Average**[1,6]		**6,300**						**440**	**40**	**93**	**150**	**96**	**20**	**89**			**10**	**100**	**10**	**98**					**18**	**3**
Weddin Council	*No licence limits*	Grenfell	1943	2,500	S	TF					NL	100	NL	100														
		Wellington	2006	8,000	S	IEA	Y	Y	R	437	15	100	15	100	10	100			10	100		100	200	100			12	
	No licence limits	Nanima									NL	100	NL	100														
Wellington Council		**Total/Weighted Average**[1,6]		**8,000**						**437**	**15**	**100**	**15**	**100**	**10**	**100**			**10**	**100**			**200**	**100**			**12**	
		Buronga Gol Gol	1994	5,000	S	A																						
		Wentworth	1964	3,500	S	TF																						
		Dareton	1964	2,000	S	TF																						
	No licence limits	Namatjira	1988	1,200	S	A					NL	100	NL	100														
		Wentworth (East)	1991	600	S	A																						
Wentworth Council		**Total/Weighted Average**[1,6]		**12,300**																								
		Mittagong	2001	14,000	AT	IEA	Y	Y	L R	806	10	100	15	100	10	100			10	100	3	100	200	88	1		26	
		Bowral	2006	14,600	T	IEA	Y	Y	R	1,152	10	100	15	100	10	88			5	88		58	200	100	15		26	
		Moss Vale	1995	9,000	AT	IEA	Y	Y	R	846	20	100	30	100	15	100					1	100	200	100	9		26	
		Bundanoon	1990	2,000	T	C	Y	Y	R	223	20	100	30	100	15	100					2	100			1		13	
		Berrima	1990	2,000	T	IEA	Y	Y	R	59	20	100	30	100	15	100					1	100					13	
Wingecarribee Council		**Total/Weighted Average**[1,6]		**41,600**						**3,086**	**20**	**100**	**30**	**100**	**15**	**98**			**10**	**96**	**3**	**100**	**200**	**96**	**26**	**1.9**	**104**	
	No licence limits	Bateau Bay		58,000	S	C			O	2,894	NL	100	50	100					10	100					4		30	
	No licence limits	Wyong South		48,000	S	IEA			O	3,650	NL	100	NL	100											4		30	
	No licence limits	Toukley		41,500	S	TF			O	3,042	NL	100	50	100					10	100					11		30	
	No licence limits	Charmhaven		40,000	S	IEA			O	2,231	NL	100	NL	100											6		30	
	No licence limits	Gwandalan		12,000	S	IEA			O	304	NL	100	NL	100											2		30	
	No licence limits	Mannering Park		12,000	S	IEA			O	913	NL	100	NL	100											3		30	
Wyong Council		**Total/Weighted Average**[1,6]		**211,500**						**13,034**	**NL**	**100**	**50**	**100**					**10**	**100**					**30**	**0.5**	**180**	
		Yass No 2	1974	4,000	AS	IEA			R	224	30	100	30	100													6	
		Yass	1935	3,500	AS	TF			R	105	30	100	30	100													6	
Yass Valley Council		**Total/Weighted Average**[1,6]		**7,500**						**329**	**30**	**100**	**30**	**100**													**12**	
Young Council		Young	1970	7,000	S	TF																						

Notes: 1. Where an LWU has more than one treatment works, 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 LWU.
Totals are also shown in **bold** for capacity (10), sewage volume treated (15), sampling days (63) and odour complaints (68). The days of major malfunction of treatment processes (67) are shown in **bold** and 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"** (3); 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"** (2); A= Oxidation Pond, AL = Aerated Lagoons, AN = Anaerobic Pond, C = Conventional Activated Sludge, CEA = Continuous Extended Aeration (Activated Sludge), IEA = Intermittent Extended Aeration (Activated Sludge), TF = Trickling Filter, BNR = Biological Nutrient Removal.

5. 90 Percentile Licence Limits have been reported at columns (50), (52), (54), (56), (58), (60) and (62).

6. For odour complaints (69), the values shown are on the basis of the total odour complaints per 1,000 connected properties.

Appendix E: Maintaining effective disinfection of a water supply distribution system

Overview

This appendix highlights the key elements for maintaining effective disinfection of a water supply distribution system. It is recommended that each NSW Local Water Utility (LWU) review its present processes and practices to ensure its practices address each of these elements.

In addition, as indicated in the *2006-07 NSW Water Supply and Sewerage Benchmarking Report* (page 7) and the *Best-Practice Management of Water Supply and Sewerage Guidelines, 2007* (page 13), it is recommended that each utility develop and implement a risk based Drinking Water Quality Management Plan in accordance with the Australian Drinking Water Guidelines, 2004 (page 2-1). The Department of Water and Energy (DWE) is preparing some worked examples to assist LWUs and these will be provided to LWUs shortly.

Monitoring of Chlorine Residual in a water supply distribution system is one of the essential controls for maintaining effective disinfection and ensuring consistently safe drinking water quality. Such monitoring provides the necessary data for the utility to carry out timely corrective action.

Developing a monitoring program

The monitoring program should include the following information:

- Parameters to be monitored (Chlorine Residual and pH); for unfiltered surface water supplies, Turbidity[1] should also be monitored.
- Sampling frequency and location, including system extremities.[2]
- Sampling methods and equipment.
- Shedules for sampling.
- Methods for quality assurance and validation of sampling results.
- Requirements for checking and interpreting results.
- Responsibilities and necessary training of staff.
- Requirements for documentation and management of records, including how monitoring results will be recorded and stored.
- Requirements for reporting and communication of results.
- Program should be designed to cover both random and regular variations in water quality.

Field testing

- Basic chemical test kits for chlorine residual, pH and turbidity are available.
- Free chlorine, combined chlorine, pH and turbidity, tests need to be done in the field.[3]

[1] For filtered water supplies, all the treated water should normally have a turbidity of under 1 NTU, with 95 per cent of the supply having a turbidity of under 0.3 NTU.
[2] Each LWU's sampling locations for monitoring microbiological water quality for reporting in the NSW Water Quality Database would be suitable for this purpose.
[3] Table 10.7, *Australian Drinking Water Guidelines 2004.*

Frequency of monitoring – chlorine residual should be monitored at least daily at the water treatment works and weekly at consumer supply points.

Maintaining effective disinfection is essential for controlling microbial quality in a water supply distribution system. Particular attention should be paid to:

- operational factors affecting microbial quality (e.g. chlorine residual, pH and turbidity) should be monitored as indicated above
- a minimum total chlorine residual of 0.5 mg/L[4] is recommended after 30 minutes contact time[5] and before water reaches the first consumer
- for filtered water, turbidity should be low (<1 NTU[6])
- pH should be <8.5[7]
- the reticulation system should be properly maintained. New mains and repaired mains should be super-chlorinated[8] before use.

Chlorine residual

- A minimum free chlorine residual of about 0.2mg/L[9,10] should be maintained throughout the distribution system
- Loss of chlorine residual may be an early warning indicator of a fault in the chlorination system or a change in the chlorine demand of the water. It will also result in lack of protection against any recontamination of the water supply.

If you wish to discuss implementation of the above elements for effective disinfection, please contact Bill Ho, Manager Water and Sewerage on tel: (02) 8281 7326 or email: Bill.Ho@dwe.nsw.gov.au.

[4] Part IV Information Sheet I, Disinfection of Drinking Water, *Australian Drinking Water Guidelines 2004.*
[5] This should be sufficient to ensure microbial control, given a clean distribution system and no significant recontamination.
[6] Table 10.10, *Australian Drinking Water Guidelines 2004.*
[7] For effective disinfection pH should be as low as possible, but this needs to be tempered by the need for corrosion control. In most cases a pH of 7.8 to 8.2 is desirable.
[8] *Chlorine Fact Sheet under Drinking Water Treatment Chemicals, Australian Drinking Water Guidelines*, 2004.
[9] Example in Table A10 on page A-21 of *Australian Drinking Water Guidelines*, 2004.
[10] For very long water supply distribution systems, rechlorination may be necessary in order to maintain a suitable chlorine residual.