2009-10

NSW WATER SUPPLY AND SEWERAGE

BENCHMARKING REPORT

Local Government Association of NSW

Shires Association of NSW

NSW GOVERNMENT | Office of Water

2009-10
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Publisher

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The NSW Office of Water is a separate office within the Department of Environment, Climate Change and Water. The Office manages the policy and regulatory frameworks for the State's surface water and groundwater resources to provide a secure and sustainable water supply for all users. The Office also supports water utilities in the provision of water and sewerage services throughout New South Wales.

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BEST PRACTICE MANAGEMENT

2009-10 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 performance 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 *2009-10 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.

A summary of the key performance indicators for all NSW urban water utilities, together with the overall Statewide performance of the NSW non-metropolitan water utilities and comparison of that performance with interstate utilities, are provided in the companion report *2009-10 NSW Water Supply and Sewerage Performance Monitoring Report*.

The *Benchmarking Report* has been prepared by the NSW Office of Water since 1986. To facilitate comparisons, the Minister for Primary Industries has made both the performance monitoring report and the benchmarking report available on the NSW Office of Water website (*www.water.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 continuous performance improvement by disclosing the present position and facilitating development of suitable information and responses to address the future water supply and sewerage needs for non-metropolitan NSW. This ensures an appropriate focus and targeting of responses and initiatives to address current and emerging issues. Page 1 provides a summary of such information and responses.

[1] *Best-Practice Management of Water Supply and Sewerage Guidelines*, Department of Water and Energy, August 2007.
[2] *National Performance Framework – 2009-10 Urban Performance Reporting Indicators and Definitions*, National Water Commission/Water Services Association of Australia, April 2010.
[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.

Abbreviated 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 66 figures and 18 tables and provides comparative information to enable each local water utility (LWU) to benchmark its performance against that of similar LWUs.

A companion report, the *2009-10 NSW Water Supply and Sewerage Performance Monitoring Report* (available at www.water.nsw.gov.au), provides the key performance indicators for the NSW water utilities together with the overall Statewide performance of the NSW non-metropolitan water utilities and compares that performance with interstate utilities. To avoid duplication, these matters are not repeated in this *Benchmarking Report.*

The NSW component of the *National Performance Report 2009-10 for Urban Water Utilities* is shown in Appendix F [page 248] of this Benchmarking Report while national performance comparisons are shown in Appendix A [page 182].

This Benchmarking Report discloses the NSW results for all 117 NWI Performance Indicators as shown in Note 20 on page 34.

In addition, the Benchmarking Report is a valuable annual **resource kit** and continuous improvement tool for the NSW utilities by reporting a broad range of current and emerging issues and providing information and suggested responses to assist the utilities. These include:

- Statewide medians [pages 103, 104, 108, 109]
- Performance percentiles on a % of LWUs basis [page 234,235]; including National Reporting medians
- Risk-based drinking water quality management plan [page 9]
- Achievement of microbiological compliance [page 8]
- Boil water alerts and lessons learnt [page 10]
- Effective disinfection of a water supply distribution system [page 246]
- Water quality sampling locations and frequency [page 204]
- Performance of each water treatment works [page 236] and sewage treatment works [page 241]
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- Economic efficiency indicators for four sizes of LWUs [page 18]
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- Software, guidelines, tools and assistance available from the NSW Office of Water [pages 8, 11, 12, 17, 21, 34]
- Contents of tables 5 to 18 [page 35]
- General notes [page 30]

2. NSW water utilities

This report discloses performance indicators for all NSW urban water utilities, comprising the 106 non-metropolitan local water utilities (LWUs) together with four metropolitan utilities (Sydney Water, 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: 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
				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 local water utility (LWU) to review and improve its performance by examining trends in its performance indicators and by benchmarking its performance against that of similar utilities.

Water supply and sewerage data was obtained from each LWU's annual performance reports for their water supply and sewerage businesses. These reports are required to be lodged 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 Division of Local Government from each LWU's Special Schedule Nos 3 to 6 and Notes 2 and 3 of the Special Purpose Financial Reports of their *2009-10 Annual Financial Statements.* The NSW Office of Water 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. The NSW Office of Water will be working with LWUs to facilitate appropriate syndicate benchmarking projects and will disseminate the results.

3.3 TBL performance reports and action plans

The NSW Office of Water provides each utility with an annual TBL Performance Report and a template for its Action Plan to Council for its water supply business and for its sewerage business. The TBL reports disclose the LWU's compliance with the requirements of the Best-Practice Guidelines and its performance for over 50 key performance indicators together with the Statewide medians and the LWU's relative performance against similar sized LWUs. TBL reports and action plans are discussed in section 5.3 on page 19. An example TBL report [page 28] and action plan [page 26] are provided to assist the LWUs.

LWUs that comply with the 19 requirements of the *Best-Practice Management of Water Supply and Sewerage Guidelines*. will have demonstrated effective, sustainable and safe water supply and sewerage businesses and compliance with National Competition Policy and the National Water Initiative (refer to section 4 on page 5).

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 1 and the bottom 20 per cent being ranked 5 (LWUs in the range 40 per cent to 60 per cent are ranked 3). In addition, rankings are provided for each LWU's performance relative to all LWUs (third shaded column).

LWUs will appreciate that **each 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 16. 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. For example, the rankings take no account of the impact of utility characteristics (eg. whether the water supply is fully filtered, whether the utility provides a bulk storage dam, whether the supply is a good quality groundwater etc.).

The second page of the TBL reports provide graphs with the LWU's performance over the past 10 years for 15 key indicators (pages 231 and 233). These graphs enable the LWU to review trends over time for each indicator, which provide the most meaningful assessment of performance. The graphs have been updated to include:

- Water usage charge (per kL)
- Residential revenue from usage charges (%)
- Revenue (per property)
- Effluent recycled (%)
- Biosolids reuse (%)
- Sewage that complied with licence (%)
- Net greenhouse gas emissions for water and sewerage (per property)

Each LWU needs to review its performance using its annual TBL performance reports for water supply and sewerage (pages 230 to 233) and to provide an Action Plan to Council (pages 26 and 27) which addresses any areas of under-performance, as outlined in section 5.3 on page 19.

4. Best-practice management

4.1 Regulatory framework

Through the NSW Government's Country Towns Water Supply and Sewerage Program, the *Local Government Act 1993* and the *Water Management Act 2000,* the Minister for Primary Industries 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 NSW Government policy is for NSW country LWUs is to achieve effective, sustainable and safe water supply and sewerage services.

The State Government provides assistance to country towns in NSW through the Country Towns Water Supply and Sewerage Program, which is administered by the NSW Office of Water. This major reform 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 supply and sewerage systems. The role of Government and the Government's expectations of LWUs in the revised program were as follows:

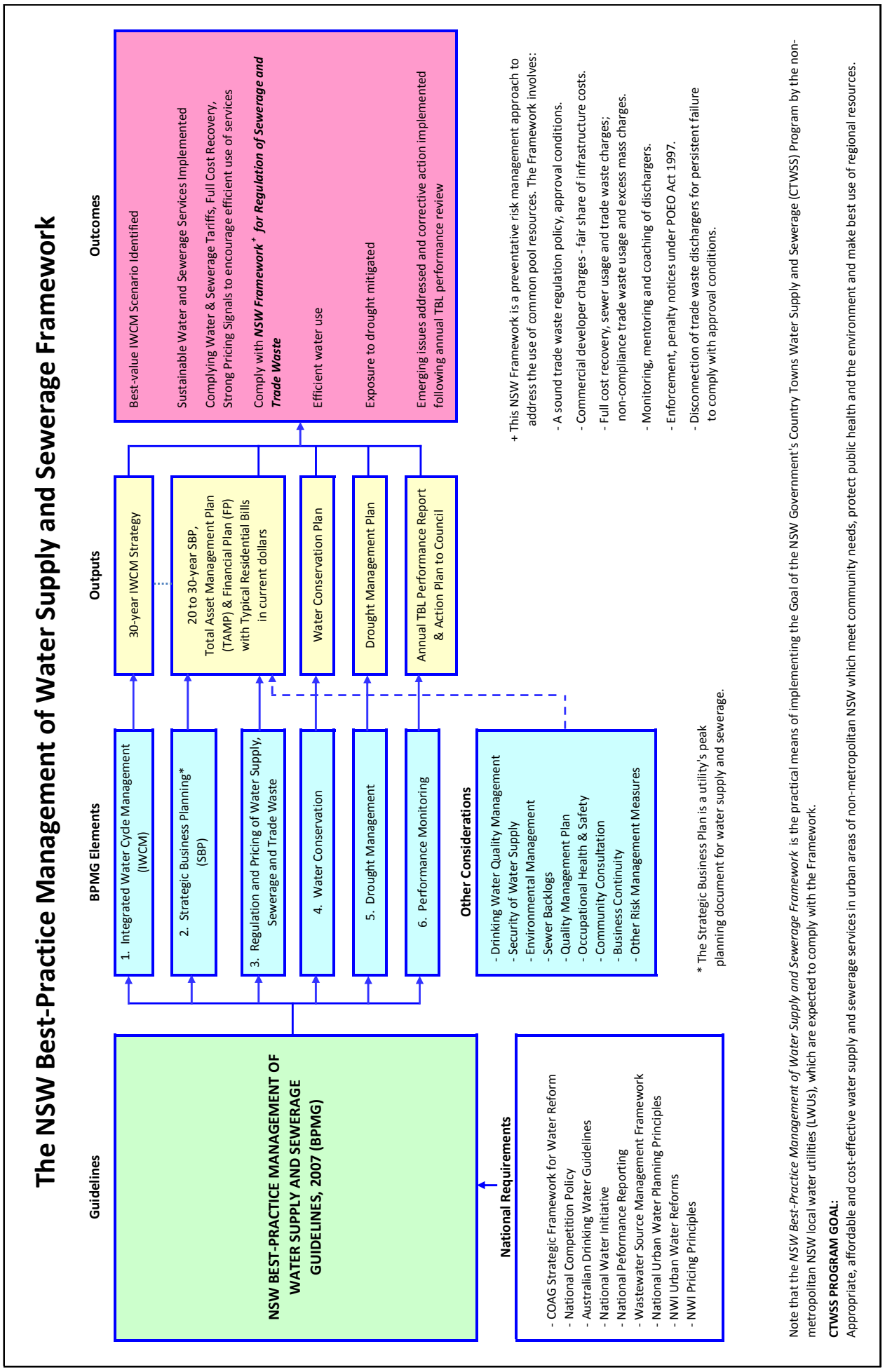
- government will place increased emphasis on initiatives aimed at assisting LWUs improve their planning and operational management
- compliance with best practice management is a pre-requisite for financial assistance
- financial assistance will be directed towards the capital cost of backlog infrastructure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

Subsequently, the Minister published the *'Best-Practice Management of Water Supply and Sewerage Guidelines'* in 2004. These guidelines consolidated a number of earlier initiatives and are the key driver for reform of planning and management and for continuing performance improvement by each utility. Compliance with the 19 requirements of the guidelines (page 105) is necessary for the eligibility of LWUs for:

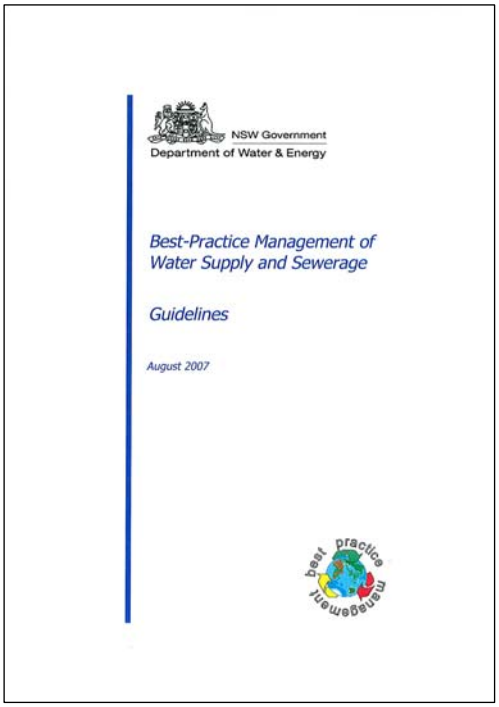
1. the payment of a dividend from the surplus of their water and sewerage businesses to the Council's general revenue
2. financial assistance towards the capital cost of backlog infrastructure.

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

Utilities which have met all of the requirements of the *Best-Practice Management Guidelines* are encouraged to pay an 'efficiency dividend' from the surplus of their water supply and sewage businesses to the Council's general revenue. Refer also to the box on page 19.


The NSW Best-Practice Management of Water Supply and Sewerage Framework
Guidelines
NSW BEST-PRACTICE MANAGEMENT OF WATER SUPPLY AND SEWERAGE GUIDELINES, 2007 (BPMG)
National Requirements
- COAG Strategic Framework for Water Reform
- National Competition Policy
- Australian Drinking Water Guidelines
- National Water Initiative
- National Performance Reporting
- Wastewater Source Management Framework
- National Urban Water Planning Principles
- NWI Urban Water Reforms
- NWI Pricing Principles
BPMG Elements
1. Integrated Water Cycle Management (IWCM)
2. Strategic Business Planning* (SBP)
3. Regulation and Pricing of Water Supply, Sewerage and Trade Waste
4. Water Conservation
5. Drought Management
6. Performance Monitoring
Other Considerations
- Drinking Water Quality Management
- Security of Water Supply
- Environmental Management
- Sewer Backlogs
- Quality Management Plan
- Occupational Health & Safety
- Community Consultation
- Business Continuity
- Other Risk Management Measures
Outputs
30-year IWCM Strategy
20 to 30-year SBP, Total Asset Management Plan (TAMP) & Financial Plan (FP) with Typical Residential Bills in current dollars
Water Conservation Plan
Drought Management Plan
Annual TBL Performance Report & Action Plan to Council
Outcomes
Best-value IWCM Scenario Identified
Sustainable Water and Sewerage Services Implemented
Complying Water & Sewerage Tariffs, Full Cost Recovery, Strong Pricing Signals to encourage efficient use of services
Comply with NSW Framework+ for Regulation of Sewerage and Trade Waste
Efficient water use
Exposure to drought mitigated
Emerging issues addressed and corrective action implemented following annual TBL performance review
* The Strategic Business Plan is a utility's peak planning document for water supply and sewerage.
+ This NSW Framework is a preventative risk management approach to address the use of common pool resources. The Framework involves:
- A sound trade waste regulation policy, approval conditions.
- Commercial developer charges - fair share of infrastructure costs.
- Full cost recovery, sewer usage and trade waste charges; non-compliance trade waste usage and excess mass charges.
- Monitoring, mentoring and coaching of dischargers.
- Enforcement, penalty notices under POEO Act 1997.
- Disconnection of trade waste dischargers for persistent failure to comply with approval conditions.
Note that the NSW Best-Practice Management of Water Supply and Sewerage Framework is the practical means of implementing the Goal of the NSW Government's Country Towns Water Supply and Sewerage (CTWSS) Program by the non-metropolitan NSW local water utilities (LWUs), which are expected to comply with the Framework.
CTWSS PROGRAM GOAL:
Appropriate, affordable and cost-effective water supply and sewerage services in urban areas of non-metropolitan NSW which meet community needs, protect public health and the environment and make best use of regional resources.

4.2 Best-practice management guidelines



The *Best-Practice Management of Water supply and Sewerage Guidelines* drive reform of planning and management and continuing improvement in performance of water and sewerage businesses in NSW. The guidelines identify the key elements in the delivery of water supply and sewerage services to the community and are available on the NSW Office of Water website (www.water.nsw.gov.au).

The *NSW Best-Practice Management of Water Supply and Sewerage Framework* is shown on page 6, which shows that utilities which comply with the *Best-Practice Management Guidelines* also comply with the 9 national urban water requirements, including:

- *The National Water Initiative (NWI);*
- *National Urban Water Planning Principles;*
- *NWI Urban Water Reforms;* and
- *The NWI Pricing Principles.*

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. This requires negotiation of appropriate levels of service with the community and development of the utility's 30-year asset management plan. This involves a cost-effective capital works program which discloses each of the growth, improved standards and renewals components, together with a sound operation plan and maintenance plan. The strategic business plan must include both the above asset management plan and a sound 20 to 30 year financial plan which identifies the resulting Typical Residential Bill (current dollars) over this period. 91 per cent of the NSW LWUs have now prepared such sound strategic business plans and financial plans, and implementation of these plans should ensure the long term sustainability of these services (Table 5 on page 110).

All utilities are expected to comply with the 19 requirements of the guidelines (Table 3 on page 105), which involve the following six criteria:

- strategic business planning
- pricing and regulation of water supply, sewerage and trade waste
- water conservation and demand management
- drought management
- performance monitoring
- integrated water cycle management.

The reported LWU compliance against each requirement of the Guidelines is shown in Table 3 on page 105 of this report. A summary of LWU compliance is provided on page 18 and Figures 21, 22 and 23 of the *2009-10 NSW Performance Monitoring Report*. Particular attention is required for strategic business planning and financial planning (column 1 of Table 3 on page 105), full cost recovery (column 14a of Table 6 on page 120, column 11a of Table 7 on page 132, page 19), residential water supply revenue from usage charges (column 13 of Table 6 on page 120), non-residential sewer usage charges (column 3a of Table 7 on page 132), liquid trade waste fees and charges (column 2 of Table 7C on page 139), trade waste regulation policy and approvals (columns (1) and (3) of Table 7C on page 139), and an IWCM evaluation (column 20 of Table 8C on page 149).

As noted on page 19 of the *2009-10 NSW Water Supply and Sewerage Performance Monitoring Report*, future IWCM Strategies will need to include assessment of the secure yield of the utility's water supply in accordance with new climate change guidelines to be released in late 2011.

The *Local Government Integrated Planning and Reporting Framework, 2010* has been designed to complement and avoid duplication with the *Best-Practice Management of Water Supply and Sewerage Guidelines.* The inter-relationship of this Framework with the Best-Practice Management Guidelines is shown on pages 4, 95 and 99 of the *NSW Water and Sewerage Strategic Business Planning Guidelines, 2011* (www.water.nsw.gov.au).

Comprehensive software and guidelines to assist LWUs in developing appropriate water supply and sewerage strategic business plans, financial plans, water supply tariffs, sewerage tariffs, liquid trade waste fees and charges, developer charges, asset management plans (capital works plan, operation plan and maintenance plan), asset valuation, greenhouse gas calculation and trade waste regulation policies continue to be available from the NSW Office of Water (Dilip Dutta on tel: (02) 8281 7372, fax: (02) 8281 7351, email: Dilip.Dutta@water.nsw.gov.au).

In addition an IWCM 'Generic Scope of Work' document and seven IWCM information sheets are now available on the NSW Office of Water website (www.water.nsw.gov.au) to provide guidance for LWUs and the requirements for developing a sound IWCM evaluation and IWCM strategy.

4.3 Managing drinking water quality

Australian Drinking Water Guidelines (ADWG) 2004

A **high priority** for each NSW local water utility is to provide a drinking water supply which:

1. Complies with ADWG for microbiological quality (health related).
2. Complies with ADWG for chemical quality (health related).
3. Minimises the incidence[4] of 'boil water alerts' through providing appropriate water supply and treatment infrastructure and carrying out the necessary maintenance activities. These include adjusting treatment processes in response to changes in raw water quality and regular inspections of service reservoirs in order to detect and repair any breakdown in the bird and vermin proofing of the reservoir roof.
4. Maintains effective disinfection of the utility's water supply distribution system (including a minimum free chlorine residual of about 0.2 mg/L throughout the distribution system).

Guidance on items 3 and 4 above is available on pages 10 and 246 of this report.

In view of their importance for ensuring public health protection, any failures to achieve microbiological compliance in the last 2 financial years or any 'boil water alerts' in the last 18 months, the corrective action implemented and whether it was successful must be reported in your LWU's annual Action Plan to Council. Refer also to page21.

In addition, utilities responsible for drinking water supplies are required to prepare implement a risk-based drinking water quality management plan in accordance with ADWG (*Public Health Act 2010*).

Assistance is available from your NSW Office of Water Regional Water and Sewerage Inspector (refer to page 34). Tools are being developed by NSW Health and the NSW Office of Water to assist LWUs and assistance is available from the Office of Water (Bill Ho on Tel (02) 8281 7326, fax (02) 8281 7351, e-mail Bill.Ho@water.nsw.gov.au).

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 20,700 non-metropolitan NSW samples tested for E. coli in 2009-10 complied with the *Australian Drinking Water Guidelines 2004 (ADWG)*, it is a matter of concern that 11 per cent of LWUs did not comply with the guidelines (column 71 of Table 12 on page 161 and Figure 14 on page 50). **Achievement of microbiological compliance is a high priority for each LWU**. As noted on page 21, assistance is available from your NSW Office of Water Regional Water and Sewerage Inspector [contact details on page 34].

The risk of contamination of water supplies due to system failures therefore remains significant, as can be seen in the table overleaf, which indicates 22 boil water alerts were issued by LWUs over the period May 2006 to June 2008.

ADWG recommends a preventative risk 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 forty-one LWUs have developed such a plan (column 69a of Table 12 on page 161). It is therefore strongly recommended that all LWUs develop a risk based drinking water quality management plan as a matter of priority. Such a plan is required under the *Public Health Act, 2010.* In addition, LWUs with over 10,000 properties should obtain third party accreditation of their plan (NWI Indicator H5 in column 69b of Table 12 on page 161).

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 & 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; and operational monitoring and verification monitoring requirements.

[4] While a boil water alert will be necessary to protect the community, for example if a LWU's raw water sources become highly turbid due to major flooding, over 80% of recent boil water alerts in non-metropolitan NSW were found to be avoidable through appropriate maintenance and chlorine residuals (page 10*)*. LWUs need to follow the NSW Health response protocol if *E. coli* bacteria is found, or if there is failure of the disinfection system, or disinfection is otherwise ineffective eg. due to poor treated water quality. (http://www.health.nsw.gov.au/publichealth/environment/water/nswhrp_microbiological.asp).

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.

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	**Failure of bird proofing** which allowed bird entry through gap in reservoir roof contaminating the treated water.
3	Highly turbid raw water, no filtration plant, ineffective disinfection.[5]
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 NSW Office of Water 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.

These incidents highlight that almost 80% of the alerts were due to an **inadequate chlorine residual** in the water supply distribution system or bird entry through **failure of the bird proofing** of a reservoir roof. They also show that a number of LWUs have been using reactive measures to protect public health. Preventive management on the basis of a sound risk management plan, with associated work procedures and process controls would have avoided the need for 86% of these boil water alerts.

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[6] (including extremities). • Continuous monitoring[7] 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 (e.g. telephone companies) have been given access to your LWU's reservoirs. • Regular inspection is essential to ensure the roof and the bird and vermin proofing of each service reservoir is effective and has not been damaged; early repairs must be effected to ensure integrity of the bird-proofing.
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.

[5] Guidance on maintaining effective disinfection of a water supply distribution system is provided in Appendix E on page 246.

[6] 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.

[7] Monitoring requirements must be clearly documented by each LWU with appropriate responsibility and authority assigned to suitably **trained officers**.

However, it is important to acknowledge that 14% of the alerts were due to highly turbid raw water during flooding, which was beyond the control of the LWU.

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 Achieving efficient water use

Achieving efficient water use is a key responsibility for each water utility. As shown on page 8 of the *2009-10 NSW Water Supply and Sewerage Performance Monitoring Report* (available at www.water.nsw.gov.au) and Figure 25 on page 62, the non-metropolitan NSW utilities have reduced the average annual residential water supplied per property by 47 per cent over the past 19 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 183 and Figure 10 on page 46, the median water usage charge for the first step has risen to 163 c/kL. This provides a strong pricing signal and is among the highest of all the other Australian utilities.

LWUs are reminded that Circular LWU 11 of March 2011 (refer also to the box on page 19) has removed the need for use of inclining block tariffs by LWUs. **The NSW Government encourages**[8] **LWUs to use a 2-part tariff with a uniform water usage charge per kL for all water use**. IPART has implemented such tariffs for Sydney, Hunter, Gosford and Wyong.

The median revenue from residential water usage charges was 73 per cent (Figure 29 on page 65). However, affordability has been maintained through the $430 (Jan 2011$) Typical Residential Bill for water supply, which has reduced slightly over the past 15 years (graph 4 on page 183).

The **strong pricing signals** provided by the NSW LWUs have enabled them 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. The strategic benefits of the strong pricing signals implemented by the NSW water utilities are highlighted on page 5 of the *2009-10 NSW Water Supply and Sewerage Performance Monitoring Report* (available at www.water.nsw.gov.au).

Any LWU which is not achieving the required revenue from residential water usage charges (column 13 of Table 6 on page 120) or full cost recovery (refer to page 19) should develop complying tariffs in order to provide the necessary pricing signals to its customers and achieve the above benefits of efficient water use in its area. Assistance is available from the NSW Office of Water (Dilip Dutta on tel: (02) 8281 7372, fax: (02) 8281 7351, email: Dilip.Dutta@water.nsw.gov.au). Guidance is provided in the box on page 19.

The peak day water supplied per property is shown in Figure 7 on page 43. This affects the sizing of water treatment works, service reservoirs and trunk mains.

4.5 Asset management

Renewals

As noted on page 7, assessment of infrastructure renewals requirements is a critical element of a utility's asset management plan, which must be documented in each utility's 20 to 30-year strategic business plan and financial plan. Details of each LWU's asset rehabilitation activities and renewals expenditure are provided in Tables 10 and 15 on pages 155 and 170 respectively.

[8] Refer to page 15 of the NSW Government's submission of May 2011 on the Productivity Commission Draft Report *'Australia's Urban Water Sector, April 2011'* (available at www.pc.gov.au).

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 continue to develop and update 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 30-year financial plan includes capital expenditure, including renewals, identified in a soundly based asset management plan. They should also annually monitor income and expenditure and update the financial plan to enable the LWU to address any new developments. Funding in the financial plan involves an appropriate mix of the utility's annual income, accumulated cash and investments and borrowings. As noted on page 21, your LWU's Action Plan must report on whether the Typical Residential Bill (TRB) is consistent with the projection in your LWU's 30-year strategic business plan and on any warranted corrective action.

As shown in Figure 20 on page 57 and graph 9 on page 184, water main breaks for NSW LWUs have remained much lower than all the other states and the capital city utilities, indicating good water main asset condition.

Further information on the development of a cost-effective asset renewal program can be obtained from the NSW Office of Water (Dilip Dutta, tel: (02) 8281 7372, fax (02) 8281 7351, email Dilip.Dutta@water.nsw.gov.au). Information on asset valuation and economic life can be obtained from the *'NSW Reference Rates Manual for Valuation of Water Supply, Sewerage and Stormwater Assets'*, updated in 2011 and guidance on asset management is provided in the *'Asset Management Guidelines for Water Supply and Sewerage'* NSW Office of Water, 2011.

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 reservoir overflows. Recent LWU results are shown in column 41e of Table 10 on page 155.
- 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), (Refer to columns 4 to 6 of Table 8A on page 145).
- Water losses are the sum of Real Losses (mostly leakage) and 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 and mains flushing. Any watering of parks and gardens should be metered and billed by each LWU.

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 this identifies the significance of these parameters in relation to the total water supplied, it is not helpful in monitoring the effectiveness of a utility's performance in reducing losses and is 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 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 has adopted the ILI as a measure of leakage and the NSW Office of Water has reported the ILI for each LWU since 2005-06 (column 41b of Table 10 on page 155). The NSW Office of Water will also continue to report leakage as L/d per connection (the relevant measure for utilities with over 20 connections/km, which is the vast majority of NSW LWUs)

and kL/km of water main/d (columns 41 and 41a of Table 10 on page 155, Figure 26 on page 63), which are better measures for tracking an LWU's leakage performance over time. These indicators are also preferred in the National Performance Framework.

Analysis by the International Water Association has demonstrated that the Australian urban water utilities (based on the results reported in the National Performance Report 2007-08 for urban water utilities) are by far[9] the best performing urban water utilities in the world for minimising leakage and real losses.

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 undertake a reservoir drop test, detailed waste metering or night flow analysis of district meter areas. It is encouraging that Table 10 on page 155 shows that 48 NSW utilities have reported they have recently undertaken a reservoir drop test or night flow analysis in order to determine their present real losses and opportunities for leakage reduction. In addition, the LGA and SA and Water Directorate, Water Loss Management Program (Ian Maggs on tel: (02) 9242 4127) has reported that 74 of the 94 non-metropolitan NSW utilities responsible for providing reticulated water supply are participating in the Program. Refer also to note 14 on page 32.

Greenhouse gases

The National Water Initiative requires LWUs to report both direct and some indirect greenhouse gas (GHG) emission estimates (columns 35a to 35d of Table 5B on page 117). A greenhouse gas calculator has been developed by the NSW Office of Water to assist LWUs. The calculator has been provided to all LWUs and is included in Appendix G on page 267. Direct emissions are produced from sources within the boundary of an organisation and as a result of that organisation's activities. Direct emissions mainly arise from the following activities:

- Generation of energy, heat, steam and electricity.
- Manufacturing processes.
- Transportation of materials, products, waste and people.
- Fugitive emissions (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 mass 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 is noted that many opportunities for reducing greenhouse gas emissions are often missed because their financial attractiveness is masked by not considering their full costs and benefits.

[9] Alan Lambert "The Future of Leakage Indicators" presentation to the National Performance Report 2008-09 Definitions Review and Planning Workshop, 11 February 2010.

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 Typical Residential Bill (TRB). This is done by setting cost-reflective developer charges, non residential charges and liquid trade waste fees and charges and then minimising its TRB in current dollars on a sustainable basis. As noted on pages 6 and 19, utilities which have complied with the *Best-Practice Management Guidelines (BPMG)* are encouraged to pay an 'efficiency dividend' to the Council's general revenue and should also include the dividend amount.

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 110, Figure 1 on page 36, column 8 of Table 6 on page 120, Figure 8 on page 44, column 8 of Table 7 on page 132, Figure 40 on page 76) 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 120, Figure 25 on page 62). 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 158, Figures 31, 32, 33 on pages 67, 68, 69) is efficient.

The steps that each LWU should follow to review performance are:

1. **Check compliance with BPMG** and highlight areas of non-compliance. Any non-compliances must be addressed as a priority.

2. **Review performance** using the indicators shown on the first page of the TBL performance report for each of water supply and sewerage (example review and Action Plan is on pages 26 and 27, example reports are on pages 28 and 29). Particular note should be taken of indicators that appear to be less than satisfactory ie. with a ranking of 4 or 5.

3. **Identify any trends** over the past ten years in the selected performance indicators shown on the second page of your TBL performance report, and compare with the latest values shown for the Statewide median values and the top 20%.

In undertaking a review of indicators and trends in performance, LWUs should take note of the many factors that may contribute to the apparent under-performance (see also section 5.2 on page 16). If further analysis is warranted (eg. if the ranking of the performance indicator is low and remains unexplained or other factors suggest apparent under-performance), then the following may also be required.

4. **Compare selected performance indicators** with those of similar sized utilities using Figures 1 to 66 showing performance trends for four utility size ranges over the past six years.

Where in-depth investigation is warranted for selected indicators, the LWU can also undertake process benchmarking.

5. **Process benchmarking** for selected indicators for areas of apparent under-performance, e.g. where the LWU has a low ranking relative to LWUs with similar characteristics.

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 and typical residential bill, which is the principal indicator of the overall cost of a water or sewerage system. Such factors can produce a fundamental difference in performance.

For example, in the case of water supply, a utility which provides full water treatment and has its own bulk storage dam will have a much higher capital and operating cost structure than a utility which has a good quality groundwater supply. Each utility can improve its performance by taking account of such factors and comparing its performance with utilities having similar characteristics.

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 16 and 17).

The most meaningful performance indicators are the trends over time for each utility. This involves analysis along the lines of Items 3 and 4 on page 15. However, even with such analysis, 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 the 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. For example, the average annual residential water supplied in inland NSW is over 60% higher than coastal NSW
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. Refer also to page 11.
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 5 to 90 (column 26 of Table 9 on page 152, Figure 5 on page 40)). A further key factor is the number of small discrete urban water supply systems operated by the utility which tend to greatly increase both the capital cost[10] and the operating cost per property.
5. **Water resources availability and proximity** – 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 33). Such costs would not apply for utilities relying on groundwater or those receiving a regulated supply from a State Water dam.
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 35 on page 71). Refer also to footnote 10 below.

[10] The lack of economy of scale and the lower development density in small towns result in a **capital cost per property** for providing water supply trunk mains to a town of 300 properties being typically over **3 times** that required for servicing a contiguous city of 15,000 properties. The capital cost per property for other structures such as water treatment works, service reservoirs, pumping stations and dams is similarly affected. This highlights the importance of Government financial assistance towards the capital cost of servicing backlog areas and why appropriate standards should be used, such as those in the *Handbook for Affordable Water Supply and Sewerage for Small Communities, 1999*.

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 both a high capital cost and 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 33).

Environmental

9. **High average annual residential water supplied per property** (column 56a of Table 10 on page 155, Figure 25 on page 62) – 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 25, the non-metropolitan NSW utilities have reduced the average annual residential water supplied per property by 47 per cent over the past 19 years. Many utilities with 3,000 to 10,000 connected properties are providing relatively weak pricing signals to their residential customers through their water usage charges. These utilities should review their tariff structure to provide appropriate pricing signals. Assistance is available from the NSW Office of Water in this regard (page 8). Refer also to section 4.4 on page 11.

Economic

10. **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. Twenty-year loan terms are recommended in order to minimise the required Typical Residential Bill (TRB), which avoids unfairly burdening existing customers and facilitates inter-generational equity.

11. **High pumping cost** (columns 94 to 99 of Table 13 on page 164, Figure 36 on page 72) – is influenced mainly by topography and geography. As noted on page 25, 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 or providing filtration and disinfection of its treated sewage effluent.

Median economic efficiency indicators for four sizes of LWUs – Water Supply 2009-10

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)**	**(29 LWUs)**	**(19 LWUs)**	**(21 LWUs)**
Operating cost/property ($)	336	453	384	484
Operating cost (c/kL)	121	106	106	74
Operating cost/100 km ($'000)	1,150	1,027	1,026	844
Management cost/property ($)	133	151	116	138
Treatment cost[1]/property ($)	37	102	123	139
Pumping cost/property ($)	26	26	52	71
Energy cost[2]/property ($)	18	14	23	44
Water Main cost/property ($)	56	67	67	87
No. of employees/1,000 properties	1.4	1.6	1.8	2.5
Economic Real Rate of Return	0.7	0.9	1.2	-0.5
Capital expenditure ($ per property)	417	195	153	153
Properties served/km of main	38	28	28	22

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 2009-10

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	**(21 LWUs)**	**(27 LWUs)**	**(24 LWUs)**	**(28 LWUs)**
Operating cost/property ($)	366	381	292	294
Operating cost (c/kL)	161	161	158	130
Operating cost/100 km ($'000)	1,567	1,230	952	880
Management cost/property ($)	127	120	107	69
Treatment cost/property ($)	110	115	111	107
Pumping cost/property ($)	49	59	38	40
Energy cost[1]/property ($)	26	22	24	23
Sewer main cost/property ($)	37	59	33	30
No. of employees/1,000 properties	1.4	1.8	1.5	2.0
Economic Real Rate of Return	1.5	1.1	0.5	0.4
Capital expenditure ($ per property)	363	176	116	99
Properties served/km of main	42	36	33	31

Note:

1. A component of pumping and treatment costs.

5.3 Action plan

Each LWU is required to prepare an annual Action Plan to Council, based on its review of the LWU's TBL Performance Report for its water supply business and for its sewerage business. The Action Plan should address any areas of under-performance and should also document any target dates for remedial actions. It should also report results for the financial year for the key actions set out in the utility's Strategic Business Plan.

A key role for the Action Plan is to 'close the planning loop' with the utility's strategic business plan. The utility's TRB must therefore be compared with the projection in its strategic business plan and any necessary corrective action documented in the Action Plan (indicator 14 on page 26).

An example Action Plan is shown on pages 26 and 27. In order to assist LWUs, the NSW Office of Water will continue to provide a template for each LWU's Action Plan together with the annual TBL reports for each LWU.

The template will show the LWU's results, the drivers for each indicator and the LWU's ranking relative to similar sized LWUs followed by the ranking relative to all LWUs. Space is provided for the LWU to indicate proposed actions and its findings (the right hand column on pages 26 and 27).

ACHIEVING FULL COST RECOVERY FOR WATER SUPPLY

Some NSW utilities have been using a long-term financial model where they input water supply access and usage charges and projected volumes of water supplied to determine the required future revenue. A number of these utilities have experienced significant revenue shortfalls in recent years as a result of reduced water sales due to more efficient water use by residents and/or drought water restrictions.

Accordingly, it is recommended that utilities do not use models involving access and usage charges in order to avoid such revenue shortfalls as well as potentially misleading customers on the required future access and usage charges. Rather, utilities should use a model such as the NSW Financial Planning Model (FINMOD) which determines the required future typical residential bill and annual revenue in current dollars.

Your utility can then set each year's water supply tariff in accordance with Circular LWU 11 of March 2011 using an evidence based estimate of the residential water to be supplied in the next financial year, together with the access and usage charges required to yield the Typical Residential Bill and annual revenue in accordance with your 20 to 30-year financial plan.

Such an approach is transparent as the financial modelling discloses the required Typical Residential Bill (and annual revenue) in current dollars as required by Items 1 and 16 of the Check List in Appendix F of the *NSW Water and Sewerage Strategic Business Planning Guidelines, 2011*. In addition, annually setting your water supply tariff in accordance with Circular LWU 11 will minimise the risk of revenue shortfalls while maintaining Typical Residential Bills in accordance with your LWU's financial plan. Assistance is available from the Office of Water (Dilip Dutta on Tel (02) 8281 7372, fax (02) 8281 7351, e-mail Dilip.Dutta@water.nsw.gov.au).

In addition, each LWU which meets all the requirements of the *Best-Practice Management Guidelines* is encouraged to pay a dividend from the surplus of its water and sewerage businesses to the council's general revenue. A LWU which pays such an 'efficiency dividend' will be moving towards **upper bound pricing**, which is required under the National Water Initiative, where practicable. Refer also to section 4.4 on page 11 and to the box on page 5 of the *2009-10 NSW Water Supply and Sewerage Performance Monitoring Report* which highlights the strategic benefits of strong pricing signals and the resulting efficient water use.

In order to prepare an Action Plan, it will be necessary for each LWU to review its performance. In practice this means reviewing whether the performance indicators under 'Health', 'Levels of Service', 'Environmental' and 'Economic' are satisfactory, taking into account factors that may affect performance outlined below. If the indicators are unsatisfactory, the LWU will need to develop suitable options to improve performance.

Guidance for councillors on quickly understanding and using your TBL Performance Report and Action Plan is provided in Appendix G of the *NSW Water and Sewerage Strategic Business Planning Guidelines, July 2011* (www.water.nsw.gov.au). This appendix will also assist the water and sewerage manager in preparing a sound Action Plan to Council.

Compliance with best practice management guidelines

Compliance with each of the key requirements (Table 3 on page 105) of the guidelines is shown on the TBL Report (page 28). 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, sustainable and safe water supply and sewerage businesses and will comply with the National Water Initiative. As noted on page 6 compliance with the 19 requirements of the guidelines is also a prerequisite for payment of a dividend from the surplus of the LWU's water supply or sewerage business and for financial assistance towards the capital cost of backlog infrastructure under the Country Towns Water Supply and Sewerage Program.

Performance based on triple bottom line

LWUs should review the Performance 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 4 or 5, 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 on page 16. 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 provides bulk storage 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 103 and 104), 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 (section 3.3 on page 3).

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

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

Utility characteristics

- **Renewals** – LWUs should ensure that their 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 plan and ensure that the necessary funds are directed to maintenance and renewals. Refer to page 11.
- **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 152, Figure 8 on page 44, column 14 of Table 14 on page 167, Figure 39 on page 75). If the number of employees per 1,000 properties is significantly higher than the median shown in the tables on page 18 for the size of LWU, you should examine the management structure and identify the reasons for the difference and provide a brief explanation or your proposed remedial action in the Action Plan. Refer also to the comment on management cost on page 24.
- **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 39 properties per km (range 17 to 69), while for LWUs with 200 to 1,500 properties the median is 20 (range 2 to 36) (column 26 of Table 9 on page 152, Figure 5 on page 40, column 9 of Table 14 on page 167, Figure 38 on page 74).

Social factors

Affordability

- **Typical residential bill (TRB)** – as noted on page 15, 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 158, Figures 31, 32, 33 on pages 67, 68, 69) as noted on page 24 under Economic Factors – Efficiency. As noted on page 19, your LWU's Action Plan must report on whether the TRB is consistent with the projection in your LWU's 30-year strategic business 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. The **strategic benefits of strong pricing signals** and the resulting efficient water use are highlighted on page 5 of the *2009-10 NSW Water Supply and Sewerage Performance Monitoring Report*.

Health

- **Microbiological water quality compliance (per cent)** – This is the most important water supply health indicator and **achievement of microbiological compliance is a high priority for each LWU**. Microbiological non-compliance and boil water alerts must be reported in the annual Action Plan to Council in accordance with the box on page 8. As shown in Figure 14 on page 50, 89 per cent of LWUs complied with the microbiological water quality requirements in 2009-10 (also refer to column 8 of Table 5 on page 110). The 11 LWUs with less than 98 per cent do not comply with the Australian Drinking Water Guidelines, 2004. These LWUs, which each serve between 500 and 7,200 connected properties should identify the reasons for non-compliance. This and the remedial action implemented must be reported in your LWU's Action Plan to Council (refer to pages 8 to 11 and to Appendix E on page 246). Assistance is available from your NSW Office of Water Regional Water and Sewerage Inspector (refer to page 34 for the contact details of each inspector).

As indicated in section 4.3 on pages 8 and 9, each LWU should develop and implement a sound risk-based drinking water quality management plan as a matter of priority. Assistance is available from the NSW Office of Water (Bill Ho on tel: (02) 8281 7326).

- **Public health incidents** – Where this indicator is significantly higher than the statewide median, your LWU's 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 your LWU's 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 110, Figure 18 on page 54).
- **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 your LWU's Action Plan (column 11 of Table 5 on page 110, Figure 45 on page 82).
- **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 nine breaks per 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 your LWU's Action Plan (column 3a of Table 5 on page 110, Figure 20 on page 57). Refer also to section 4.5 on page 11.
- **Average duration of unplanned interruptions (water)** – where this indicator is significantly higher than the statewide median, your LWU's Action Plan should provide a brief explanation together with proposed remedial action if appropriate (column 3b of Table 5 on page 110).
- **Average break/choke repair time (sewerage)** – where this indicator is significantly higher than the statewide median of 120 minutes, your LWU's Action Plan should provide a brief explanation together with proposed remedial action if appropriate (column 65 of Table 17 on page 176).

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 high residential water supplied while an LWU with a dual supply would expect to have a very high value) and any applied water restrictions. Inland LWUs have 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 2009-10 was 245 kL/property compared to 150 kL/property for coastal LWUs (column 14 of Table 6 on page 120, Figure 25 on page 62). Refer also to Item 9 on page 17.
- **Real Losses** – LWUs should monitor their Real Losses (column 41 of Table 10 on page 155) in L/d /connection. These should be minimised if the LWU is facing drought water restrictions or the need for augmenting the capacity of its water supply headworks system or its water treatment works. Such reduction of Real Losses will provide major economic benefits through deferral of the need for capital investment for upgrading of infrastructure. As noted on page 14, for almost all LWUs,

monitoring your leakage in “L/d per connection” is the relevant measure for tracking your LWU’s leakage performance.

- **Water Losses (ILI)** – The real losses above are the principal indicators of leakage performance. The ILI may provide some additional information. 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 155).
- **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 2009-10 25 per cent of LWUs reused over 50 per cent of their effluent (columns 13 to 14b of Table 8 on page 141 and Figures 54 and 55 on pages 91 and 92). As shown on Figure 54 on page 91, the highest volume recycled by a utility was 3,590 ML and a further eight utilities 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 176, Figure 47 on page 84).
- **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 176, Figure 48 on page 85).
- **Sewer main breaks and chokes** – sections of sewer main with a high incidence of breaks and chokes (say treble the statewide median of 44 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 176, Figure 51 on page 88).
- **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 176, Figure 53 on page 90).
- **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, 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 120, Figure 29 on page 65). As noted in Section 4.4 on page 11, the statewide median residential revenue from water usage charges was 73 per cent. Refer also to item 9 on page 17 and the residential water usage charge on page 21.
- **Economic real rate of return (ERRR)** – this reflects the rate of return generated from operating activities (i.e. 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 120, Figure 30 on page 66, column 11 of Table 7 on page 132, Figure 59 on page 95). The recent drought has had a significant effect on the rate of return for many LWUs, as 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 its careful estimate of the water to be supplied in the next financial year as indicated in the box on page 19. This is particularly important during drought periods. Refer also to Figures 13 and 14 of the *2009-10 NSW Performance Monitoring Report.*

- **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 120, column 9 of Table 7 on page 132, column 24c of Table 5A on page 114).
- **Net Debt to equity**[11] – net debt is the sum of long and short term borrowings less cash and investments. Equity is the total assets less total liabilities. In 2009-10 the NSW median net debt to equity for water supply and sewerage was -7% (column 19a of Table 5 on page 110). LWUs facing significant capital investment are encouraged to make greater use of borrowings to reduce their required TRB. Twenty year loan terms are recommended in order to avoid an unfair financial burden on existing customers and to 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 (column 66a of Table 11 on page 158 and column 51a of Table 16 on page 173). The median loan payment in 2009-10 for water supply was $52 per connected property (Table 1 on page 103).
- **Interest cover** – this ratio is 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 114). As a general guide, an interest cover >2 is a good interest cover position. For 2009-10, the median interest cover for sewerage was 2.

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 158, Figure 31 on page 67). 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 158, Figure 34 on page 70). 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/1000 properties in order to effectively manage their systems (refer also to page 21). Similarly, LWUs with a low development

[11] It is important to note that most NSW LWUs have relatively little borrowings at present. In 2009-10 the Statewide median net debt/equity for LWU water and sewerage was -7% (range -75% to 30%). The 2009-10 debt/equity for major Australian utilities include 120% for Sydney Water, 85% for ACT Electricity and Water, 75% for Melbourne Water, 40% for Water Corporation (WA) and 39% for Hunter Water (National Performance Report 2009-2010 for Urban Water Utilities). Refer also to graph 21 on page 61. Providing your utility has a soundly based asset management plan and financial plan (including sensitivity analysis), debt/equity of up to 50% when financing a major capital works program for growth and/or improved levels of service, would be satisfactory for NSW LWUs.

density, under about 20 properties served / km of water main (column 26 of Table 9 on page 152) will need a higher level of employees.

- **Treatment cost (water)** – (columns 104 to 107 of Table 13 on page 164, Figure 35 on page 71) 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 18, there are great economies of scale for the operation of water treatment works (ie. facilities involving at least filtration and disinfection).
- **Treatment cost (sewage)** – (columns 90 to 92 of Table 18 on page 179, Figure 64 on page 100) 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.
- **Pumping cost (water)** – (columns 94 to 99 of Table 13 on page 164, Figure 36 on page 72) 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 164) 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 (e.g. 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 179). 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 164, Figure 37 on page 73, column 70 of Table 18 on page 179, Figure 66 on page 102) 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 TBL report and action plan – Shoalhaven City Council

An example TBL Performance Report is shown on pages 28 and 29 for Shoalhaven Council. An example analysis and Action Plan is shown below.

Shoalhaven City Council Water Supply – Action Plan Page 1

Summary

In 2009-10, Shoalhaven City Council complied with all requirements of the *NSW Best-Practice Management Guidelines* and its performance has continued to be at the higher end of the scale in comparison to other similar size water utilities throughout Australia. Shoalhaven achieved 100% compliance with the 60 auditable indicators of the National Performance Report for Urban Water. Shoalhaven achieved 100% compliance in chemical, physical and microbiological drinking water requirements.

Key actions from Council's Strategic Business Plan:

- *Commencement of a significant Meter Replacement Program*
- *Commencement of Hydro-electrical Generation Project*

INDICATOR		RESULT[2]		DRIVER	ACTION/FINDING
	Best-Practice Management Guidelines	Complied with all the Best Practice Requirements[1]	Very good	Compliance demonstrates effectiveness and sustainability of water supply business. 100% compliance is required for eligibility to pay an 'efficiency dividend'.	
CHARACTERISTICS					
5	Connected property density	30 per km of main Low ranking (4, 2)		A connected property density below 30 can significantly increase the cost per property of providing services, as will also a high number of small discrete water supply schemes.	
9	Renewals expenditure	0.2% Lowest ranking (5, 4)	May require review	Adequate funds must be programmed for works outlined in the Asset Management Plan – page 2 of Performance Monitoring Report.	Council has reviewed and updated its Asset Management Plan and significant funds have been allocated on water supply renewals over the next 20yrs ($257m). Less renewal expenditure has been required in the short term due to the asset profile. This result is consistent with Council's previous forecasts.
10	Employees	1.3 per 1,000 props High ranking (2, 2)	Good	The number of employees per 1,000 properties is a good indicator of operating and management costs.	
SOCIAL - CHARGES					
12	Residential water usage charge	145 c/kL Median ranking (3, 2)	Satisfactory	Benefits of strong pricing signals are shown on page 5 of the Performance Monitoring Report.	
13	Residential access charges	$75 per assessment Highest ranking (1, 1)	Very good	≥ 75% of residential revenue should be generated through usage charges (≥ 50% for LWUs with < 4,000 properties).	
14	Typical residential bill[3] (TRB)	$286 per assessment Highest ranking (1, 1)	Very good	TRB should be consistent with projection in the financial plan. Drivers – OMA Management Cost and Capital Expenditure.	The TRB is satisfactory as it is within 2% of the projected TRB of $280 (2010-11$) in Council's Strategic Business Plan.
15	Typical developer charges	$6200 per ET High ranking (2, 2)	Good	Disclose any cross subsidy in Development Servicing Plan (DSP).	
SOCIAL - HEALTH					
19	Physical quality compliance	100% Highest ranking (1, 1)	Very good		
19 a	Chemical quality compliance	100% Highest ranking (1, 1)	Very good		
20	Microbiological compliance[4]	100% Highest ranking (1, 1)	Very good	Critical indicator. LWUs should develop a risk based water quality management plan.	Council has prepared a risk based water quality management plan.
SOCIAL – LEVELS OF SERVICE					
25	Water quality complaints	1 per 1,000 props High ranking (2, 2)	Good	Critical indicator of customer service. Can be influenced by the type of business – e.g. unfiltered supply.	
26	Service complaints	0 per 1,000 props Highest ranking (1, 1)	Very good	Key indicator of customer service.	

1. *Review of Council's TBL Performance Report and Preparation of an **Action Plan** to Council required annually. **Strategic Business Plan** review and update required after 4 years. **Financial Plan** update and report to Council required annually. New **IWCM Strategy** required after 8 years. **Liquid Trade Waste Regulation Policy** in accordance with the 'NSW Liquid Trade Waste Regulation Guidelines, 2009' required by June 2011. **Development Servicing Plan** review and updating is required after 5 years.*
2. *The ranking relative to similar size LWUs is shown first (Col. 2 of TBL Report) followed by the ranking relative to all LWUs (Col. 3 of TBL Report).*
3. *Review and comparison of the 2010-11 **Typical Residential Bill (Indicator 14)** with the projection in your Strategic Business Plan is **mandatory**. In addition, if both indicators 43 and 44 are negative, you must report your proposed 2011-12 typical residential bill to achieve full cost recovery.*
4. ***Microbiological compliance (Indicator 20)** is a high priority for each NSW LWU. Corrective action for non-compliance (<=97%), or any 'boil water alerts' **must be reported** in your Action Plan.*

Shoalhaven City Council Water Supply – Action Plan Page 2

	INDICATOR	RESULT		DRIVER	ACTION/FINDING
SOCIAL – LEVELS OF SERVICE (continued)					
27	Average frequency of unplanned interruptions	39 per 1,000 props Median ranking (3, 4)	Satisfactory	Key indicator of customer service, condition of network and effectiveness of operation.	Whilst the result was marginally higher than the State Median (37), it is largely reflective of the size of the supply system and enhanced/ accurate reporting mechanisms. The result is significantly less than the National median of other auditable non-major utilities- large (52).
30	Number of main breaks	9 per 100km of main Median ranking (3, 2)	Satisfactory	Drivers – condition and age of water mains, ground conditions.	The result is less than the National median of other auditable non-major utilities-large (12). Recent organisational changes have also recently been made to aim at further improving this performance level.
32	Total Days Lost	2.4% Low ranking (4, 4)	May require review		This has remained high over the last 10 yrs and is reflective of the aging workforce. Targeted actions eg the inclusion of a % limit of the total workforce made up with trainees is likely to address this benchmark.
ENVIRONMENTAL					
33	Average annual residential water supplied	145 kL per prop Highest ranking (1, 1)	Very good	Drivers – available water supply, climate, location (Inland or coastal), pricing signals (Indicator 12), restrictions.	
34	Real losses (leakage)	70 L/c/d Low ranking (4, 2)	May require review	Loss reduction is important where an LWU is facing drought water restrictions or the need to augment its water supply system.	Result is consistent with the State median. Commencement of a significant water meter replacement strategy in 2011-12 will also impact this indicator.
ECONOMIC					
41	Residential revenue from usage charges	73% of residential bills Median ranking (3, 2)	Satisfactory	See 13.	
43	Economic Real Rate of Return (ERRR)	0.4% Median ranking (3, 3)	Satisfactory	Reflects the rate of return generated from operating activities (excluding interest income and grants) An ERRR or ROA of > 0% is required for full cost recovery.	
44	Return on assets	0.9% High ranking (2, 3)	Good	Reflects the rate of return generated from operating activities (including interest income) An ERRR or ROA of >0% is required for full cost recovery.	
45	Net debt to equity	-4% Low ranking (4, 2)	May require review	LWUs facing significant capital investment are encouraged to make greater use of borrowings – page 12 of Performance Monitoring Report.	The NDE is projected to increase further within the 20-year financial plan to accord with increased capital spending.
46	Interest cover	>100 Highest ranking (1, 1)	Very good	Drivers – in general, an interest cover > 2 is satisfactory.	
47	Loan payment	$14 per prop Median ranking (3, 3)	Satisfactory	The component of TRB required to meet debt payments. Drivers – expenditure on capital works, short term loans.	
49	Operating cost (OMA)	$274 per prop Highest ranking (1, 1)	Very good	Prime indicator of the financial performance of an LWU. Drivers – development density, level of treatment, management cost, topography, number of discrete schemes and economies of scale.	
51	Management cost	$124 per prop Median ranking (3, 3)	Satisfactory	Typically about 40% of the OMA. Drivers – No. of employees. No. of small discrete water schemes.	
52	Treatment cost	$39 per prop Low ranking (4, 2)	May require review	Drivers – type and quality of water source. Size of treatment works	Consistent with the State median. Treatment costs will be reviewed by June 2012.
53	Pumping cost	$26 per prop Median ranking (3, 2)	Satisfactory	Drivers – topography, development density and location of water source.	
55	Water main cost	$47 per prop Median ranking (3, 2)	Satisfactory	Drivers – age and condition of mains. Ground conditions. Development density.	
56	Capital expenditure	$348 per prop High ranking (2, 2)	Good	An indicator of the level of investment in the business. Drivers – age and condition of assets, asset life cycle and water source.	

Shoalhaven City Council water supply (TBL performance report pg 1)

Shoalhaven City Council **TBL Water Supply Performance** **2009-10**

WATER SUPPLY SYSTEM - Shoalhaven City Council serves a population of 90,700 (45,860 connected properties). Water is drawn from the Porters Creek and Shoalhaven River to supply Nowra, Bomaderry, St. Georges Basin, Shoalhaven Heads and Sussex Inlet. Bamarang, Cambewarra, Danjera and Porters Creek Dams have a total storage capacity of 13,360 ML. The Shoalhaven City Council system comprises 2 conventional water treatment works (103 ML/d), 1 microfiltration works at Kangaroo Valley (1.3 ML/d) and 1 direct filtration (10.5 ML/d), 44 service reservoirs (201 ML) 25 pumping stations, 114.8 ML/d delivery capacity into the distribution system, 519 km of transfer and trunk mains and 1042 km of reticulation. 70% of the supply is fully treated (Northern areas) and 30% is unfiltered (chlorinated - Southern areas).

PERFORMANCE - Shoalhaven City Council achieved 100% compliance with Best Practice requirements. The typical residential bill was $286 which was much less than the statewide median of $430 (Indicator 14). The economic real rate of return was 0.4% which was less than the statewide median (Indicator 43). The operating cost (OMA) per property was $274 which was less than the statewide median of $350 (Indicator 49). Water quality complaints were less than the statewide median of 4 (Indicator 25). Compliance with microbiological water quality was 100% with 4 of 4 zones compliant (Indicator 20), physical compliance was 100% (Indicator 19) and chemical compliance was 100% with 4 of 4 zones compliant (Indicator 19b). Current replacement cost of system assets was $472M ($9,500 per assessment), cash and investments were $14.9M, debt was $2M and revenue was $19.7M (excluding capital works grants).

COMPLIANCE WITH BEST- PRACTICE MANAGEMENT GUIDELINES REQUIREMENTS

(1) Complete Current Strategic Business Plan & Financial Plan	YES	**(3) Sound water conservation implemented**	YES
(2) (2a) Pricing - Full Cost Recovery, without significant cross subsidies	Yes	**(4) Sound drought management implemented**	YES
(2b) & (2c) Pricing - Complying Residential Charges	Yes	**(5) Complete performance reporting (by 15 September)**	YES
(2c) Pricing - Complying non-Residential Charges	Yes	**(6) Integrated water cycle management strategy**	YES
(2d) Pricing - DSP with Commercial Developer Charges	Yes	**COMPLIANCE WITH ALL REQUIREMENTS**	100%

TRIPLE BOTTOM LINE (TBL) PERFORMANCE INDICATORS

		NWI	No.				LWU RESULT		RANKING >10,000 properties	RANKING All LWUs	STATEWIDE MEDIAN
									Note 1	Note 2	Note 3
							Col 1		Col 2	Col 3	Col 4
UTILITY	CHARACTERISTICS	C1	1	**Population served: 90700**							
		C4	2	**Number of connected properties: 45860**	Number of assessments: 49850						
		C2	3	**Residential connected properties** (% of total)			92	%			91
			4	**New residences connected to water supply** (%)			1.0	%	3	2	1.0
		A3	5	**Properties served per kilometre of water main**		Prop/km	30				32
			6	**Rainfall** (% of average annual rainfall)			69	%	5	5	104
		W11	7	**Total urban water supplied at master meters** (ML)			15,200	ML			6,800
			8	**Peak week to average consumption** (%)			126	%	2	1	145
			9	**Renewals expenditure** (% of current replacement cost of system assets)			0.2	%	5	4	0.3
			10	**Employees per 1000 properties**		per 1,000 prop	1.3		2	2	1.4
SOCIAL	CHARGES & BILLS - 2009-10	P1		**Residential tariff structure:**	inclining block; independent of land value						
			12	**Residential water usage charge (c/kL) for usage <450 c/kL (Note 5)**			145	c/kL	3	2	163
			13	**Residential access charge per assessment** ($)		$	75		1	1	130
		P3	14	**Typical residential bill per assessment** ($)		$	286		1	1	430
			15	**Typical developer charge per equivalent tenement** ($)		$	6,200		2	2	4,700
	HEALTH		18	**Urban population without reticulated water supply** (%)			1.0	%	4	2	0.8
		H6	18a	**Risk based drinking water quality plan?**			Yes				
			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**			4 of 4				
			20	**Microbiological (E. coli) water quality compliance** (%)			100	%	1	1	100
		H3	20a	**% population with microbiological compliance**			100	%	1	1	100
	SERVICE LEVELS	C9	25	**Water quality complaints per 1000 properties**		per 1,000 prop	1		2	2	4
		C10	26	**Water service complaints per 1000 properties**		per 1,000 prop	0		1	1	3
		C17	27	**Average frequency of unplanned interruptions per 1000 properties**		per 1,000 prop	39		3	4	37
		C15	28	**Average duration of interruption** (min)		min	112		1	2	159
		A8	30	**Number of water main breaks per 100 km of water main**		per 100km	9		3	2	10
			31	**Drought water restrictions** (% of time)			35	%	3	3	87
			32	**Total days lost** (%)			2.4	%	4	4	2.4
ENVIRONMENTAL	NATURAL RESOURCE MANAGEMENT	W12	33	**Average annual residential water supplied per property** (kL)			145	kL	1	1	175
			33a	**Average annual residential water supplied - COASTAL** (kL/property)			145	kL	2	1	150
			33b	**Average annual residential water supplied - INLAND** (kL/property)				kL			252
		A10	34	**Real losses** (leakage) (L/service connection/day)		L/connectn/d	70		4	2	70
			35	**Energy consumption per Megalitre** (kiloWatt hours)		kWh	683		3	4	670
			36	**Renewable energy consumption** (% of total energy consumption)				%			0
		E12	36a	**Net greenhouse gas emissions - WS & Sge** (net tonnes CO2 - equivalents per 1000 properties)			380		3	3	390
ECONOMIC	FINANCE	F5	40	**Revenue per property** - water ($)		$	430		1	1	647
		F4	41	**Residential revenue from usage charges** (% of residential bills)			73	%	3	2	73
		F17	43	**Economic real rate of return** - Water (%)			0.4	%	3	3	0.7
			44	**Return on assets** - Water (%)			0.9	%	2	3	0.9
		F22	45	**Net Debt to equity** - Water (%)			-4	%	4	2	-1.0
		F23	46	**Interest cover** - Water			>100		1	1	4.5
			47	**Loan payment per property** - Water ($)		$	14		3	3	55
		F24	47b	**Net profit after tax** - WS & Sge ($'000)		$'000	7,320		1	1	0
	EFFICIENCY		48	**Operating cost (OMA) per 100km of main** ($'000)		$'000	827		2	2	1,140
		F11	49	**Operating cost (OMA) per property** ($) (Note 6)		$/prop	274		1	1	350
			50	**Operating cost (OMA) per kilolitre** (cents)		c/kL	82		1	2	116
			51	**Management cost per property** ($)		$/prop	124		3	3	134
			52	**Treatment cost per property** ($)		$/prop	39		4	2	39
			53	**Pumping cost per property** ($)		$/prop	26		3	2	31
			54	**Energy cost per property** ($)		$/prop	19		3	2	18
			55	**Water main cost per property** ($)		$/prop	47		3	2	56
		F14	56	**Capital Expenditure per property** ($)		$/prop	348		2	2	282

NOTES :

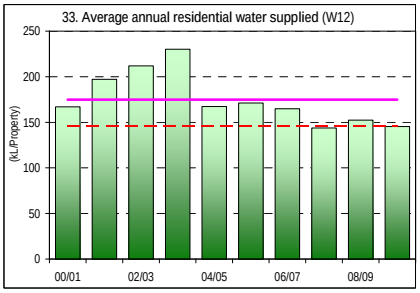
1. The ranking compared with LWUs with >10,000 properties connected properties (Col 2) is on a % of LWUs basis - relevant for comparing performance with similar sized LWUs - see attachment.
2. The ranking compared with all LWUs (Col 3) is on a % of LWUs basis - relevant for comparing performance with 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 4 years.
5. Non-residential Tariff: Access Charge based on Service Connection Size(40mm:$300), Inclining Block ; For usage up to 450 kL = 145 c/kL; for usage >450 kL = 195 c/kL.
   Water supplied to non-residential customers was 46% of potable water supplied excluding non-revenue water.
   Non-residential customers provided 37% of the revenue from annual charges and usage charges.
6. The operating cost (OMA)/property was $274. Components were: management ($124), operation ($84), maintenance ($36), energy ($19) & chemical ($10).

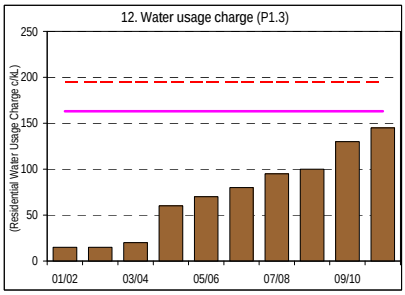
Shoalhaven City Council water supply (TBL performance report pg 2)

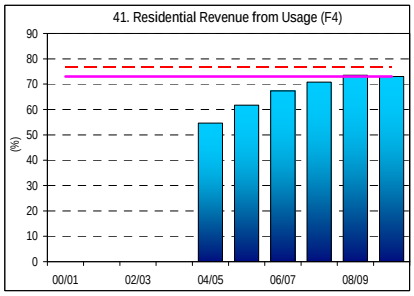
Shoalhaven City Council | **TBL Water Supply Performance (page 2)** | **2009-10**

(Results shown for 10 years together with 2009-10 Statewide Median and Top 20%)

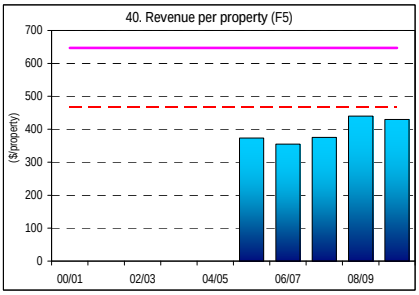
RESIDENTIAL USE/REVENUE FROM USAGE

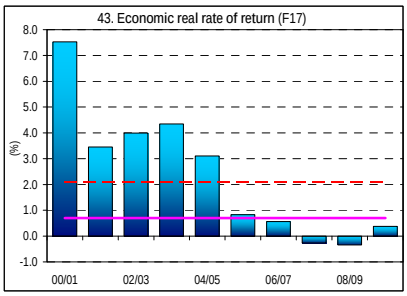


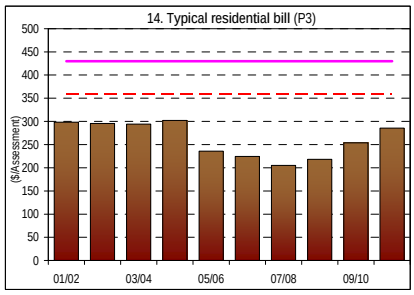




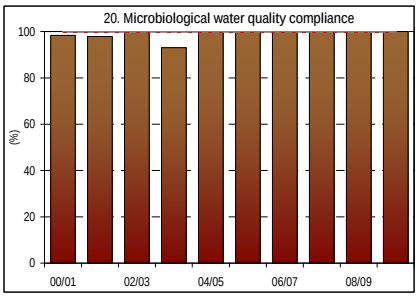
COST RECOVERY

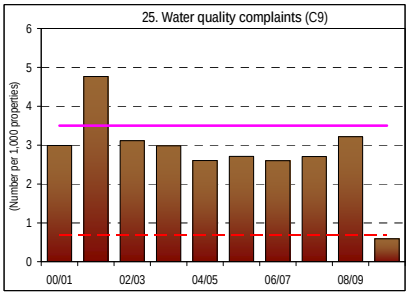


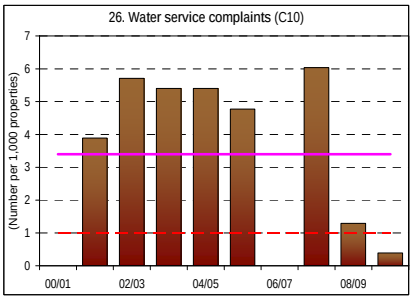




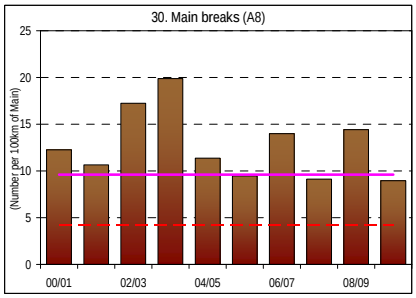
WATER QUALITY/CUSTOMER SERVICE

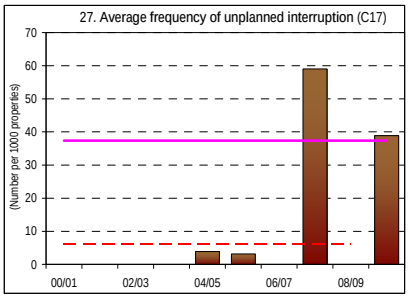


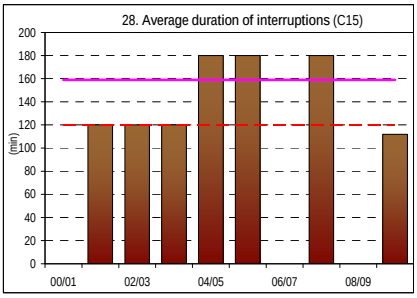




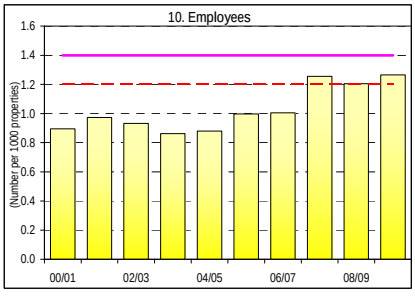
RELIABILITY

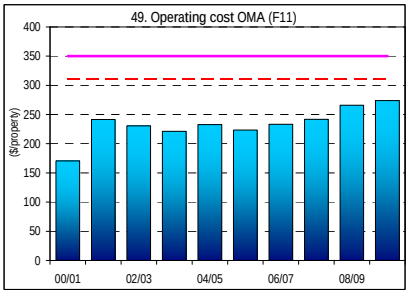


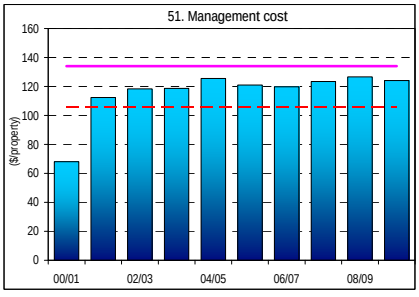




EFFICIENCY







NOTES:

1. Costs are in Jan 2010$.
2. Microbiological water quality compliance 1999-00 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

2009-10 State Median

2009-10 Top 20%

6. General notes

This 2009-10 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 NSW Office of Water website (www.water.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 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 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.

Data validation – the comprehensive data validation procedures for the NSW Performance Monitoring System are shown in Appendix G of the *2009-10 NSW Water Supply and Sewerage Performance Monitoring Report* (www.water.nsw.gov.au). These procedures include matters such as:

- Aggregated businesses (section G4.1 on page 81)
- Assessments (section G4.2 on page 81)
- Connected properties (section G4.2 on page 81)
- Charges, bills and cost recovery (section G4.3 on page 82)
- Urban water supplied (section G4.4 on page 82)
- Operating cost and management cost (section G4.5 on page 82)
- Drinking water quality compliance (section G4.6 on page 83)
- Sewage treatment works compliance (section G4.7 on page 83)
- Compliance with Best-Practice Management Guidelines (section G5 on page 83)

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 110 NSW water utilities (106 LWUs plus Sydney Water Corporation and Hunter Water Corporation, 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 Local Water Utilities (LWUs), a triple bottom line (TBL) accounting focus has been adopted, with performance reported on the basis of **Social, Environmental** and **Economic** indicators.
2. **Data not reported –** Where an LWU has not reported a key performance indicator for 2009-10, the value previously reported has been used where appropriate. Such values are shown in ***italics bold*** in Tables 5 to 18. Refer also to page 80 of the *2009-10 NSW Water Supply and Sewerage Performance Monitoring Report (www.water.nsw.gov.au).*
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.
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. The NSW Office of Water 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 two page TBL Performance Report for each utility (example on page 28 and in Appendix C on page 230). The statewide medians are shown in Tables 1 and 2 on pages 103 and 104.
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 systems.
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 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. Refer also to page 15.

   Calculation of TRB – The 2009-10 typical residential bill is based on a customer of the LWU's principal water supply or sewerage system using the LWU's 2009-10 average annual residential water supplied (see Tables 6 and 7 on pages 120 and 132). The typical residential bill for 2009-10 and previous years is based on the reported average annual residential water supplied for that year (2009-10 residential water supplied is shown in column 3 of Table 5 on page 110).

8. **Full cost recovery –** Full cost recovery is achieved if either the Economic Real Rate of Return or the Return on Assets is >=0. In addition, many utilities have significantly increased their 2009-10 charges in order to achieve full cost recovery (shown as "Y*" in column 14a of Table 6 on page 120 and column 11a of Table 7 on page 132). Refer also to the box on page 19.
9. **Drinking Water Quality Guidelines** – These have become more stringent. Compliance is now determined from the 2004 NHMRC/NRMMC Australian Drinking Water Guidelines (National Health & Medical Research Council/National Resource Management Ministerial Council).

   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. Refer also to page 21.
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.
11. **Average annual residential water supplied** – The average annual residential water supplied per connected property (col 3 of Table 5) includes both potable and non-potable water supplied. Where an LWU has not separately reported its residential water supplied, it has been estimated using the Statewide average of 57 per cent of the LWU's total potable water supplied. 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 (see Note 12 below).
12. **Dual supplies** – Eleven LWUs had a dual water supply to over 50 per cent of their residential customers in June 2008 (ie. 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) kilolitres per 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 958 (241), Berrigan 292 (173), Bourke 3,169 (539), Central Darling 526 (145), Hay 1,140 (184), Jerilderie 1,033 (245), Murray 260 (156), Wakool 839 (153), Walgett 938 (195), Warren 352 (164) and Wentworth 376 (119).

    The typical residential bill (TRB) has been calculated for those LWUs with a dual supply using the above volumes. The TRB for Brewarrina, Carrathool, Deniliquin and Moree Plains has also taken into account the significant volumes of non-potable supply provided by these LWUs.
13. **Water losses** – For consistency with national performance reporting, water losses comprise real losses (mostly 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.
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 only been accepted where the utility has provided evidence to support the adoption of a lower value. Table 10 on page 155 discloses that 48 LWUs have recently carried out a reservoir drop test, waste metering or night flow analysis in order to determine their present real losses and opportunities for leakage reduction.

    Minimum non-revenue water – Similarly, statewide analysis of non revenue water (water losses plus unbilled water supplied) 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 only been accepted where 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 141.

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 $245/property comprises $109/property for the bulk supply from Goldenfields (bulk supplier) plus $136 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 2009-10 for Urban Water Utilities*.
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 item 5 on page 16). The following 45 non-metropolitan utilities provided such bulk storage: Armidale, Ballina, Bathurst, Bega Valley, Bourke, Brewarrina, Byron (Mullumbimby), Cabonne, Central Tablelands, Clarence Valley, 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, Richmond Valley, 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 ie. 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 32).
19. **National Water Initiative (NWI) Indicators** – There are 32 NSW water utilities with >10,000 connected properties including three metropolitan utilities and 29 non-metropolitan utilities. These utilities have reported their performance in the *National Performance Report 2009-10* 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 have met the rigorous NWI auditing requirements have been published in the *National Performance Report 2009-10* and are shown in Appendix F. Appendix F discloses the NSW results for all the 117 NWI performance indicators. 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 2009-10* and Appendix F. However they have been included in the Figures and in Tables 5 to 18 of this report.

    In addition, the reported values for the 30 NWI financial performance indicators have been independently audited for all the NSW utilities.

20. **Reported NWI Indicators** – This report discloses the performance of each of the 106 NSW Local Water Utilities (LWUs) for each of the 117 NWI performance indicators on the following basis:

    Table 5 on page 110 reports results for NWI indicators C4, W11, W12, A8, C15, F1, H4, H2, H3, C9, F2, E4, E13, W27, W26, F24, P8, F13 F19, F22 & F16.

    Table 5A on page 114 reports the results for NWI indicators F13, F7, F3, F19, F22, F23, F20, F21, F25, F8, F24 and F30.

    Table 5B on page 117 reports the results for NWI indicators C12, C14, E9, E10, E11, E12, W6, W13 and W15.

    Table 6 on page 120 reports indicators P1, P2, P3, F17, F4, W12 and C4.

    Table 7 on page 132 reports indicators P5, P6, F18 and C8.

    Table 8 on page 141 reports the results for NWI indicators W8, W10, W11, W20, W21, W26, W27, W14, W1, W2, W3, W4, W5, W6 and W7.

    Table 9 on page 152 reports the results for NWI indicators C4, C2, C1, A2, A3, A1, F14 and F26.

    Table 10 on page 155 reports the results for NWI indicators A10, A11, A9, A8, C17, W11 and W12.

    Table 11 on page 158 reports the results for NWI indicators F1, F5, F4, F9, F22, F17 and F11.

    Table 12 on page 161 reports the results for NWI indicators H6, H5, H4, H2, H3, C9, C10, C18, C19, C14, C17 and C15.

    Table 14 on page 167 reports the results for NWI indicators C8, C6, C5, A5, A6, A4, F15 and F27.

    Table 15 on page 170 reports the results for NWI indicators A12, E13, W18, W17, E4, E5, E1, E2, E3, W19, E8, W26 and W27.

    Table 16 on page 173 reports the results for NWI indicators F2, F6, F10, F22, F18 and F12.

    Table 17 on page 176 reports the results for NWI indicators E7, C11, C13 and C16.

    The results for NWI indicators P8; F3, F16 and F19; A3 and A5 and A2; W11; P3; C9; A8; W12; A10; F17; F12; F11; A6; P4; A12; E10; F18 and F12 are shown on Figures 1, 2, 5, 7, 9, 18, 20, 25, 26, 29, 30, 31, 38, 40, 45, 51, 53, 59 and 60 respectively.

    The following NWI indicators have not been shown in the tables but can be determined as follows: W16 from (W18–W17), C3 from (C4-C2), C7 from (C8-C6). Indicator A7 is nil for all LWUs and indicator H1 refers to the 2004 ADWG for all LWUs.

Regional Water and Sewerage Inspectors – NSW Office of Water

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Cootamundra	Bernie Barnes	0429 604 409	Bernie.Barnes@water.nsw.gov.au
Dubbo	Bruce Lamont	0458 268 453	Bruce.Lamont@water.nsw.gov.au
Newcastle	Graham Campbell	0419 620 990	Graham.Campbell@water.nsw.gov.au
Orange	Paul Beed	0419 624 576	Paul.Beed@water.nsw.gov.au
Tamworth	Trent Betts	0417 458 247	Trent.Betts@water.nsw.gov.au
Wollongong	Geoff Parish	0427 248 007	Geoff.Parish@water.nsw.gov.au

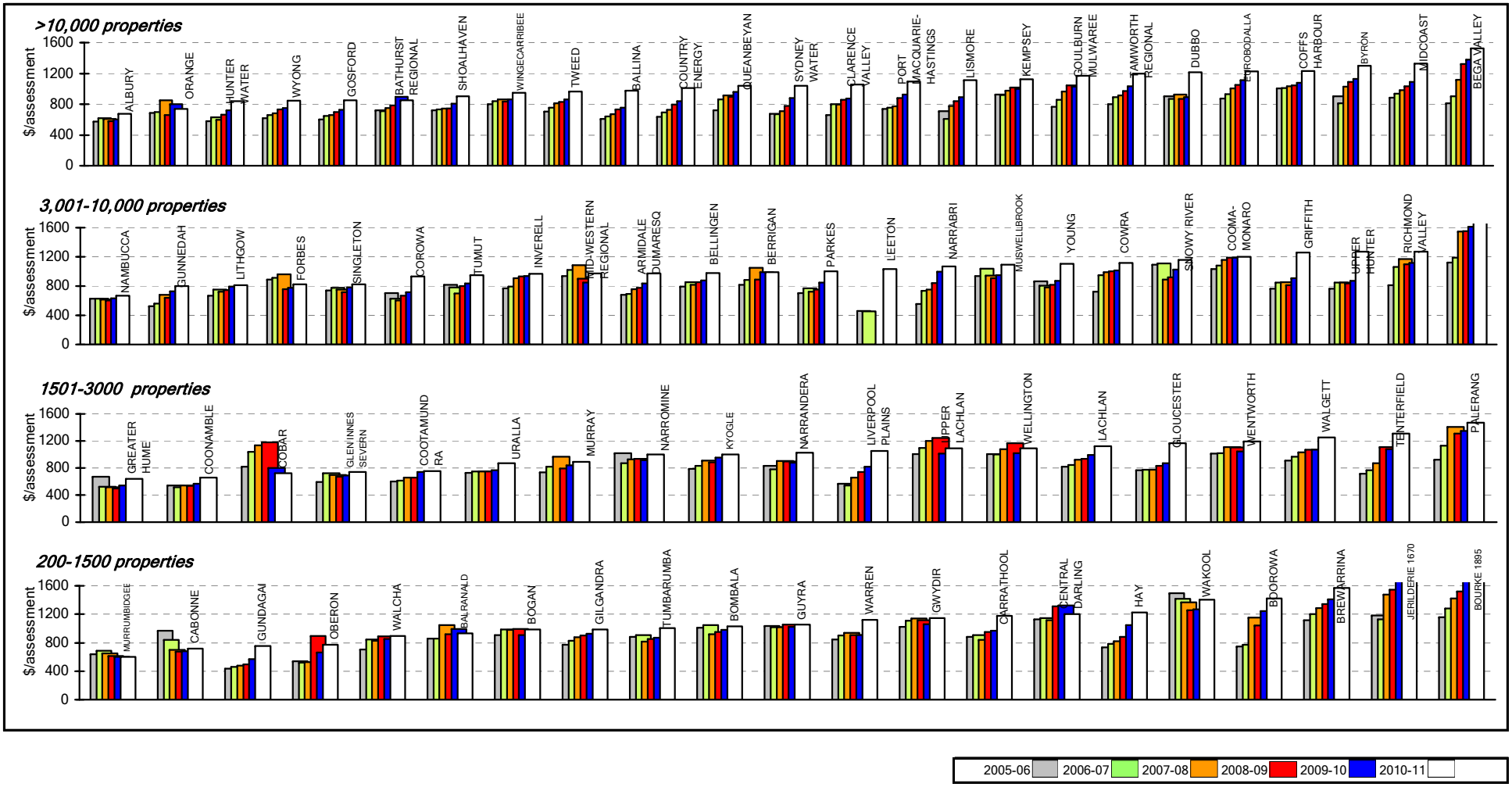
As noted on pages 8 and 21, assistance is available from your NSW Office of Water Regional Water and Sewerage Inspector for achieving microbiological water quality compliance and for addressing other water and sewage treatment issues.

6.3 Contents of tables 5 to 18

Table 5	**2009-10 NSW water utility performance summary** – Overview of each water utility's key water supply and sewerage performance indicators.
Table 5A	**Water supply and sewerage – financial** – Combined water supply and sewerage indicators.
Table 5B	**Water supply and sewerage – levels of service** – 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 6B	**Water supply – 2010-11 residential inclining block or multiple tariffs, non-residential 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 7C	**Sewerage – 2010-11 residential multiple tariffs, non-residential tariffs, liquid trade waste fees and charges**
Table 8	**2009-10 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	**2009-10 Water losses and non-revenue water**
Table 8B	**2009-10 Water consumptions from source catchments in non-metropolitan NSW** – Shows details of water consumptions by customer category for each source catchment
Table 8C	**2009-10 Water conservation initiatives**
Table 9	**Water supply – utility characteristics** – Population, no. of assessments, connected properties, new residential dwellings connected, 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, loan payment, 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, new residential dwellings connected, 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 sewerage 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, loan payment, 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, total complaints and average sewerage interruption
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



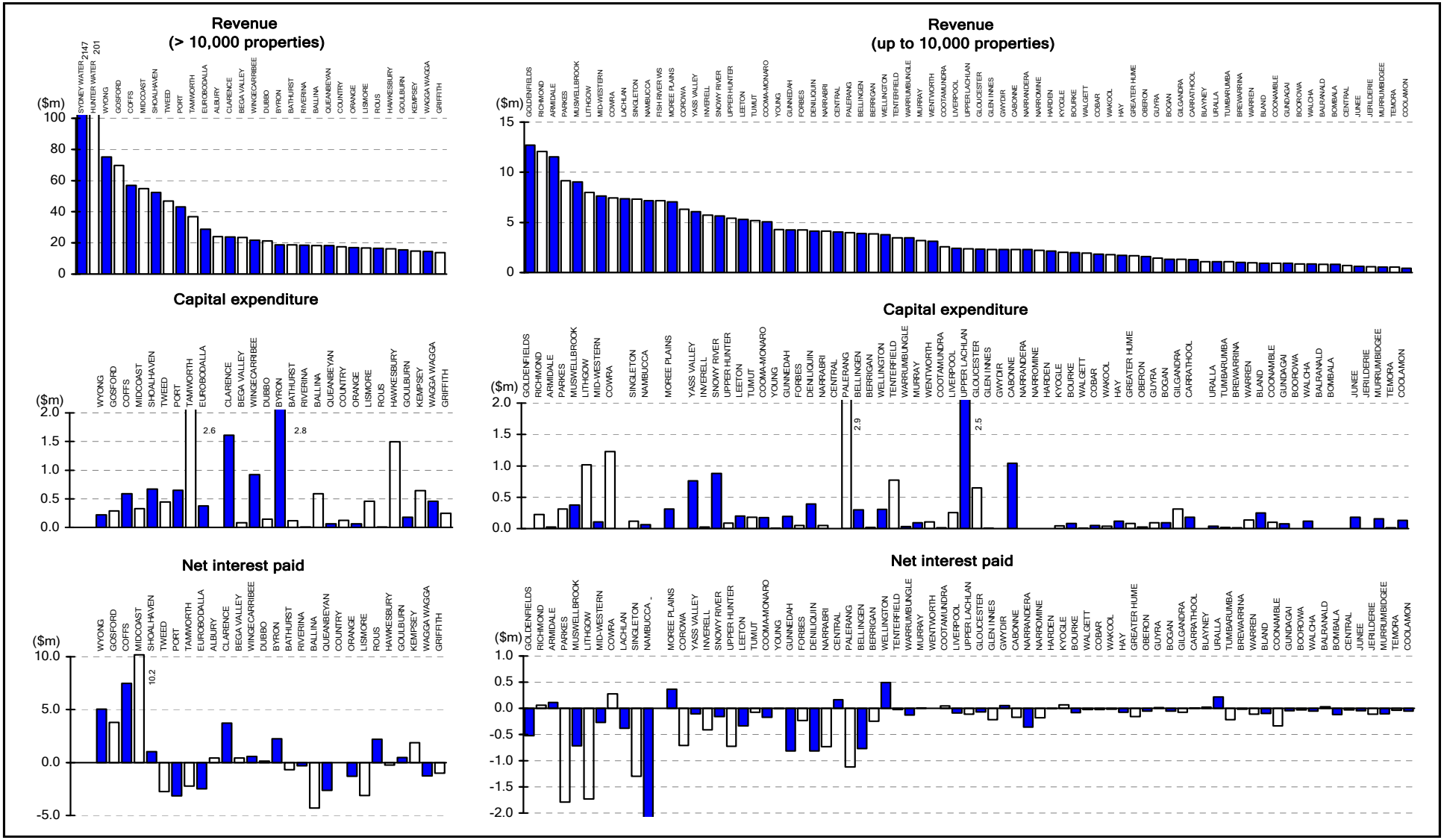
Parameter:

(2009-10 Average Residential Water Supplied x 2010-11 Water Usage Charge) + 2010-11 Water and Sewerage Access Charges

Notes:

1. This figure shows ranked values of the 2010-11 typical residential water bill 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 2010-11 typical residential water bill for water supply and sewerage for the 24 LWUs shown ranges from $671 to $1730. Results for the previous 5 years are also shown in Jan 2010$.
2. The 2010-11 Statewide median typical residential bill for water supply and sewerage is $960 per assessment.
3. Refer also to pages 6 and 27 of the *2009-10 NSW Water Supply and Sewerage Performance Monitoring Report*.
4. For general notes see page 30.

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

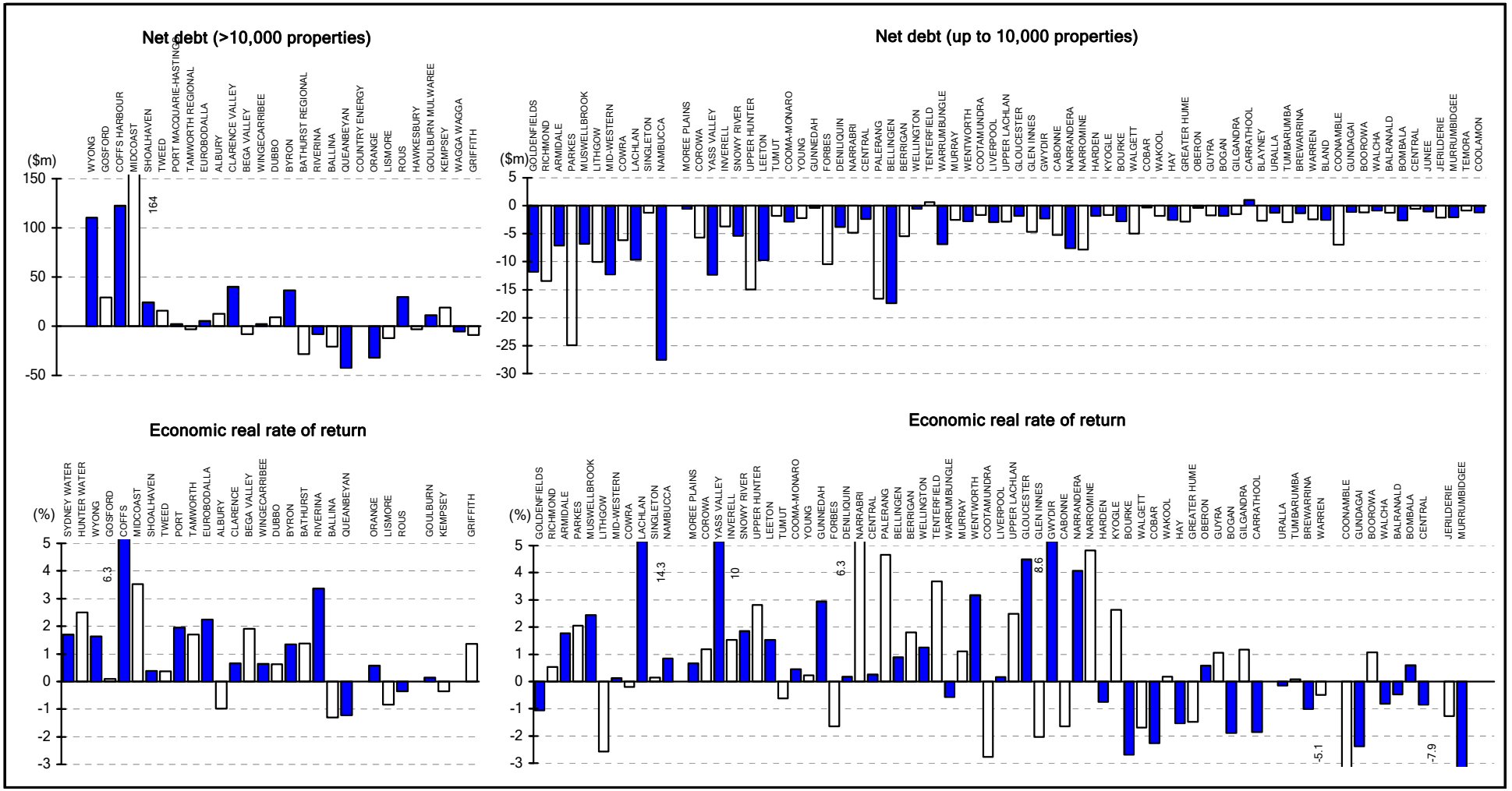
Parameter: Acquisition of fixed assets (W16 + S17)

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 Waterwas $2,147M and Hunter Water's revenue in 2008-09 was $201M.
2. For general notes see page 30.

Figure 3: Net debt, economic real rate of return – water supply and sewerage



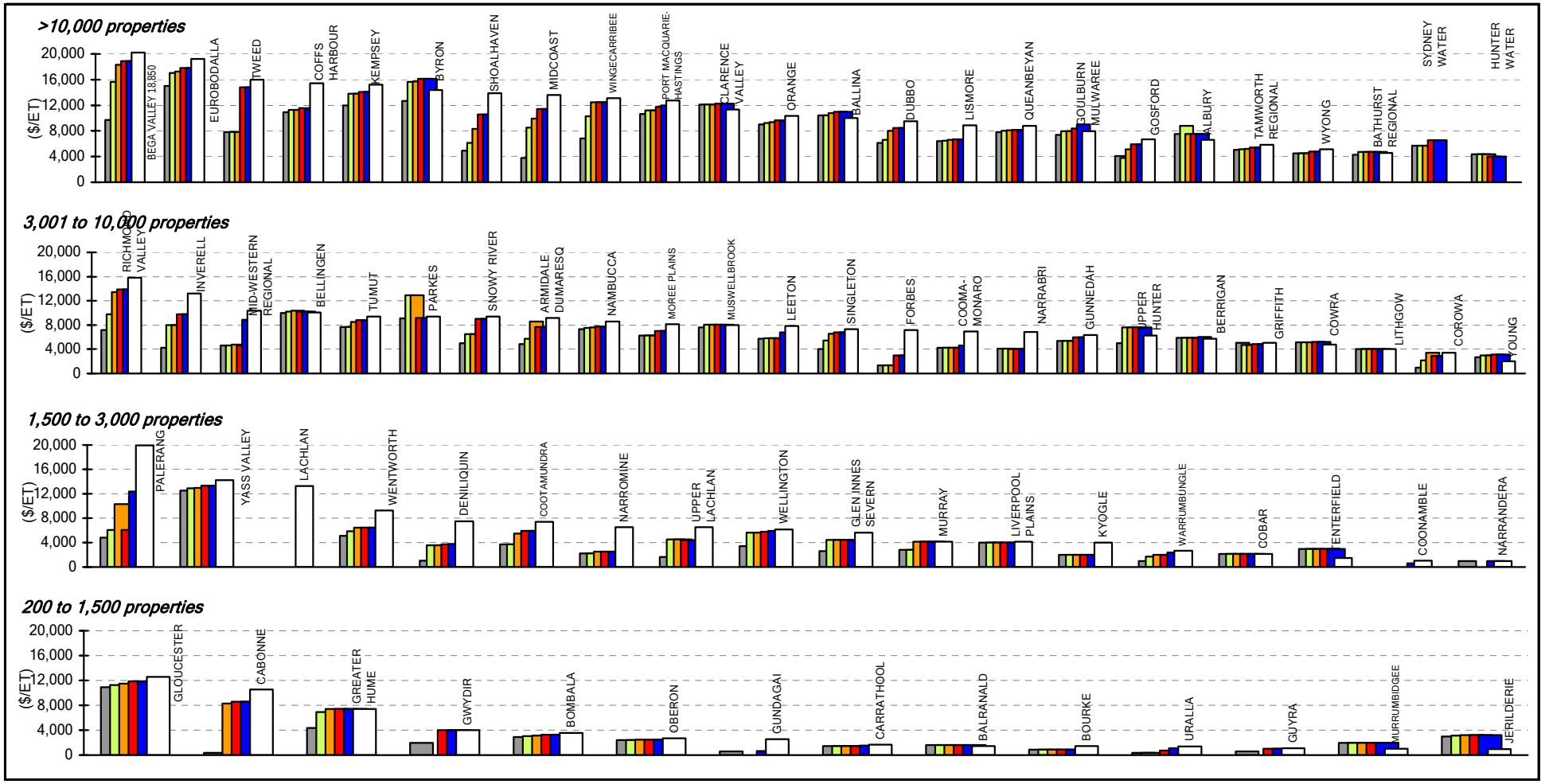
Parameter: [Borrowings (W39 + S40) + bank overdraft (W37 + S38)] - cash and investments (W30 + S31)

Parameter: [Operating result (W15) + interest expense (W4a) - interest income (W9) - grants for acquisition of assets (W11a)] x 100 / 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 Waterwas $2,147M and Hunter Water's revenue in 2008-09 was $201M.
2 For general notes see page 30.

Figure 4: Typical developer charge – water supply and sewerage



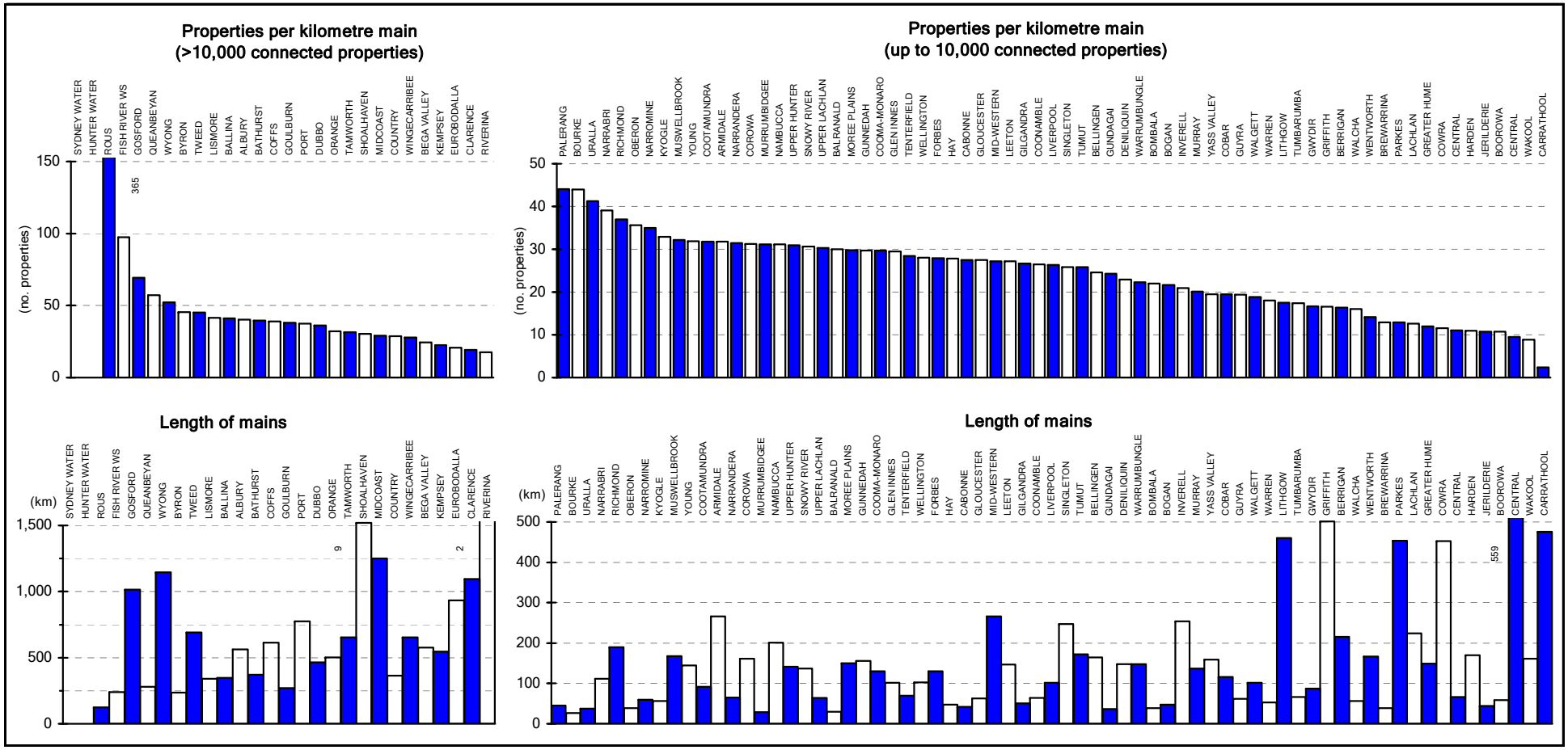
Parameter: Typical Water Supply Developer Charge (Q36) + Typical Sewerage Developer Charge (Q36)

Notes:

1. This figure shows ranked values of the 2010-11 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 $15800 to $2000. Results for the previous 5 years are also shown in Jan 2010$.
2. The Statewide median typical developer charge for water supply and sewerage is $8900 per Equivalent Tenement (ET).
3. For general notes see page 30.

8. Water supply figures

Figure 5: Properties served per km of main, length of mains – water supply



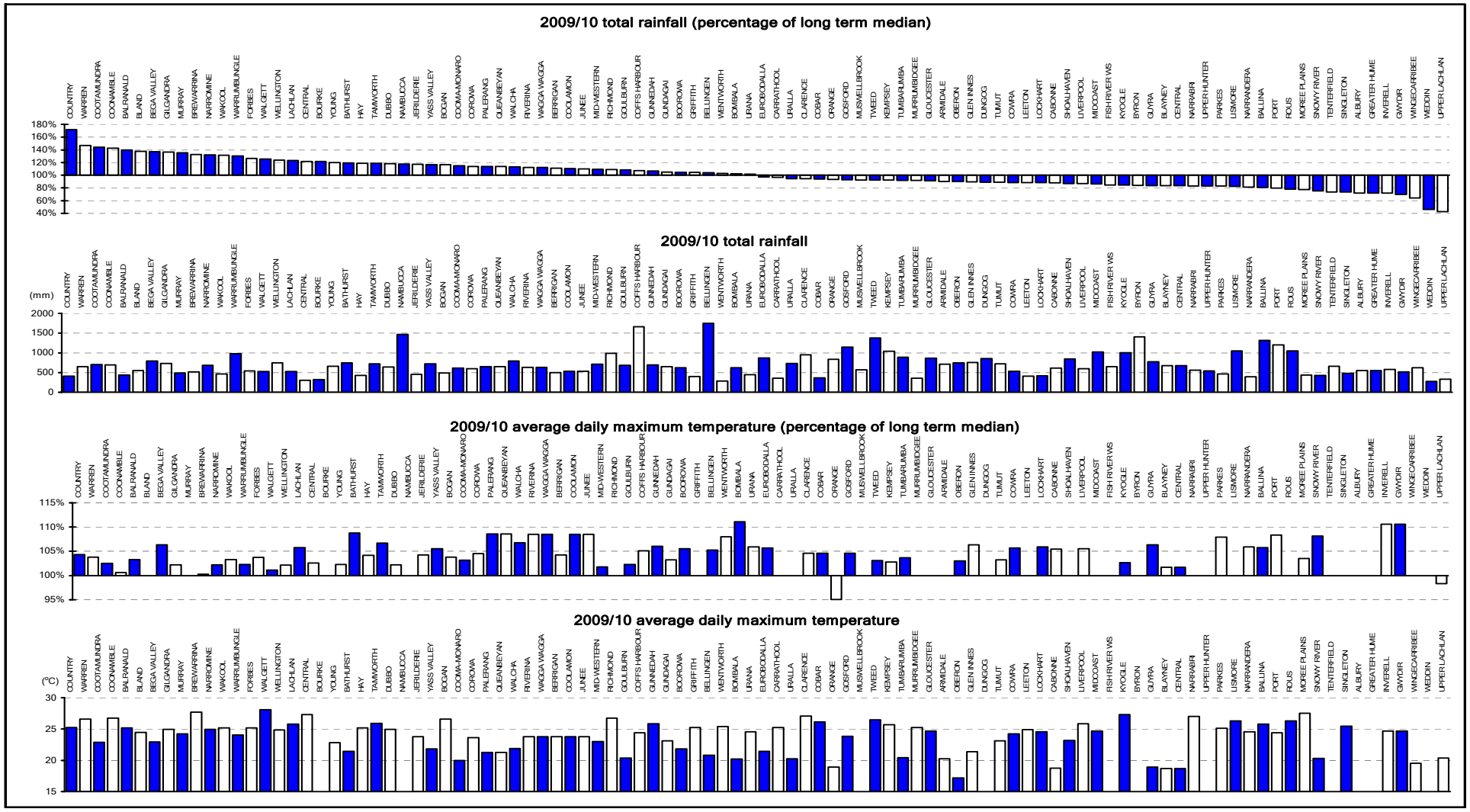
Parameter: $\frac{\text{No. of residential assessments (Q34) + No. of non-residential assessments (Q35) x No. of connected properties per assessment}}{\text{Length of headworks transfer mains (Q20a) + length of trunk mains (Q20) + length of reticulation mains (Q21)}}$

Parameter: Length of headworks transfer mains (Q20a) + 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 32.
3. For general notes see page 30.

Figure 6: Rainfall, temperature – water supply



Parameter: 2009/10 total rainfall x 100 / Long term median annual rainfall

Parameter: 2009/10 total rainfall

Parameter: 2009/10 average daily maximum temperature x 100 / Long term median daily maximum temperature

Parameter: 2009/10 average daily maximum temperature

Notes:

1. Data provided by the Bureau of Meteorology. Averages and long term medians not available for some localities.
2. Temperature and rainfall figures are only shown where weather stations returned complete records
3. For general notes see page 30.

Figure 7: Total water supplied – water supply

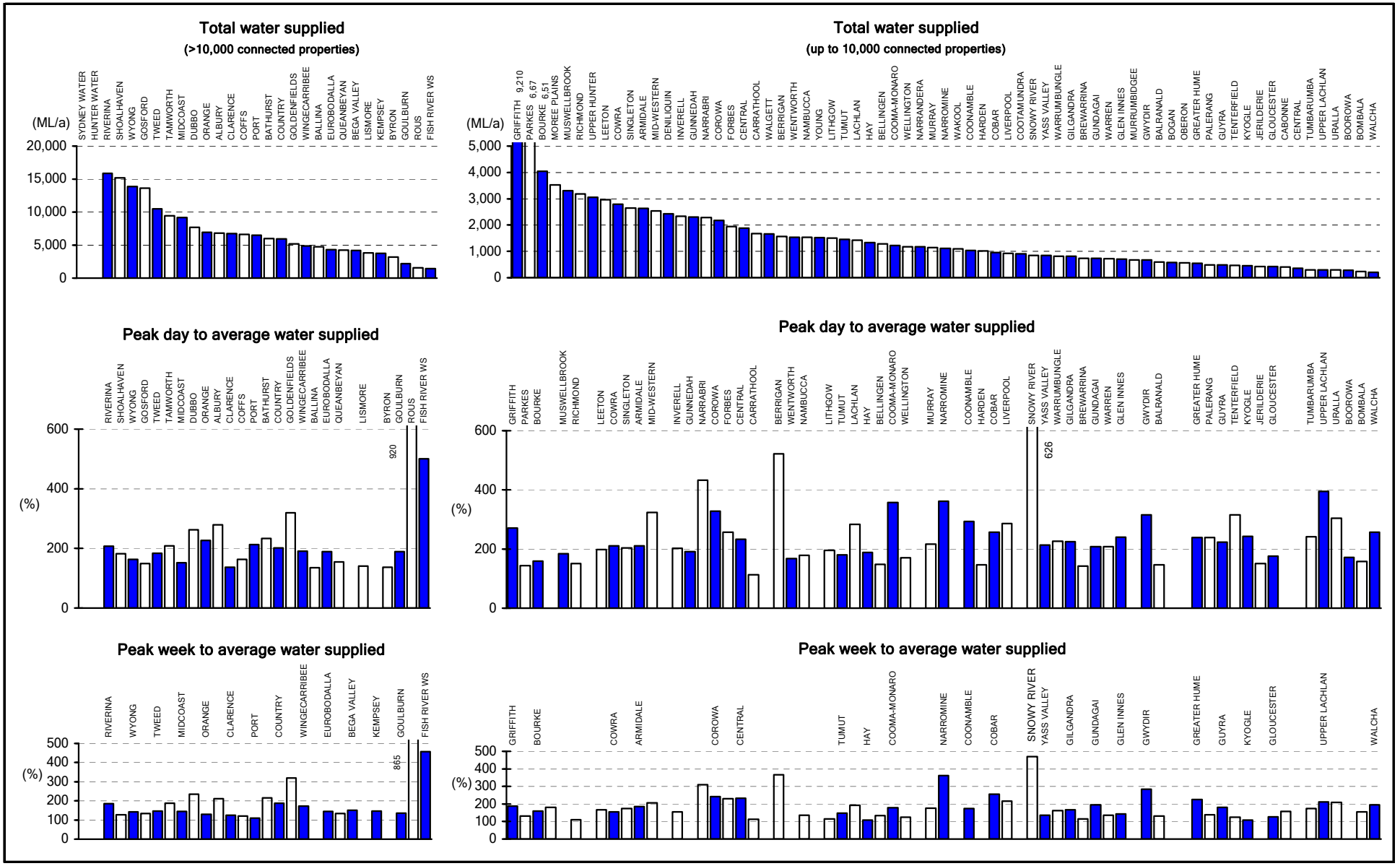
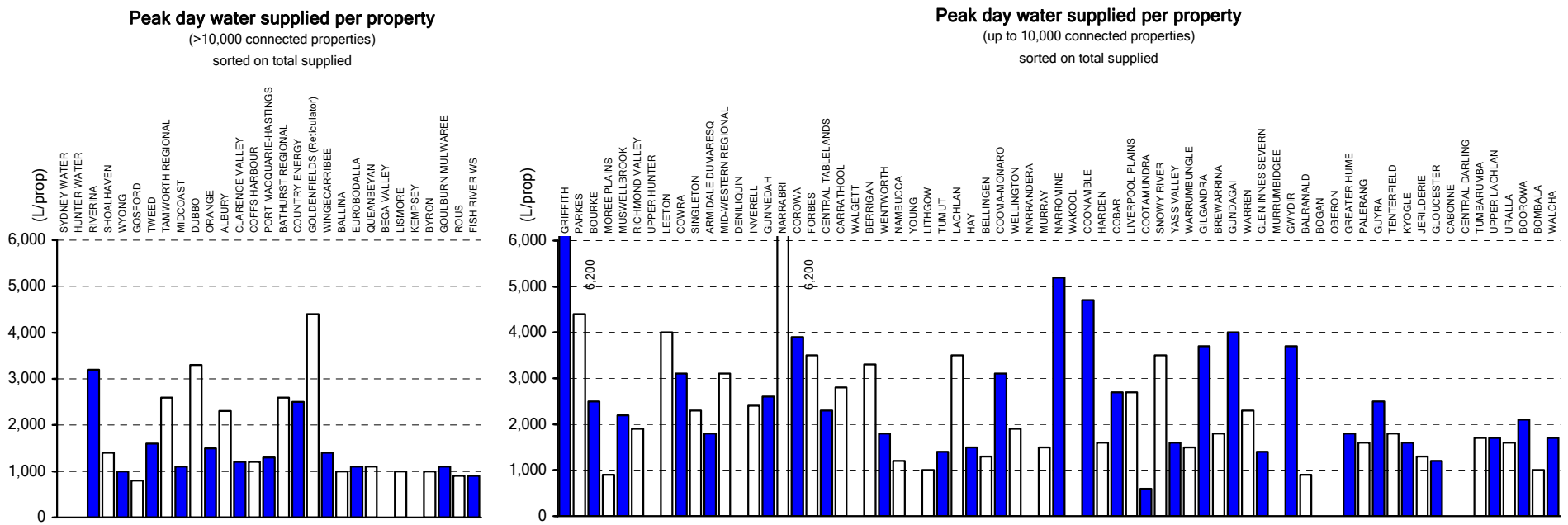


Figure 7: Total water supplied – water supply (continued)



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

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

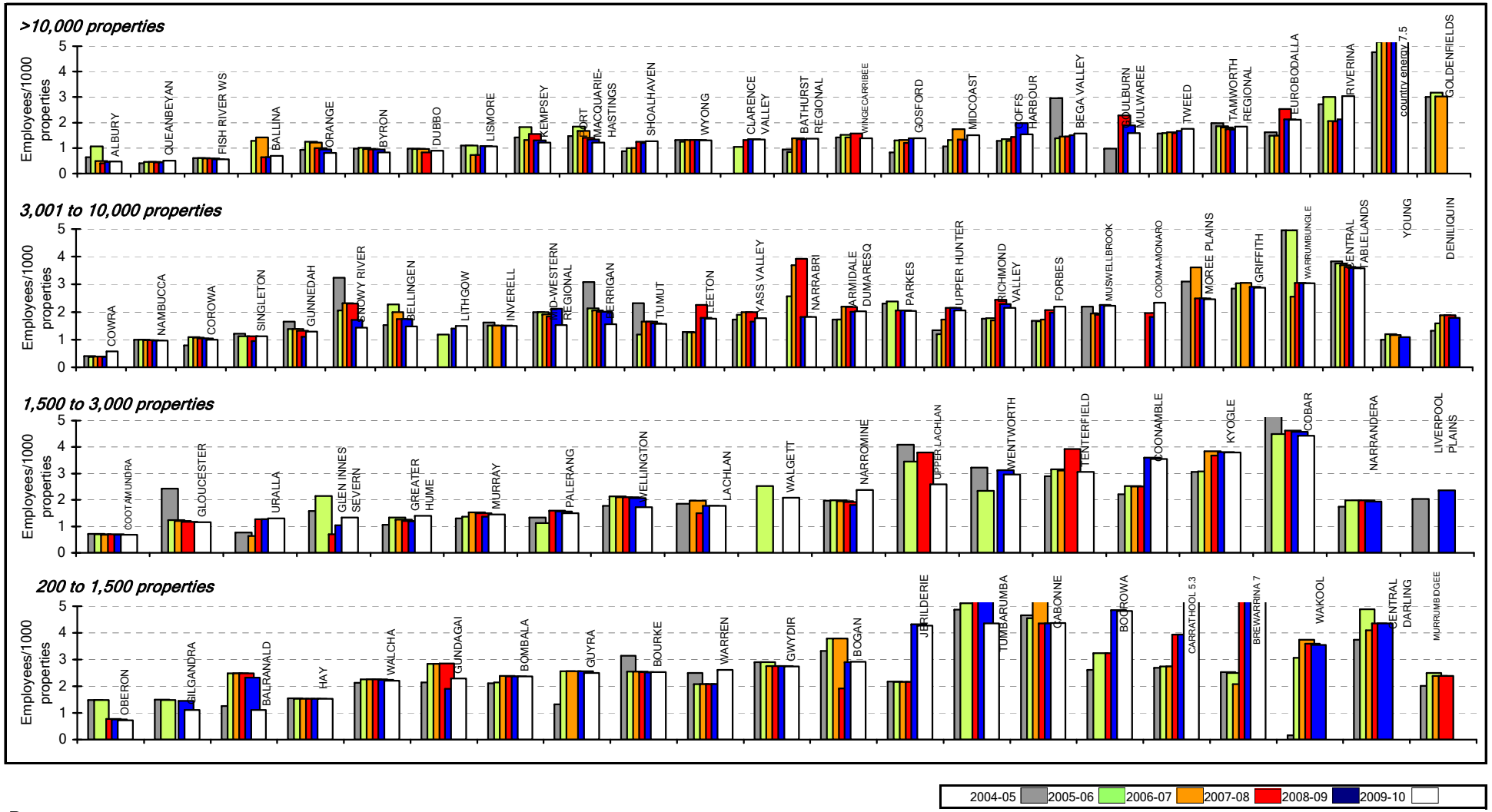
Parameter: $\frac{\text{Peak Week Water Supplied (Q83)} \times 365 \times 10}{\text{Total Potable Water Supplied (Q71)}}$

Parameter: $\frac{\text{Peak Day Water Supplied (Q82)}}{\text{[No. of Residential Assessments (Q34) + No. of Non-Residential Assessments (Q35) x No. of Connected Properties per Assessment}}$

Notes:

1. The top graphs show the total town water supplied (potable and non-potable). The second graphs show the percentage of peak to day average potable water supplied for each Local Water Utility (LWU). Each bar represents one LWU. The third graphs show the percentage peak week to average potable water supplied. The fourth graphs show the peak day water supplied per connected property.
2. For general notes see page 30.

Figure 8: Employees per 1,000 properties – water supply

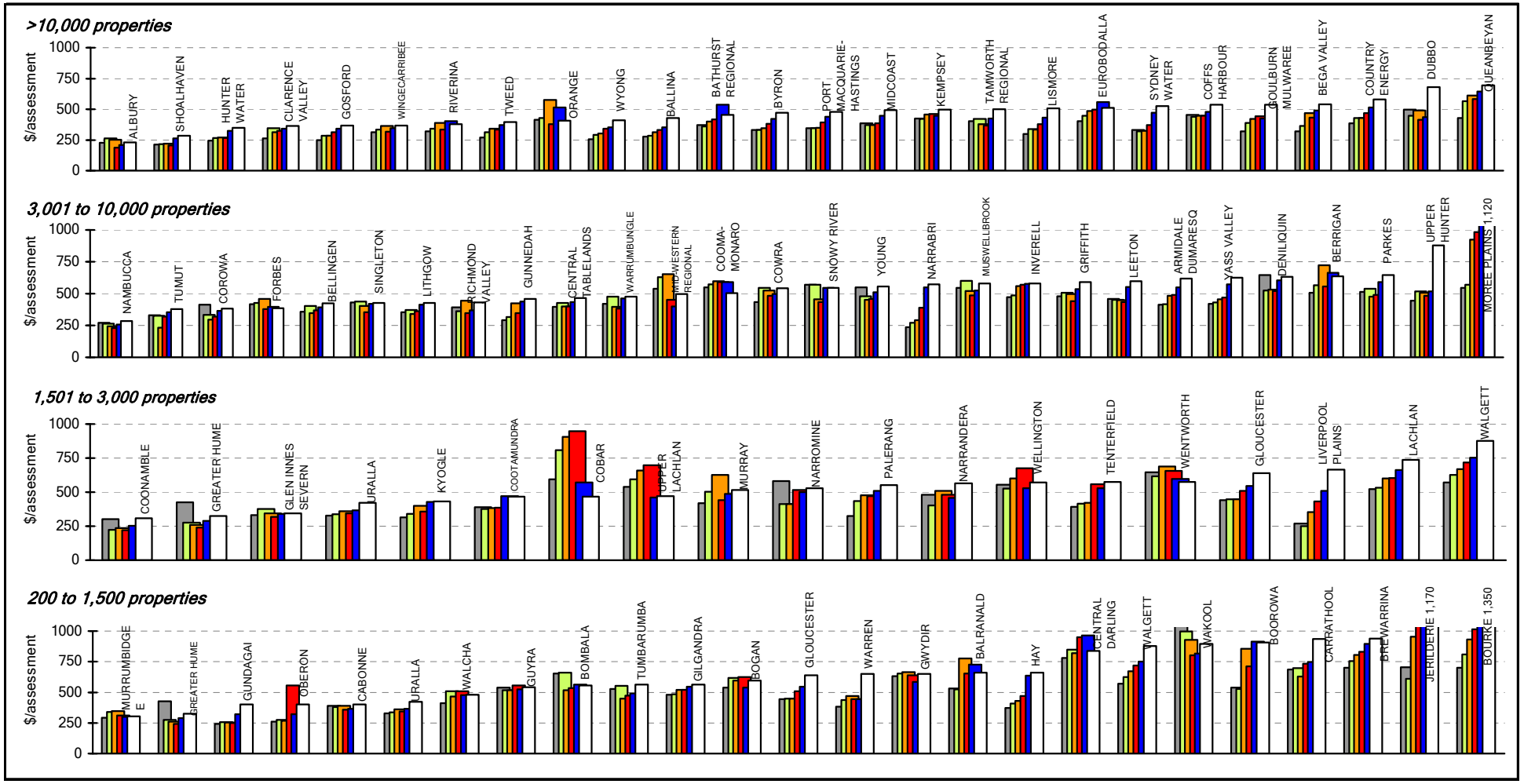


Parameter: $\frac{\text{Equivalent Full-time Employees (Q120) x 1000}}{\text{[No. of Residential Assessments (Q34) + No. of Non-Residential Assessments (Q35) x No. of Connected Properties per Assessment}}$

Notes:

1. This figure shows ranked values of the 2009-10 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 28 LWUs shown ranges from 0.6 to 3.6. The 1 LWU on the right did not report this indicator for 2009-10. Results for the previous 5 years are also shown.
2. The Statewide median number of water supply employees is 1.4 per 1000 connected properties.
3. For general notes see page 30.

Figure 9: Typical residential bill – water supply

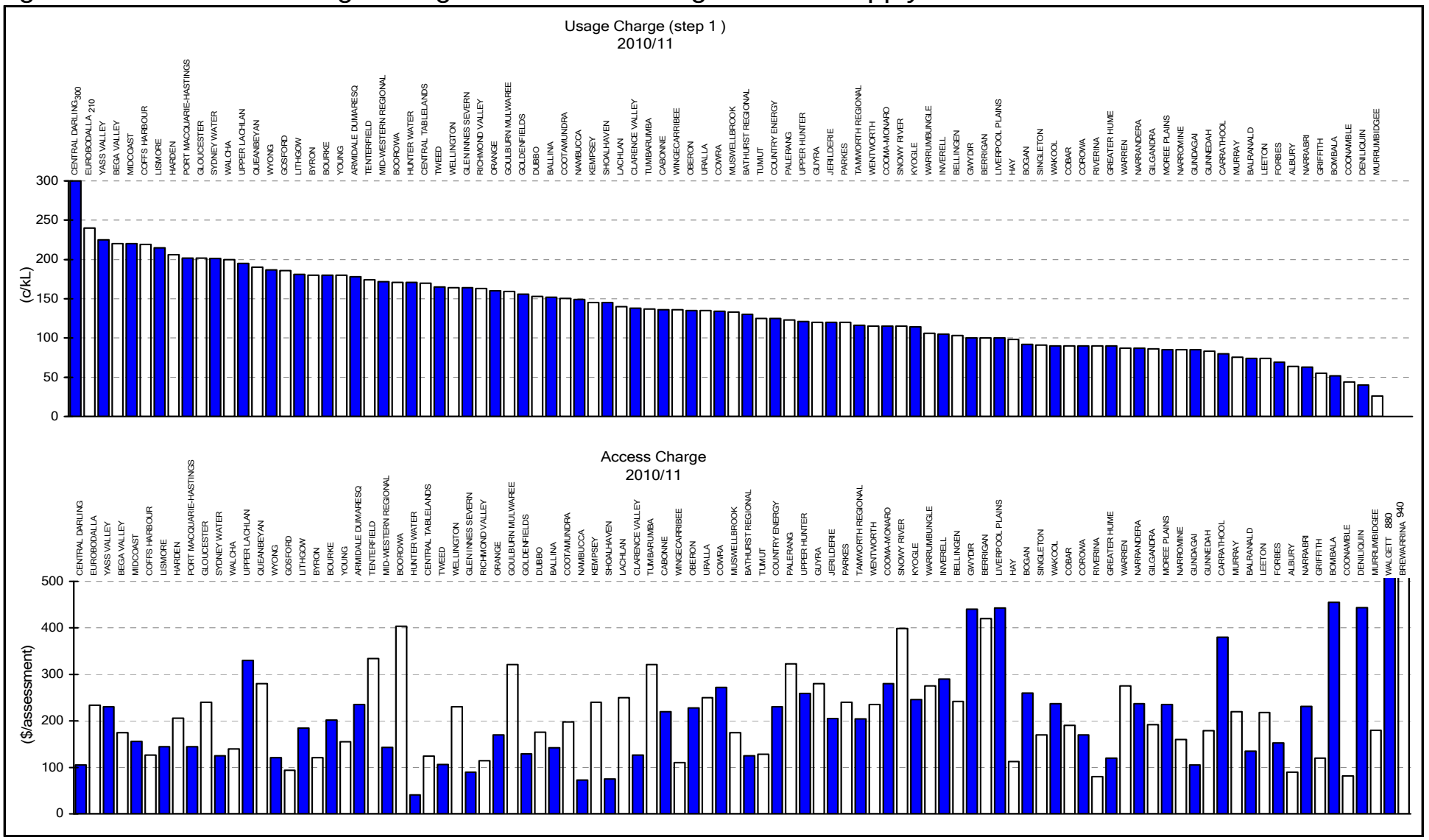


Parameter: (2008-09 Average Residential Water Supplied x 2009-10 Water Usage Charges) + 2009-10 Access Charge

Notes:

1. This figure shows ranked values of the 2010-11 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 2010-11 for the 28 LWUs shown ranges from $290 to $1120 per assessment. Results for the previous 5 years are also shown in Jan 2010$.
2. The 2010-11 Statewide median typical residential bill for water supply is $430 per assessment.
3. For general notes see page 30.

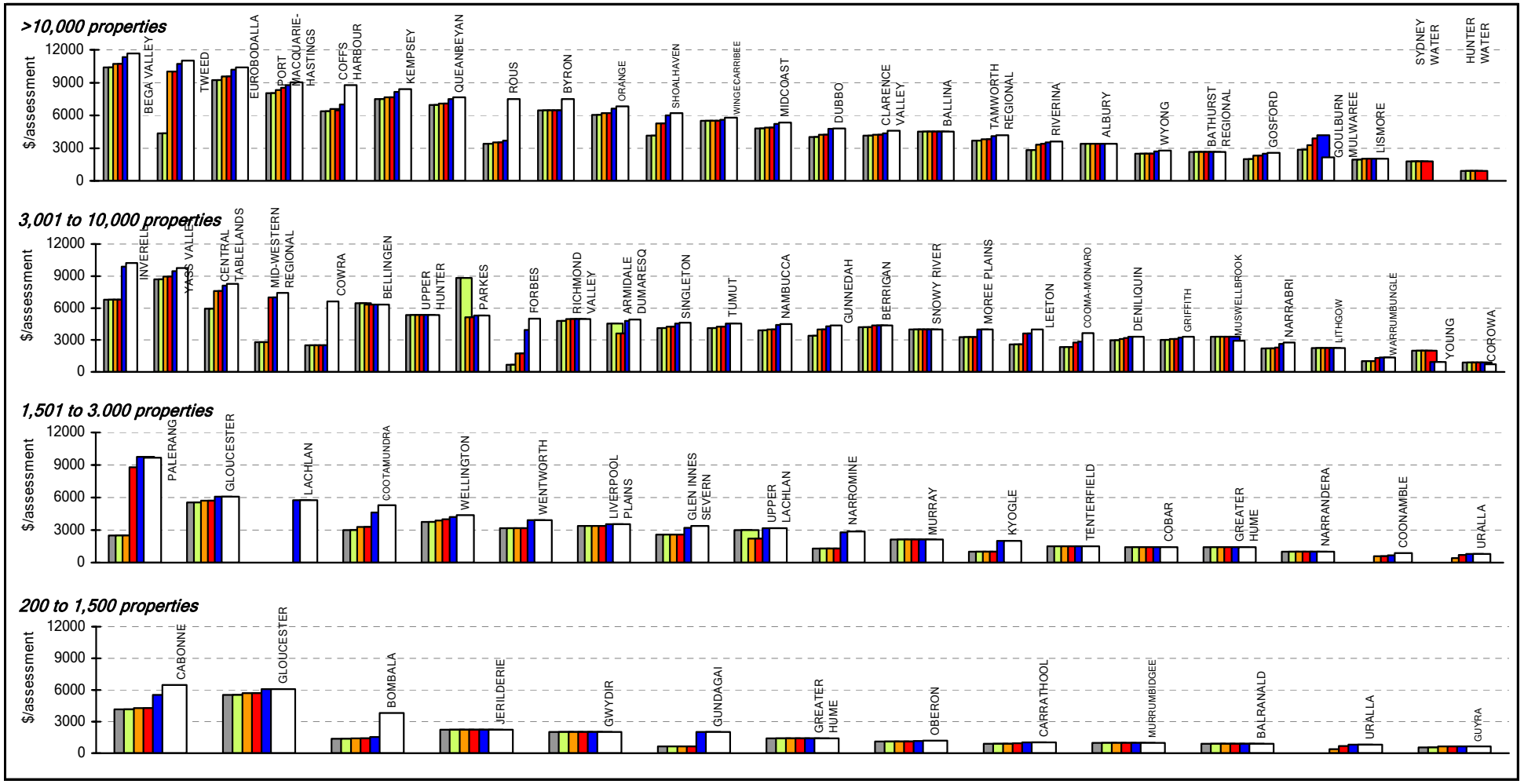
Figure 10: Residential usage charge and access charge – water supply



Notes:

1. ALL LWUs have now abolished their free water allowance for potable water supply. 1 LWU did not have domestic water metering.
2. The first step residential water usage charge is shown above. Further information on water supply tariff structures is shown in Tables 6, 6A and 6B.
3. The Statewide median water usage charge for the first step was 163 c/kL. 20% of LWUs had a usage charge greater than 180 c/kL. 80% of LWUs had a usage charge greater than c/kL. Approximately 75% of LWUs had step pricing in place for discretionary water use, with a higher charge per kL for usage over 200 to 600 kL/a (Table 6).
4. For general notes see page 30. Refer also to page 11.

Figure 11: Typical developer charge – water supply

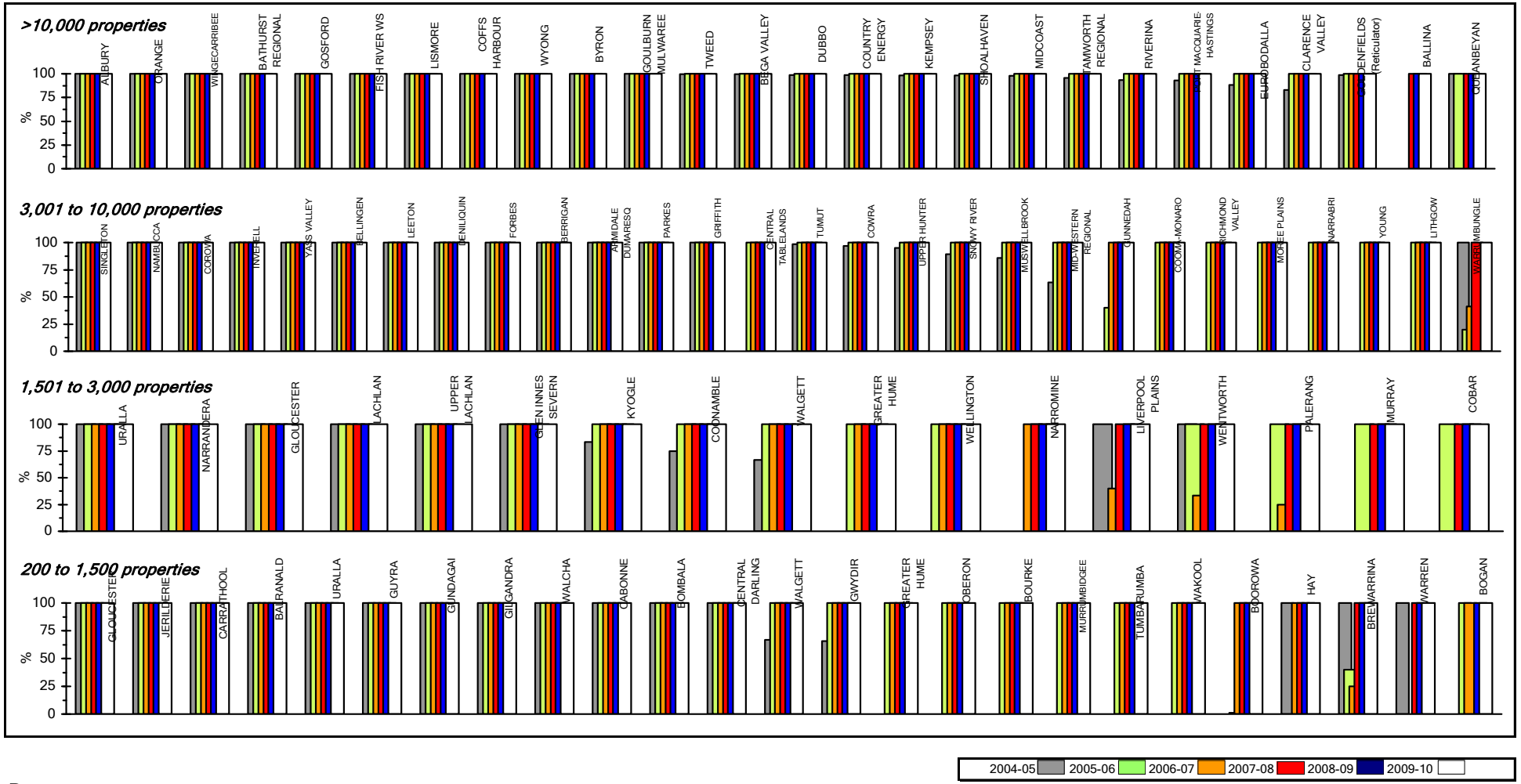


Parameter: Typical Water Supply Developer Charge (Q136)

Notes:

1. This figure shows ranked values of the 2010-11 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 28 LWUs shown ranges from $10200 to $700. Results for the previous 5 years are also shown in Jan 2010$.
2. The Statewide median typical developer charge for water supply is $4700 per equivalent tenement (ET), which is 39% of the median current replacement cost of water supply system assets of $11900 per assessment.
3. 83 LWUs levied water supply developer charges.
4. For general notes see page 30.

Figure 12: Physical water quality compliance – water supply

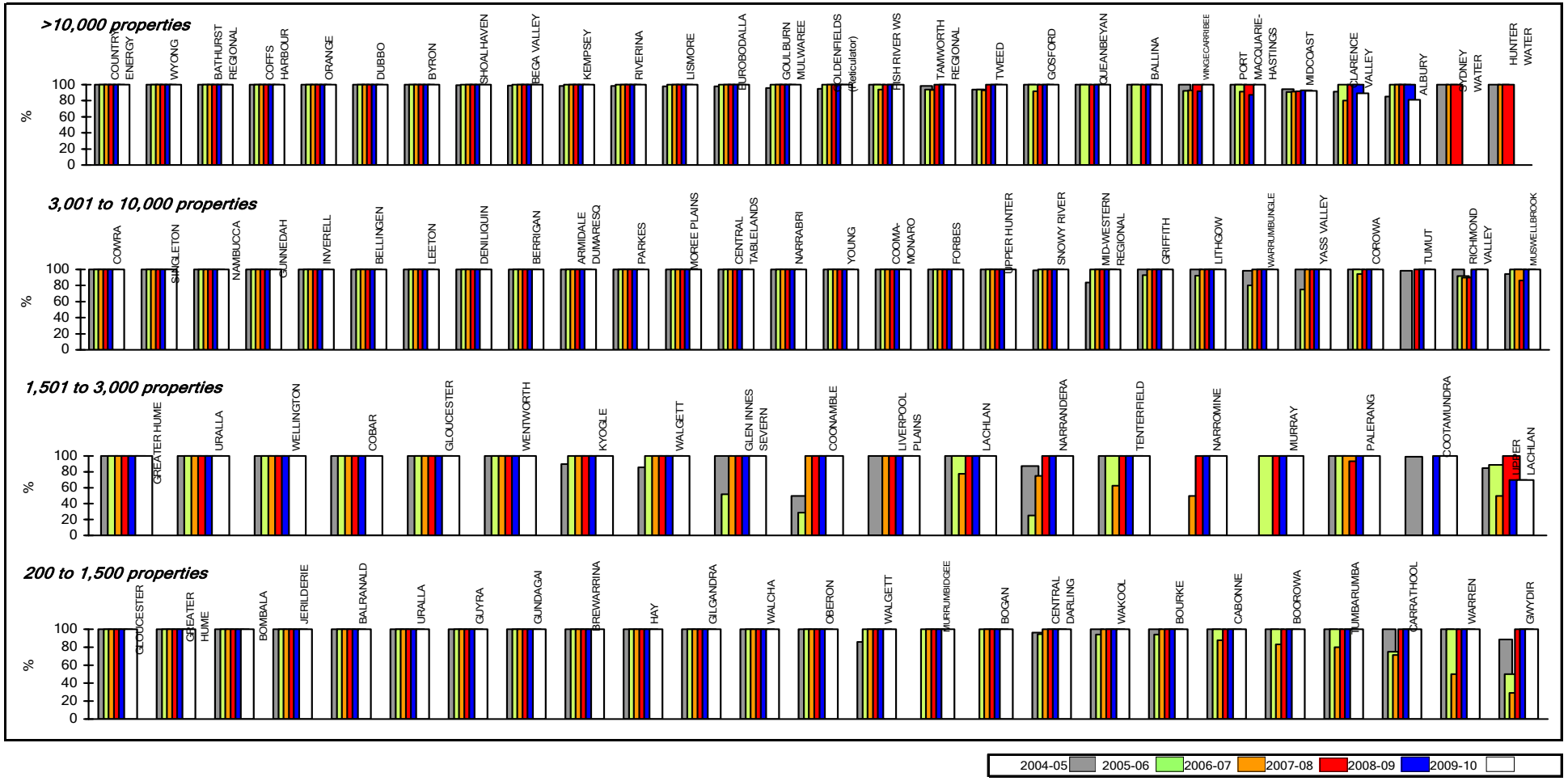


Parameter: Percentage of distribution system water samples complying with physical criteria of the NHMRC/NRMMC Australian Drinking Water Guidelines 2004.

Notes:

1. This figure shows ranked values of the 2009-10 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 28 LWUs shown are all 100%. Results for the previous 5 years are also shown.
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 (refer to page 204) and at least 50% of samples (not health related) must comply with the guideline limits. Non-potable water supplies are excluded.
3. 98% of the 24,000 samples tested in 2009-10 achieved 100% compliance with these guidelines. 100% of LWUs complied with the guidelines in 2009-10.
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 2009-10 results for each treatment works.
5. The Statewide median physical water quality compliance is 100%.
6. For general notes see page 30.

Figure 13: Chemical water quality compliance – water supply

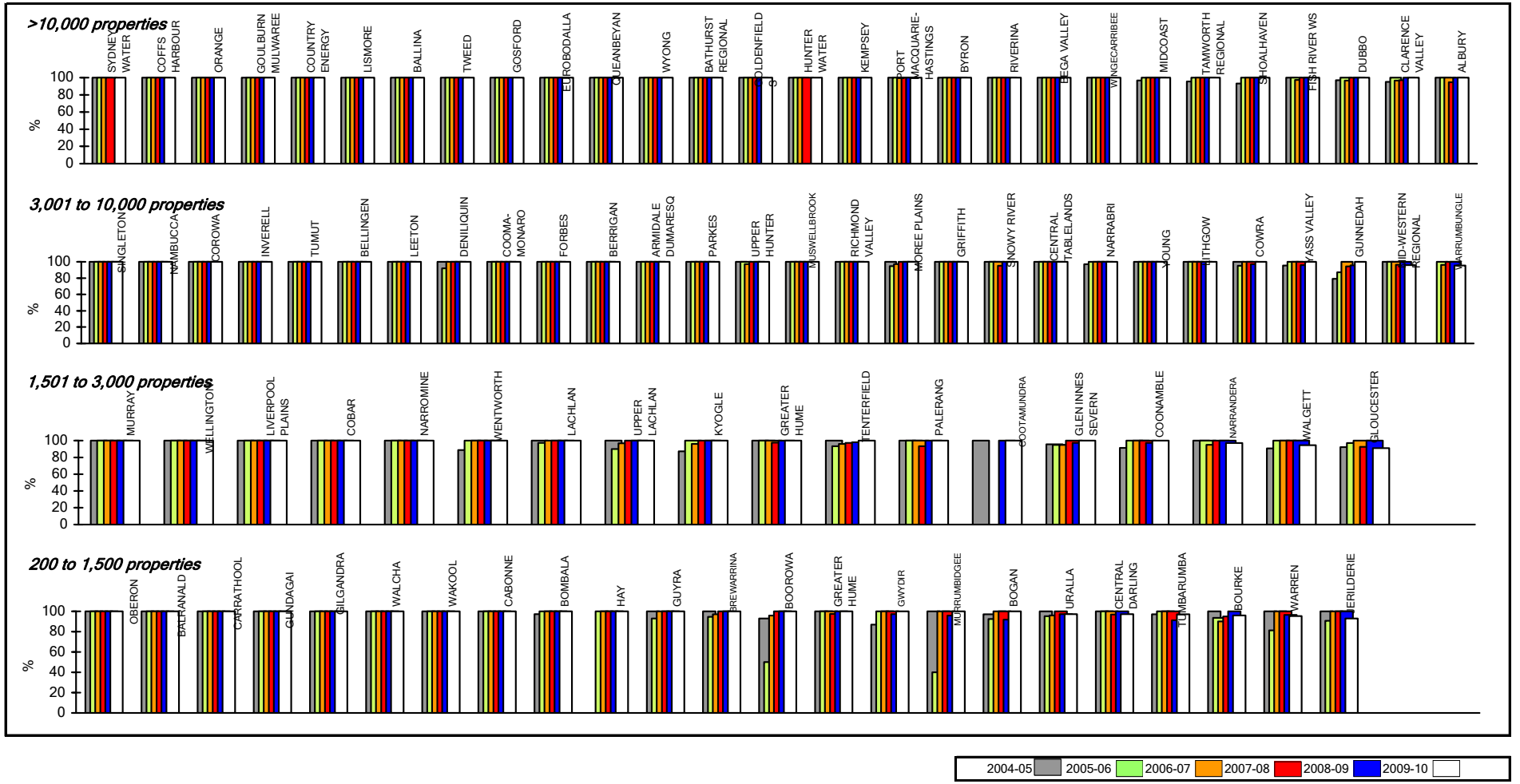


Parameter: Percentage of distribution system water samples complying with chemical criteria of the 2004 NHMRC/NRMMC Australian Drinking Water Guidelines.

Notes:

1. This figure shows ranked values of the 2009-10 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 28 LWUs shown ranges from 100% to 100%. The utility on the right did not report on this indicator for 2006/07. Results for the previous 5 years are also shown.
2. 98% of the 21,400 samples tested in 2009-10 achieved 100% compliance with 2004 Guidelines. 96% of the LWUs complied with the Guidelines in 2009-10.
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 (refer to page 204) 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 2009-10 results for each treatment works.
4. Most of the non-compliances above are not health-related and involve parameters such as hardness, iron and manganese.
5. The Statewide median chemical water quality compliance is 100%.
6. For general notes see page 30.

Figure 14: Microbiological water quality compliance – water supply

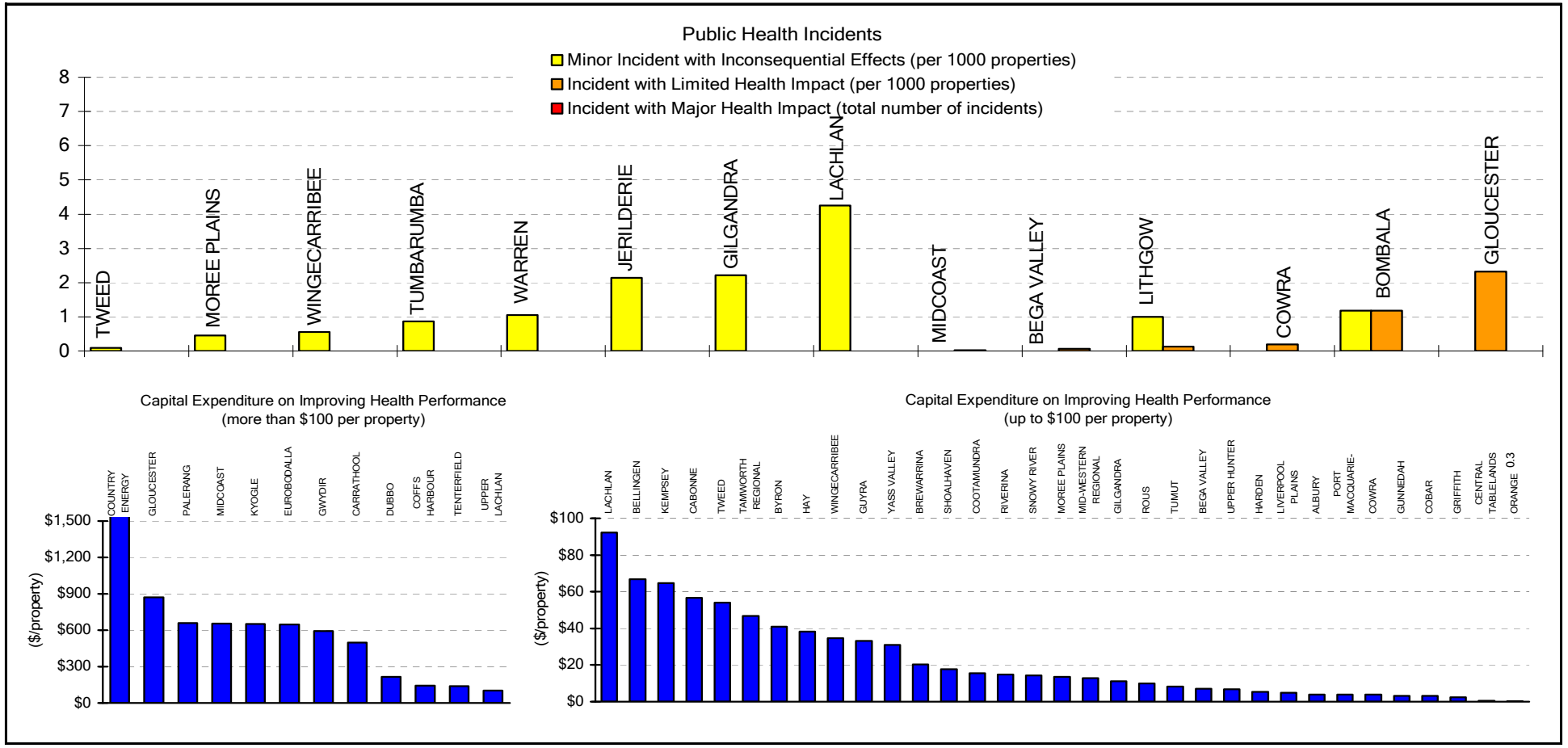


Parameter: Percentage of distribution system water samples complying with E. coli criteria of the 2004 NHMRC/NRMMC Australian Drinking Water Guidelines

Notes:

1. This figure shows ranked values of the 2009-10 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 28 LWUs shown ranges from 100% to 95%. Results for the previous 5 years are also shown.
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 (refer to page 204) and at least 98% of the samples must contain no E.coli. Non-potable water supplies are excluded. 99% of the 20,700 samples tested in 2009-10 contained no E. coli. 89% of the LWUs complied with the 2004 Guidelines for E. coli in 2009-10. The 11 non-complying LWUs each served between 500 and 7,200 connected properties. Refer also to page 20.
3. For LWUs with more than one water treatment works, the reported compliance has been pro-rated on the basis of the number of samples tested at each treatment works.
4. The Statewide median microbiological water quality compliance is 100%.
5. For general notes see page 30.

Figure 15: 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: $\frac{\text{Total No. of Minor Incidents with Limited Health Impacts (Q116)}}{\text{[No. of Residential Assessments (Q34) + No. of Non-Residential Assessments (Q35)] x No. of Connected Properties per Assessment}}$

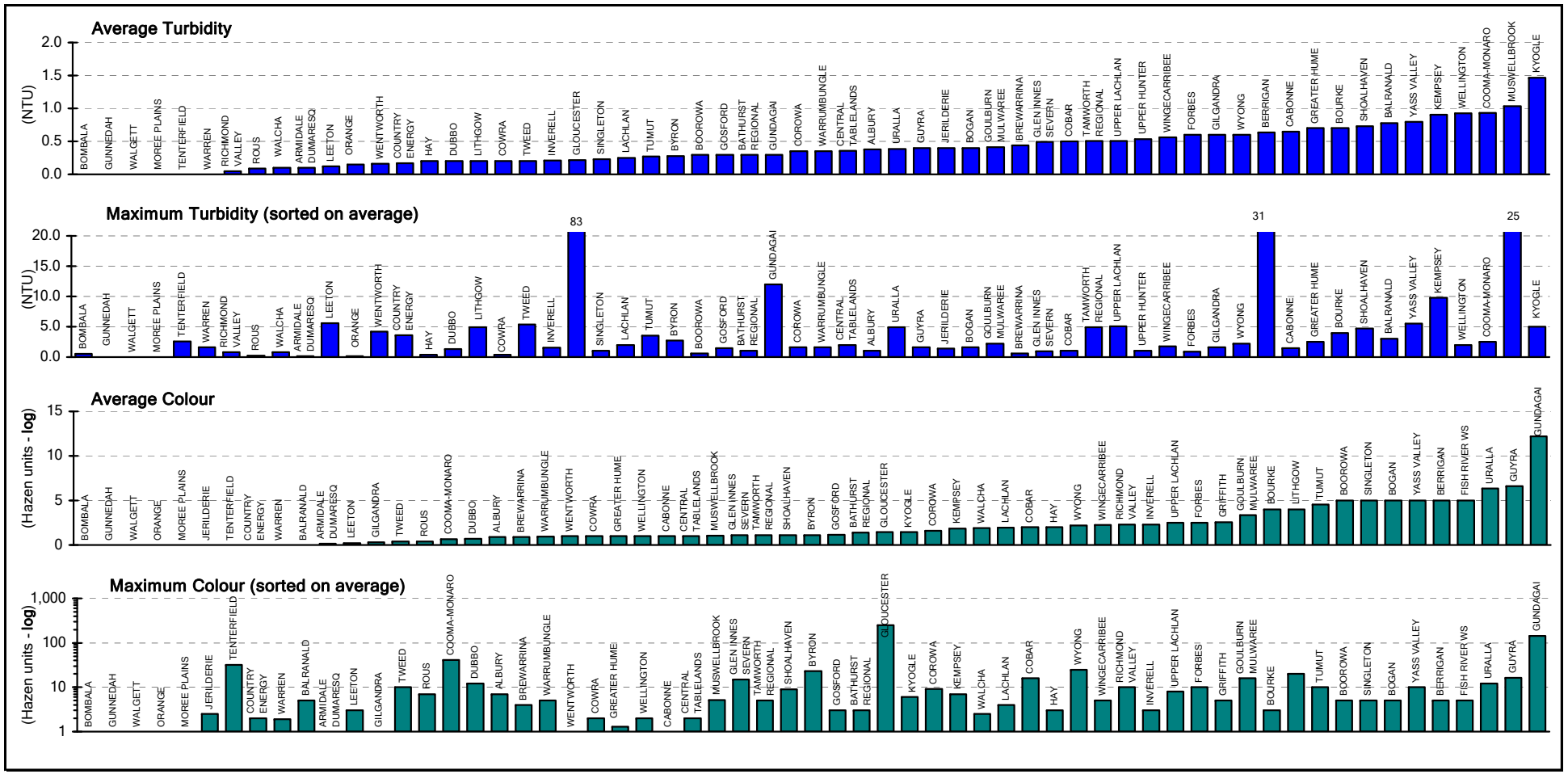
Parameter: $\frac{\text{Total No. of Major Incidents with Major Health Impacts (Q117)}}{\text{[No. of Residential Assessments (Q34) + No. of Non-Residential Assessments (Q35)] x No. of Connected Properties per Assessment}}$

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 7 utilities did not report for public health incidents: Central Darling, Cooma-Monaro, Deniliquin, Liverpool Plains, Murrumbidgee, Narrandera and Wakool. 14 Utilities are shown in the figure above, while 86 utilities reported zero public health incidents.
2. For general notes see page 30.

Figure 16: Turbidity and colour for filtered supplies – water supply

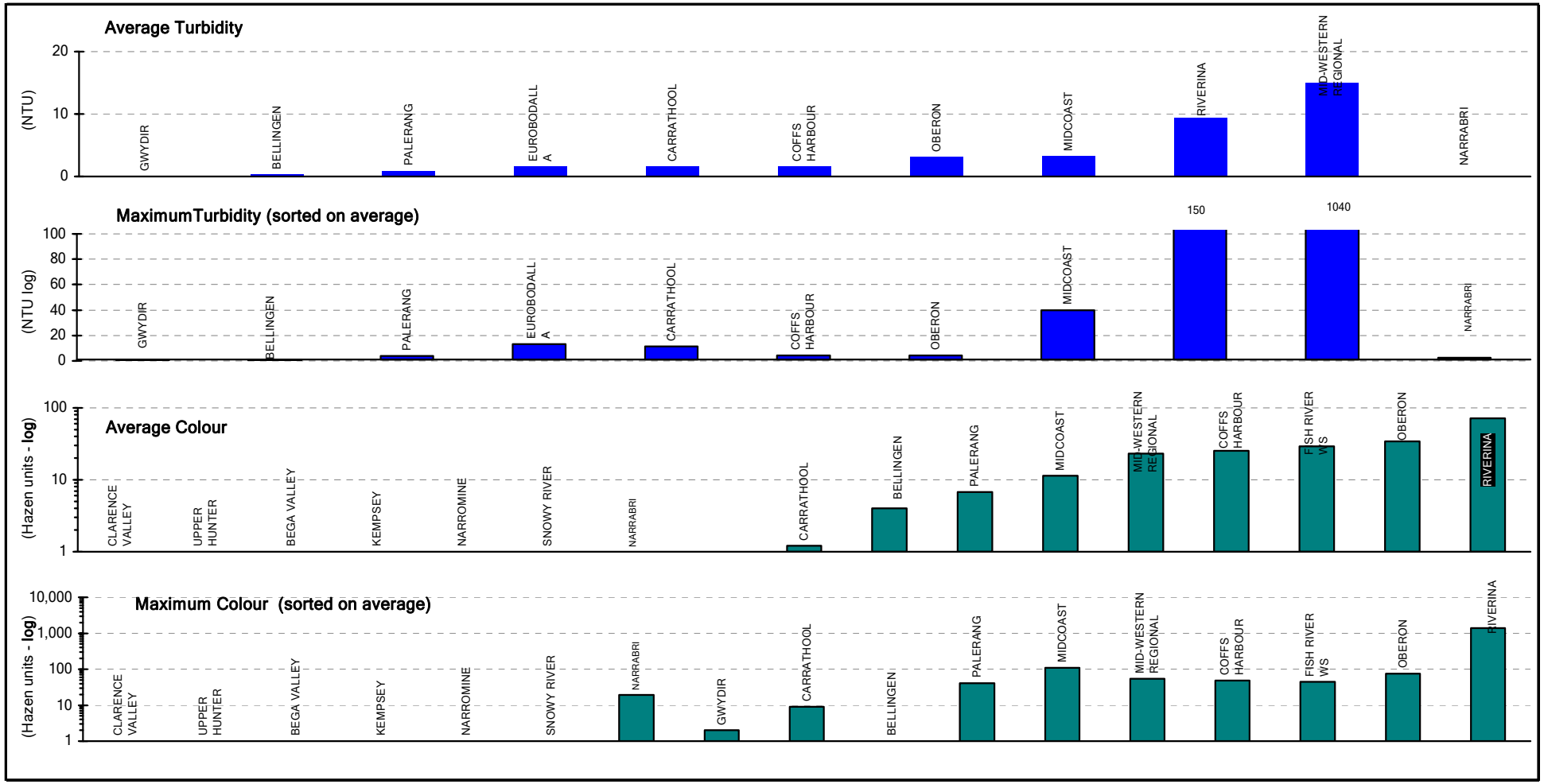


Parameter: Treated Water Average Turbidity (WTW Q15), Maximum Turbidity (WTW Q14), Treated Water Average Colour (WTW Q11), Maximum Colour (WTW Q10)

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. All 65 reporting LWUs had average turbidity not exceeding 2 turbidity units. 97% of these LWUs had average turbidity not exceeding 1 turbidity unit.
3. 98% of the 61 reporting LWUs had average colour not exceeding 8 colour units. 85% of these LWUs had average colour exceeding 5 colour units.
4. For general notes see page 30.

Figure 17: Turbidity and colour for unfiltered supplies – water supply

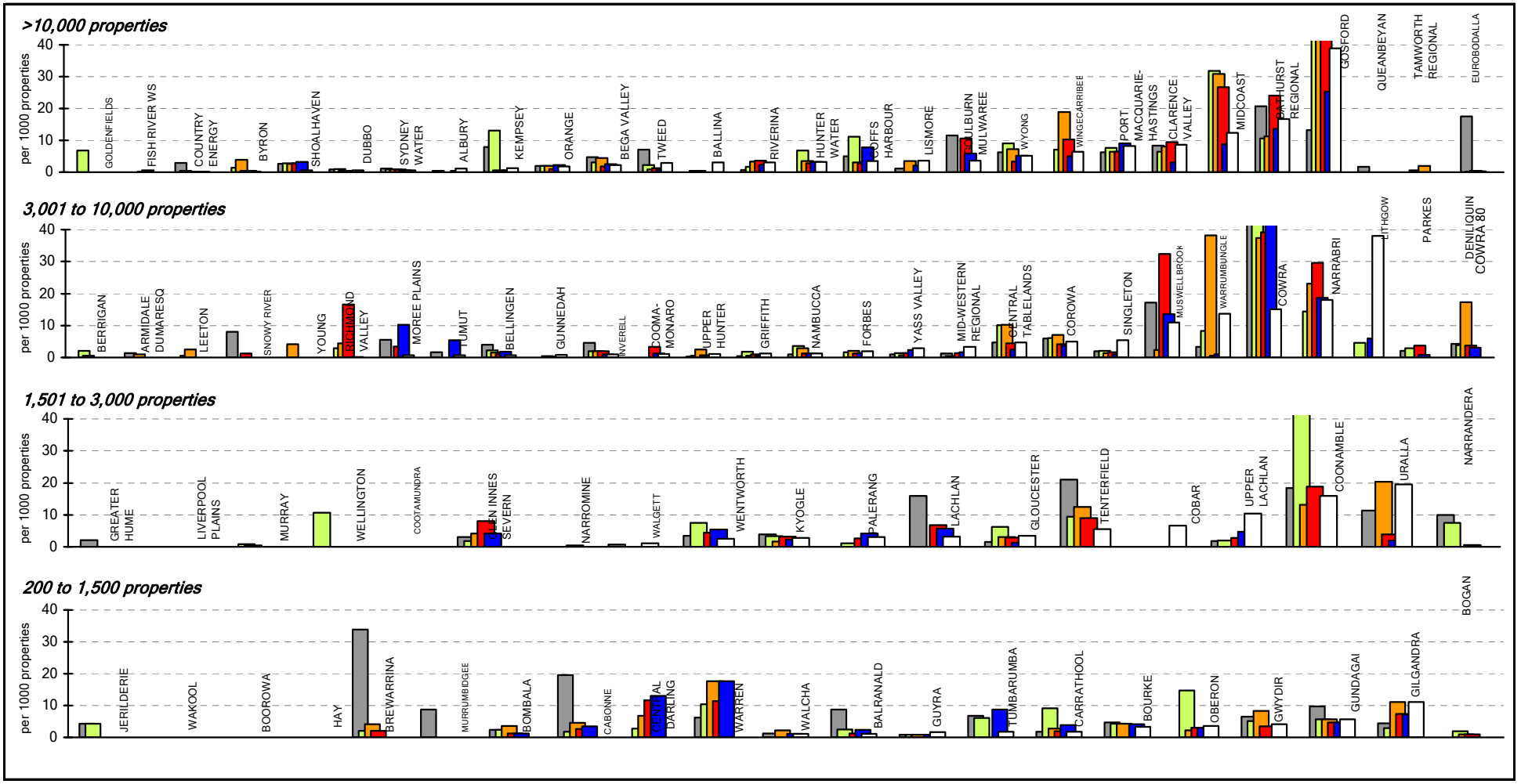


Parameter: Raw Water Average Turbidity (WTW Q13), Maximum Turbidity (WTW Q12), Raw Water Average Colour (WTW Q9), Maximum Colour (WTW Q8)

Notes:

1. Only unfiltered reporting supplies have been considered
2. 60% of the 10 reporting LWUs had average turbidity not exceeding 2 turbidity units. 50% of these LWUs had average turbidity not exceeding 1 turbidity unit.
3. 71% of reporting LWUs had average colour not exceeding 15 colour units. 83% of these LWUs had average colour not exceeding 5 colour units.
4. For general notes see page 30.

Figure 18: Water quality complaints – water supply



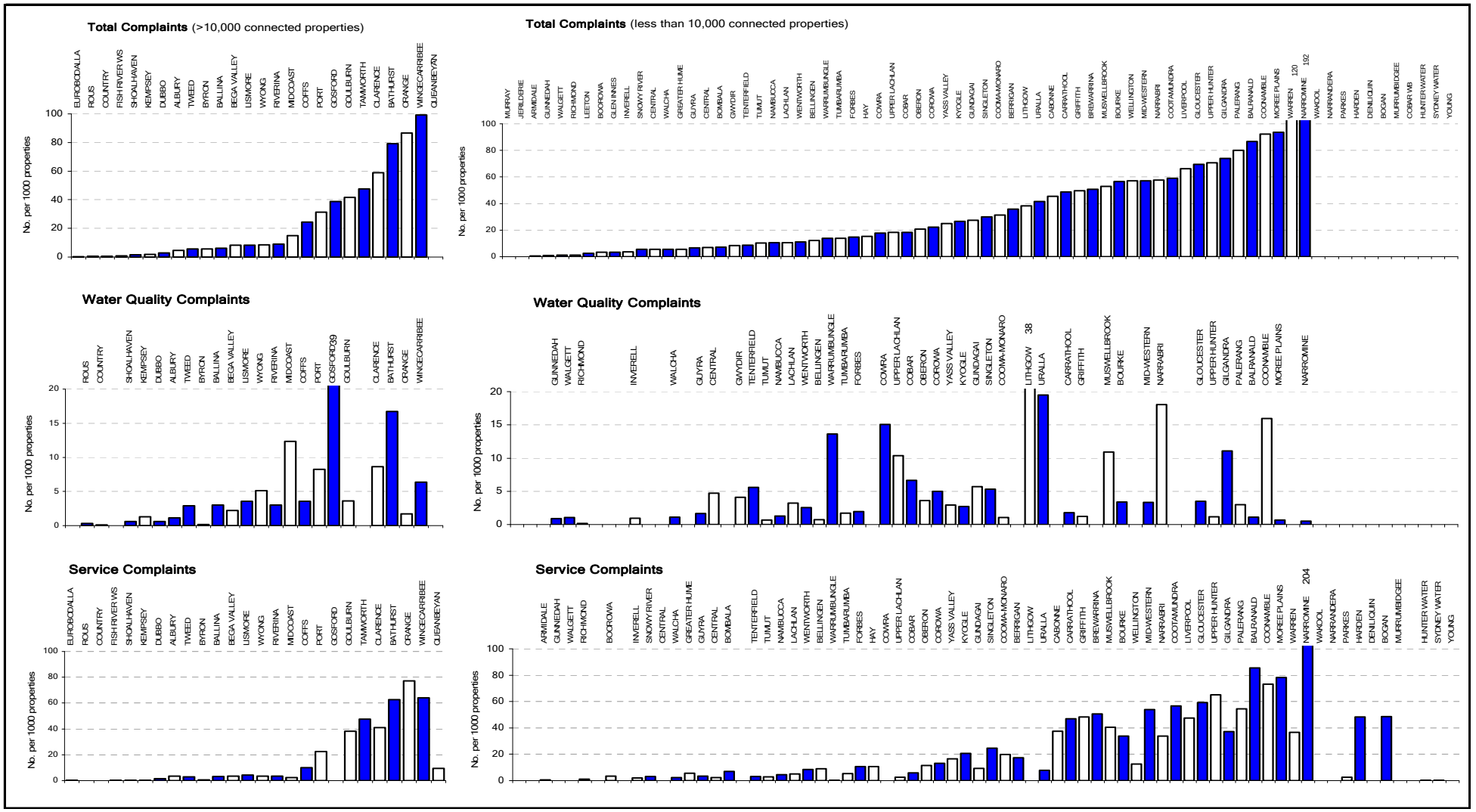
Parameter:

$$\frac{\text{No. of Water Quality Complaints (Q101)} \times 1000}{\text{[No. of Residential Assessments (Q34) + No. of Non-Residential Assessments (Q35)]} \times \text{No. of Connected Properties per Assessment}}$$

Notes:

1. This figure shows ranked values of the 2009-10 number of water quality complaints per 1000 connected properties for each Local Water Utility (LWU) in 4 groups based on the number of connected properties served - over 10,000, 3,001 to 10,000, 1,501 to 3,000 and 200 to 1,500. Each white bar represents one LWU. As an example, for the second graph (property range from 3,001 to 10,000), the water quality complaints for the 26 LWUs shown ranges from nil to 38 per 1000 connected properties.
2. The Statewide median number of water quality complaints is 4 per 1000 properties.
3. For general notes see page 30.

Figure 19: Complaints (per 1,000 properties) – water supply



Parameter: Total No. of Complaints [(Q96)+(Q99)+(Q100)+(Q101)] x 1000
[No. of Residential Assessments (Q34) + No. of Non-Residential Assessments (Q35)] x No. of Connected Properties per Assessment

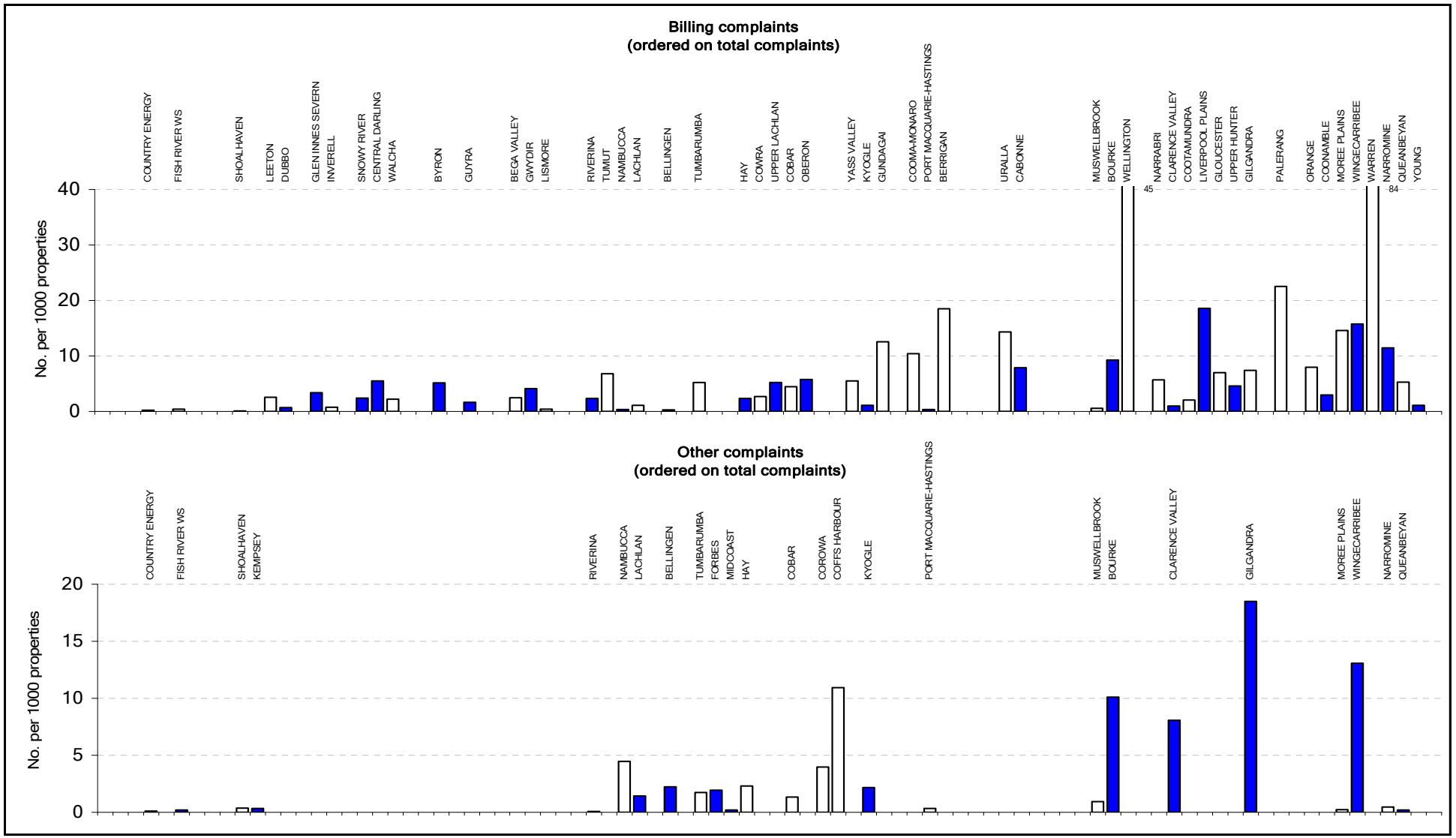
Parameter: No. of Water Quality Complaints (Q42a) x 1000
[No. of Residential Assessments (Q34) + No. of Non-Residential Assessments (Q35)] x No. of Connected Properties per Assessment

Parameter: No. of Water Service Complaints (Q19a) x 1000
[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 30.

Figure 19: Complaints (per 1,000 properties) – water supply (continued)



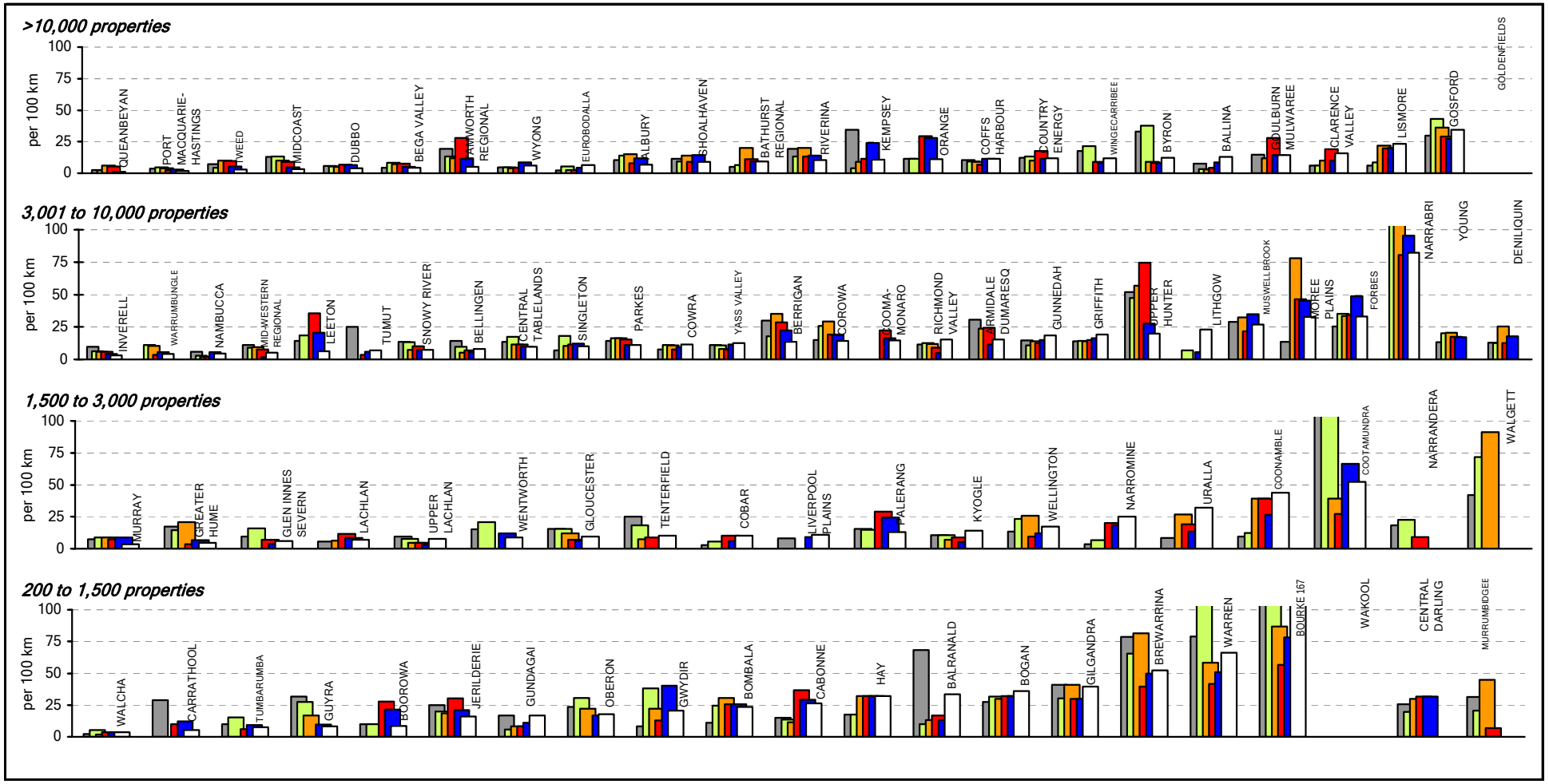
Parameter: No. of Billing Complaints (Q99)+ x 1000
[No. of Residential Assessments (Q34) + No. of Non-Residential Assessments (Q35)] x No. of Connected Properties per Assessment

Parameter: No. of Other Complaints (Q100) x 1000
[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 30.

Figure 20: Number of water main breaks – water supply

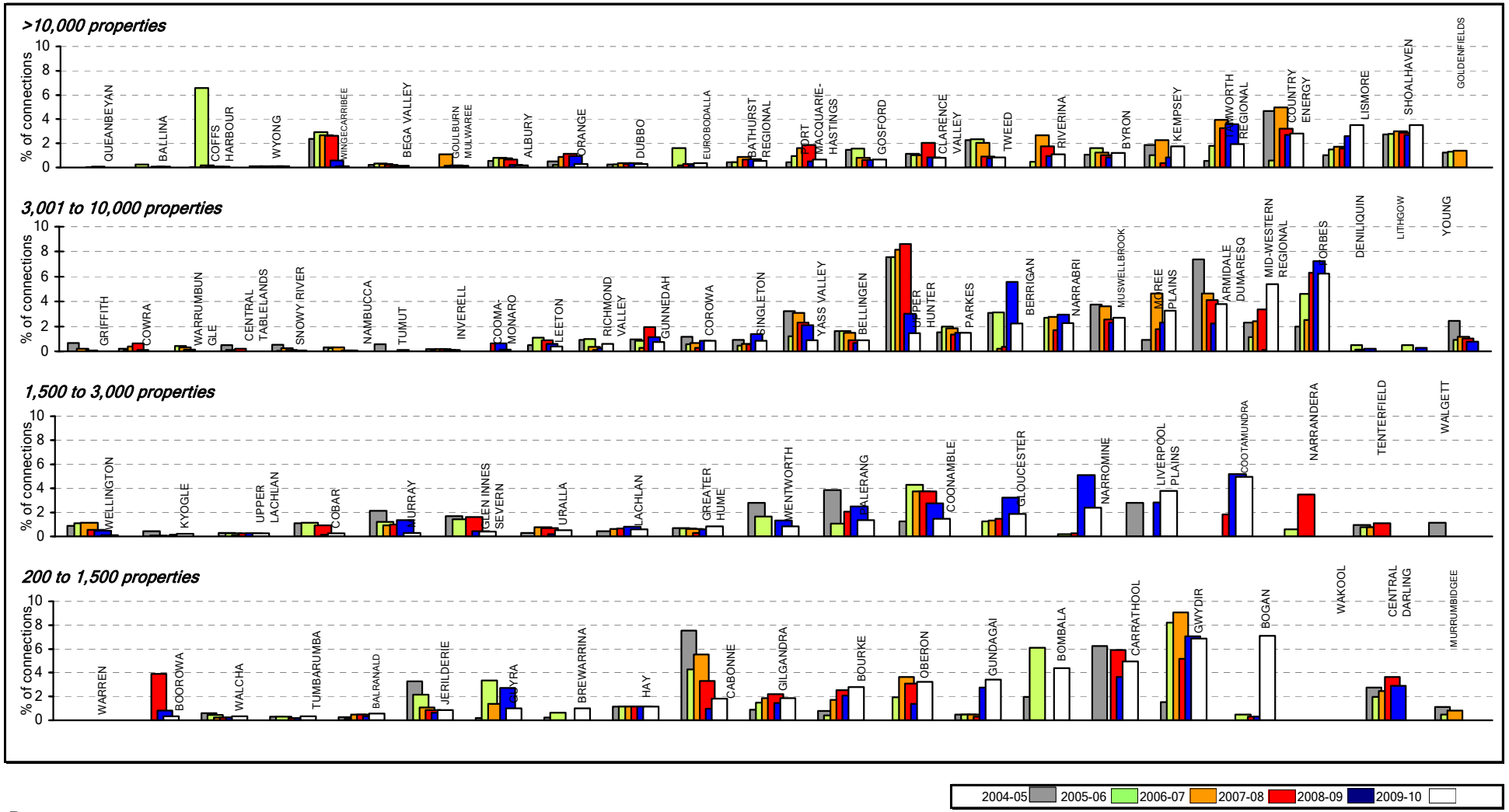


Parameter: No. of Pipeline Breaks (Q104) x 100
Length of Distribution and Trunk Mains (Q22)

Notes:

1. This figure shows ranked values of the 2009-10 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 28 LWUs shown ranges from 3.1 to 80 per 100km of water mains. Results for the previous 5 years are also shown.
2. The Statewide median number of water supply main breaks is 10 per 100km of water main. This has remained much lower than all the other states and capital city utilities, indicating good water main asset condition (graph 9 on page 184 of Appendix A).
3. For general notes see page 30.

Figure 21: Service connection failures – water supply



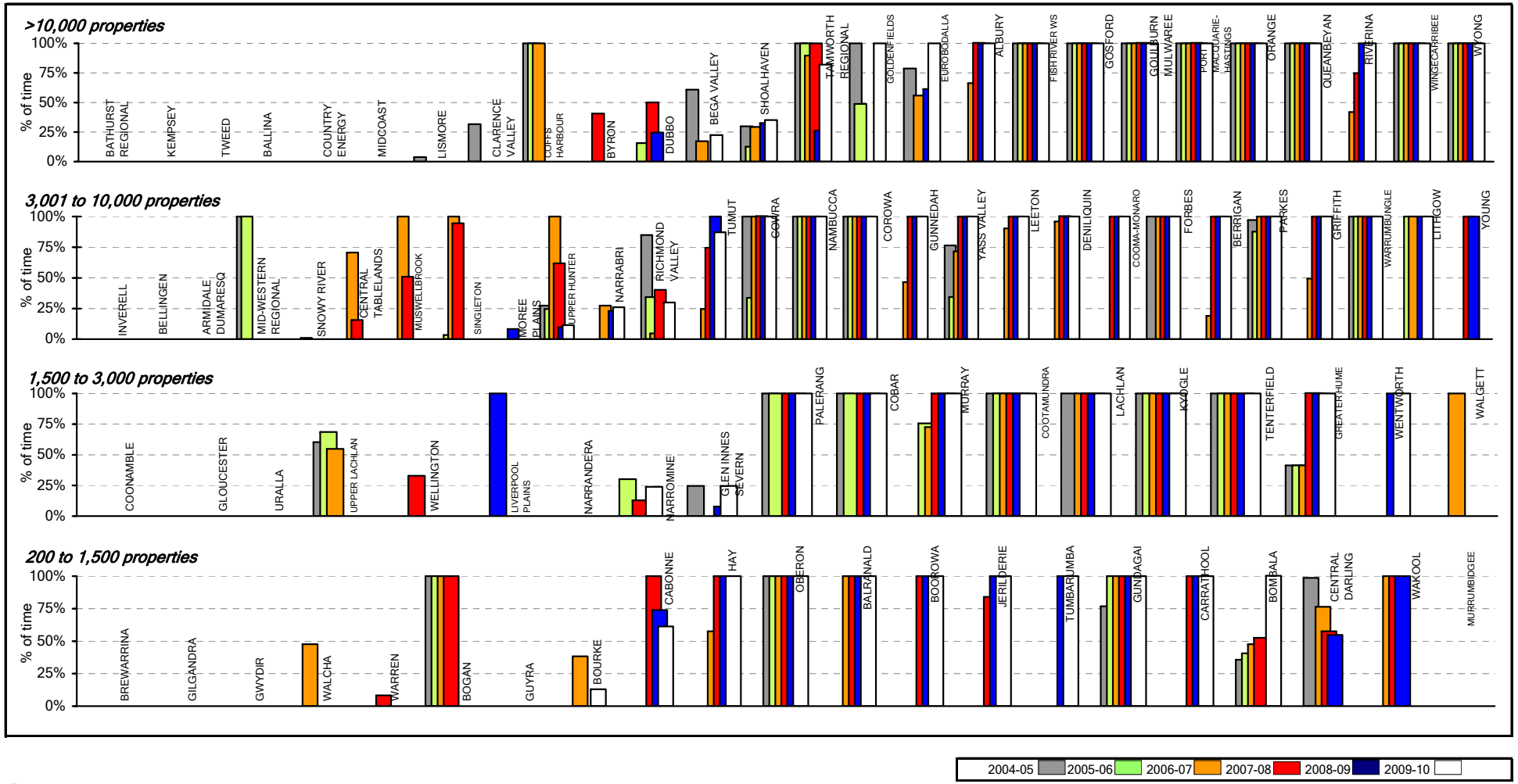
Parameter:

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

Notes:

1. This figure shows ranked values of the 2009-10 water supply service connection failures for each Local Water Utility (LWU) in 4 groups based on the number of connected properties served - over 10,000, 3,001 to 10,000, 1,501 to 3,000 and 200 to 1,500. Each white bar represents one LWU. As an example, for the second graph (property range from 3,001 to 10,000), the number of service connection failures for the 25 LWUs shown ranges from nil to 6 %. The 3 LWUs on the right did not report this indicator for 2009-10. Results for the previous 5 years are also shown.
2. For general notes see page 30.

Figure 22: Drought water restrictions – water supply

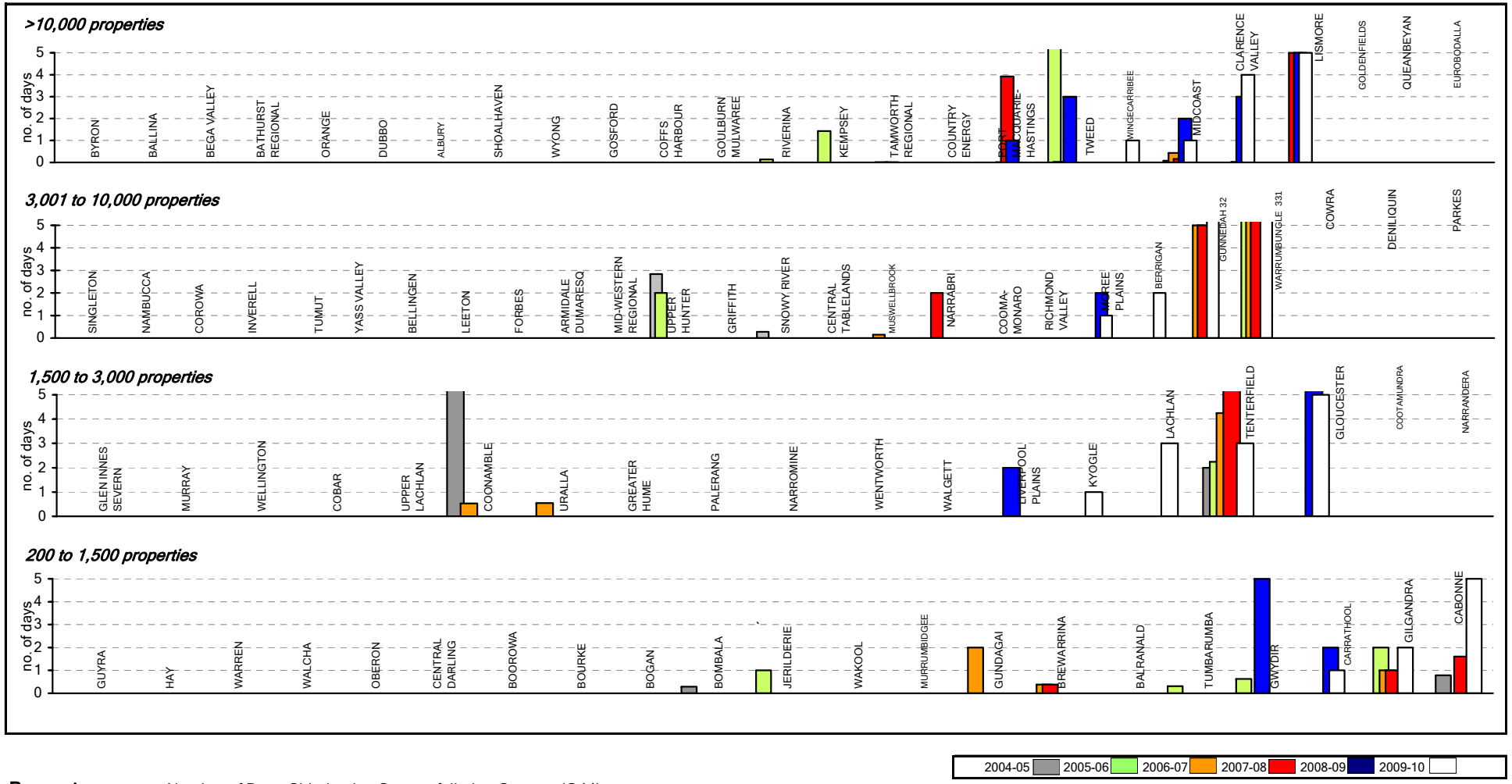


Parameter: $\frac{\text{No. of Days of Water Restrictions Due to Drought (Q95)} \times 100}{\text{366 Days}}$

Notes:

1. This figure shows ranked values of the 2009-10 drought 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), 18 of the 27 reporting LWUs reported restrictions ranging from 12% of the time to 100% of the time. 9 LWUs reported no drought water restrictions. Results for the previous 5 years are also shown.
2. Refer also to page 3 of the 2009-10 NSW Water Supply and Sewerage Performance Monitoring Report.
3. For general notes see page 30.

Figure 23: Chlorination system malfunction – water supply

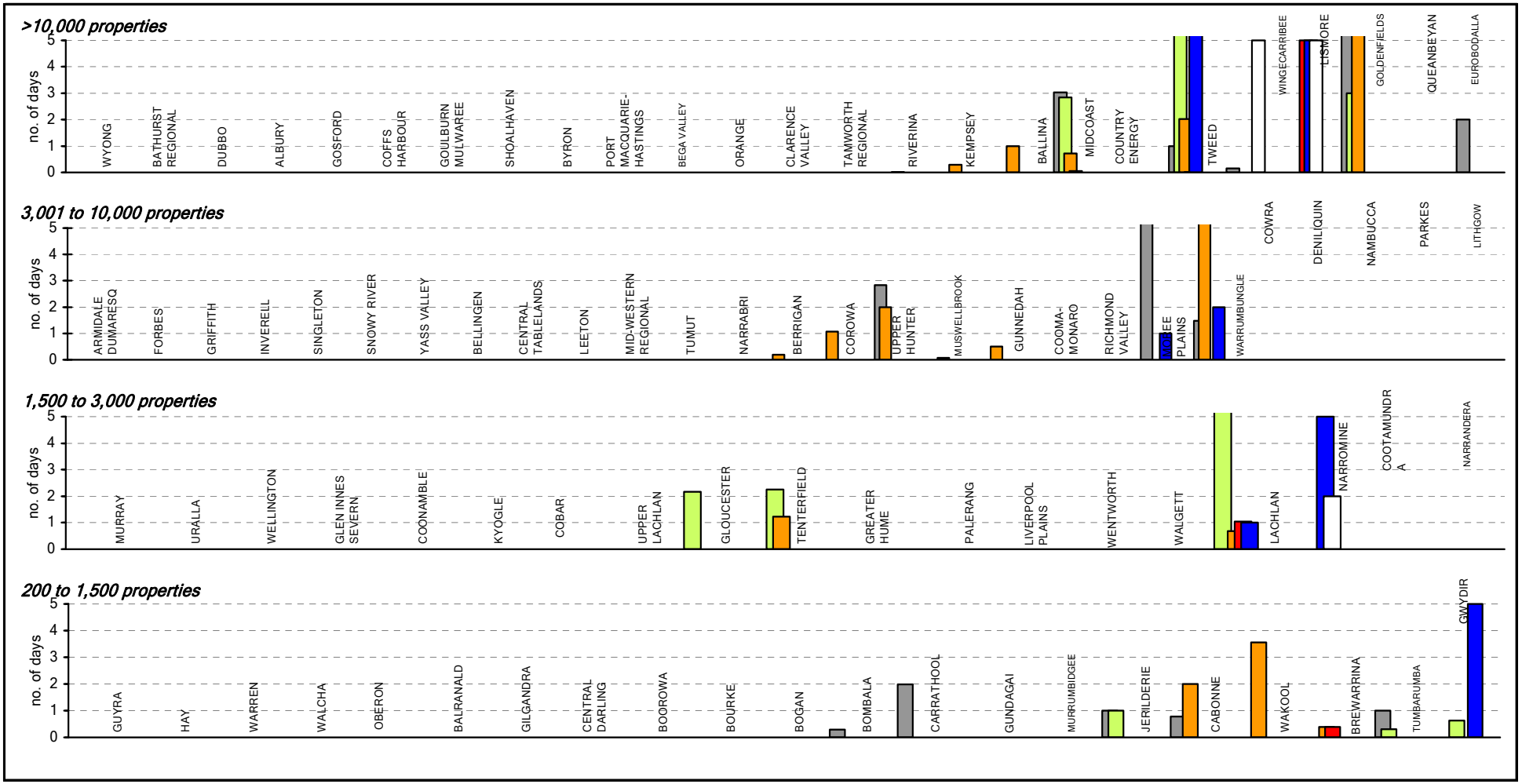


Parameter: Number of Days Chlorination System failed to Operate (Q44)

Notes:

1. The figure shows the 2009-10 ranked number of days a 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 23 LWUs shown ranges from nil to 331 days. 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 30.

Figure 24: Treatment works malfunction – water supply

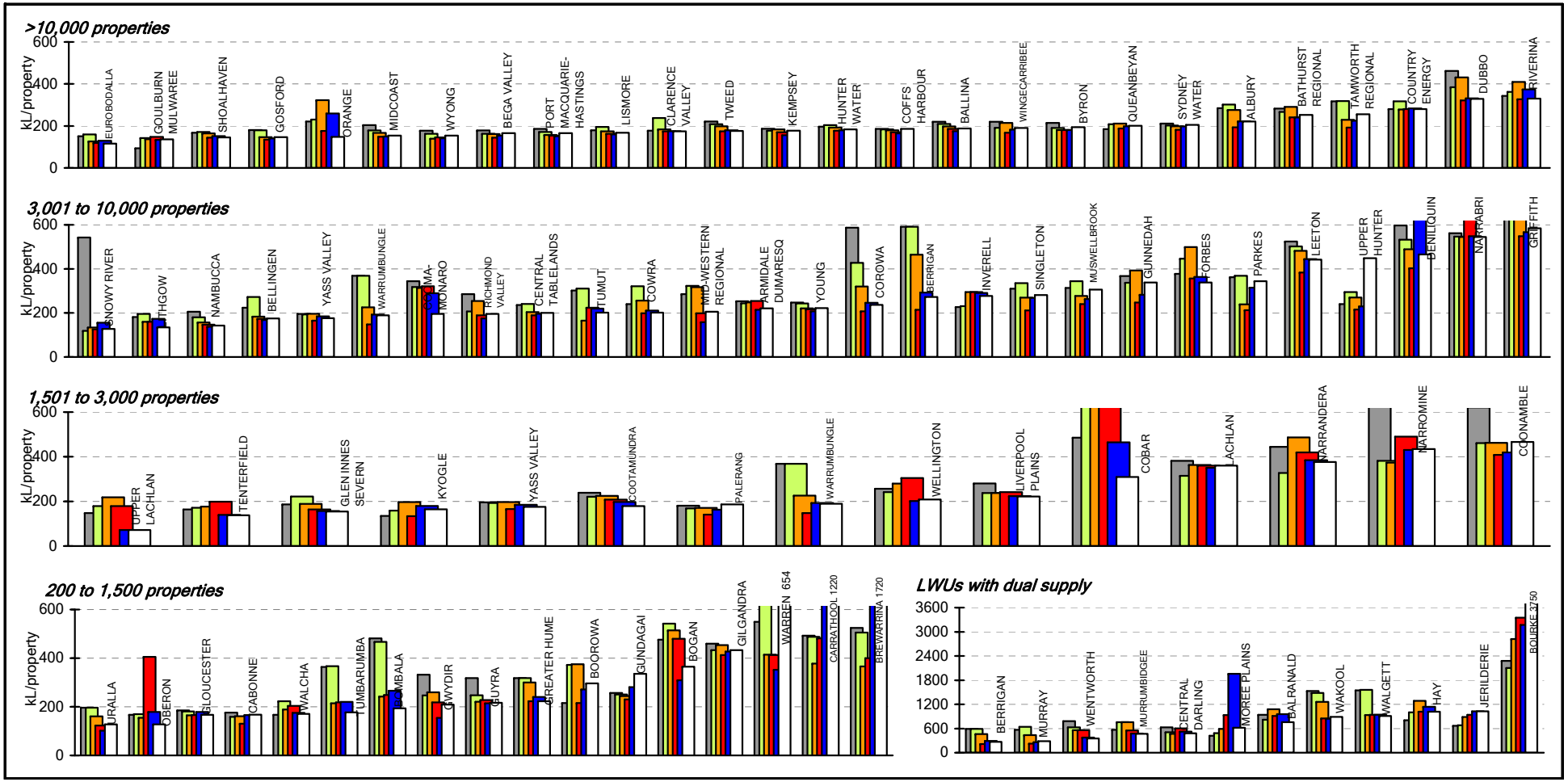


Parameter: Number of Days of major Malfunction of Treatment Processes (Q45)

Notes:

1. The figure shows the 2009-10 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 22 LWUs shown was nil. 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 30.

Figure 25: Average annual residential water supplied – water supply

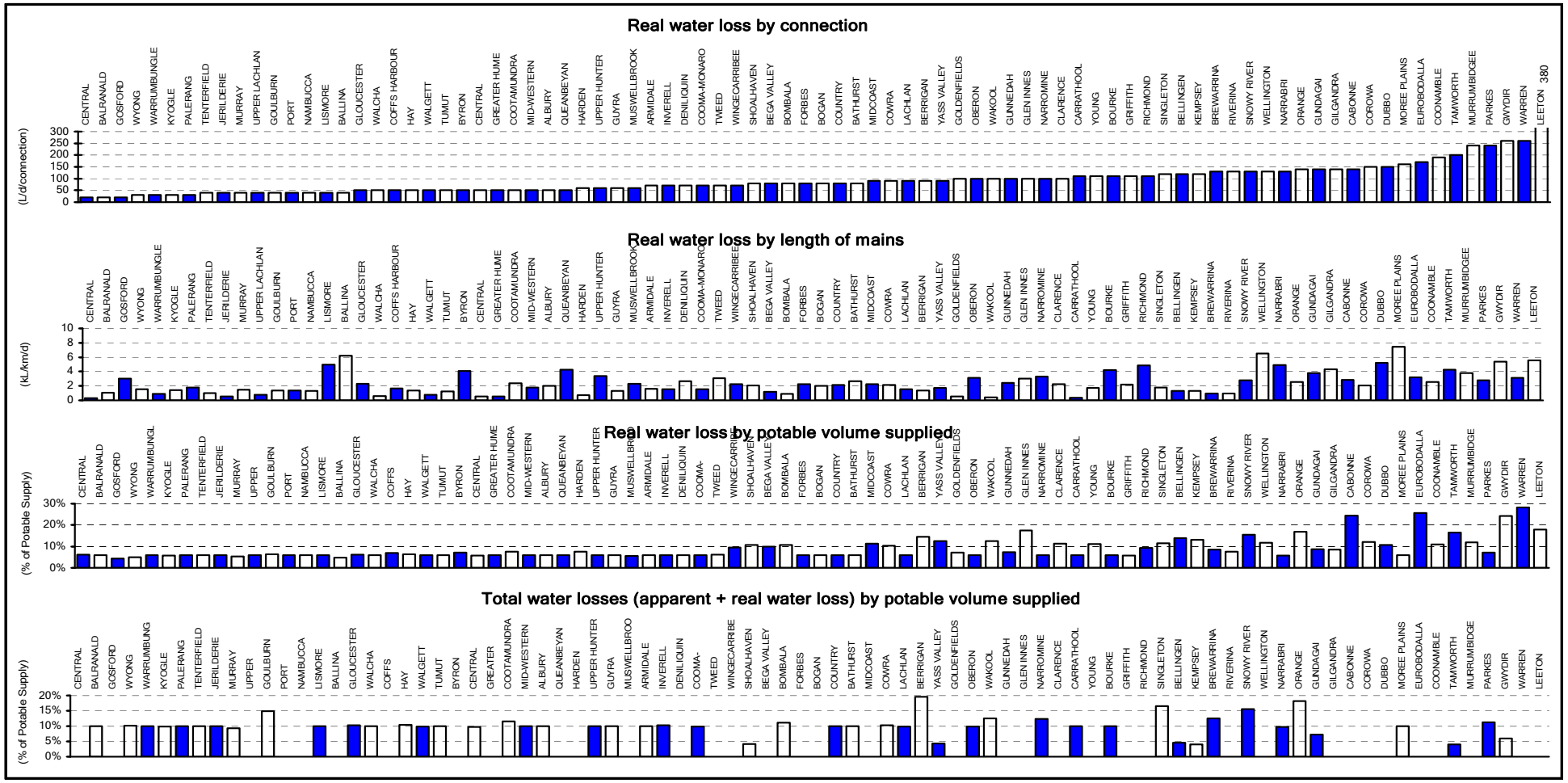


Parameter: $\frac{\text{Annual Residential Potable Supplied (Q54) x 1000}}{\text{No. of Residential Assessments (Q34) x No. of Connected Residential Properties per Residential Assessment}}$

Notes:

1. This figure shows ranked values of the 2009-10 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 2009-10 annual residential water supplied for the 27 LWUs shown ranges from 130 to 584 kL/a per connected property. Results for the previous 5 years are also shown.
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 32 for further information.
3. The Statewide median annual residential water supplied is 175 kL/a per connected property. The median residential water supplied for coastal and inland LWUs is 150 and 252kL per connected property respectively.
4. Refer also to pages 8, 5 and 33 of the 2009-10 NSW Water Supply and Sewerage Performance Monitoring Report.
5. 60% of the LWUs needed to apply drought water restrictions in 2009-10.
6. For general notes see page 30.

Figure 26: 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: $\frac{\text{Real water losses (Q68) x 100}}{\text{Length of mains (Q22)}}$

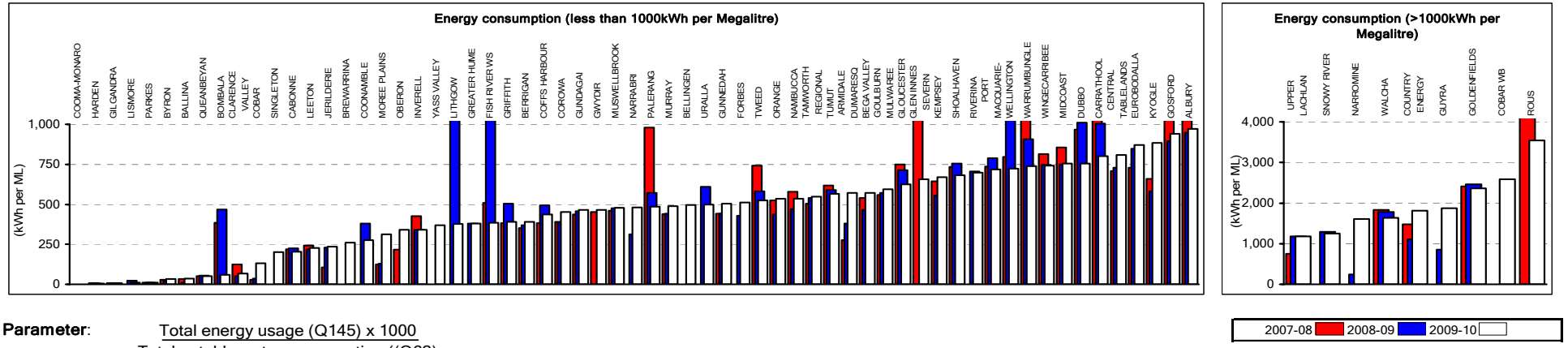
Parameter: $\frac{\text{Real water losses (Q68) x 100}}{\text{Total potable water supplied (Q12i)}}$

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 32 for water losses.
2. For general notes see page 30.

Figure 27: Energy consumption per ML – water supply

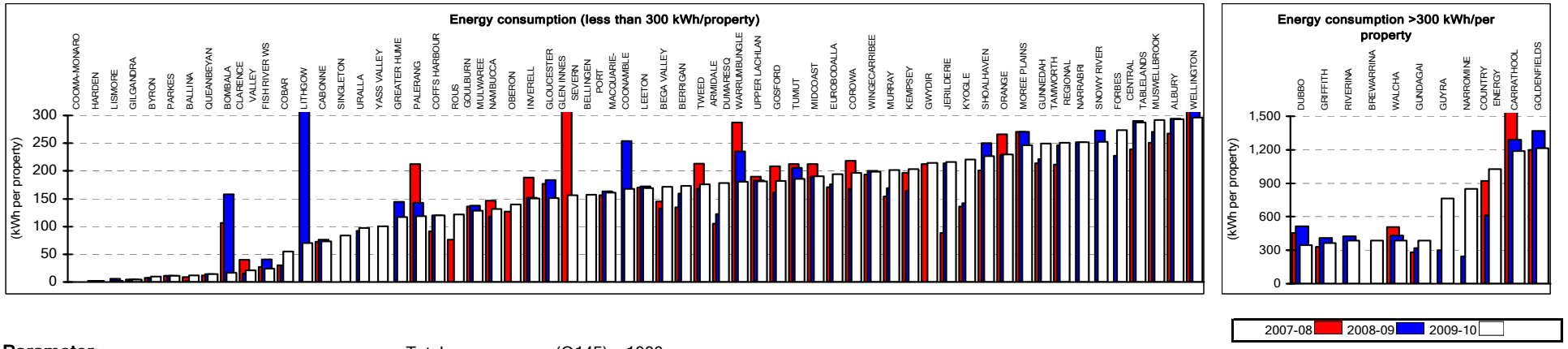


Parameter: $\frac{\text{Total energy usage (Q145) x 1000}}{\text{Total potable water consumption ((Q62)}}$

Notes:

1. This figure shows ranked values of the 2009-10 total energy consumption per ML. The energy consumption per ML for the 55 Local Water Utilitites (LWUs) shown range from about 4 to 1870kWh per Megalitre. Results for the previous 2 years are also shown.
2. For general notes see page 30.

Figure 28: Energy consumption per property – water supply

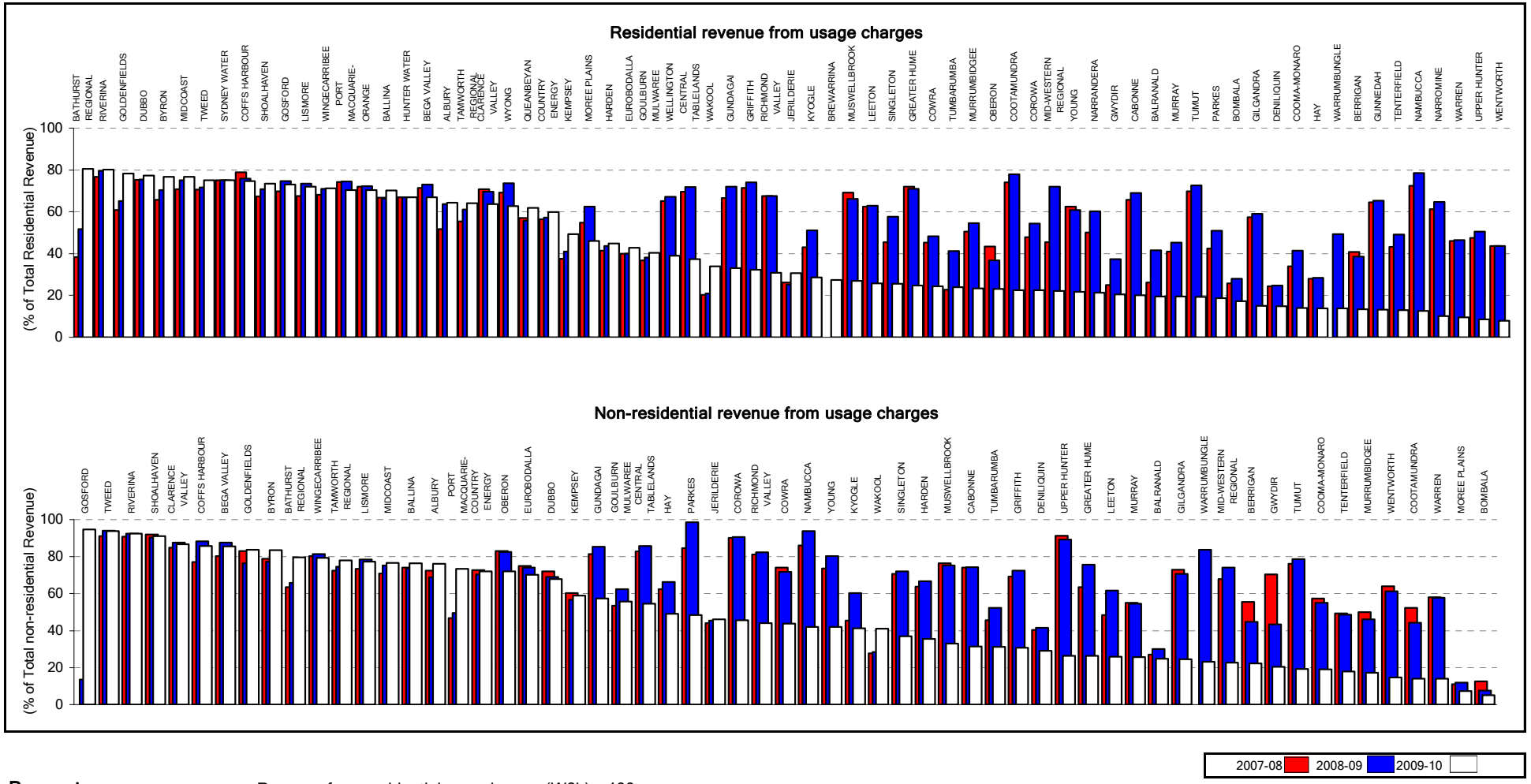


Parameter: $\frac{\text{Total energy usage (Q145) x 1000}}{\text{[No. of residential assessments (Q34) + No. of non-residential assessments (Q35) x No. of connected properties per assessment}}$

Notes:

1. This figure shows ranked values of the 2009-10 total energy consumption per connected property. The energy usage per connected property for the 70 Local Water Utilitites (LWUs) shown range from about 2 to 1210kWh per connected property. Results for the previous 2 years are also shown.
2. For general notes see page 30.

Figure 29: Revenue from usage – water supply



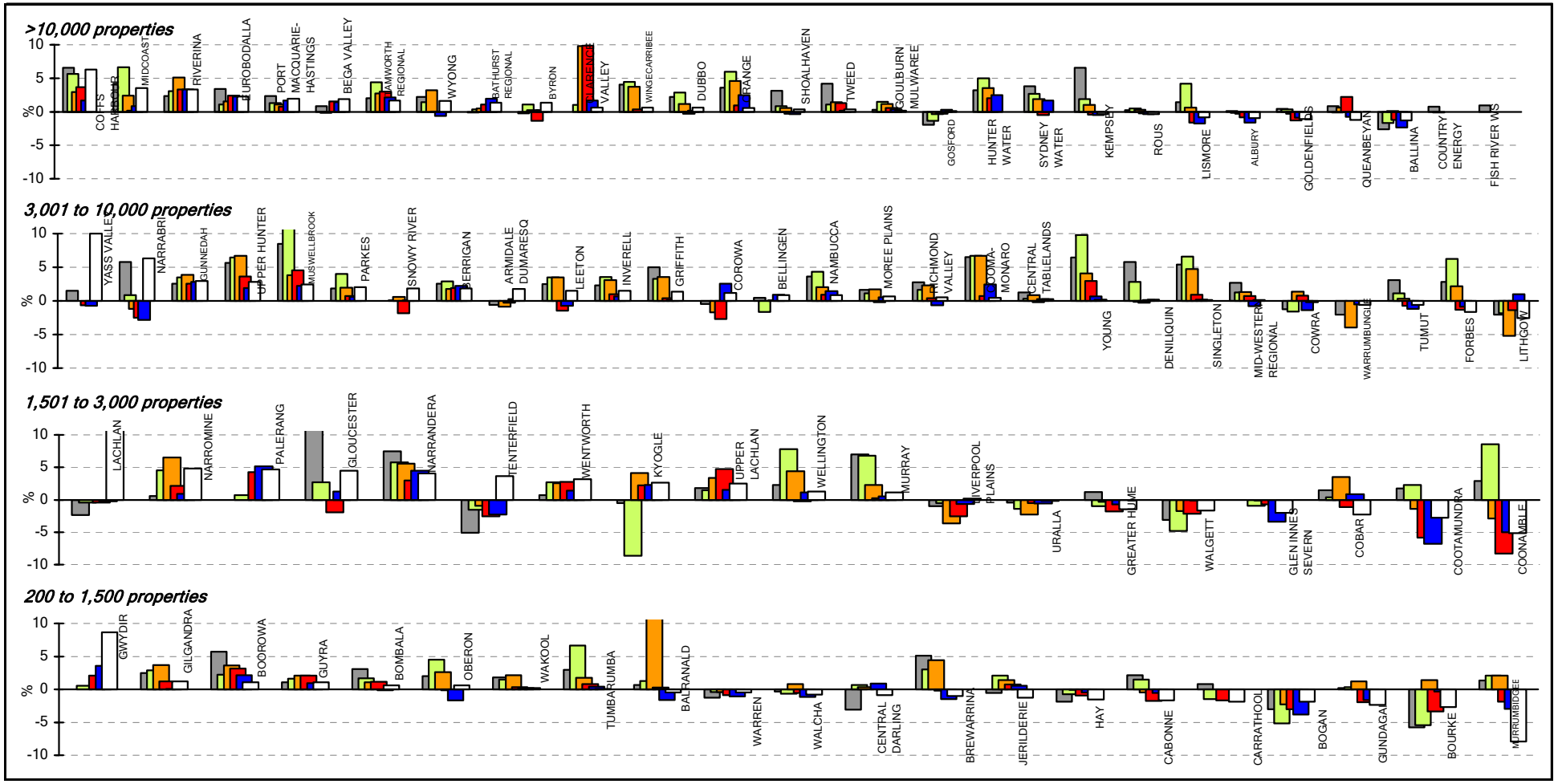
Parameter: $\frac{\text{Revenue from residential user charges (W6b) x 100}}{\text{Revenue from residential access charges (W6a) + Revenue from residential user charges (W6b)}}$

Parameter: $\frac{\text{Revenue from non-residential user charges (W7b) x 100}}{\text{Revenue from non-residential access charges (W7a) + revenue from non-residential user charges (W7b)}}$

Notes:

1. Many LWUs did not separately report their 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 73%.
3. Refer also to page 5 of the 2009-10 Water Supply and Sewerage Performance Monitoring Report.
4. For general notes see page 30.

Figure 30: Economic real rate of return – water supply

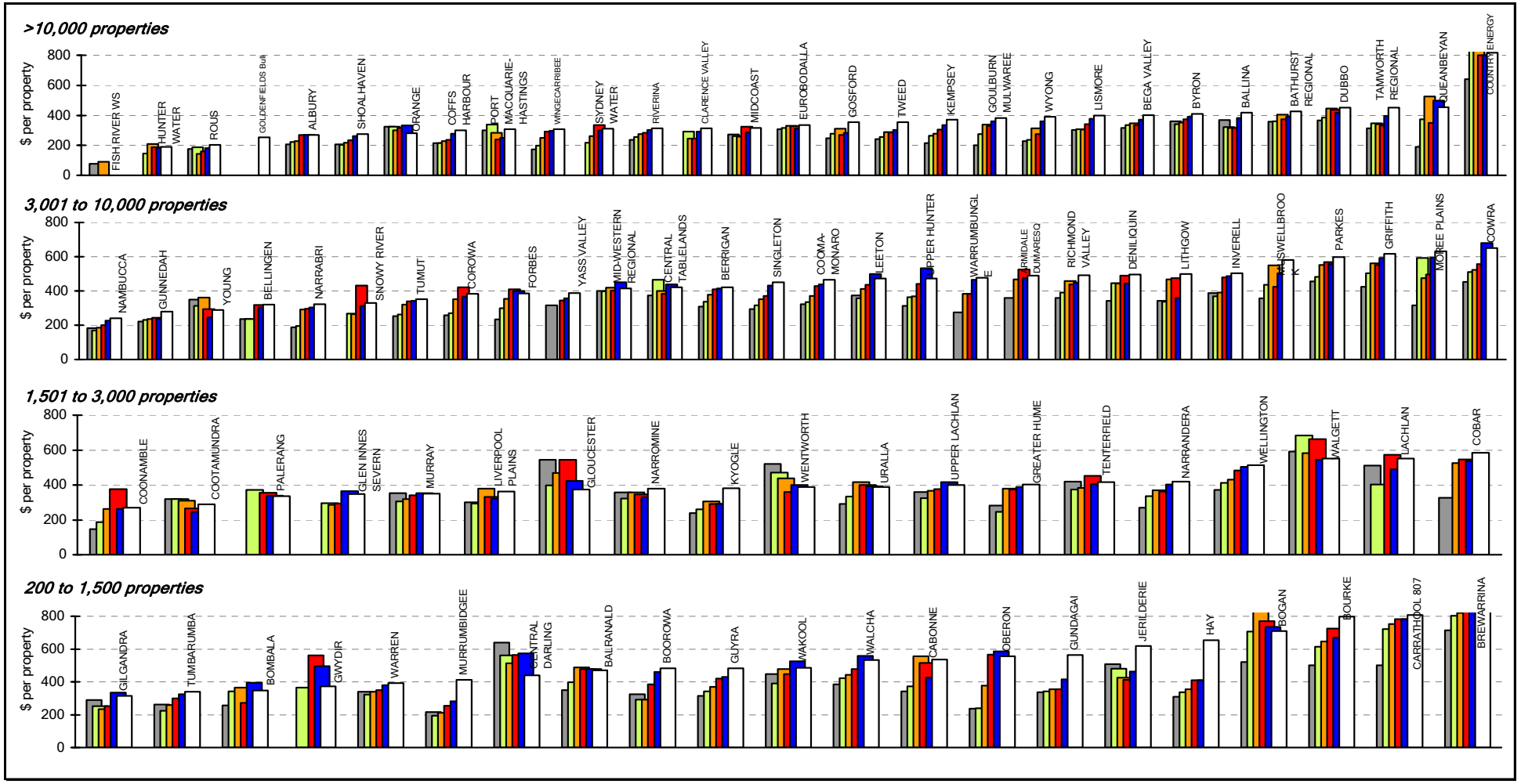


Parameter: [Operating result (W15) + interest expense (W4a) - interest income (W9) - grants for acquisition of assets (W11a)] x 100
Written down replacement cost of system assets, plant & equipment (W33)

Notes:

1. This figure shows ranked values of the 2009-10 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 2009-10 water supply real rate of return for the 28 LWUs shown ranges from 10% to -3%. Results for the previous 5 years are also shown.
2. The statewide median water supply ERRR is 0.7%.
4. The ERRR includes developer provided assets and capital contributions from other LWUs.
5. For general notes see page 30.

Figure 31: Operating cost (OMA) per property – water supply



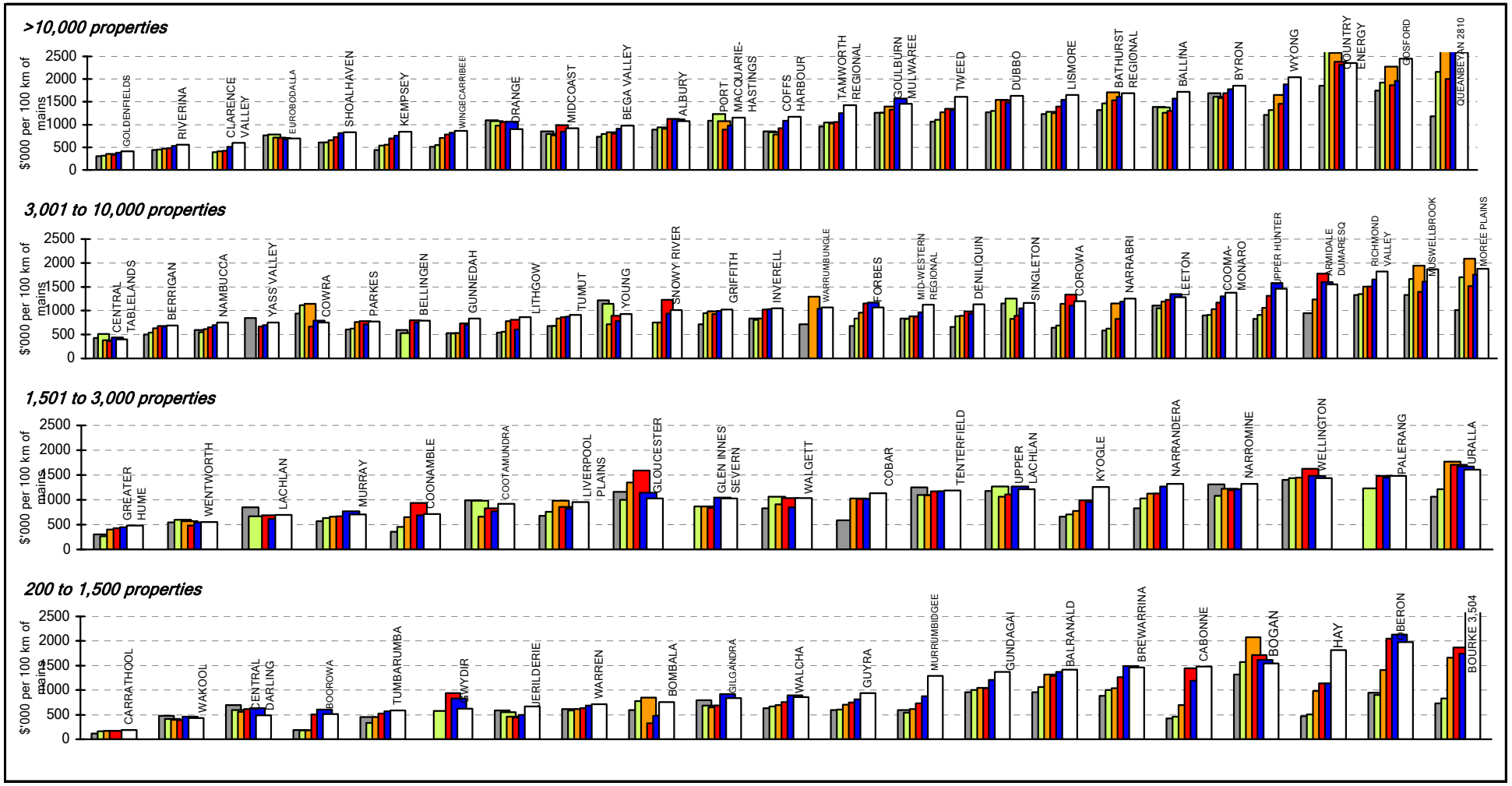
Parameter: Management Expenses (W1) + Total Operations Expenses (W2) - Purchase of Water + prorata Bulk Supplier's OMA

[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 2009-10 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 2009-10 water supply operating costs for the 28 LWUs shown ranges from $242 to $651 per connected property. Results for the previous 5 years are also shown in Jan 2010$.
2. The Statewide median operating cost per connected property is $350.
3. For general notes see page 30.

Figure 32: Operating cost (OMA) per 100 km of main – water supply

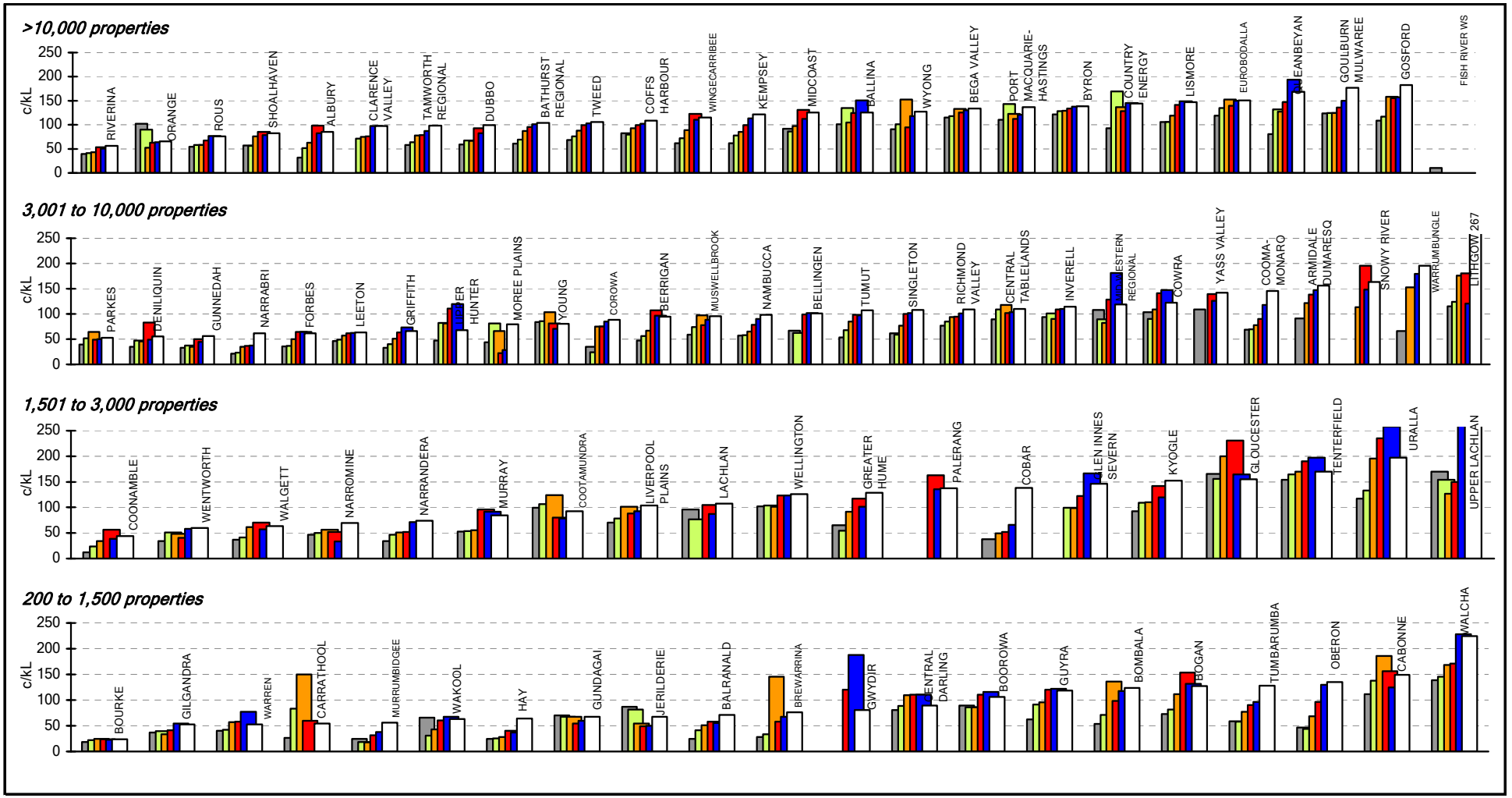


Parameter: Water Main Operation Expenses (W2c) + Water Main Maintenance Costs (W2d) / Length of Distribution Mains (Q22) x 100

Notes:

1. This figure shows ranked values of the 2009-10 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 2009-10 operating costs for the 28 LWUs shown ranges from $399,000 to $1,880,000 per 100km of main. Results for the previous 5 years are also shown in Jan 2010$.
2. The Statewide median operating cost is $1.14M per 100 km of Water Main.
3. For general notes see page 30.

Figure 33: Operating cost (OMA) per kL – water supply

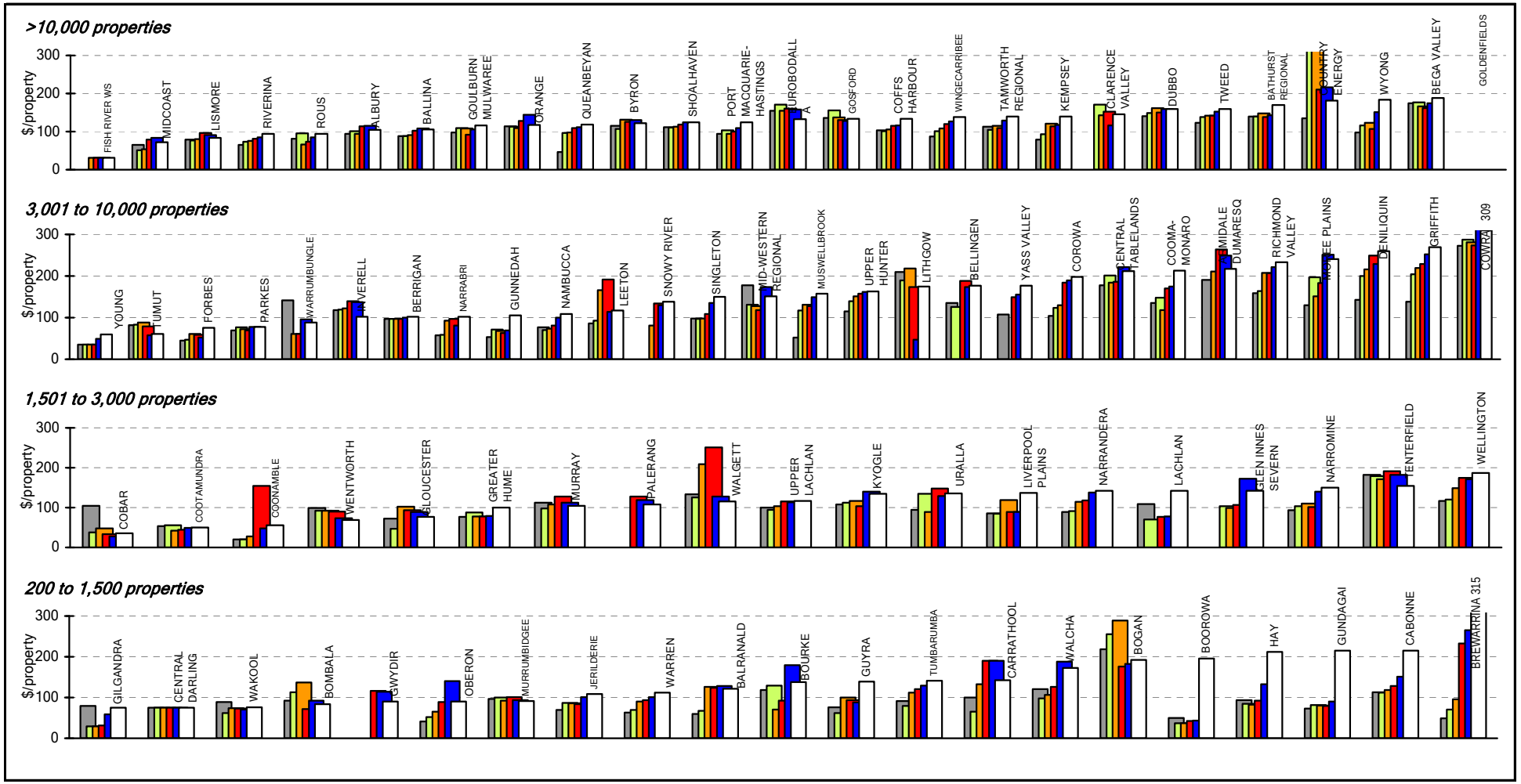


Parameter: $$\frac{\text{Management Expenses (W1) + Total Operations Expenses (W2) - Purchase of Water (W2o)}}{\text{Total Potable Water Supplied (Q62)}}$$

Notes:

1. This figure shows ranked values of the 2009-10 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 2009-10 operating costs per kL for the 28 LWUs shown ranges from 52 to 267 c/kL. Results for the previous 5 years are also shown in Jan 2010$.
2. The Statewide median operating cost is 116c/kL.
3. For general notes see page 30.

Figure 34: Management cost per property – water supply



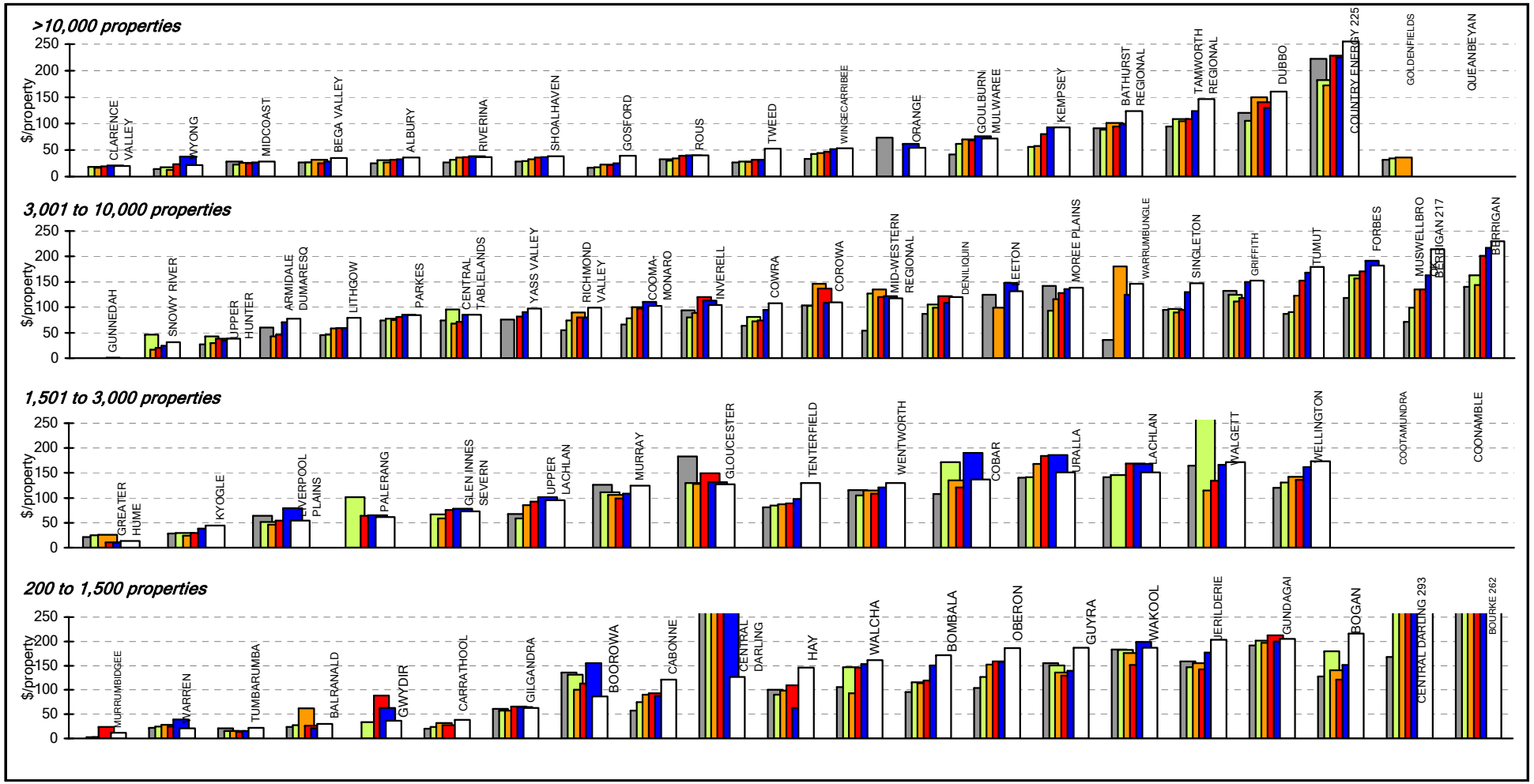
Parameter:

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

Notes:

1. This figure shows ranked values of the 2009-10 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 2009-10 management costs per property for the 28 LWUs shown ranges from $60 to $309. Results for the previous 5 years are also shown in Jan 2010$.
2. The Statewide median management cost is $134 per connected property.
3. For general notes see page 30.

Figure 35: Treatment cost per property – water supply



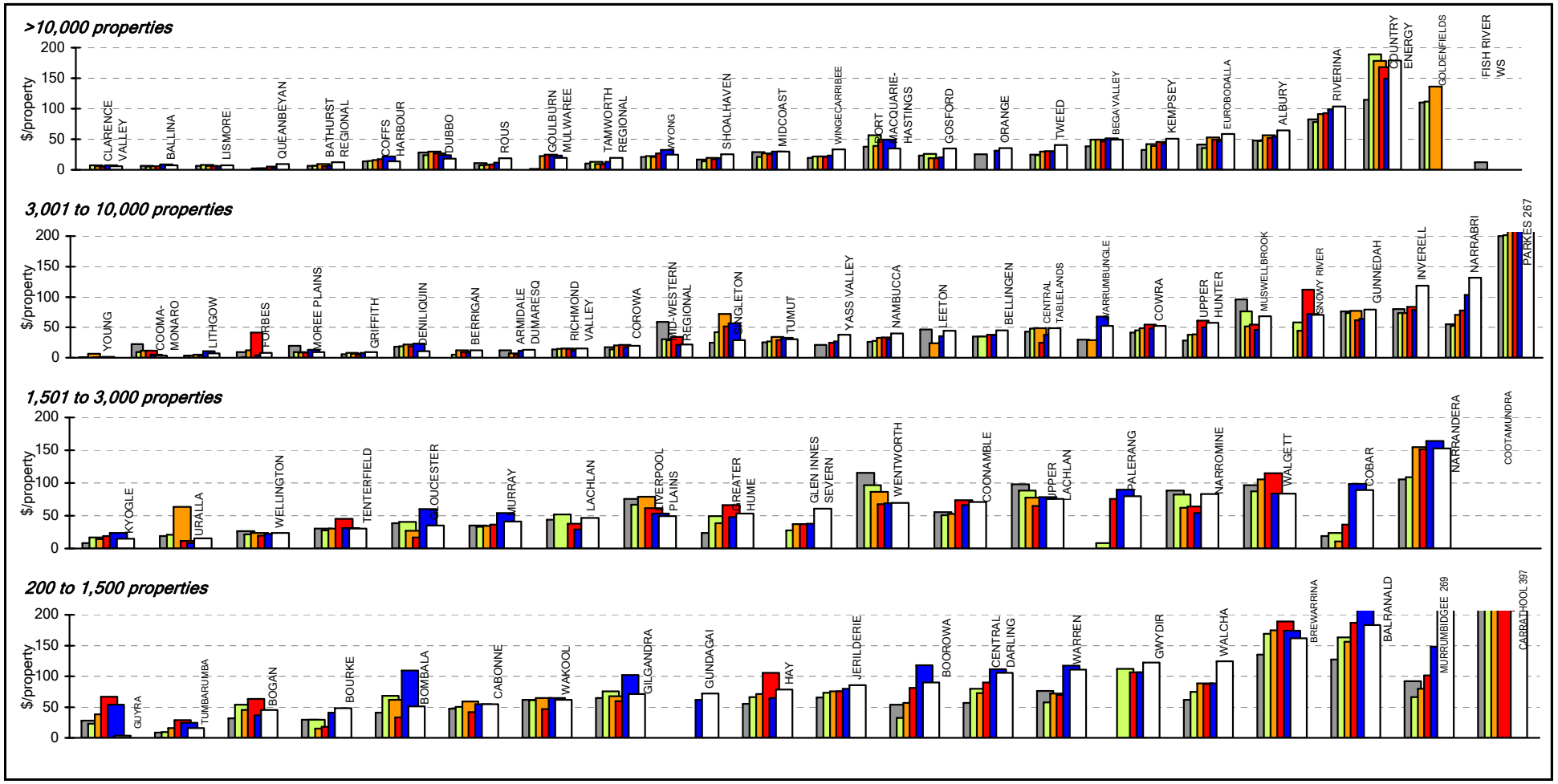
Parameter: Treatment Operation Expenses (W2j) + Treatment Chemical Cost (W2k) + Treatment Maintenance Expenses (W2l)

[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 2009-10 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 2009-10 treatment costs for the 24 LWUs shown ranges from $0 to $210 per connected property.The 1 LWU on the right did not report this indicator for 2009-10. Results for the previous 5 years are also shown in Jan 2010$.
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 $39 per connected property.
4. For general notes see page 30.

Figure 36: Pumping cost per property – water supply

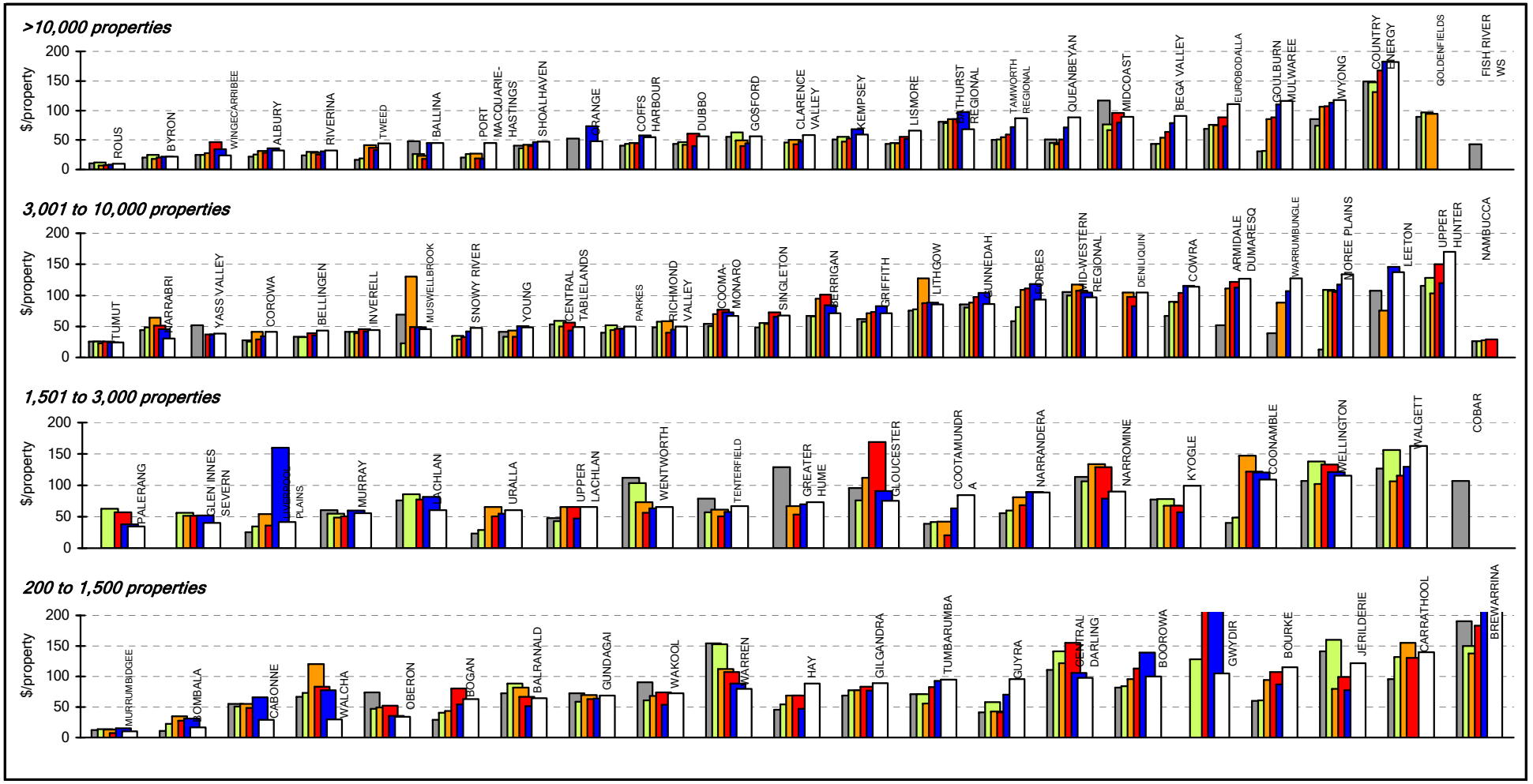


Parameter: Pumping Station Operation Expenses (W2g) + Pumping Station Energy Cost (W2h) + Pumping Station Maintenance Costs (W2i)
[No. of Residential Assessments (Q34) + No. of Non-Residential Assessments (Q35) x No. of Connected Properties per Assessment

Notes:

1. This figure shows ranked values of the 2009-10 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 2009-10 water pumping costs for the 28 LWUs shown ranges from $2 to $270 per connected property. Results for the previous 5 years are also shown in Jan 2010$.
2. The Statewide median water pumping cost (including energy costs) is $31 per connected property.
3. For general notes see page 30.

Figure 37: Water main cost per property – water supply



Parameter: Water main operation expenses (W2c) + water main maintenance costs (W2d)

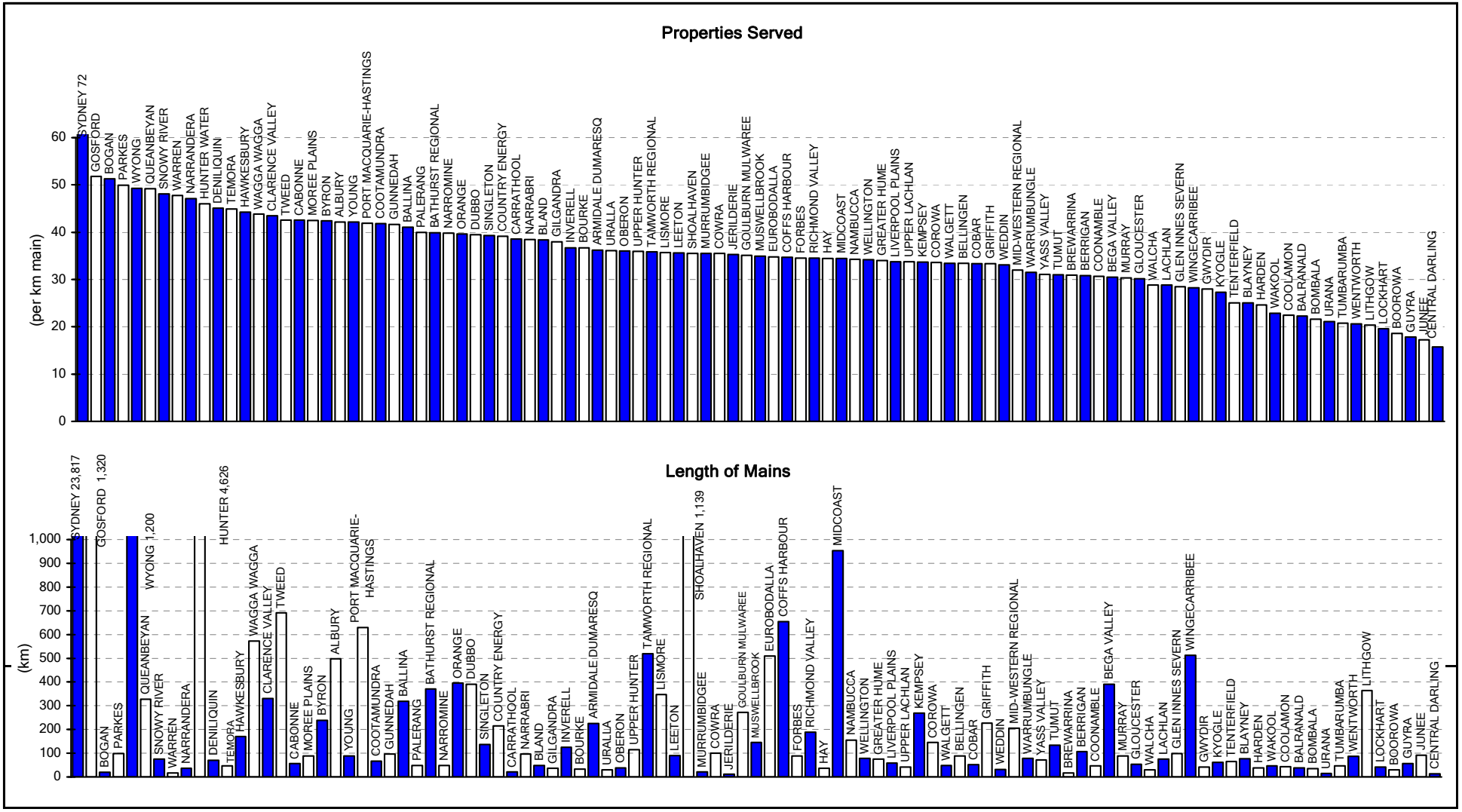
[No. of residential assessments (Q34) + No. of non-residential assessments (Q35) x No. of connected properties per assessment

Notes:

1. This figure shows ranked values of the 2009-10 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 2009-10 water main costs for the 28 LWUs shown ranges from $24 to $170 per property. The 1 LWU on the right did not report this indicator for 2009-10. Results for the previous 5 years are also shown in Jan 2010$.
2. The Statewide median water main cost is $56 per property.
3. For general notes see page 30.

9. Sewerage figures

Figure 38: Properties served per km of main, length of mains – sewerage

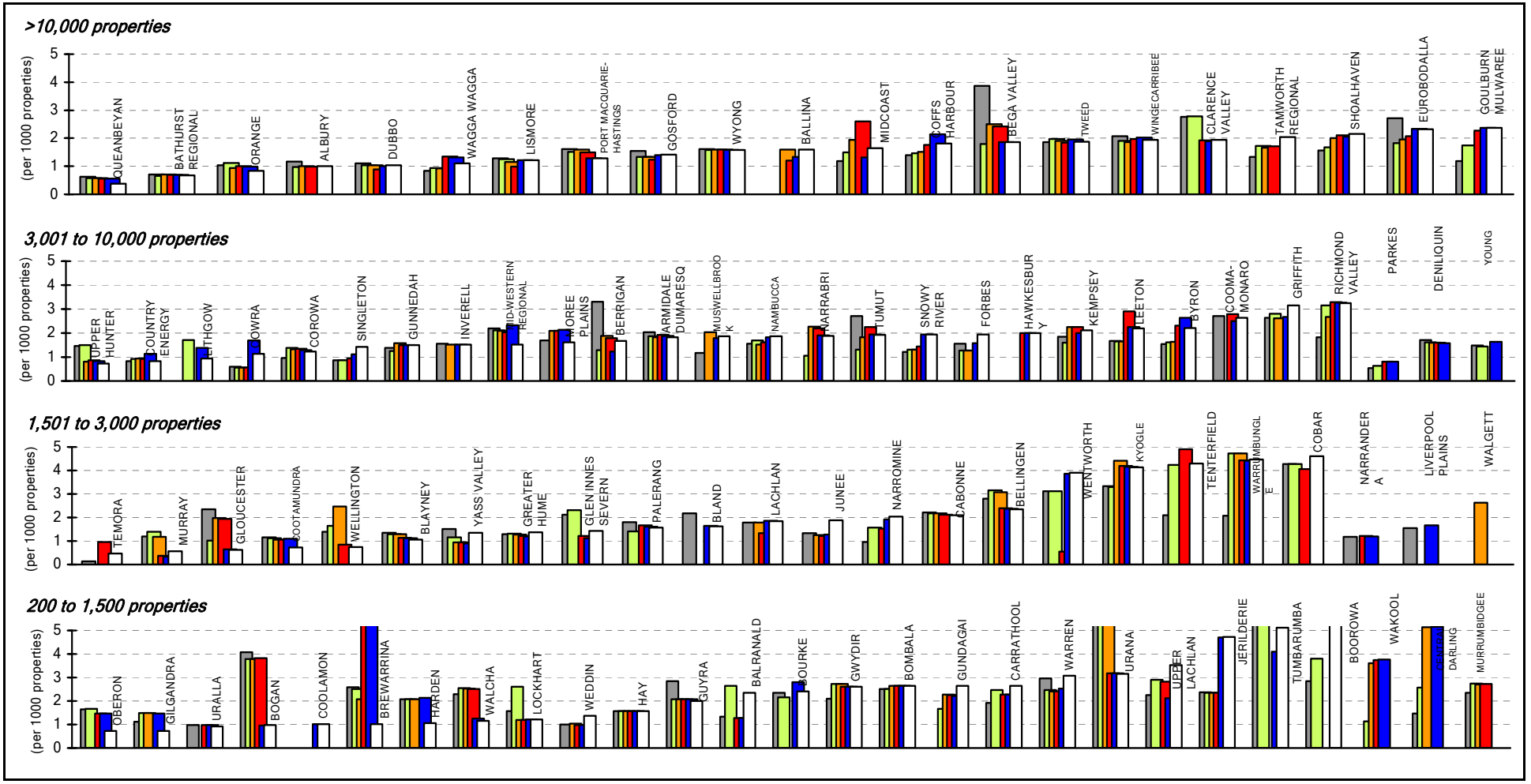


Parameter [No. of Residential Assessments (Q15) + No. of Non-Residential Assessments (Q16) x No. of Connected Properties per Assessment
Length of Reticulation/Gravity Mains (Q7) + Length of Rising Mains (Q8)

Note:

1. For general notes see page 30.

Figure 39: Employees – sewerage

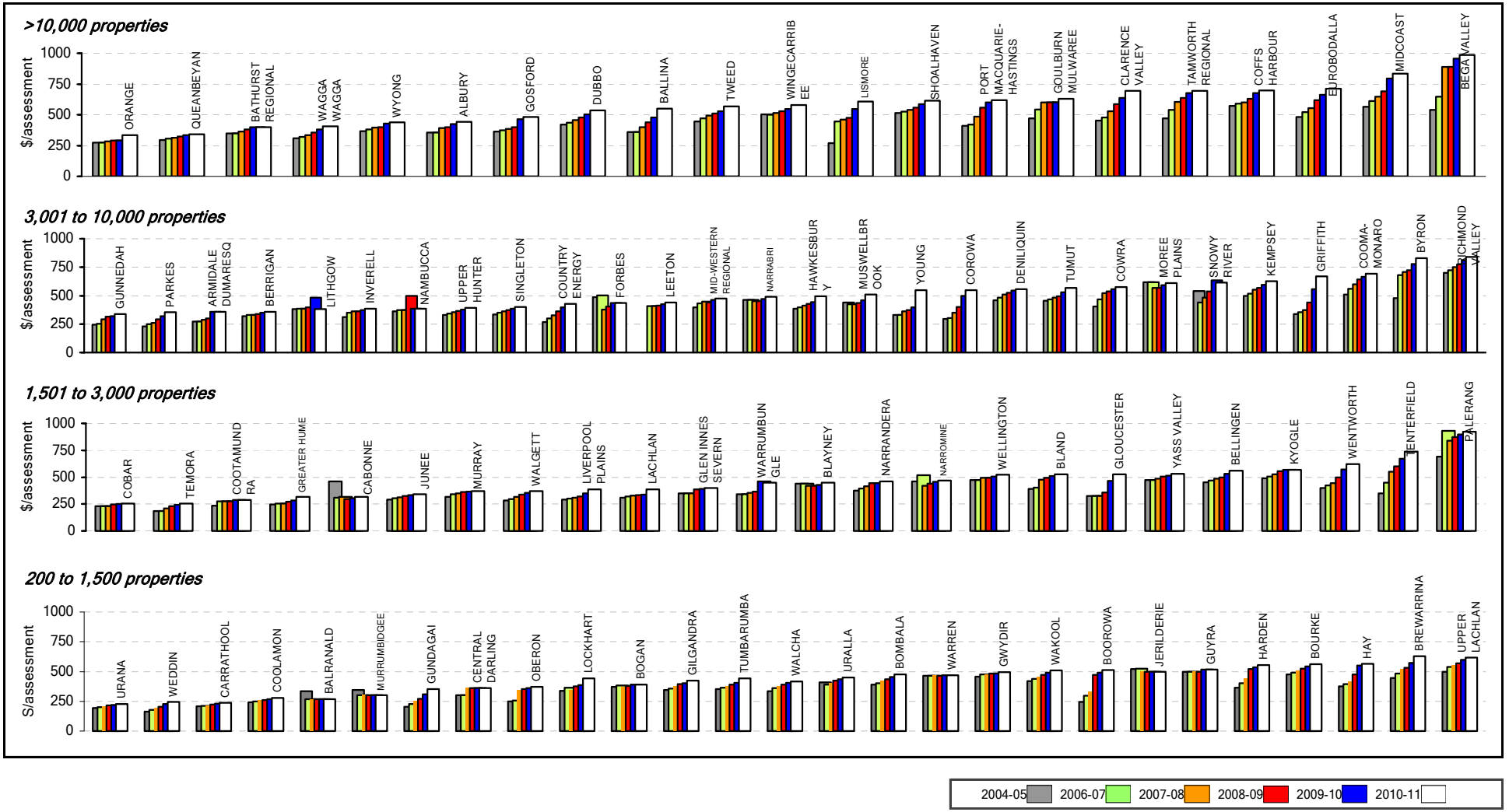


Parameter: $\frac{\text{Full-time Equivalent Employees (Q49) x 1000}}{\text{[No. of Residential Assessments (Q15) + No. of Non-Residential Assessments (Q16) x No. of Connected Properties per Assessment}}$

Notes:

1. This figure shows ranked values of the 2009-10 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 2009-10 sewerage employees for the 28 LWUs shown ranges from about 1 to 3 per 1000 connected properties. Results for the previous 5 years are also shown.
2. The 2009-10 Statewide median number of sewerage employees is 1.6 per 1000 connected properties.
3. For general notes see page 30.

Figure 40: Typical residential bill – sewerage

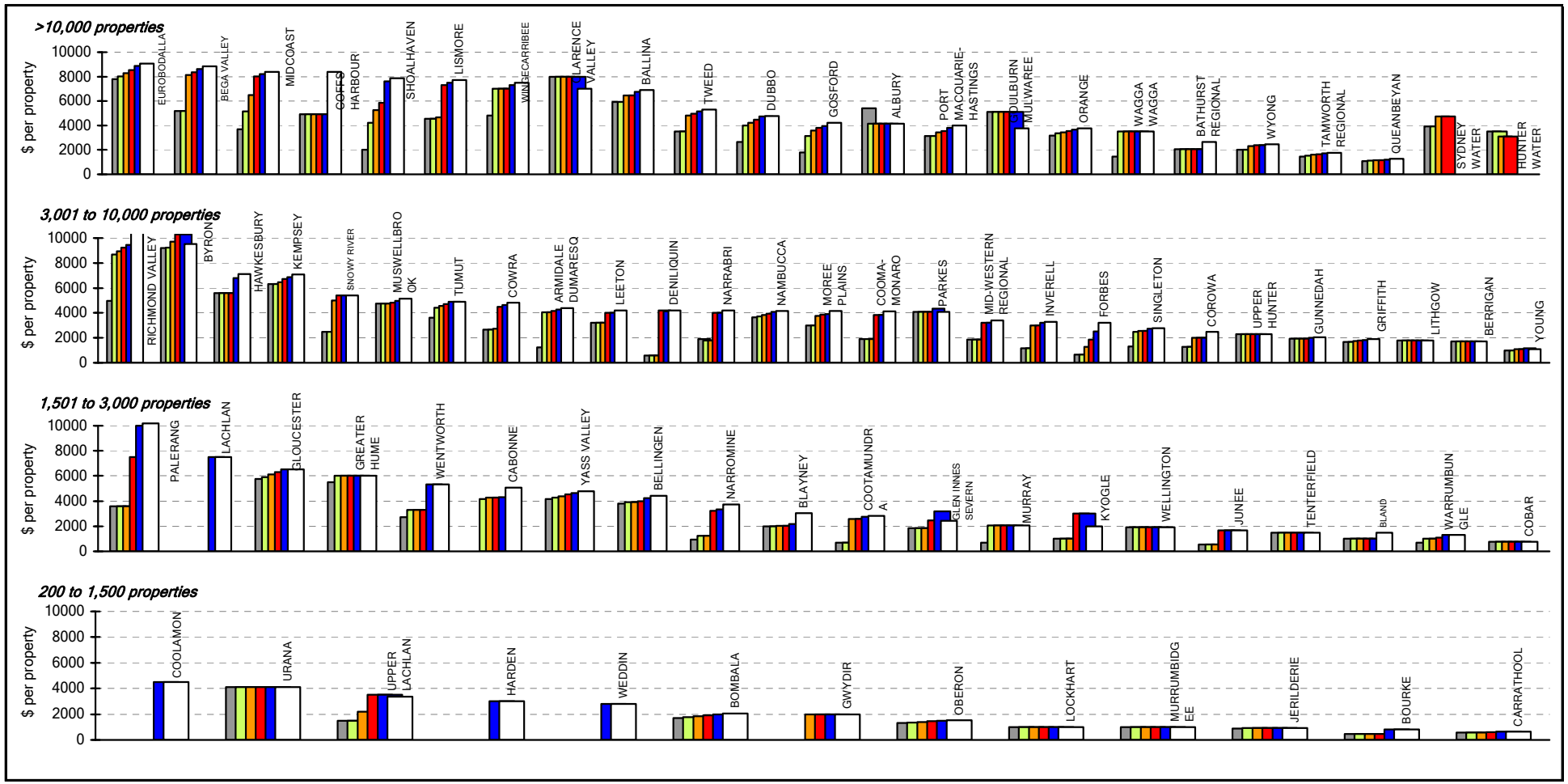


Parameter: Residential Access Charge

Notes:

1. This figure shows ranked values of the 2010-11 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 2010-11 typical residential bill for sewerage for the 28 LWUs shown ranges from about $340 to $840. Results for the previous 5 years are also shown in Jan 2011$.
2. The 2010-11 Statewide median typical residential bill for sewerage supply is $530 per assessment.
3. For general notes see page 30.

Figure 41: Typical developer charge – sewerage

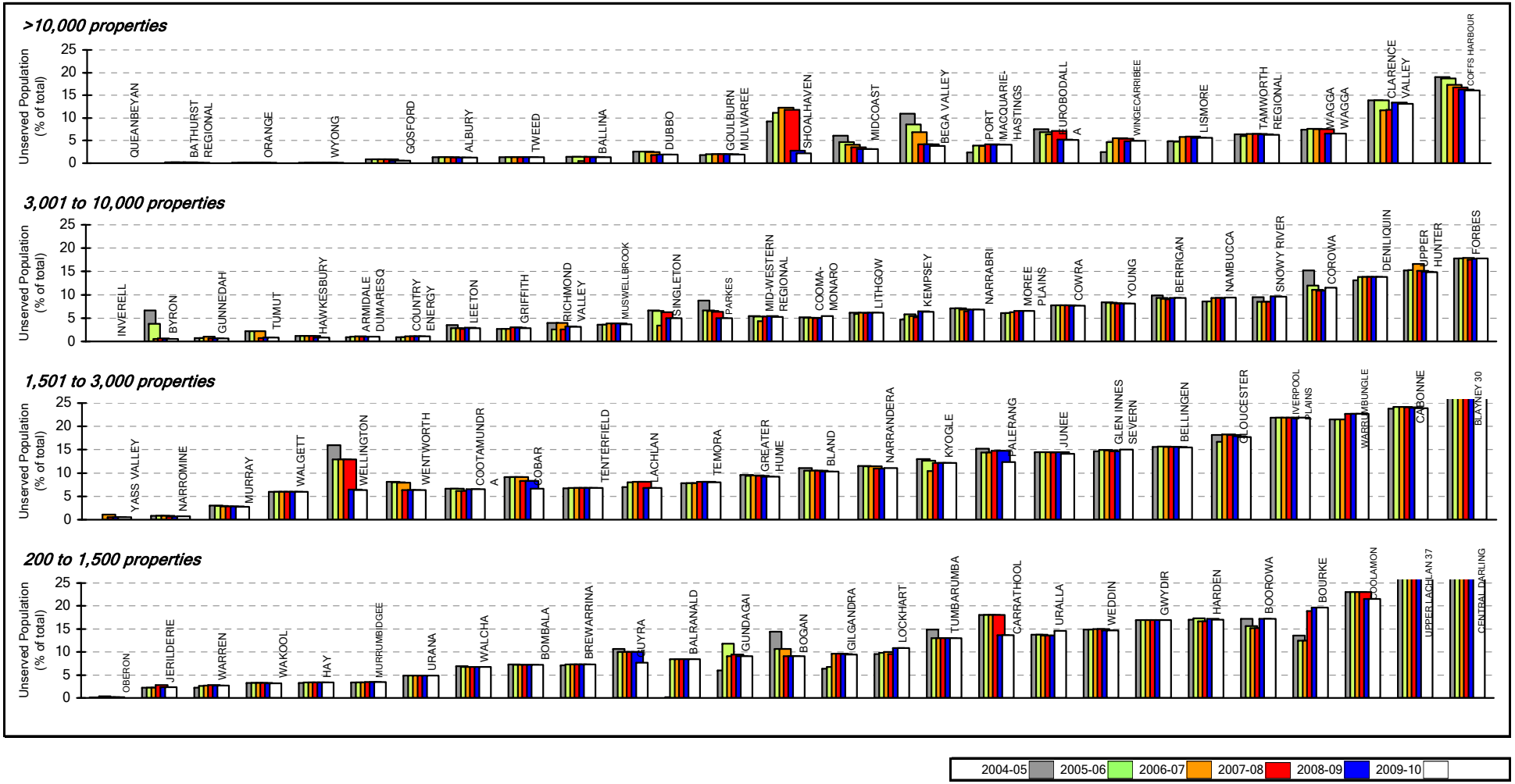


Parameter: Typical Sewerage Developer Charge (Q62)

Notes:

1. This figure shows ranked values of the 2010-11 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 28 LWUs shown ranges from from $12600 to nil per equivalent tenement (ET). Results for the previous 5 years are also shown in Jan 2011$.
2. The 2010-11 Statewide median typical sewerage developer charge was about $4200 per ET.
3. 80 LWUs levied sewerage developer charges.
4. For general notes see page 30.

Figure 42: Urban population without sewerage – sewerage



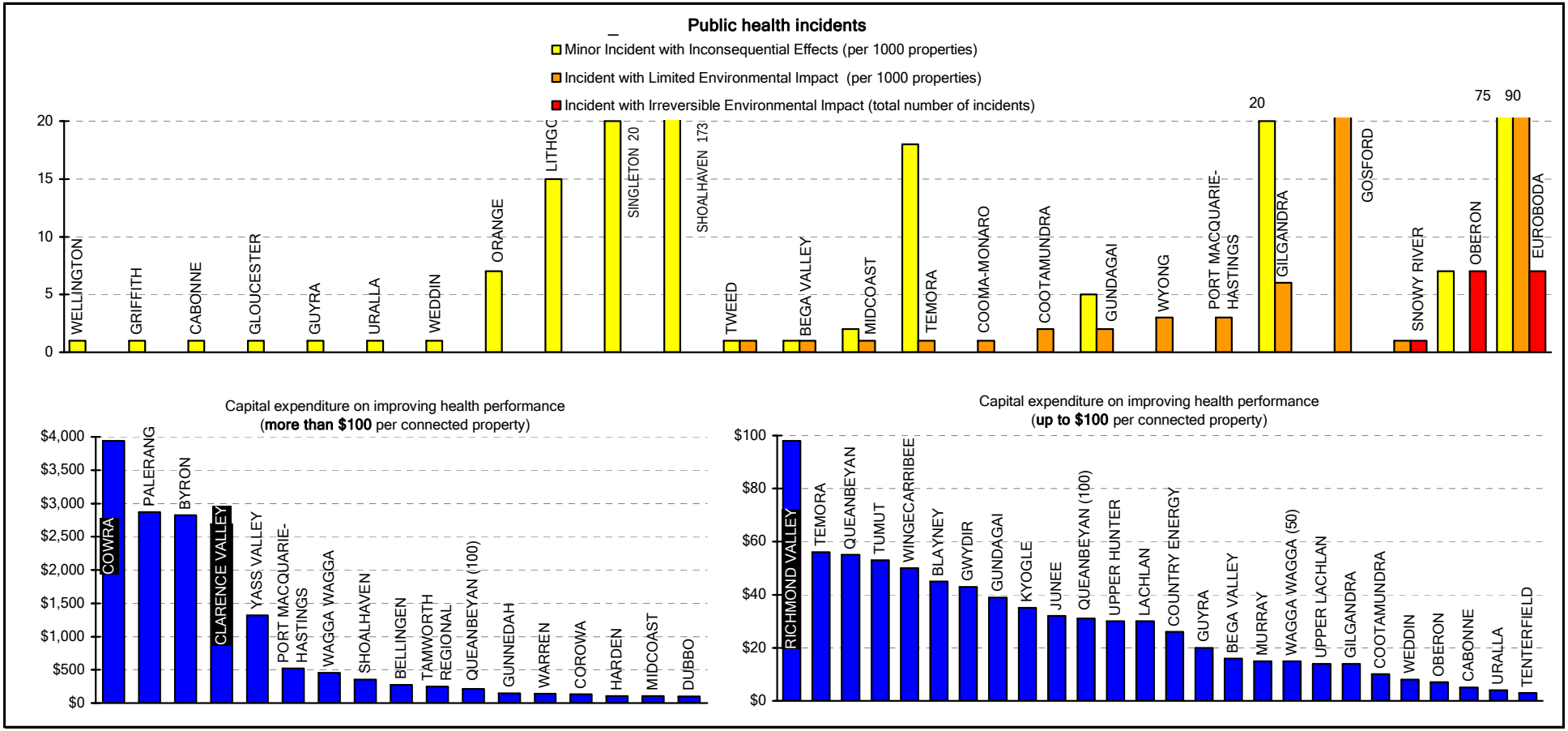
Parameter:

$$\frac{\text{Unserved urban population (Q21)}}{\text{Population served (Q1) + unserved urban population (Q21)}}$$

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 28 LWUs shown ranges from from nil to 18 %. Results for the previous 5 years are also shown.
2. The 2009-10 Statewide median urban population without a reticulated sewerage service was 3.9%.
3. The percentage of urban population without a reticulated sewerage service for the median LWU was 6%.
4. Overall, 95.3% of the urban population in non-metropolitan NSW (ie. 1.7 million people) received a reticulated sewerage service.
5. For general notes see page 30.

Figure 43: Public health incidents, capital expenditure – sewerage



Parameter: Total No. of minor incidents with inconsequential effects (Q44)
[No. of residential assessments (Q15) + No. of non-residential assessments (Q16)] x No. of connected properties per assessment

Parameter: Total No. of minor incidents with limited health impacts (Q45)
[No. of residential assessments (Q15) + No. of non-residential assessments (Q16)] x No. of connected properties per assessment

Parameter: Total No. of major incidents with major health impacts (Q46)
[No. of residential assessments (Q15) + No. of non-residential assessments (Q16)] x No. of connected properties per assessment

Parameter: Capital expenditure on improving health performance (S) x (Q48)
[No. of residential assessments (Q15) + No. of non-residential assessments (Q16)] x No. of connected properties per assessment

Notes:

1. The following 7 utilities did not report public health incidents: Central Darling, Deniliquin, Liverpool Plains, Murrumbidgee, arrathool, Murrumbidgee, Richmond Valley, Wakool and Young. 25 Utilities reported incidents and are shown in the figure above, while 66 utilities reported zero health incidents.
2. For general notes see page 30.

Figure 44: Complaints (per 1,000 properties) – sewerage

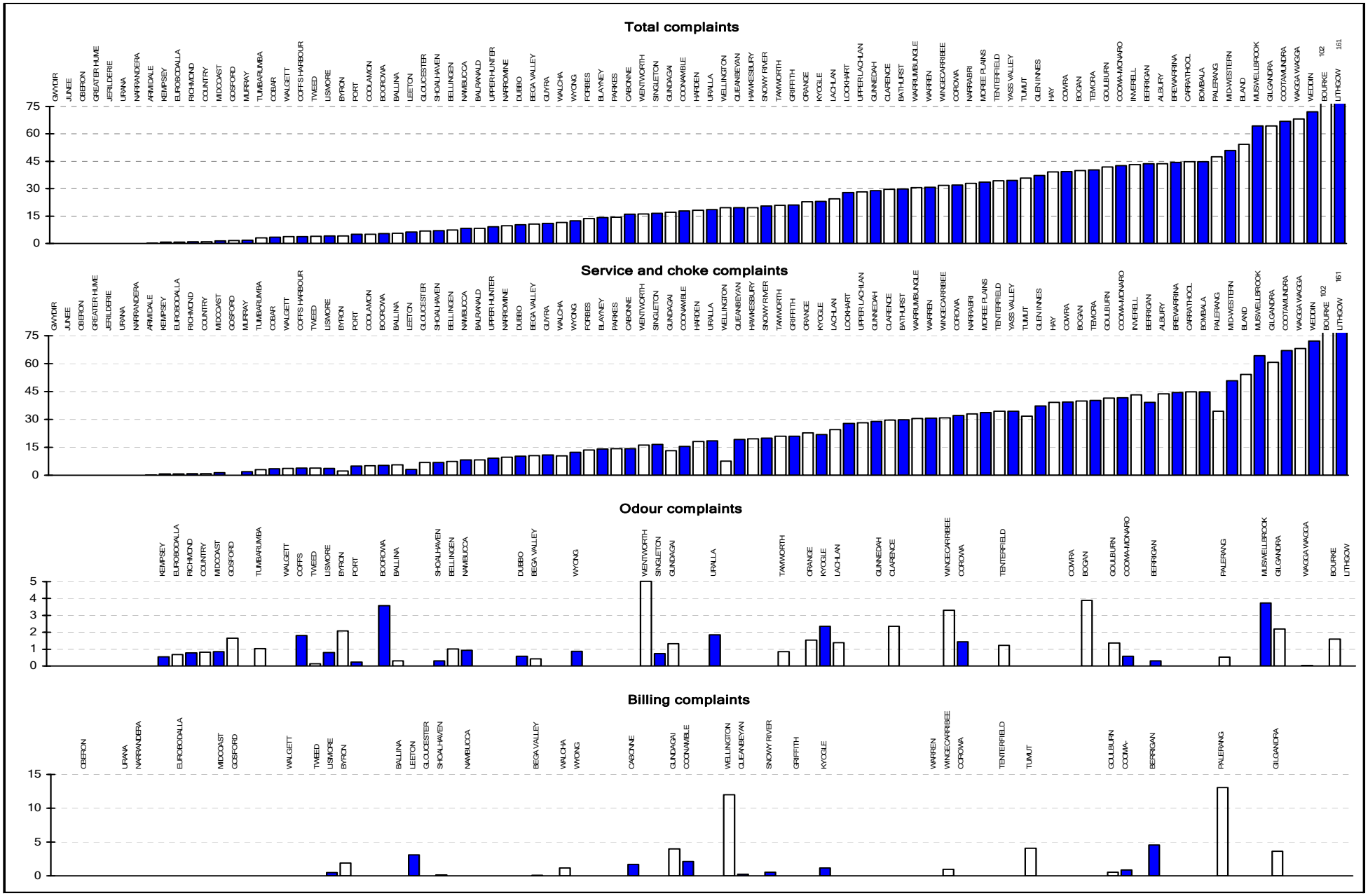


Figure 44: Complaints (per 1,000 properties) – sewerage (continued)

Complaints (per 1000 properties) - sewerage

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: $\frac{\text{No. of odour complaints reported (Q39)}}{\text{[No. of residential assessments (Q15) + No. of non-residential assessments (Q16)] x No. of connected properties per assessment}}$

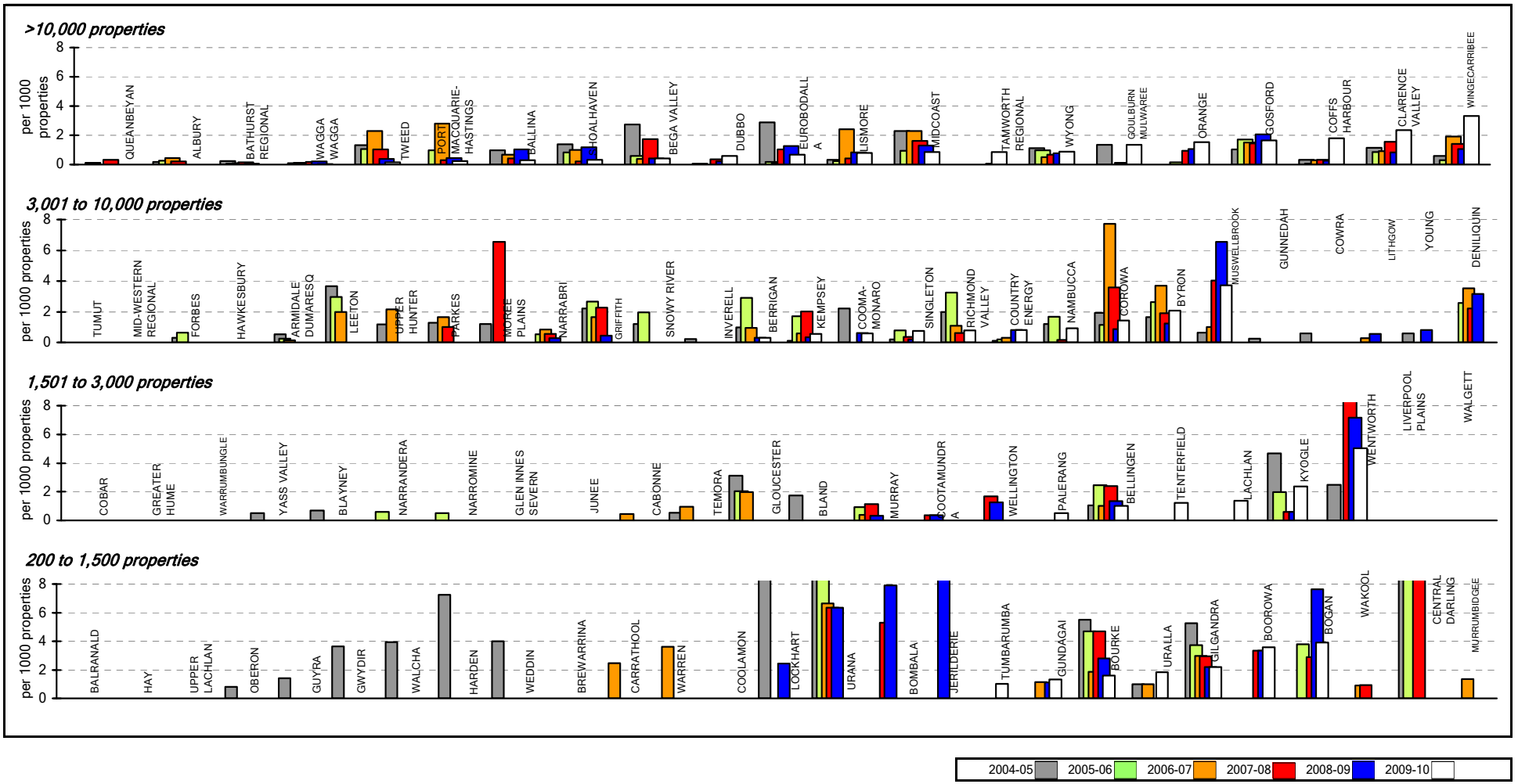
Parameter: $\frac{\text{No of billings complaints reported (Q37)}}{\text{[No. of residential assessments (Q15) + No. of non-residential assessments (Q16)] x No. of connected properties per assessment}}$

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 30.

Figure 45: Odour complaints – sewerage

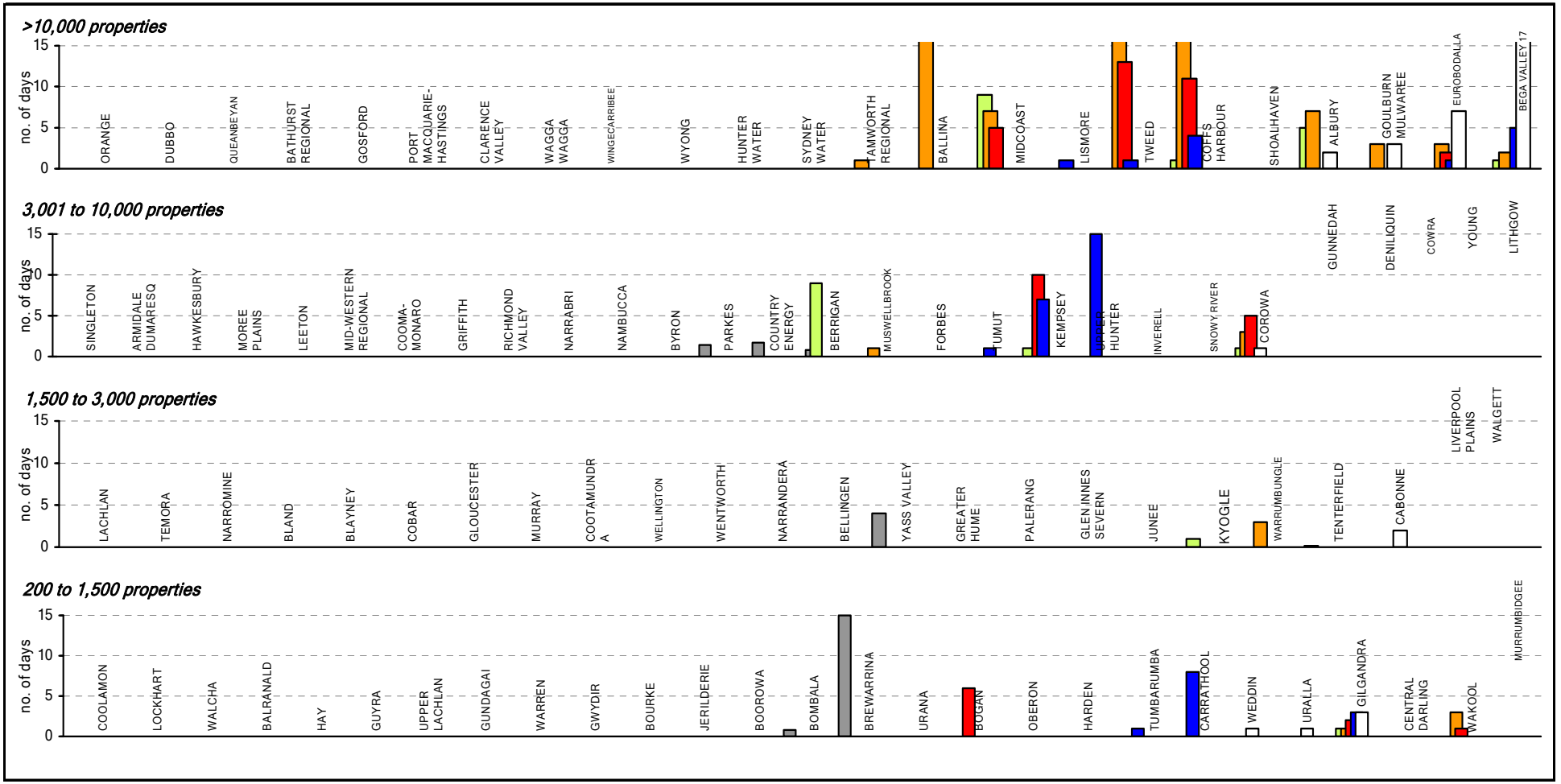


Parameter: [No. of Odour Complaints from Treatment Works and Pumping Stations (Q39) x 1000] / [No. of Residential Assessments (Q15) + No. of Non-Residential Assessments (Q16)] x No. of Connected Properties per Assessment

Notes:

1. This figure shows ranked values of the 2009-10 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 28 LWUs shown ranges from 0 to 3.7 complaints per thousand connected properties.The 2 LWUs on the right did not report this indicator for 2009-10. Results for the previous 5 years are also shown.
2. The 2009-10 Statewide median number of odour complaints is 0.6 per 1000 properties.
3. For general notes see page 30.

Figure 46: Treatment works malfunction – sewerage

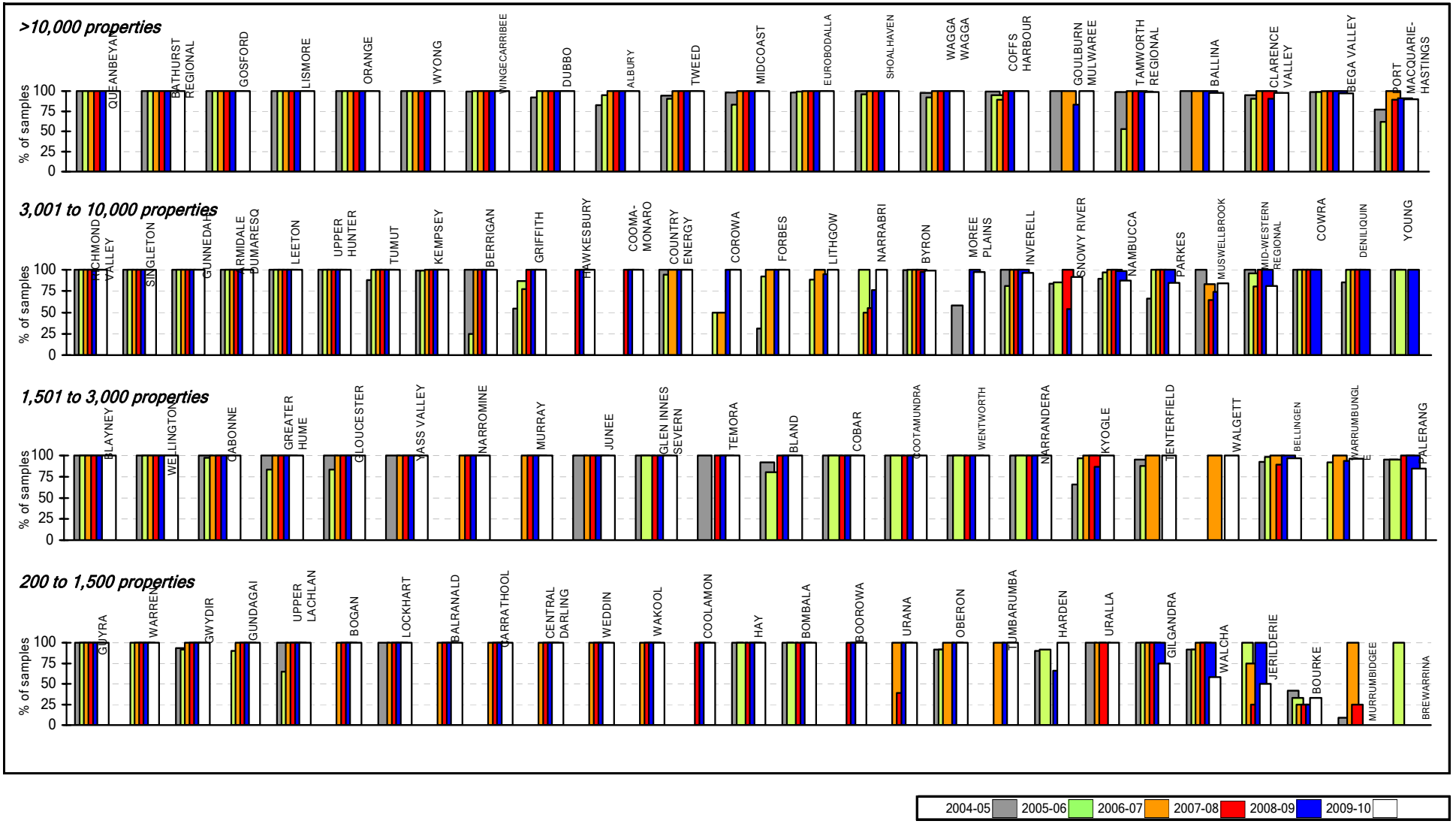


Parameter: Number of Days of major Malfunction of Treatment Processes (STW Q67)

Notes:

1. The figure shows the 2009-10 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 28 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 30.

Figure 47: Compliance with BOD in licence – sewerage

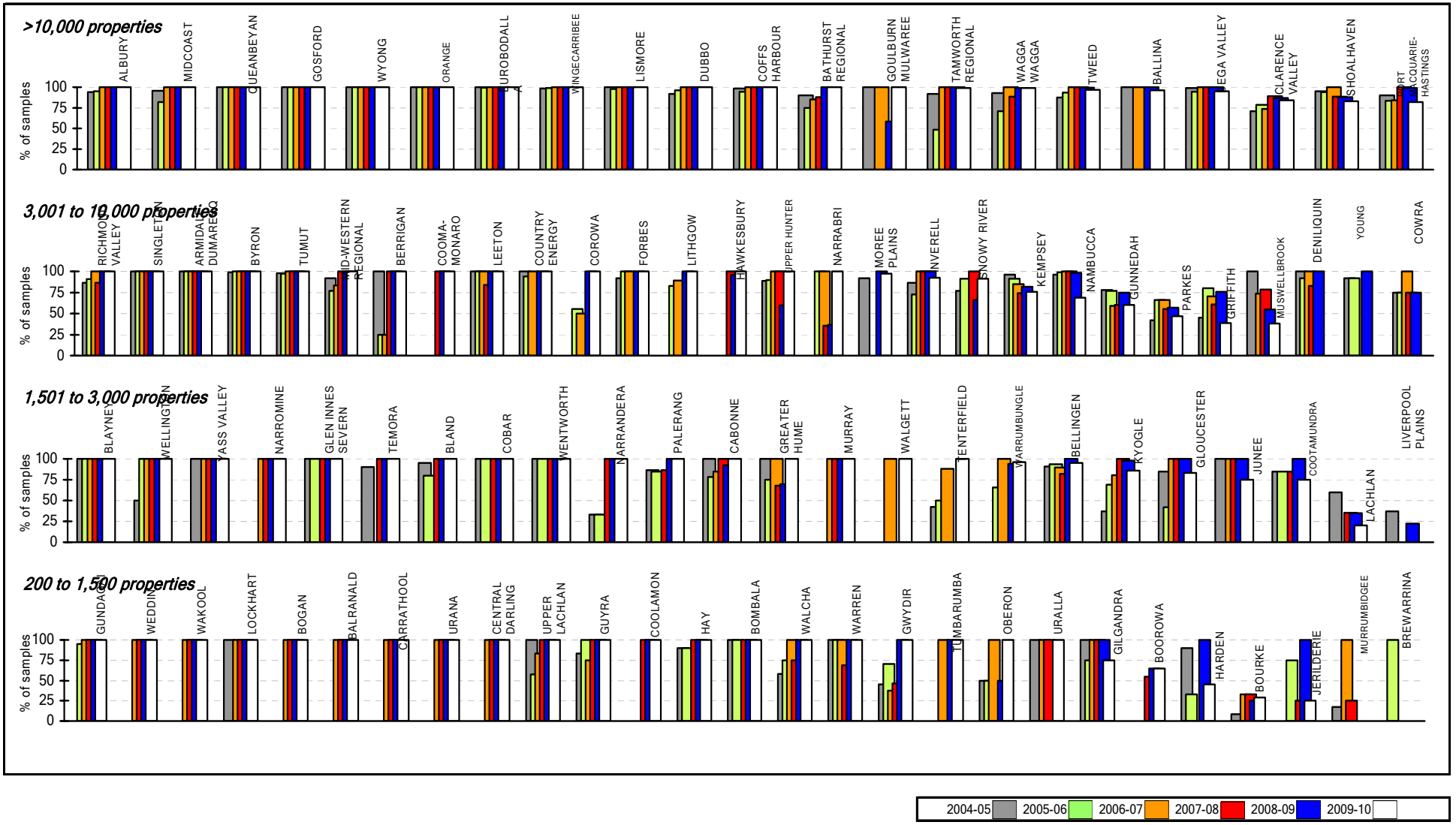


Parameter: Percentage of samples complying with 90 percentile Department of Environment and Conservation (DEC) licence limits for Biochemical Oxygen Demand (BOD) (STW Q50)

Note:

1. For general notes see page 30.

Figure 48: Compliance with SS in licence – sewerage

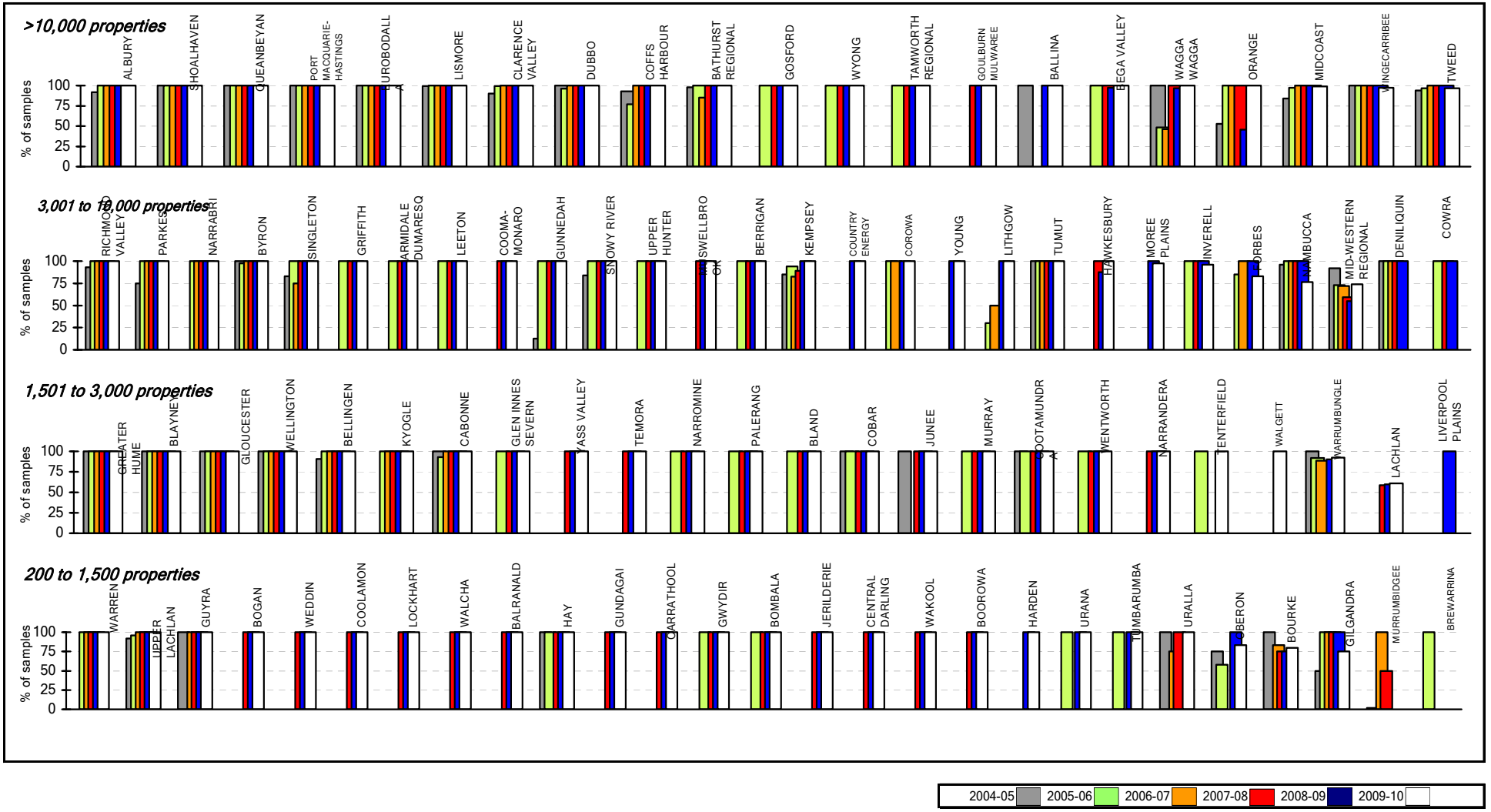


Parameter: Percentage of samples complying with 90 percentile Department of Environment and Conservation (DEC) licence limits for Suspended Solids (SS) (STW Q52)

Note:

1. For general notes see page 30.

Figure 49: Compliance with N in licence – sewerage

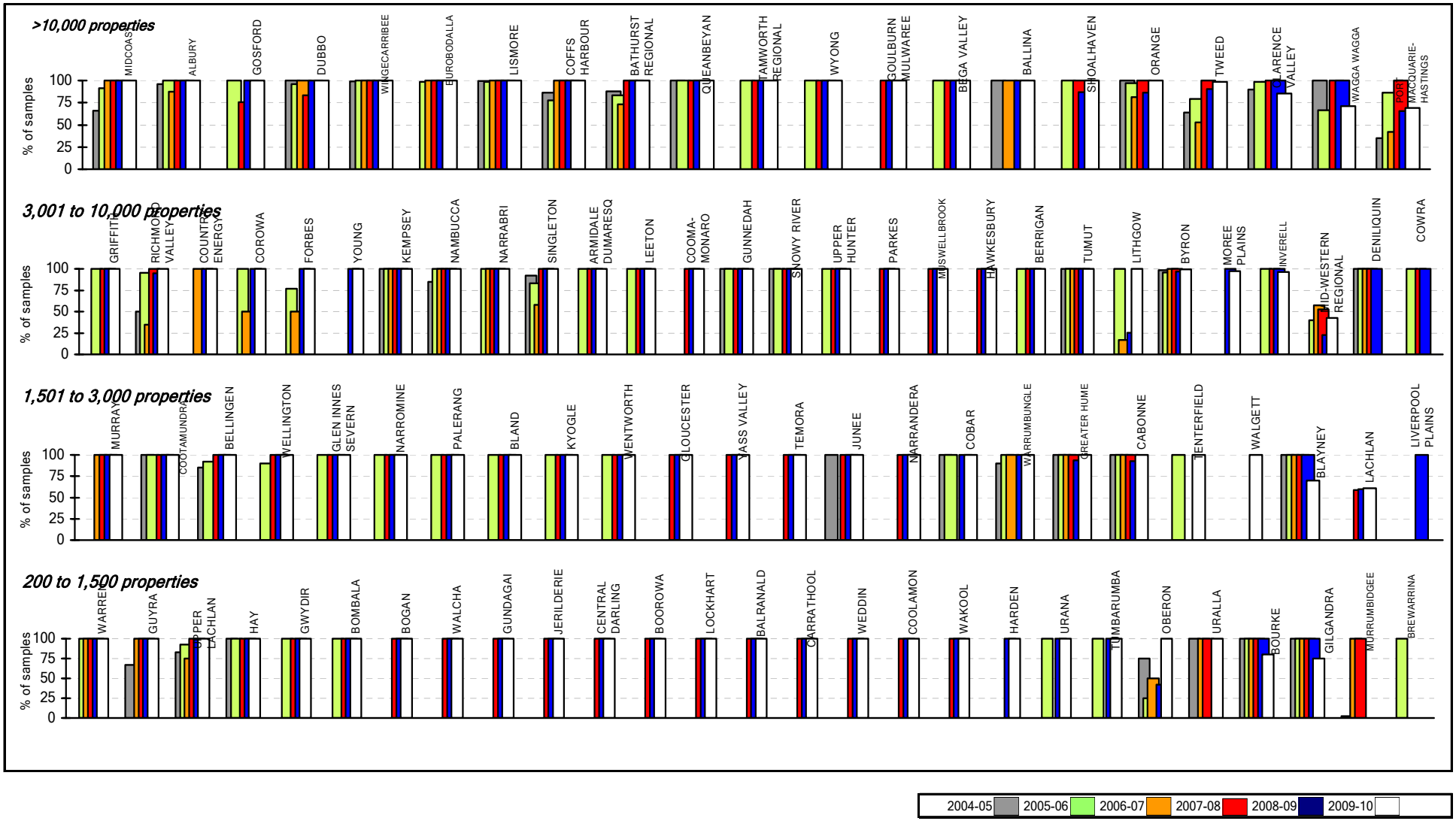


Parameter: Percentage of samples complying with 90 percentile Department of Environment and Conservation (DEC) licence limits for Total Nitrogen (STW Q54)

Note:

1. For general notes see page 30.

Figure 50: Compliance with P in licence – sewerage

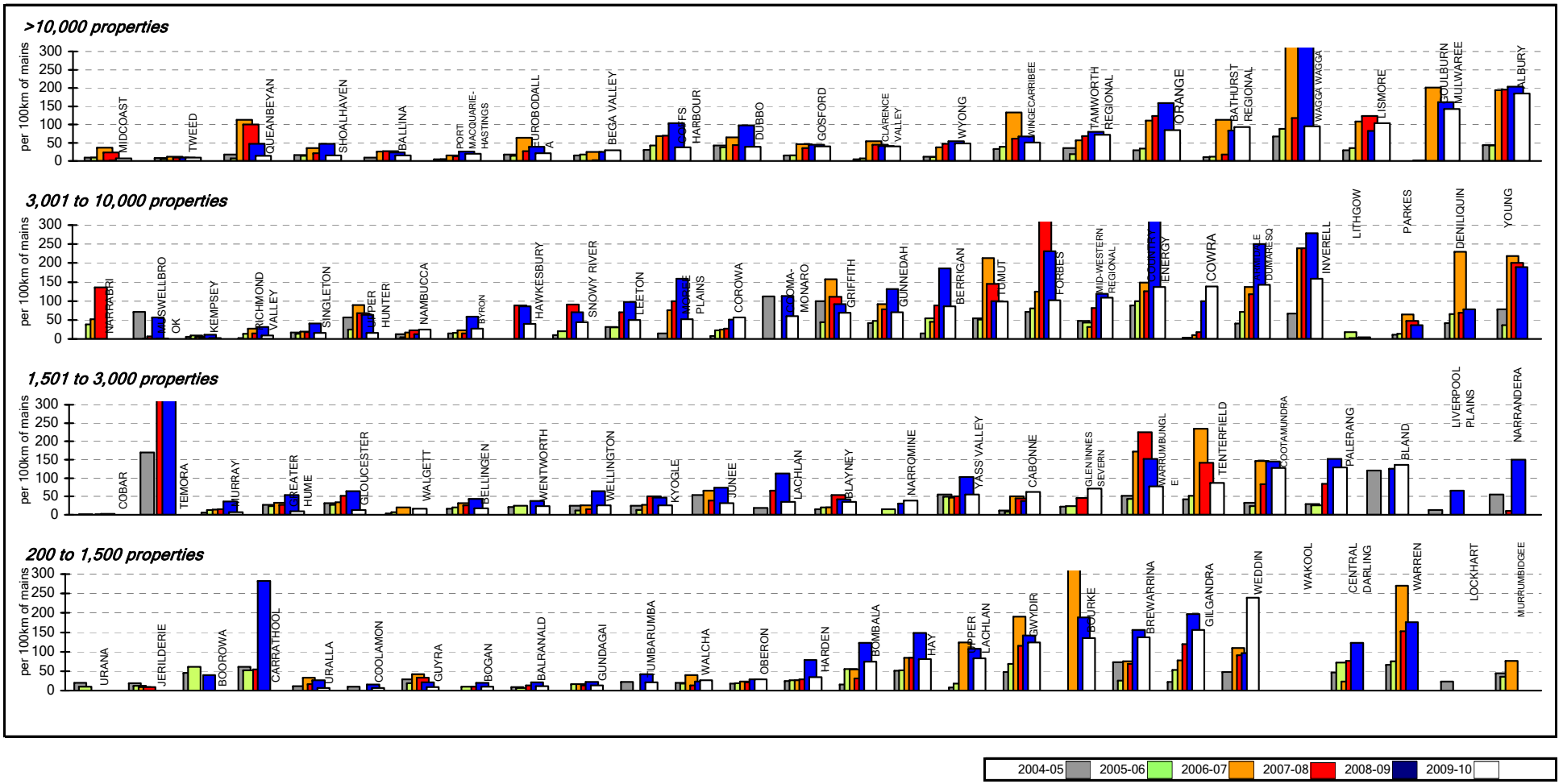


Parameter: Percentage of samples complying with 90 percentile Department of Environment and Conservation (DEC) licence limits for Total Phosphorus (STW Q60)

Note:

1. For general notes see page 30.

Figure 51: Sewerage main breaks and chokes – sewerage

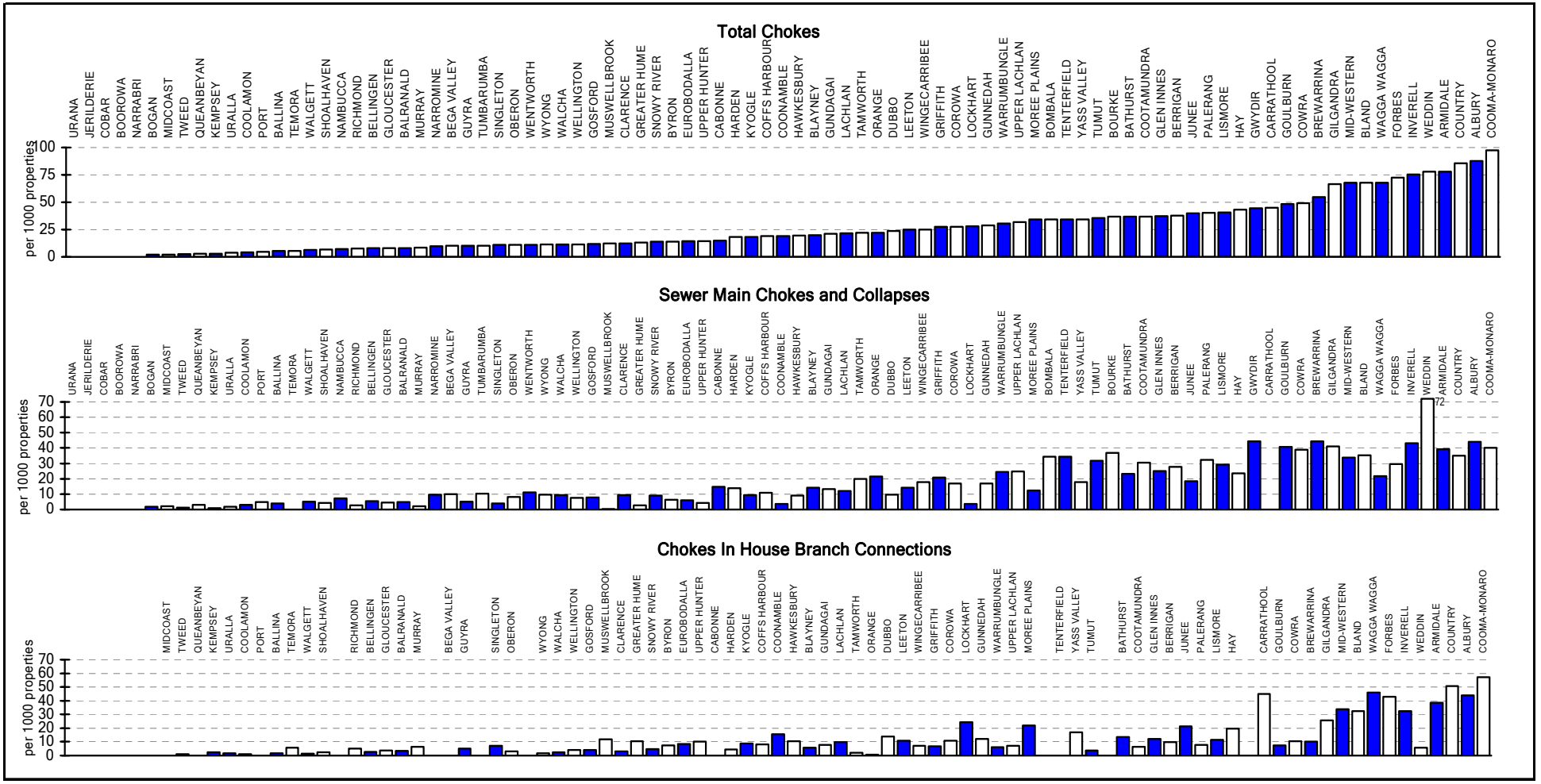


Parameter: Total No. of Sewerage Main Breaks and Chokes (Q64) x 100
Length of Reticulation/Gravity Mains (Q7) + Length of Rising Mains (Q8)

Notes:

1. This figure shows ranked values of the 2009-10 sewerage main breaks and chokes 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 2009-10 sewerage main breaks and chokes for the 24 LWUs shown ranges from nil to 159 chokes per 100 km of sewer mains. The 1 LWU on the right did not report this indicator for 2009-10 Results for the previous 5 years are also
2. Note NWI Indicator A14 (sewerage main breaks and chokes) was revised for 2009/10 to exclude property connection sewer breaks and chokes which were previously included in this indicator The results shown for 2004/05 to 2008/09 are based on the previous definition which includes property connections sewer breaks and chokes.
3. The Statewide median sewerage main breaks and chokes is 39 per 100 km of sewer mains.
4. 9% of LWUs were unable to report on this item and those LWUs should institute a system to record and report such occurrences.
5. For general notes see page 30.

Figure 52: 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

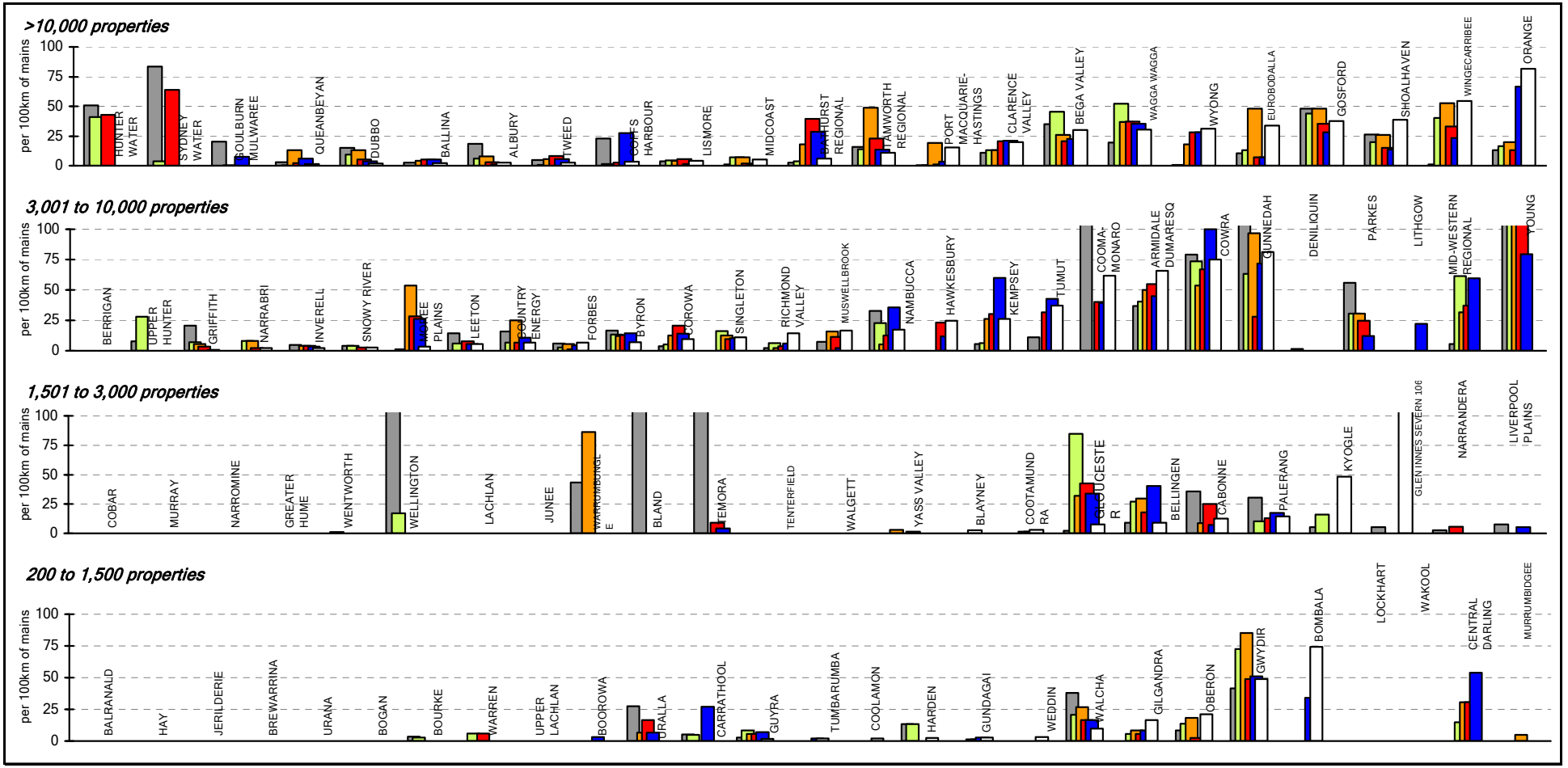
Parameter: No. of Confirmed Sewer Chokes (Q64) x 1000
[No. of Residential Assessments (Q15) + No. of Non-Residential Assessments (Q16) x No. of Connected Properties per Assessment

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

Note:

1. For general notes see page 30.

Figure 53: Sewer overflows to the environment – sewerage



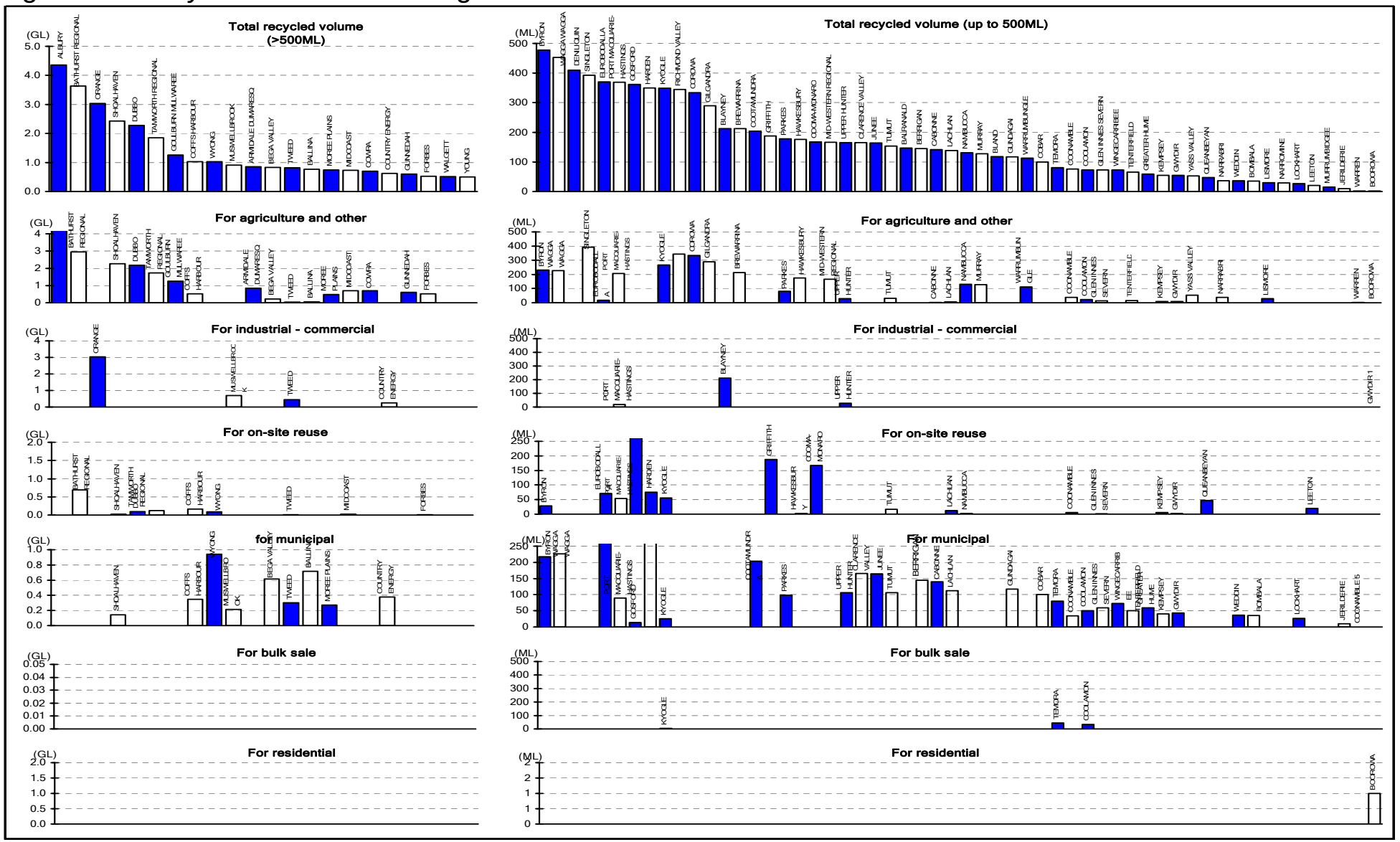
Parameter:

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

Notes:

1. This figure shows ranked values of the 2009-10 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 2009-10 sewer overflows to the environment for the 28 LWUs shown ranges from nil to 81 overflows per 100 km of sewer mains. The 5 LWUs on the right did not report this indicator for 2009-10 Results for the previous 5 years are also shown.
2. The Statewide median sewer overflows to the environment is 15 per 100 km of sewer mains.
3. 33% of reporting LWUs reported no sewer overflows.
4. For general notes see page 30.

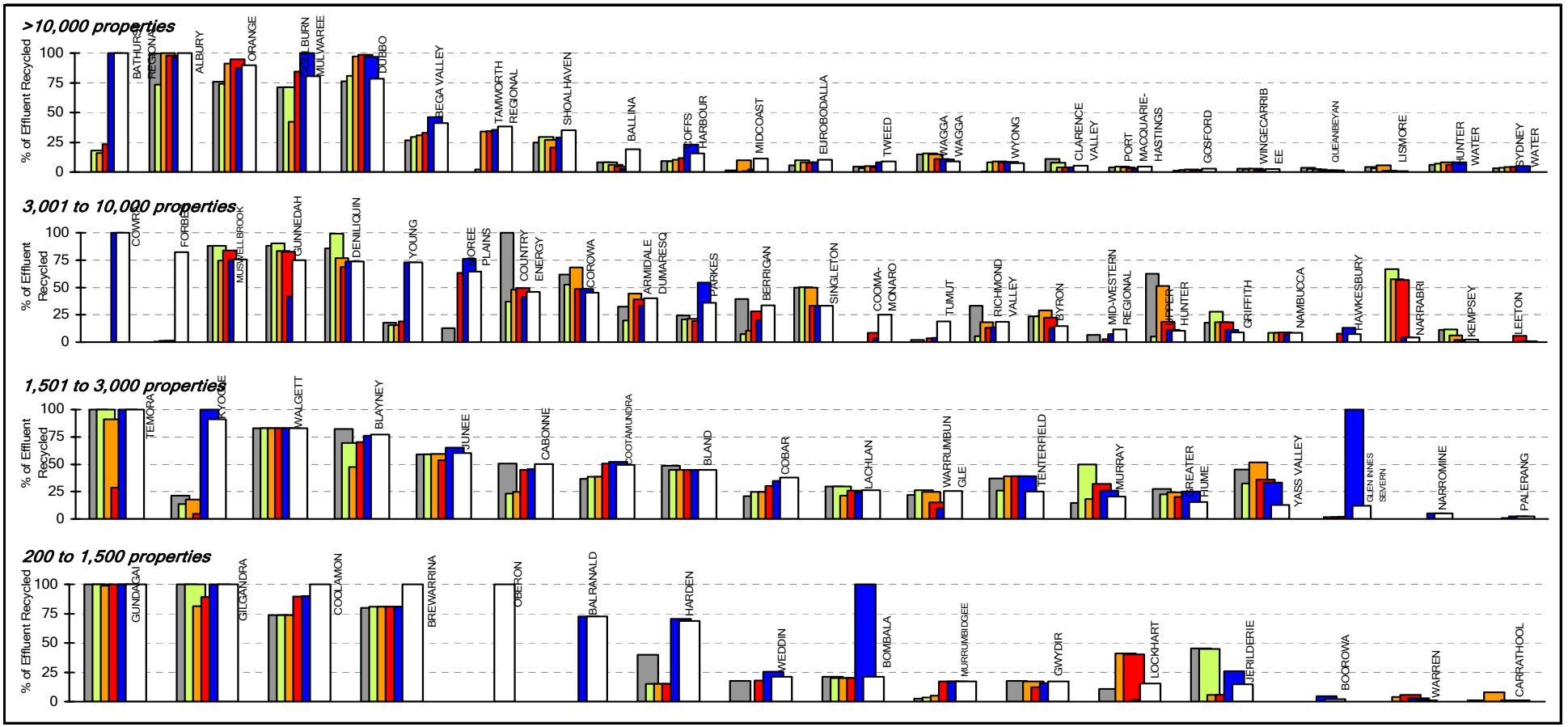
Figure 54: Recycled water – sewerage



Notes:

1. The total volume of recycled water for non-metropolitan NSW was 39,000 ML, which was 24% of the total volume of sewage collected. Re-use was carried out by 80% of LWUs. 25% of LWUs recycled over 50% of their effluent.
2. Refer also to page 9 of the 2009-10 NSW Water Supply and Sewerage Performance Monitoring Report.
3. For general notes see page 30.

Figure 55: Recycled water (% of effluent recycled) – sewerage



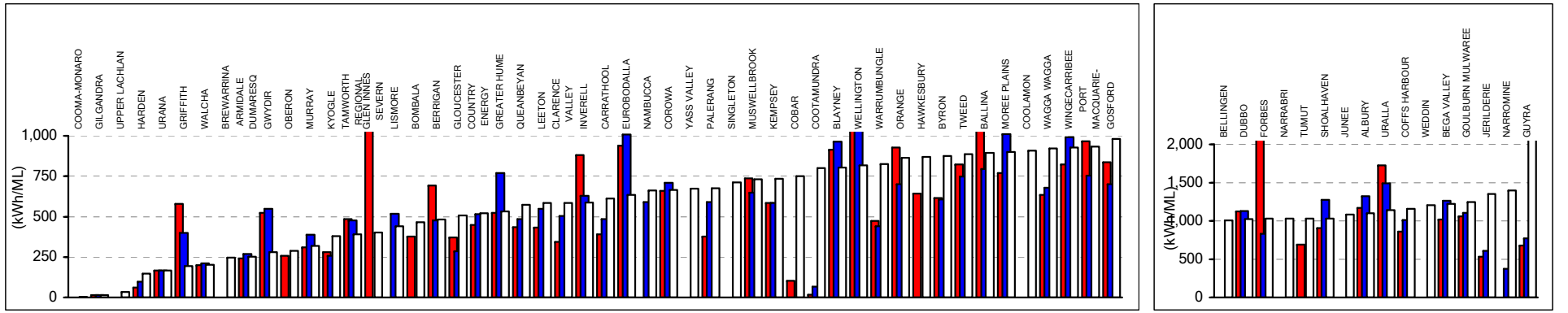
Parameter: $\frac{\text{Total Volume Recycled (STW Q25) x 100}}{\text{Volume of Sewage Receiving Secondary Treatment (STW Q18)}}$

2004-05 | 2005-06 | 2006-07 | 2007-08 | 2008-09 | 2009-10

Notes:

1. This figure shows ranked values of the 2009-10 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 2009-10 recycled water (% of sewage effluent recycled) for the 28 LWUs shown ranges from 100% to 0%. Results for the previous 5 years are also shown.
2. The 2008-09 result has been adopted for the 2 LWUs that did not report but historically report consistent effluent reuse (generally >25%). These LWUs are shown in italics bold in Table 5 on page 110.
3. The Statewide median reuse of recycled water is 11% of effluent recycled.
4. The total volume of recycled water for non-metropolitan NSW was 39,000 ML, which was 24% of the total volume of sewage collected. Re-use was carried out by 80% of LWUs. 25% of LWUs recycled over 50% of their effluent.
5. Refer also to page 9 of the 2009-10 NSW Water Supply and Sewerage Performance Monitoring Report.
6. For general notes see page 30.

Figure 56: Energy consumption per ML – sewerage

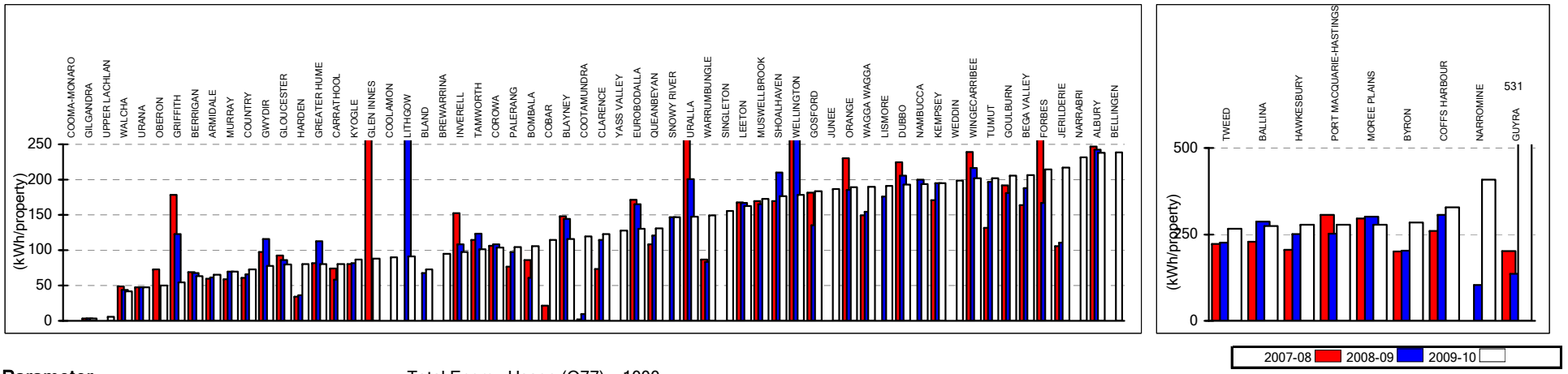


Parameter: $\frac{\text{Total Energy Usage (S Q77) x 1000}}{\text{Total Volume of Sewage Collected ((Q26)}}$

Notes:

1. This figure shows ranked values of the 2009-10 total energy consumption per ML. The energy consumption per ML for the 65 Local Water Utilitites (LWUs) shown range from about 2 to 4900kWh per connected property.
2. For general notes see page 30.

Figure 57: Energy consumption per property – sewerage

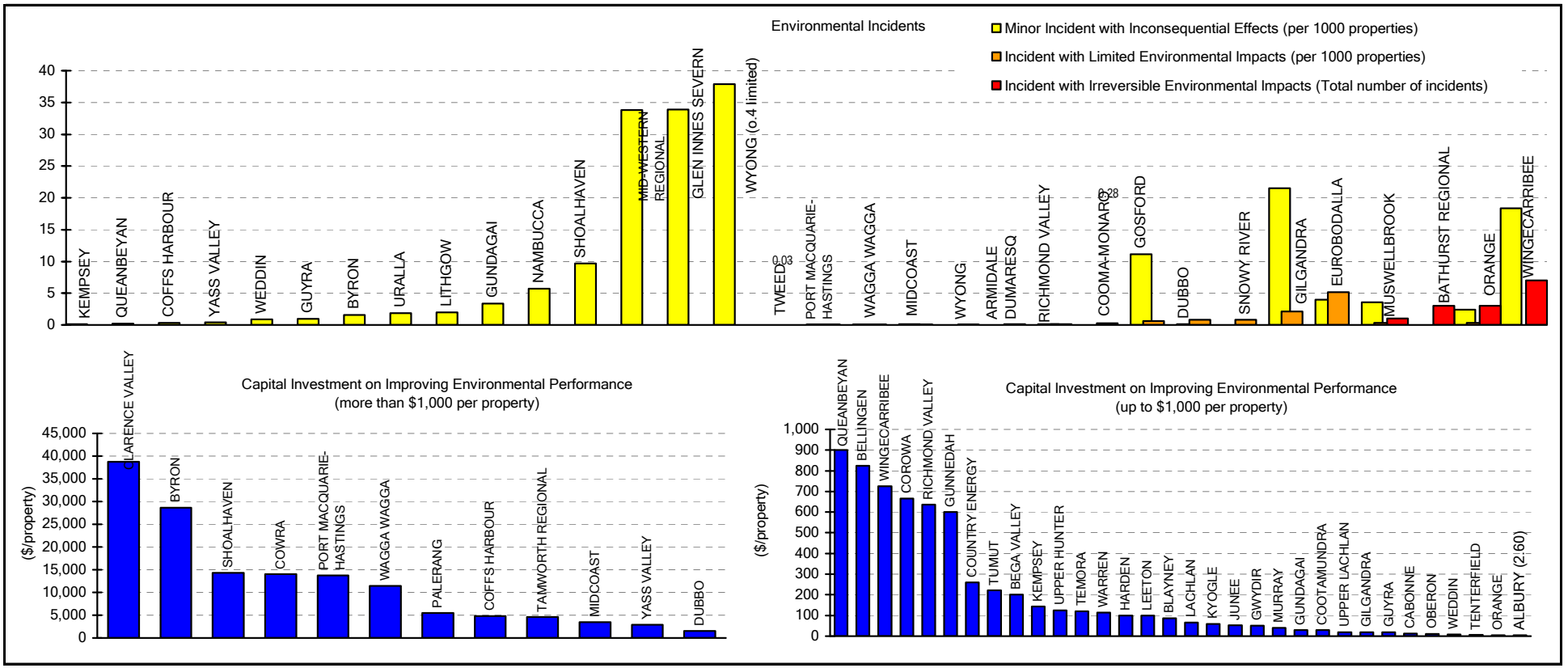


Parameter: $\frac{\text{Total Energy Usage (Q77) x 1000}}{\text{[No. of Residential Assessments (Q15) + No. of Non-Residential Assessments (Q16) x No. of Connected Properties per Assessment}}$

Notes:

1. This figure shows ranked values of the 2009-10 total energy consumption per connected property. The energy usage per connected property for the 57 Local Water Utilitites (LWUs) shown range from about 0 to 230kWh per connected property.
2. For general notes see page 30.

Figure 58: Environmental incidents, management systems, capital investment – sewerage



Parameter: Total number of minor iIncidents with inconsequential effects (Q69)
[No. of residential assessments (Q15) + No. of non-residential assessments (Q16) x No. of connected properties per assessment

Parameter: Total number of incidents with limited enviromental impacts (Q70)
[No. of residential assessments (Q15) + No. of non-residential assessments (Q16) x No. of connected properties per assessment

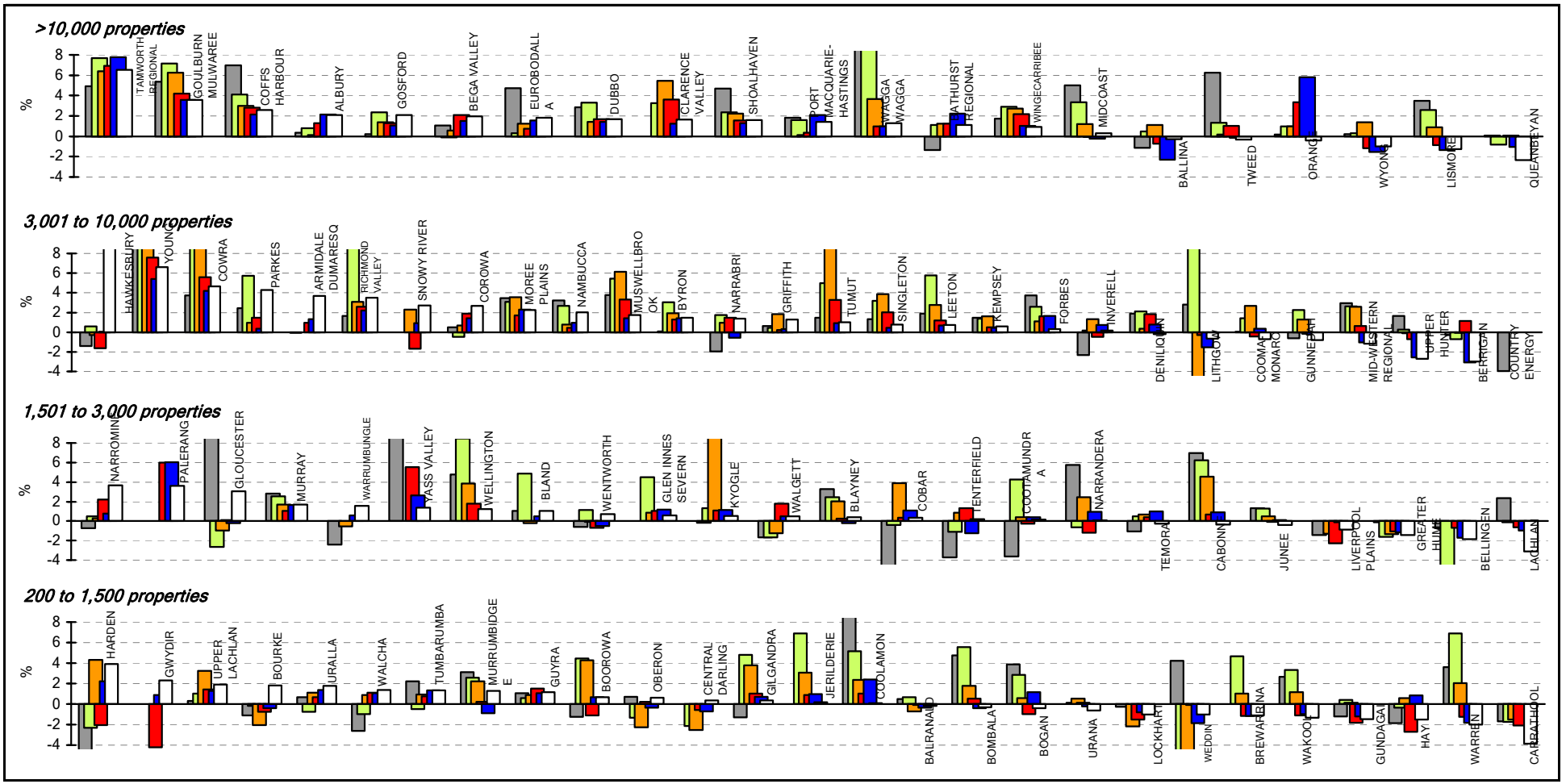
Parameter: Total number of incidents with irreversible enviromental impacts (Q71)
[No. of residential assessments (Q15) + No. of non-residential assessments (Q16) x No. of connected properties per assessment

Parameter: Capital expenditure on improving environmental performance ($) (Q77)
[No. of residential assessments (Q15) + No. of non-residential assessments (Q16) x No. of connected properties per assessment

Note:

1. The following 8 utilities did not report for environmental incidents: Central Darling, Deniliquin, Liverpool Ranges, Murrumbidgee, Narranderah, Parkes, Wakool and Young. 32 Utilities reported and are shown in the figure above, while 57 utilities reported zero environmental incidents.
2. The following 46 LWUs have prepared a sewerage Environmental Management Plan:
   Albury, Bega Valley, Bland, Bombala, Brewarrina, Cabonne, Carrathool, Clarence Valley, Coffs Harbour, Coolamon, Cooma Monaro, Cootamundra, Corowa, Country Energy, Dubbo, Eurobodalla, Gosford, Goulburn Mulwaree, Greater Hume, Griffith, Gunnedah, Hawkesbury, Junee, Kempsey, Kyogle, Lachlan, Lismore, Lithgow, Lockhart, MidCoast Water, Murray, Murrumbidgee, Narrandera, Narromine, Nambucca, Palerang, Shoalhaven, Singleton, Tumut, Uralla, Wagga Wagga, Wakool, Walcha, Weddin, Wingecaribee, Wyong.
3. For general notes see page 30.

Figure 59: Economic real rate of return – sewerage

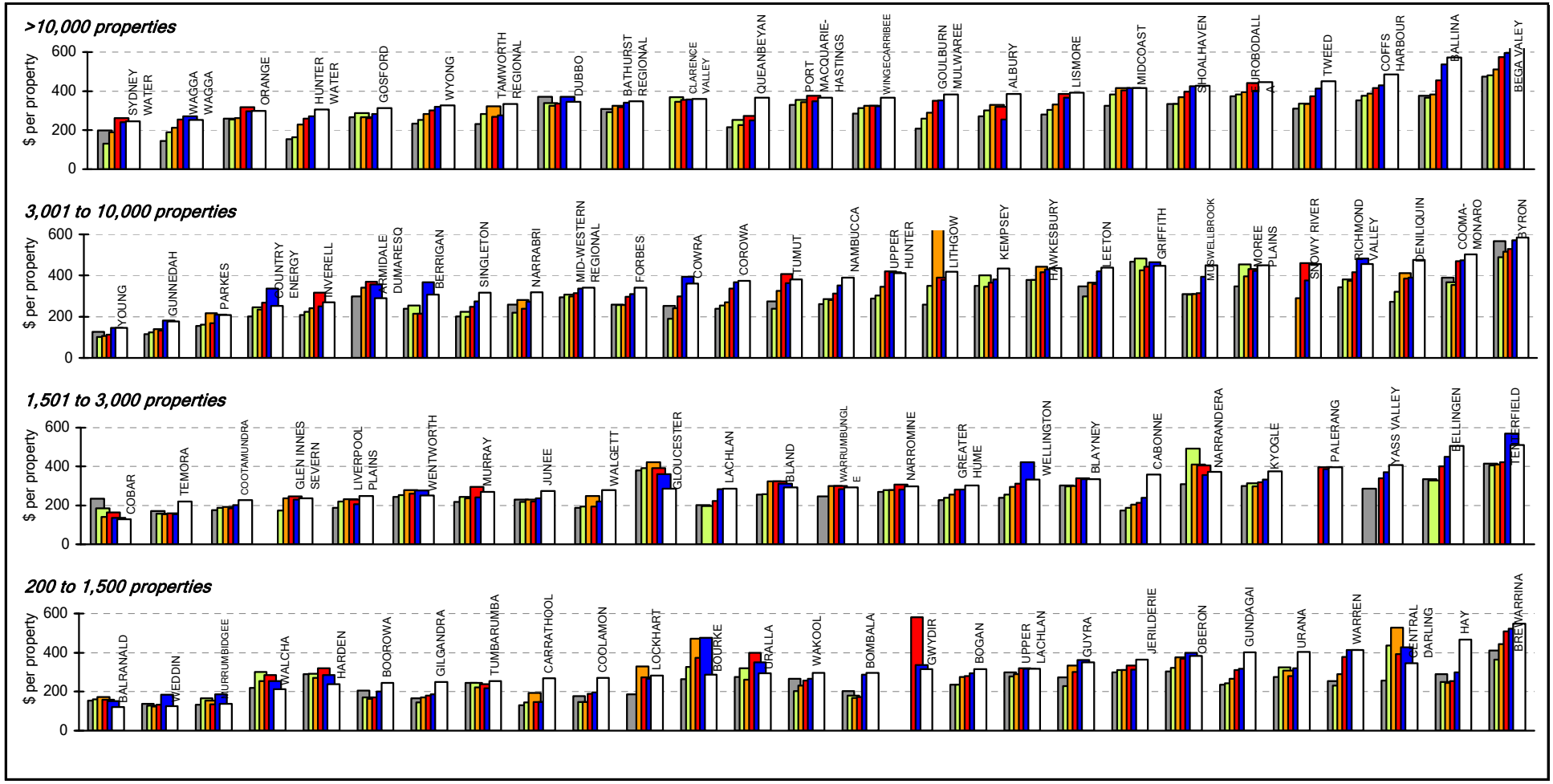


Parameter: [Operating Result (S16) + Interest Expense (S4a) - Interest Income (S10) - Grants for Acquisition of Assets (S12a)] x 100
Written Down Replacement Cost of System Assets, Plant & Equipment (S34)

Notes:

1. This figure shows ranked values of the 2009-10 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 2009-10 sewerage real rate of return for the 28 LWUs shown ranges from 14% to -3%. The 1 LWU on the right did not report this indicator for 2009-10. Results for the previous 5 years are also shown.
2. The Statewide median sewerage ERRR is 1.3%.
3. The ERRR includes developer provided assets and capital contributions from other LWUs.
4. For general notes see page 30.

Figure 60: Operating cost (OMA) per property – sewerage



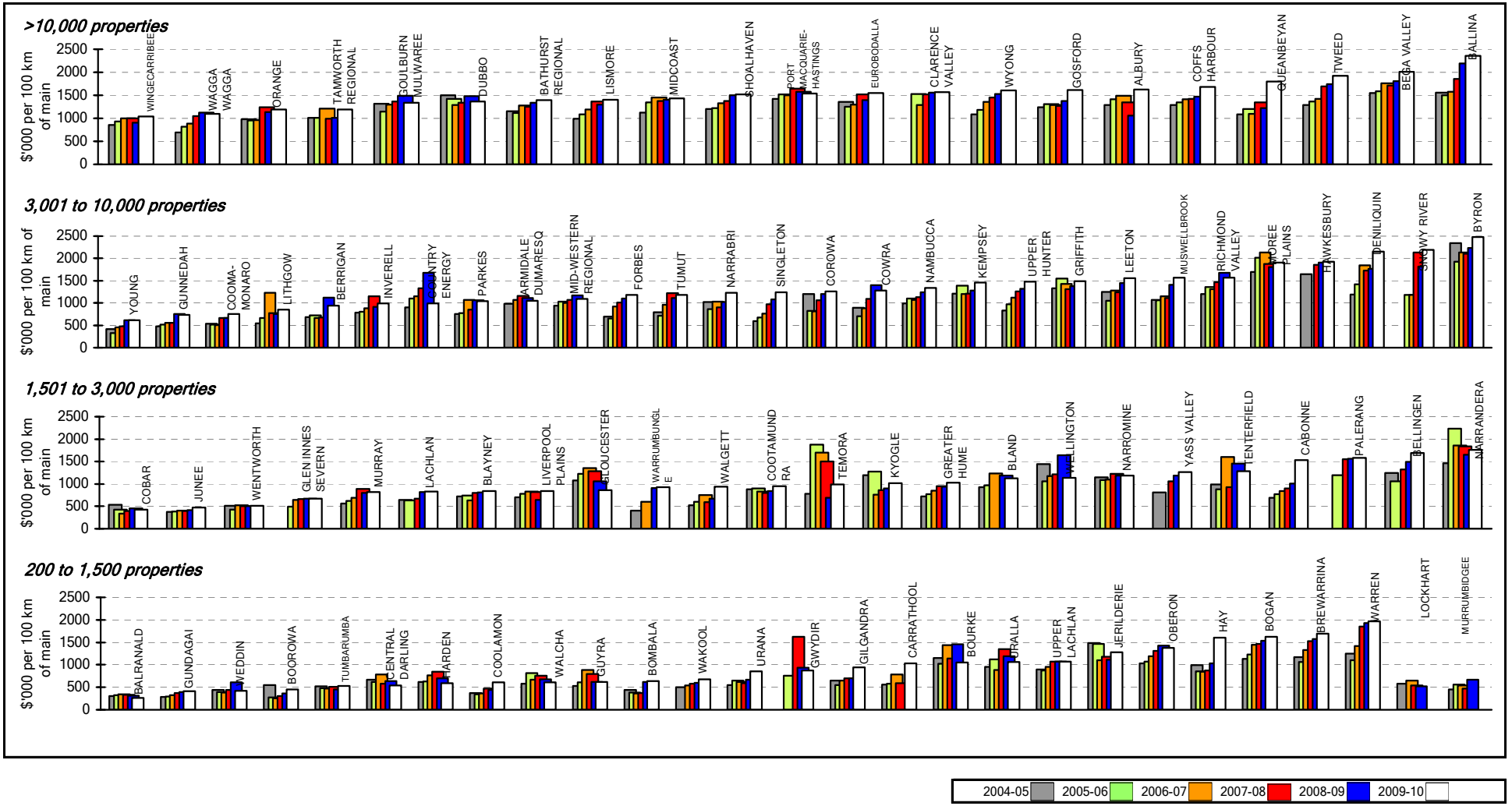
Parameter: Management Expenses (S1) + Total Operations Expenses (S2) - Purchase of Water + Bulk Supplier's OMA

[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 2009-10 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 28 LWUs shown ranges from $145 to $580 per connected property. Results for the previous 5 years are also shown in Jan 2010$.
2. The Statewide median operating cost per connected property is $360.
3. For general notes see page 30.

Figure 61: Operating cost (OMA) per 100 km of main – sewerage

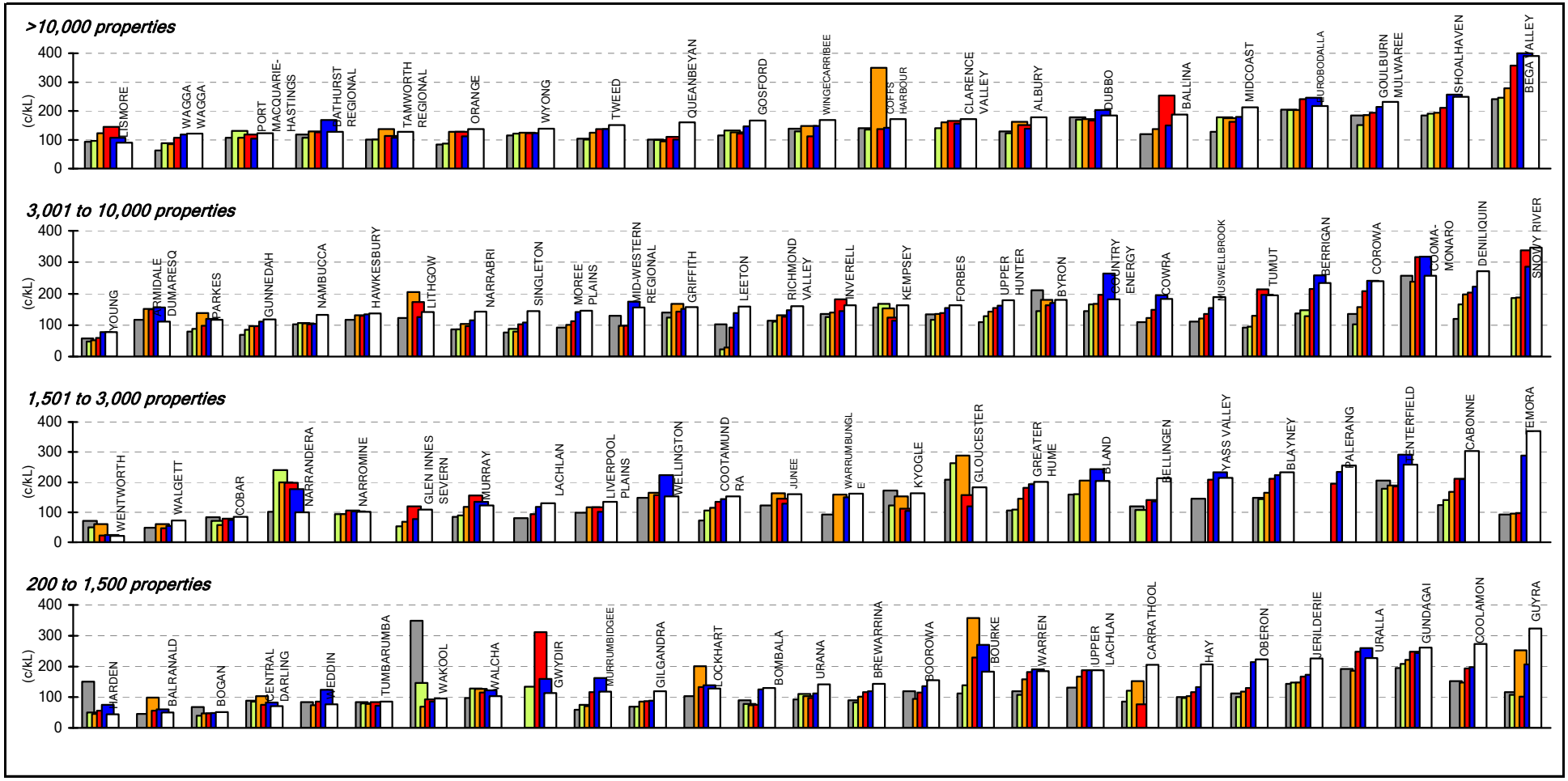


Parameter: Management Expenses (S1) + Total Operations and Maintenance Expenses (S2)
[Length of Reticulation Mains (Q7) + Length of Rising Mains (Q8)] x 10

Notes:

1. This figure shows ranked values of the 2009-10 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 28 LWUs shown ranges from $0.61M to $2.48M per 100 km of sewer main. Results for the previous 5 years are also shown in Jan 2010$.
2. The Statewide median operating cost is $1.49M per 100 km of sewer main.
3. For general notes see page 30.

Figure 62: Operating cost (OMA) per kL – sewerage



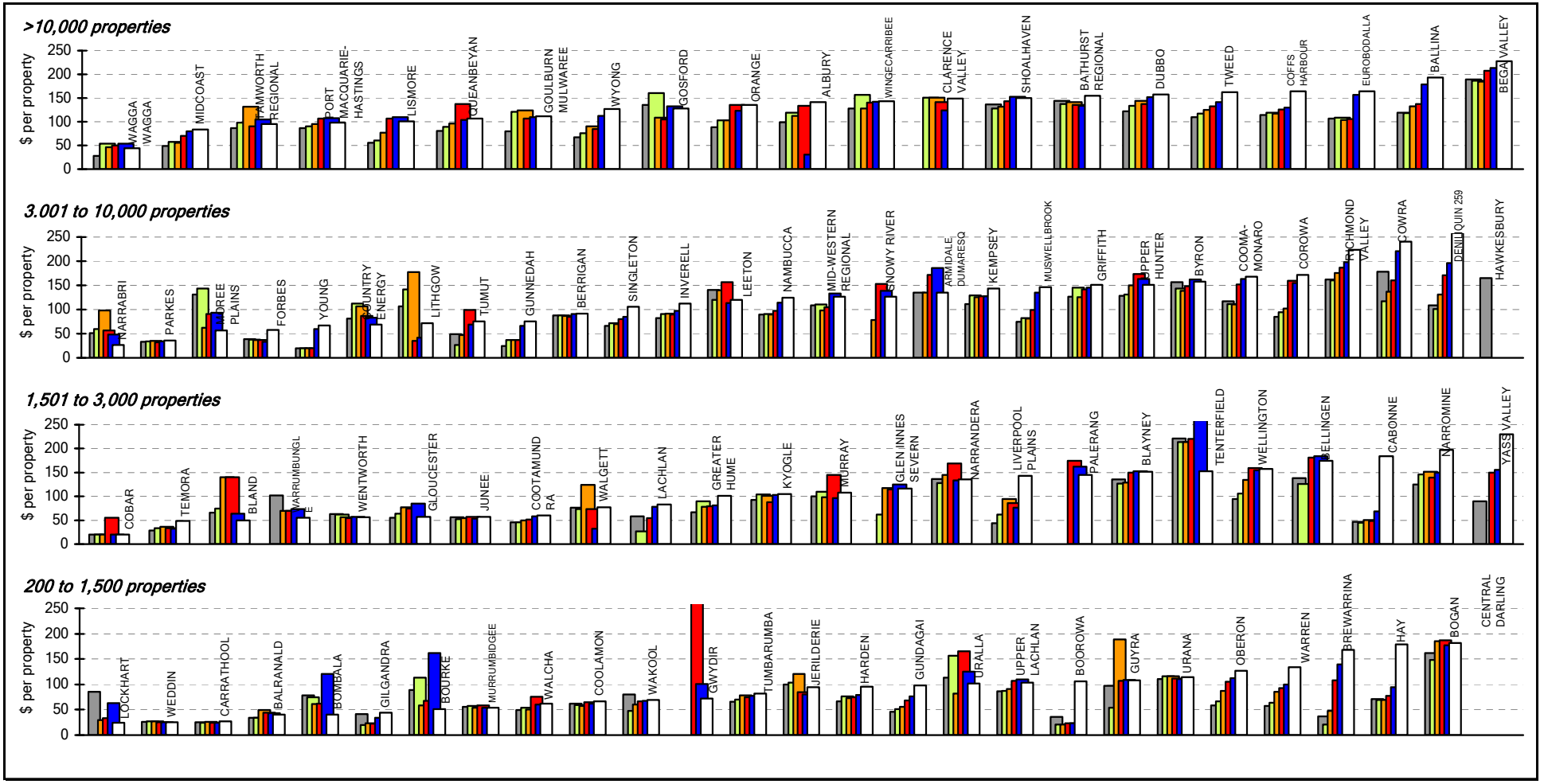
Parameter: $\frac{\text{Management Expenses (S1) + Total Operations and Maintenance Expenses (S2)}}{\text{Volume of Sewerage Receiving Secondary Treatment (Q26) x 10}}$

Notes:

1. This figure shows ranked values of the 2009-10 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 28 LWUs shown ranges from 77c/kL to 346c/kL. Results for the previous 5 years are also shown in Jan 2010$.

2. The Statewide median operating cost is 164c/kL.
3. For general notes see page 30.

Figure 63: Management cost per property – sewerage

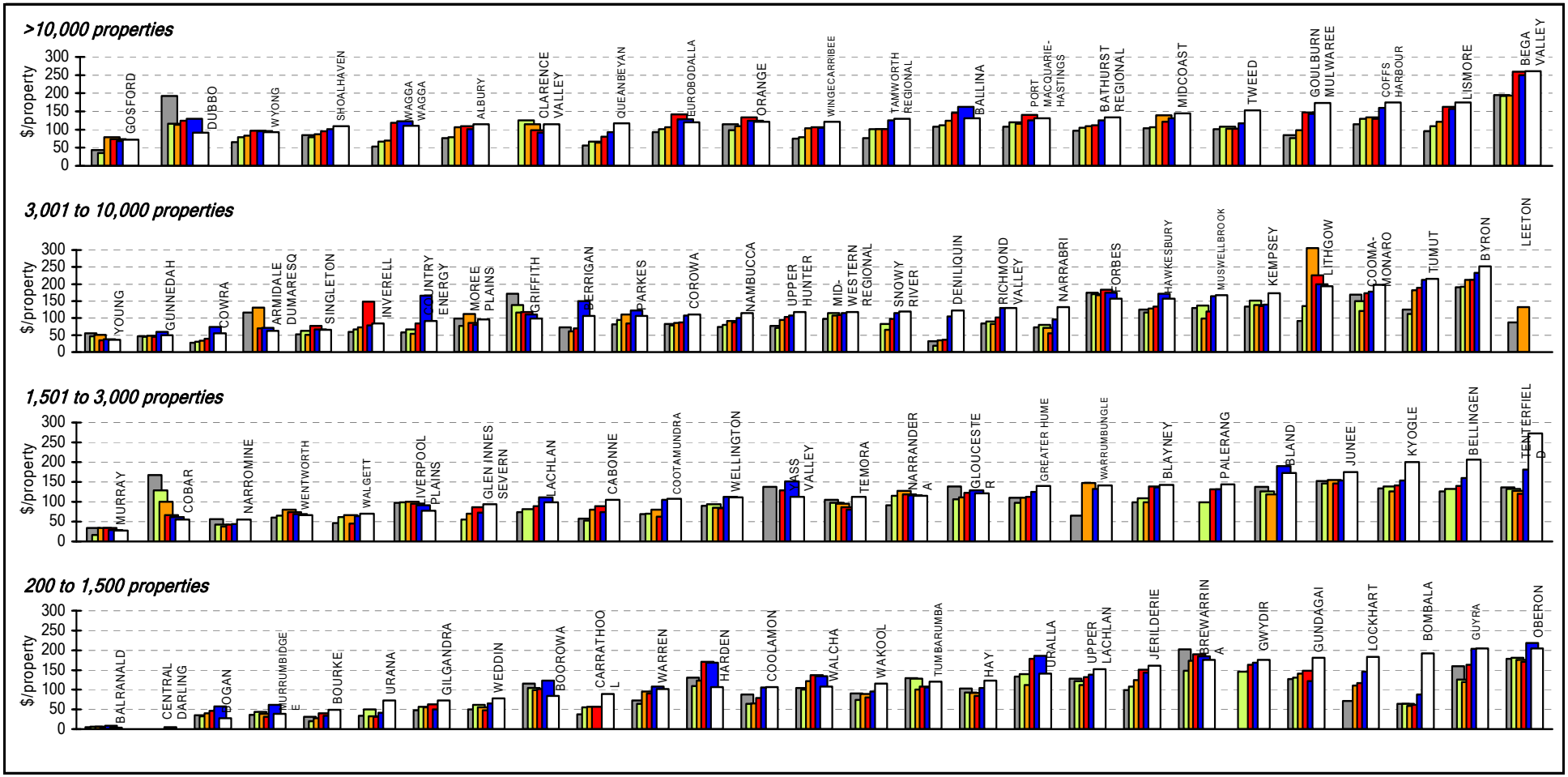


Parameter: $\frac{\text{Administration cost (S1a) + engineering cost (S1b)}}{\text{[No. of residential assessments (Q15) + No. of non-residential assessments (Q16) x No. of connected properties per assessment}}$

Notes:

1. This figure shows ranked values of the 2009-10 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 2009-10 management costs for the 28 LWUs shown ranges from $26 to $259. The 1 LWU on the right did not report this indicator for 2009-10. Results for the previous 5 years are also shown in Jan 2010$.
2. The Statewide median management cost is $128 per connected property.
3. For general notes see page 30.

Figure 64: Treatment cost – sewerage

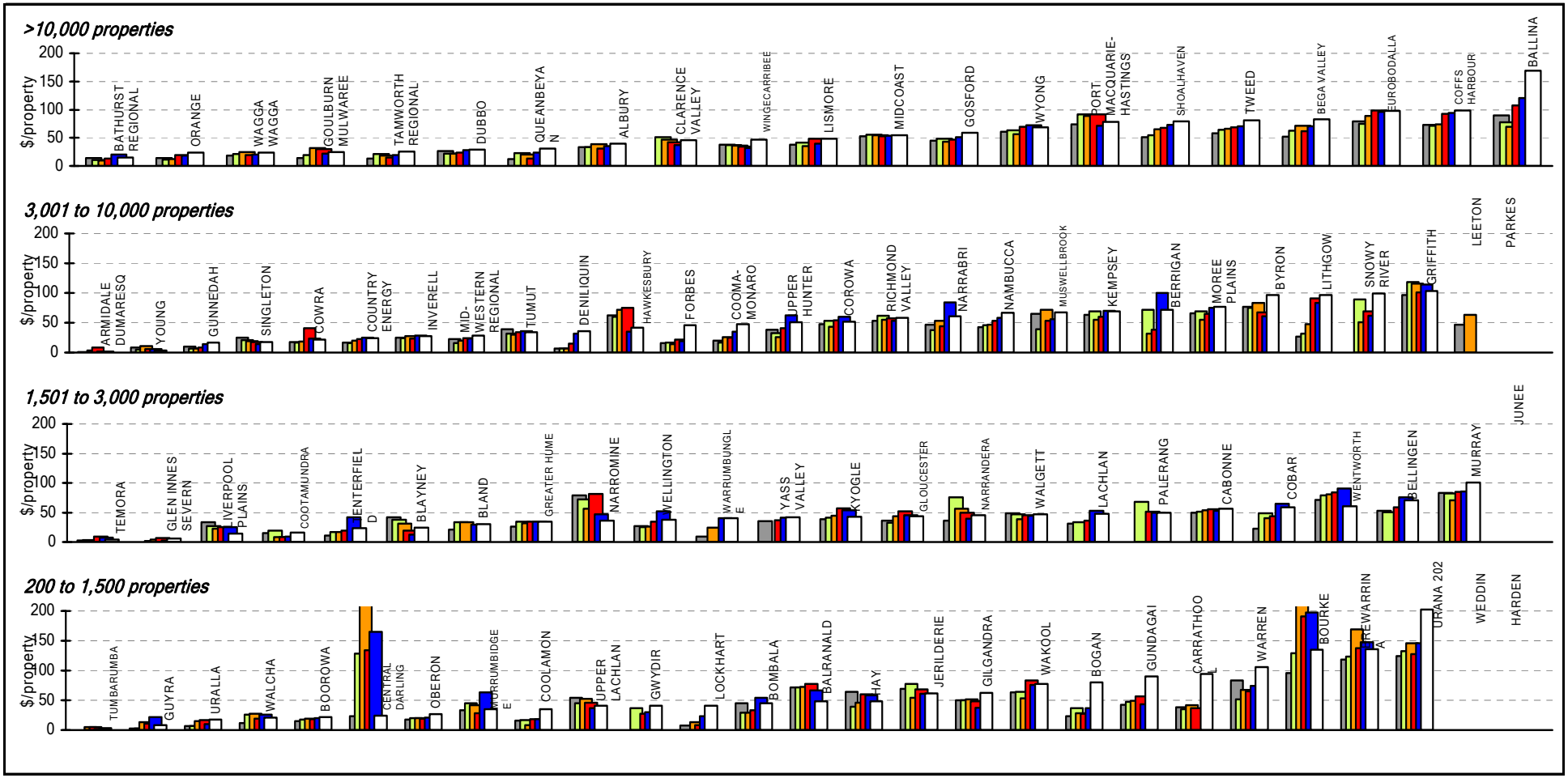


Parameter: Treatment Operation Expenses (S2f) + Treatment Chemical Cost (S2g) + Energy Cost (S2h)+ Treatment Maintenance Expenses (S2k)
[No. of residential assessments (Q15) + No. of non-residential assessments (Q16) x No. of connected properties per assessment

Notes:

1. This figure shows ranked values of the 2009-10 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 2009-10 sewerage treatment cost for the 28 LWUs shown ranges from $40 to $252 per connected property. The 1 LWU on the right did not report this indicator for 2009-10. Results for the previous 5 years are also shown in Jan
2. The Statewide median sewage treatment cost is $115 per connected property.
3. For general notes see page 30.

Figure 65: Pumping cost – sewerage

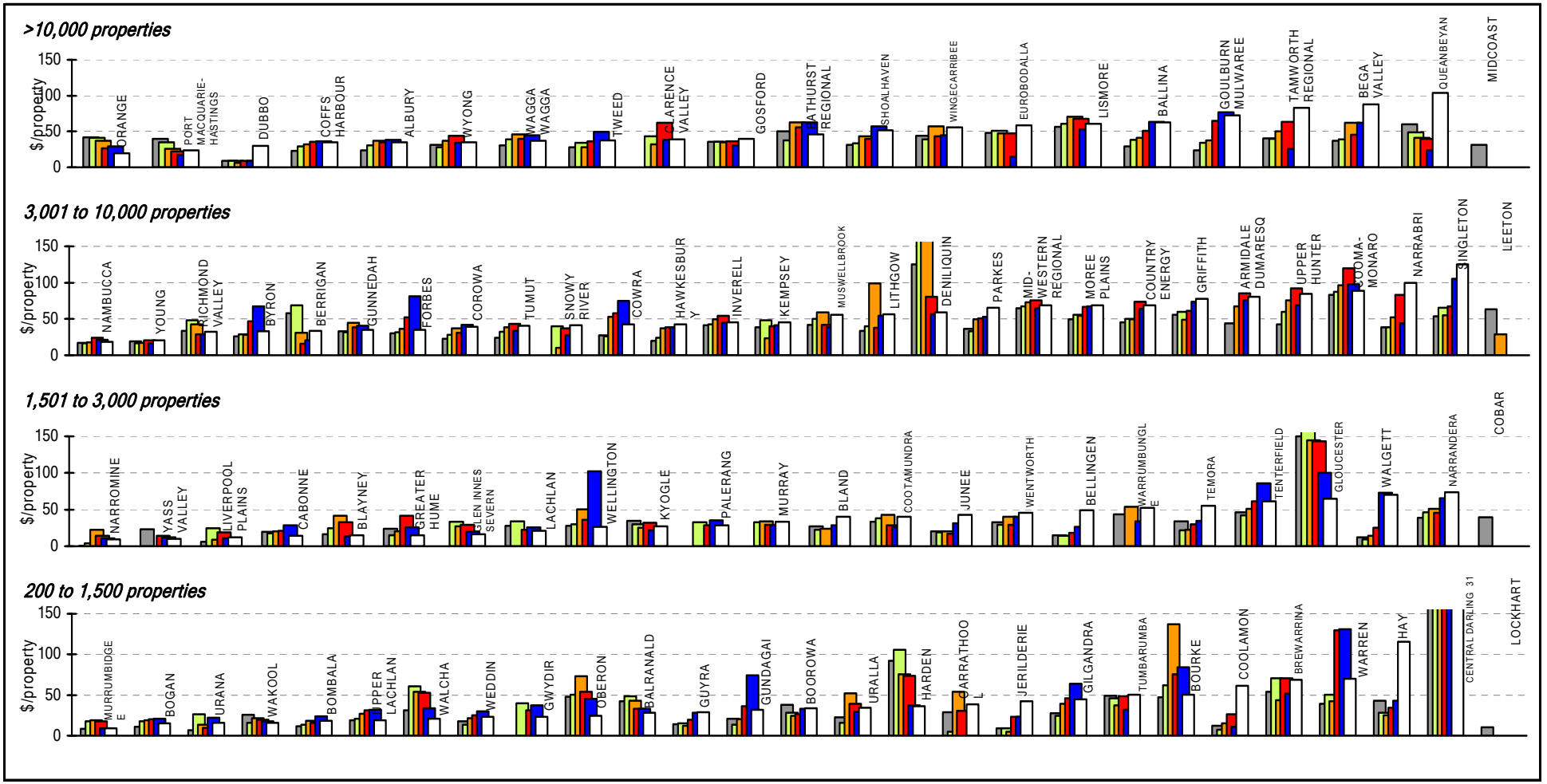


Parameter: $\frac{\text{Pumping station operation expenses (S2c) + energy cost (S2d) + treatment cost (S2e)}}{\text{[No. of residential assessments (Q15) + No. of non-residential assessments (Q16) x No. of connected properties per assessment}}$

Notes:

1. This figure shows ranked values of the 2009-10 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 2009-10 sewerage pumping cost for the 28 LWUs shown ranges from $2 to $103 per connected property. The 2 LWUs on the right did not report this indicator for 2009-10. Results for the previous 5 years are also shown in Jan
2. The Statewide median pumping cost is $55 per connected property.
3. For general notes see page 30.

Figure 66: Sewer main cost – sewerage



Parameter:

$$\frac{\text{Serwer main operation cost (S2a) + sewer main maintenance cost (S2b)}}{\text{[No. of residential assessments (Q15) + No. of non-residential assessments (Q16) x No. of connected properties per assessment}}$$

Notes:

1. This figure shows ranked values of the 2009-10 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 2009-10 sewer main cost for the 28 LWUs shown ranges from $19 to $125 per connected property. The 1 LWU on the right did not report this indicator for 2009-10. Results for the previous 5 years are also shown in Jan 2010$.
2. The Statewide median sewer main cost is $40 per connected property.
3. For general notes see page 30.

10. Tables

Table 1: NSW water supply performance indicators 2009-10

		Statewide Percentiles (% of properties)[3]		
		20%	Median (50%)	80%
	UTILITY CHARACTERISTICS			
3	**Residential Assessments (% of total)**	95	91	89
4	**New Residential Dwellings Connected to Water Supply (%)**	1.5	1.0	0.7
5	**Properties Served per km of Main**	46	32	23
6	**Rainfall (% of average annual rainfall)**	140	104	80
7	**Total Urban Water Supplied (at Master Meters - ML)**	13,900	6,800	2,700
8	**Peak Week to Average Consumption (%)**	130	145	190
9	**Renewals Expenditure (% of current replacement cost of system assets)**	1.0	0.3	0.2
10	**Employees (employees per 1000 properties)**	1.2	1.4	1.8
	SOCIAL - Charges/Bills (2010/11)			
12	**Residential Water Usage Charge (c/kL)**	195	163	120
13	**Residential Access Charge ($/assessment)**	90	130	230
14	**Typical Residential Bill ($/assessment)**	360	430	540
15	**Typical Developer Charge ($/equivalent tenement)**	8,300	4,700	2,800
	SOCIAL - Health			
18	**Urban Population without Reticulated Water Supply (%)**	0	0.8	2.4
19	**Physical Water Quality Compliance (%)**	100	100	100
19a	**Chemical Water Quality Compliance (%)**	100	100	100
20	**Microbiological (E. coli) Water Quality Compliance (%)**	100	100	100
20a	**Percent Population with Microbiological Compliance**	100	100	100
	SOCIAL - Levels of Service			
25	**Water Quality Complaints (per 1000 properties)**	1	4	11.1
26	**Water Service Complaints (per 1000 properties)**	1	3	40
27	**Customer Interruption Frequency (per 1000 properties)**	6	37	61
28	**Average Duration of Interruption (minutes)**	120	159	220
30	**Number of Main Breaks (per 100 km of main)**	4	10	18
31	**Drought Water Restrictions (% of time)**	0	87	100
32	**Total Days Lost (%)**	0.3	2.4	3.8
	ENVIRONMENTAL			
33	**Average Annual Residential Supplied (kL/property)**	145	175	260
33a	**Average Annual Residential Supplied COASTAL (kL/property)**	150	150	180
33b	**Average Annual Residential Supplied INLAND (kL/property)**	200	252	340
34	**Real Loss (leakage) (L/service connection/day)**	45	70	115
35	**Energy Consumption (kWh/ML)**	390	670	890
36	**Renewable Energy Consumption (% of Total Energy)**	6	0	0
36a	**Net Greenhouse Gas Emissions - WS & Sge (net tonnes CO2 - equivalents/1000props)**	260	390	470
	ECONOMIC - Financial			
40	**Revenue per property - Water ($)**	468	647	768
41	**Residential Revenue from Usage Charges (% of total rates and charges)**	77	73	62
42	**Current Replacement Cost per Assessment ($)**	15,760	12,200	10,100
43	**Economic Real Rate of Return (%)**	2.1	0.7	0.1
44	**Return on Assets (%)**	2.5	0.9	-0.7
45	**Net Debt to Equity (%)**	12	-1	-8
46	**Interest Cover**	>100	4	1
47	**Loan Payment ($/property)**	170	55	0
47a	**Net Profit After Tax Ratio - WS & Sge (%)**	22	6	-4
47b	**Net Profit After Tax - WS & Sge ($)**	727	303	127
	ECONOMIC - Efficiency			
48	**Operating Cost (OMA) per 100 km of Main ($'000)**	790	1,140	1,870
49	**Operating Cost (OMA) per property ($/property)**	310	350	450
50	**Operating Cost (OMA) per kL (c/kL)**	81	116	147
51	**Management Cost ($/property)**	106	134	170
52	**Treatment Cost ($/property)**	21	39	108
53	**Pumping Cost ($/property)**	14	31	55
54	**Energy Cost ($/property)**	7	18	32
55	**Water Main Cost ($/property)**	45	56	97
56	**Capital Expenditure - Water Supply ($/property)**	864	282	120

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 LWUs.
3. The Table on page 234 of Appendix C shows percentiles on a *percentage of LWUs* basis as this is the most appropriate basis for comparing the performance of one LWU with other LWUs.

Table 2: NSW sewerage performance indicators 2009-10

		Statewide Percentiles (% of properties)[1]		
		20%	Median (50%)	80%
	UTILITY CHARACTERISTICS			
3	**Residential Assessments (% of Total)**	90	93	95
4	**New Residential Dwellings Connected to Sewerage (%)**	1.6	0.9	0.5
5	**Properties Served per km of Main**	50	40	35
6	**Volume of Sewage Collected (ML)**	12,900	4,900	1,600
7	**Renewals Expenditure (% of current replacement cost of system assets)**	0.7	0.3	0.0
8	**Employees (per 1000 properties)**	1.1	1.6	2
	SOCIAL - Charges/Bills (2010/11)			
11	**Residential Access Charge ($/assessment)**	400	525	630
12	**Typical Residential Bill ($/assessment)**	400	530	630
13	**Typical Developer Charge ($/equivalent tenement)**	8,380	4200	2,500
14	**Non-residential sewer usage charge (c/kL)**	180	105	90
	SOCIAL - Health			
16	**Urban Properties without Reticulated Sewerage Service (%)**	0.4	3.9	7.4
17	**Percent of sewage treated to a tertiary level (%)**	100	93	7
18	**Percent of sewage volume treated that was compliant (%)**	100	99	83
19				
	SOCIAL - Levels of Service			
21	**Odour Complaints (per 1000 properties)**	0.0	0.6	1.6
22	**Service Complaints (per 1000 properties)**	1	10	31
23a	**Average Duration of Interruptions (min)**	60	118	150
25	**Total Days Lost**	0	2.5	3.7
	ENVIRONMENTAL			
26	**Volume of Sewage Collected per property (kL)**	285	220	190
26a	**Total recycled water supplied (ML)**	1,850	620	180
27	**Effluent Reclaimed for Recycling (% of total effluent)**	45	11	4
28	**Biosolids Reuse (%)**	100	100	0
30	**Energy Consumption (kWh/ML)**	590	910	1,040
31	**Renewable Energy Consumption (% of total energy consumption)**	0	0	0
32	**Net greenhouse gas emissions - WS & Sge (net tonnes CO2 equivalents per 1000 properties)**	260	390	470
33	**90 Percentile Licence Limits for Effluent Discharge:** BOD 35 mg/L; SS 40 mg/L; Total N 25 mg/L; Total P 5 mg/L			
34	**Compliance with BOD in Licence (%)**	100	100	100
35	**Compliance with SS in Licence (%)**	100	100	95
36	**Sewerage Main Breaks and Chokes (per 100 km of main)**	14	39	85
37	**Sewer Overflows to the Environment (per 100 km of main)**	2	15	37
38	**Sewage treated that was compliant (%)**	100	99	83
	ECONOMIC - Financial			
42	**Revenue per property - Sge ($)**	893	680	499
43	**Revenue from Non-residential and Trade Waste Charges (% of total rates & charges)**	25	18	13
44	**Revenue from Trade Waste Charges (% of total rates & charges)**	4	2	0
45	**Current Replacement Cost per asssessment ($)**	16,400	12,600	9,600
46	**Economic Real Rate of Return (%)**	2.1	1.3	-0.4
46a	**Return on Assets (%)**	2.4	1.6	-0.2
47	**Net Debt to Equity (%)**	2	-8	-24
48	**Interest Cover**	>100	3	0
48a	**Loan Payment ($/property)**	163	38	6
48b	**Net Profit After Tax Ratio WS & Sge (%)**	22	4	-3
48c	**Net Profit After Tax WS & Sge ($)**	3,954	1,492	-480
	ECONOMIC - Efficiency			
49	**Operating Cost (OMA) per 100 km of Main ($'000)**	1,100	1,490	1,610
50	**Operating Cost (OMA) per property ($/property)**	310	360	440
51	**Operating Cost (OMA) per kL (c/kL)**	129	164	207
52	**Management Cost ($/property)**	95	128	158
53	**Treatment Cost ($/property)**	73	115	152
54	**Pumping Cost ($/property)**	24	55	75
55	**Energy Cost ($/property)**	19	26	39
56	**Sewer Main Cost ($/property)**	35	40	60
57	**Capital Expenditure ($/property)**	651	252	117

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 Table on page 235 of Appendix C show percentiles on a *percentage of LWUs* basis as this is the most appropriate basis for comparing the performance of one LWU with other LWUs.

Table 3: 2009-10 best-practice management compliance

	WATER UTILITY (sorted on connected properties)	WATER SUPPLY & SEWERAGE REVENUE ($M)	WATER SUPPLY: COMPLIANCE WITH BPM CRITERIA (see Note 1)												SEWERAGE: COMPLIANCE WITH BPM CRITERIA (see Note 1)										
			(1) Strategic Business Plan: Complete Current 20 to 30-year SBP & FP (Yes/No)	(2) Pricing and Developer Charges (Yes/No): (2a) Full cost-recovery, minimal cross subsidies	(2b) Complying Residential Charges	(2c) Revenue from Residential Usage Charges >=75% (Note 8)	(2d) Complying Non-Residential Charges	(2e) DSP with Commercial Developer Charges	(3) Sound Water Conservation Plan implemented (Yes/No)	(4) Sound Drought Management Plan implemented (Yes/No)	(5) Complete performance Reporting by 15 September each year (Yes/No)	(6) Integrated Water Cycle Management Strategy Commenced (Yes/No)	Overall compliance with all 10 required Criteria (Note 2) (%)	Proposed Dividend from Surplus $'000	(1) Strategic Business Plan: Complete Current 20 to 30-year SBP & FP (Yes/No)	(2) Pricing and Developer Charges (Yes/No): (2a) Full cost-recovery, minimal cross subsidies	(2b) Complying Residential Charges	(2c) Complying Non-Residential Charges	(2d) Complying Trade Waste Fees & Charges	(2e) DSP with commercial developer charges	(2f) Liquid trade waste regulation policy and approvals implemented	(3) Complete performance Reporting by 15 September each year (Yes/No)	(4) Integrated Water Cycle Management Strategy Commenced (Yes/No)	Overall compliance with all 9 required Criteria (Note 3) (%)	Proposed Dividend from Surplus $'000
	LWUs with >10,000 Properties																								
1	Gosford	69.6	Yes	Yes	Yes	Yes*	Yes	Yes	Yes	Yes	Yes	Yes	100		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	100	3,849
2	Wyong	75.3	Yes	Yes	Yes	Yes*	Yes	Yes	Yes	Yes	Yes	Yes	100		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	100	
3	Shoalhaven	52.4	Yes	Yes	Yes	Yes*	Yes	Yes	Yes	Yes	Yes	Yes	100		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	100	940
4	Rous (Bulk Supplier) (NO SGE)	16.5	Yes*	Yes				Yes	Yes	Yes	Yes	Yes	100												
5	MidCoast (Unfiltered)	55.0	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	100		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	100	
6	Tweed	46.9	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	100		Yes	Yes	Yes	Yes	Yes	Yes*	Yes*	Yes	Yes	100	
7	Port Macquarie-Hastings (Unfiltered)	43.2	Yes	Yes	Yes	Yes*	Yes	Yes	Yes	Yes	Yes	Yes	100		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	100	
8	Riverina (Groundwater) (NO SGE)	18.6	Yes*	Yes	Yes	Yes		Yes	Yes	Yes	Yes	Yes	90												
9	Wagga Wagga (NO WS)	14.5													Yes	Yes	Yes		Yes	Yes	Yes	Yes	Yes	89	
10	Coffs Harbour (Unfiltered)	56.9	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	100		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	100	
11	Albury City	24.1	Yes*		Yes		Yes	Yes	Yes	Yes	Yes	Yes	80		Yes*	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	100	
12	Fish River WS (Bulk Supplier, No Sge)	7.2	Yes*	Yes*					Yes	Yes	Yes		71												
13	Tamworth Regional	36.9	Yes	Yes	Yes		Yes	Yes	Yes	Yes	Yes	Yes	90	557	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	100	502
14	Clarence Valley	23.8	Yes	Yes	Yes		Yes	Yes	Yes	Yes	Yes	Yes	90		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	100	
15	Eurobodalla (Unfiltered)	28.7	Yes	Yes	Yes		Yes	Yes	Yes	Yes	Yes	Yes	90		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	100	345
16	Wingecarribee	21.7	Yes	Yes	Yes	Yes*	Yes	Yes	Yes	Yes	Yes	Yes	100		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	100	
17	Queanbeyan (Reticulator)	18.2	Yes*	Yes	Yes		Yes	Yes	Yes	Yes	Yes	Yes	90		Yes*	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	100	
18	Dubbo	21.2	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	100		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	100	
19	Orange	17.0	Yes*	Yes	Yes	Yes*	Yes	Yes	Yes	Yes	Yes	Yes	100		Yes*	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	100	
21	Bathurst Regional	18.7	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	100		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	100	
22	Lismore (Reticulator)	16.9	Yes	Yes	Yes	Yes*	Yes	Yes	Yes	Yes	Yes	Yes	100		Yes	Yes	Yes	Yes	Yes	Yes	Yes*	Yes	Yes	100	
23	Bega Valley (Unfiltered)	23.5	Yes	Yes	Yes		Yes	Yes	Yes		Yes	Yes	80		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	100	
24	Ballina (Reticulator)	18.3	Yes	Yes	Yes	Yes*	Yes	Yes	Yes	Yes	Yes	Yes	100		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	100	
25	Kempsey (Groundwater)	14.7	Yes	Yes	Yes		Yes	Yes	Yes	Yes	Yes	Yes	90		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	100	
26	Country Energy	17.6	Yes	Yes	Yes		Yes	Yes[e]	Yes	Yes	Yes	Yes	90		Yes	Yes	Yes	Yes	Yes	Yes[e]	Yes	Yes	Yes	100	
27	Byron (Reticulator)	18.8	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	100		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	100	
28A	Goldenfields (Reticulator) (NO SGE)	6.4	Yes	Yes	Yes	Yes	Yes	Yes			Yes		70												
28B	Goldenfields (Bulk) (NO SGE)	6.7	Yes	Yes				Yes			Yes		57												
% of LWUs 'Yes' (>10,000 connected properties)			100%	96%	89%	59%	85%	96%	93%	89%	100%	89%	90%	Overall	100%	100%	100%	96%	100%	100%	100%	100%	100%	100%	Overall
	LWUs with 3,001 - 10,000 Properties																								
20	Goulburn Mulwaree	15.5		Yes	Yes		Yes	Yes	Yes	Yes	Yes	Yes	80		Yes*	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	100	
29	Armidale Dumaresq	11.6	Yes	Yes	Yes		Yes	Yes	Yes	Yes	Yes	Yes	90		Yes	Yes	Yes		Yes	Yes	Yes	Yes	Yes	89	
30	Griffith	13.8	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	100		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	100	
30A	Hawkesbury (NO WS)	16.4													Yes*	Yes	Yes			Yes*	Yes	Yes		67	
31	Lithgow	8.0	Yes	Yes	Yes		Yes		Yes	Yes	Yes	Yes	80		Yes	Yes	Yes	Yes	Yes		Yes	Yes	Yes	89	
32	Mid-Western Regional	7.6	Yes	Yes	Yes		Yes	Yes	Yes	Yes	Yes	Yes	90		Yes	Yes	Yes			Yes		Yes	Yes	67	
33	Richmond Valley	12.1	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	100		Yes	Yes	Yes	Yes	Yes	Yes	Yes*	Yes	Yes	100	
34	Nambucca (Groundwater)	7.2	Yes*	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	100		Yes*	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	100	
35	Singleton	7.3	Yes	Yes	Yes		Yes	Yes	Yes	Yes	Yes	Yes	90		Yes*	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	100	
36	Parkes	9.2	Yes	Yes	Yes		Yes	Yes	Yes	Yes	Yes	Yes	90		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	100	
37	Inverell	5.7	Yes	Yes	Yes		Yes	Yes	Yes	Yes	Yes		80		Yes	Yes	Yes			Yes	Yes	Yes		67	
38	Moree Plains (Groundwater)	7.1	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	100		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	100	
39	Cowra	7.4	Yes	Yes	Yes		Yes	Yes	Yes	Yes	Yes		80		Yes	Yes	Yes		Yes	Yes	Yes	Yes		78	
40	Central Tablelands (NO SGE)	4.1	Yes	Yes	Yes	Yes*	Yes	Yes	Yes	Yes	Yes	Yes	100												
41	Muswellbrook	9.1	Yes	Yes	Yes	Yes*	Yes	Yes	Yes	Yes	Yes	Yes	100		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	100	
42	Corowa	6.3	Yes	Yes	Yes		Yes	Yes	Yes	Yes	Yes	Yes	90		Yes	Yes	Yes	Yes	Yes		Yes	Yes	Yes	89	
43	Tumut	5.2	Yes	Yes	Yes		Yes	Yes	Yes	Yes	Yes	Yes	90		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	100	
44	Gunnedah (Groundwater)	4.3	Yes*	Yes	Yes		Yes	Yes	Yes	Yes	Yes	Yes	90		Yes*	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	100	
45	Upper Hunter	5.4	Yes	Yes	Yes	Yes*	Yes	Yes	Yes	Yes	Yes	Yes	100		Yes		Yes	Yes	Yes	Yes	Yes	Yes	Yes	89	

Table 3: 2009-10 best-practice management compliance (continued)

	WATER UTILITY (sorted on connected properties)	WATER SUPPLY & SEWERAGE REVENUE ($M)	WATER SUPPLY: COMPLIANCE WITH BPM CRITERIA (see Note 1)												SEWERAGE: COMPLIANCE WITH BPM CRITERIA (see Note 1)										
			(1) Strategic Business Plan	(2) Pricing and Developer Charges (Yes/No)					(3) Sound Water Conservation Plan implemented (Yes/No)	(4) Sound Drought Management Plan implemented (Yes/No)	(5) Complete performance Reporting by 15 September each year (Yes/No)	(6) Integrated Water Cycle Management Strategy Commenced (Yes/No)	Overall compliance with all 10 required Criteria (Note 2) (%)	Proposed Dividend from Surplus $'000	(1) Strategic Business Plan	(2) Pricing and Developer Charges (Yes/No)							(3) Complete performance Reporting by 15 September each year (Yes/No)	(4) Integrated Water Cycle Management Strategy Commenced (Yes/No)	Overall compliance with all 9 required Criteria (Note 3) (%)	Proposed Dividend from Surplus $'000
			Complete Current 20 to 30-year SBP & FP (Yes/No)	(2a) Full cost-recovery, minimal cross subsidies	(2b) Complying Residential Charges	(2c) Revenue from Residential Usage Charges >=75% (Note 8)	(2d) Complying Non-Residential Charges	(2e) DSP with Commercial Developer Charges							Complete Current 20 to 30-year SBP & FP (Yes/No)	(2a) Full cost-recovery, minimal cross subsidies	(2b) Complying Residential Charges	(2c) Complying Non-Residential Charges	(2d) Complying Trade Waste Fees & Charges	(2e) DSP with commercial developer charges	(2f) Liquid trade waste regulation policy and approvals implemented				
46	Narrabri (Groundwater)	4.1	Yes	Yes	Yes		Yes	Yes	Yes	Yes	Yes		80		Yes	Yes	Yes		Yes	Yes	Yes*	Yes		78	
47	Bellingen (Unfiltered)	3.9	Yes	Yes	Yes		Yes	Yes	Yes	Yes	Yes	Yes	90			Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	89	
48	Leeton	5.3	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	100		Yes	Yes	Yes	Yes	Yes	Yes*	Yes	Yes	Yes	100	
49	Young (Reticulator)	4.3	Yes	Yes	Yes	Yes*	Yes	Yes	Yes	Yes			80		Yes	Yes	Yes		Yes	Yes	Yes[e]			67	
50	Cooma-Monaro	5.1	Yes	Yes	Yes		Yes	Yes	Yes	Yes	Yes	Yes	90		Yes	Yes	Yes			Yes		Yes	Yes	67	
51	Forbes	4.3	Yes*	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	100		Yes*	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	100	
52	Snowy River (Unfiltered)	5.7	Yes	Yes	Yes		Yes	Yes		Yes	Yes	Yes	80		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	100	
53	Berrigan (Dual Supply)	3.9	Yes	Yes	Yes		Yes	Yes	Yes	Yes	Yes		80		Yes		Yes			Yes		Yes		44	
54	Deniliquin	4.1	Yes*	Yes	Yes		Yes	Yes	Yes	Yes		Yes	80		Yes	Yes	Yes		Yes	Yes	Yes		Yes	78	
55	Warrumbungle	3.5	Yes*	Yes	Yes		Yes	Yes	Yes	Yes	Yes	Yes	90		Yes*	Yes	Yes	Yes		Yes	Yes	Yes	Yes	89	
% of LWUs 'Yes' (3,001 - 10,000 connected properties)			96%	100%	100%	36%	100%	96%	96%	100%	93%	82%	90%	Overall	96%	93%	100%	64%	79%	93%	89%	93%	79%	87%	Overall
	LWUs with 1,501 - 3,000 Properties																								
56	Yass Valley	6.1	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	100		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	100	
57	Wellington	3.8	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	100		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	100	
58	Cootamundra (Reticulator)	2.6	Yes	Yes	Yes	Yes	Yes	Yes		Yes	Yes		80		Yes	Yes	Yes	Yes	Yes	Yes		Yes		78	
59	Lachlan	7.4	Yes	Yes	Yes	Yes	Yes		Yes	Yes	Yes		80		Yes*	Yes	Yes	Yes	Yes		Yes	Yes		78	
60	Glen Innes Severn	2.3	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	100		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	100	
61	Liverpool Plains	2.4		Yes	Yes		Yes	Yes		Yes	Yes	Yes	70			Yes	Yes	Yes	Yes	Yes[e]	Yes		Yes	78	
62	Narromine (Groundwater)	2.2	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	100		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	100	
63	Narrandera (Groundwater)	2.3	Yes	Yes	Yes	Yes	Yes		Yes	Yes	Yes		80		Yes*	Yes	Yes	Yes				Yes		56	
65	Murray (Dual Supply)	3.2	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	100		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	100	
67	Cobar	1.8	Yes	Yes	Yes	Yes	Yes		Yes	Yes	Yes	Yes	90		Yes	Yes	Yes		Yes		Yes	Yes	Yes	78	
66	Cobar WB	1.3																							
68	Tenterfield	3.5	Yes	Yes	Yes		Yes	Yes	Yes	Yes	Yes	Yes	90		Yes	Yes	Yes	Yes	Yes		Yes	Yes	Yes	89	
69	Temora (NO WS)	0.6													Yes*	Yes	Yes	Yes				Yes		56	
70	Kyogle	2.0	Yes*	Yes	Yes	Yes*	Yes	Yes[e]	Yes	Yes	Yes	Yes	100		Yes*	Yes	Yes	Yes	Yes	Yes[e]	Yes	Yes	Yes	100	
71	Palerang	4.0	Yes*	Yes	Yes		Yes	Yes	Yes	Yes	Yes		80		Yes*	Yes	Yes	Yes		Yes		Yes		67	
72	Bland (NO WS)	0.9													Yes*	Yes	Yes	Yes		Yes		Yes		67	
73	Upper Lachlan	2.4	Yes*	Yes	Yes		Yes	Yes	Yes	Yes	Yes		80		Yes*	Yes	Yes	Yes	Yes	Yes	Yes	Yes		89	
74	Wentworth (Dual Supply)	3.1	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes		90		Yes	Yes	Yes			Yes		Yes		56	
75	Coonamble (Groundwater)	0.9	Yes*	Yes	Yes	Yes	Yes	Yes[e]		Yes	Yes		80		Yes*		Yes	Yes		Yes[e]		Yes		56	
76	Harden (Reticulator)	2.2	Yes*	Yes	Yes	Yes	Yes	y	Yes		Yes		70		Yes*	Yes	Yes	Yes		Yes*		Yes		67	
% of LWUs 'Yes' (1,501 - 3,000 connected properties)			94%	100%	100%	76%	100%	76%	82%	94%	100%	53%	88%	Overall	95%	95%	100%	89%	63%	74%	58%	95%	47%	80%	Overall
	LWUs with 200 - 1,500 Properties																								
77	Junee (NO WS)	0.6													Yes	Yes	Yes					Yes		44	
78	Blayney (NO WS)	1.1													Yes	Yes	Yes	Yes	Yes		Yes	Yes	Yes	89	
79	Walgett (Dual Supply)	1.9						Yes	Yes	Yes	Yes	Yes	50			Yes	Yes	Yes	Yes		yes	Yes	Yes	78	
80	Greater Hume	1.7	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	100		Yes	Yes	Yes	Yes				Yes	Yes	67	
81	Gwydir	2.3	Yes	Yes	Yes		Yes		Yes	Yes	Yes	Yes	80		Yes	Yes	Yes	Yes	Yes		Yes	Yes	Yes	89	
82	Gloucester	2.3	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	100		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	100	
83	Oberon (Reticulator)	1.6		Yes	Yes		Yes	Yes	Yes		Yes		60			Yes	Yes	Yes	Yes	Yes	Yes	Yes		78	
84	Gilgandra (Groundwater)	1.3	Yes	Yes	Yes	Yes	Yes	Yes[e]	Yes	Yes	Yes		90		Yes	Yes	Yes	Yes	Yes	Yes[e]	Yes	Yes		89	
85	Uralla	1.1		Yes	Yes		Yes	Yes		Yes	Yes	Yes	70			Yes	Yes	Yes	Yes	Yes		Yes	Yes	78	
86	Hay (Dual Supply)	1.7	Yes	Yes	Yes	Yes	Yes	Yes[e]	Yes	Yes	Yes		90		Yes	Yes	Yes	Yes		Yes	Yes	Yes		78	
87	Bourke (Dual Supply)	2.0	Yes	Yes	Yes	Yes	Yes	Yes[e]	Yes	Yes	Yes	Yes	100		Yes	Yes	Yes			Yes[e]	Yes	Yes	Yes	78	
88	Wakool (Dual Supply)	1.8	Yes*	Yes	Yes	Yes	Yes	Yes	Yes	Yes			80		Yes*	Yes	Yes			Yes				44	
89	Bogan	1.3	Yes	Yes	Yes	Yes	Yes	Yes[e]		Yes	Yes	Yes	90		Yes	Yes	Yes	Yes		Yes[e]	Yes	Yes	Yes	89	
90	Guyra	1.5	Yes	Yes	Yes	Yes*			Yes	Yes	Yes		70		Yes	Yes	Yes		Yes	Yes[e]	Yes	Yes		78	
91	Cabonne	2.3	Yes	Yes	Yes	Yes*	Yes	Yes	Yes	Yes	Yes	Yes	100		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	100	
92	Carrathool (Groundwater)	1.3		Yes	Yes	Yes	Yes		Yes	Yes	Yes		70				Yes					Yes		22	
93	Tumbarumba	1.1	Yes*	Yes	Yes		Yes	Yes[e]	Yes	Yes	Yes	Yes	90		Yes*	Yes	Yes	Yes	Yes	Yes[e]	Yes	Yes	Yes	100	

Table 3: 2009-10 best-practice management compliance (continued)

	WATER UTILITY (sorted on connected properties)	WATER SUPPLY & SEWERAGE REVENUE ($M)	WATER SUPPLY: COMPLIANCE WITH BPM CRITERIA (see Note 1)												SEWERAGE: COMPLIANCE WITH BPM CRITERIA (see Note 1)										
			(1) Strategic Business Plan	(2) Pricing and Developer Charges (Yes/No)					(3) Sound Water Conservation Plan implemented *(Yes/No)*	(4) Sound Drought Management Plan implemented *(Yes/No)*	(5) Complete performance Reporting by 15 September each year *(Yes/No)*	(6) Integrated Water Cycle Management Strategy Commenced *(Yes/No)*	Overall compliance with all 10 required Criteria (Note 2) *(%)*	Proposed Dividend from Surplus $'000	(1) Strategic Business Plan	(2) Pricing and Developer Charges (Yes/No)						(3) Complete performance Reporting by 15 September each year *(Yes/No)*	(4) Integrated Water Cycle Management Strategy Commenced *(Yes/No)*	Overall compliance with all 9 required Criteria (Note 3) *(%)*	Proposed Dividend from Surplus $'000
			Complete Current 20 to 30-year SBP & FP *(Yes/No)*	(2a) Full cost-recovery, minimal cross subsidies	(2b) Complying Residential Charges	(2c) Revenue from Residential Usage Charges >=75% (Note 8)	(2d) Complying Non-Residential Charges	(2e) DSP with Commercial Developer Charges							Complete Current 20 to 30-year SBP & FP *(Yes/No)*	(2a) Full cost-recovery, minimal cross subsidies	(2b) Complying Residential Charges	(2c) Complying Non-Residential Charges	(2d) Complying Trade Waste Fees & Charges	(2e) DSP with commercial developer charges	(2f) Liquid trade waste regulation policy and approvals implemented				
94	Gundagai	0.9		Yes	Yes	Yes	Yes		Yes	Yes	Yes		70			Yes	Yes	Yes	Yes		Yes	Yes		67	
95	Weddin (NO WS)	0.2													Yes*	Yes	Yes			Yes[e]	Yes	Yes	Yes	78	
96	Warren (Dual Supply)	1.0	Yes	Yes	Yes	Yes	Yes	Yes[e]	Yes	Yes	Yes	Yes	100		Yes	Yes	Yes				Yes	Yes	Yes	67	
97	Bombala	0.8		Yes	Yes				Yes	Yes	Yes	Yes	60			Yes	Yes	Yes		Yes		Yes	Yes	67	
98	Walcha	0.8	Yes*	Yes	Yes	Yes	Yes				Yes	Yes	70		Yes*	Yes	Yes	Yes	Yes		Yes	Yes	Yes	89	
99	Coolamon (NO WS)	0.4													Yes	Yes	Yes			Yes		Yes		56	
100	Balranald (Dual Supply)	0.8	Yes*	Yes	Yes	Yes	Yes		Yes	Yes	Yes		80		Yes*	Yes	Yes	Yes				Yes		56	
101	Murrumbidgee (Groundwater)	0.6	Yes*		Yes		Yes						30		Yes*				Yes		Yes			33	
102	Lockhart (NO WS)	0.3													Yes	Yes	Yes	Yes	Yes			Yes	Yes	78	
103	Central Darling (Dual Supply)	0.7		Yes	Yes	Yes	Yes	Yes[e]	Yes	Yes			70			Yes	Yes		Yes	Yes[e]				44	
104	Boorowa	0.9		Yes	Yes	Yes	Yes	Yes[e]		Yes	Yes		70			Yes	Yes		Yes	Yes[e]	Yes	Yes		67	
105	Brewarrina	1.0	Yes					Yes[e]	Yes	Yes	Yes	Yes	60		Yes					Yes[e]		Yes		33	
106	Jerilderie (Dual Supply)	0.6	Yes*	Yes	Yes	Yes	Yes		Yes	Yes	Yes		80		Yes*	Yes	Yes	Yes				Yes		56	
107	Urana (NO WS)	0.2													Yes*	Yes	Yes			Yes		Yes	Yes	67	
% of LWUs 'Yes' (200 - 1,500 connected properties)			68%	88%	92%	68%	84%	68%	80%	88%	88%	52%	78%	Overall	74%	90%	94%	58%	52%	61%	58%	90%	52%	70%	Overall
TOTAL 'YES' for large LWUs (>$10M Revenue)[6]			29	29	28	18	27	29	29	28	30	28	18		27	27	27	25	27	27	27	27	27	24	
% of Large LWUs (30 WS LWUs and 27 SGE LWUs)			97%	97%	93%	60%	90%	97%	97%	93%	100%	93%	60%		100%	100%	100%	93%	100%	100%	100%	100%	100%	89%	
TOTAL 'YES' for remainder of LWUs (<$10M Revenue)[6]			57	63	64	38	62	52	57	62	61	41	17		63	67	71	50	46	53	49	67	43	20	
% of Small LWUs (66 WS LWUs and 73 SGE LWUs)			86%	95%	97%	58%	94%	79%	86%	94%	92%	62%	26%		86%	92%	97%	68%	63%	73%	67%	92%	59%	27%	
TOTAL 'YES' for all LWUs			86	92	92	56	89	81	86	90	91	69	35		90	94	98	75	73	80	76	94	70	44	
% all LWUs			89%	95%	98%	60%	95%	84%	89%	93%	94%	71%	36%		90%	94%	98%	75%	73%	80%	76%	94%	70%	44%	

Overall Compliance for all WS Businesses 86%

Overall Compliance for all SGE Businesses 83%

Notes:

1 Best Practice Management criteria are set out in "*Best Practice Management of Water Supply and Sewerage Guidelines August 2007*" (BPMG).

2 There are 10 criteria which must be satisfied for an LWU to achieve compliance for water supply. These are (1), (2a), (2b), (2c), (2d), (2e), (3), (4), (5) and (6) shown in the table above for water supply.

3 There are 9 criteria which must be satisfied for an LWU to achieve compliance for sewerage. These are (1), (2a), (2b), (2c), (2d), (2e), (2f), (3) and (4) shown in the table above for sewerage.

4 Compliances shown in the table above are from Notes 2 or 3 of the Special Purpose Financial Reports reported by each LWU in their Annual Financial Statements, supplemented by other data provided to the NSW Office of Water by the LWU. Complying documents (including strategic business plans and IWCM evaluations and strategies) provided by LWUs to the NSW Office of Water by February 2011 are included in the results reported.

5 As shown in Table 8C of the *2009-10 NSW Water Supply and Sewerage Benchmarking Report* , 56 LWUs have completed an IWCM Evaluation, 30 of which have also completed an IWCM Strategy. These IWCM Evaluations and Strategies have been reviewed by the NSW Office of Water and found to be soundly based. Similarly, the strategic business plans and trade waste waste policies shown as Yes above have been found to be soundly based. However, the water conservation and drought management plans have only been briefly examined to confirm that they address the required issues.

6 The revenue for LWUs with water supply only or sewerage only is shown left justified above. For these LWUs, the relevant revenue to be classified as a "large LWU" is $5M.

7 Where an LWU has not yet reported its revenue for 2009-10, the revenue reported for 2008-09 is shown instead. This is shown in italics bold.

8 For criterion (2c) utilities with over 4,000 connected properties which obtained 70% to 74% of residential revenue from usage charges are shown as Yes*. Utilities with 4,000 or fewer connected properties are only required to achieve 50% for criterion (2c). Such utilities which have obtained 45% to 49% residential revenue from water usage charges are shown as Yes*. Bulk water suppliers are not required to comply with criteria 2(b), 2(c) or 2(d) which refer to residential water tariffs.

9 Yes* for criterion (1) indicates that the LWU's strategic business plan and financial plan need to be updated.

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

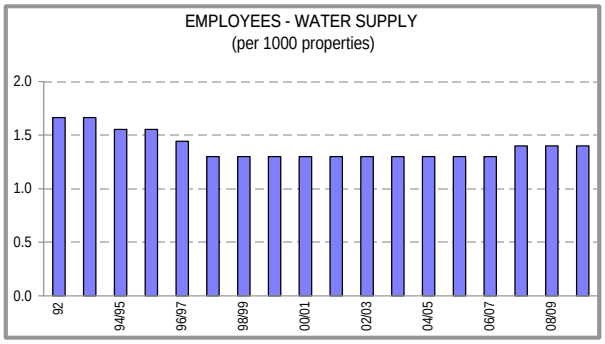
11 Yes* for criterion (2f) for sewerage indicates that the LWU has a year 2006 or earlier trade waste policy, which needs to be updated.

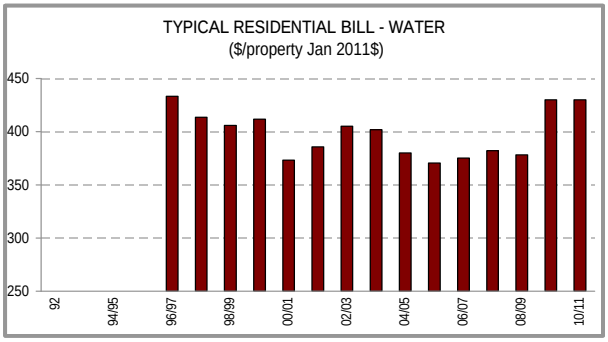
12 As shown above, the overall levels of compliance with the outcomes of the Best-Practice Management Criteria for water supply (for all 10 criteria) were: 90% for LWUs with >10,000 properties; 90% for LWUs with 3,001 - 10,000 properties; 88% for LWUs with 1,501 - 3,000 properties and 78% for LWUs with 200 - 1,500 properties respectively. The overall level of compliance for water supply for all LWUs was 86%.

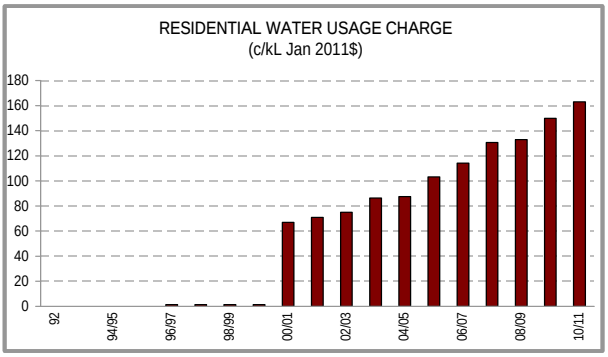
13 As shown above, the overall levels of compliance with the outcomes of the Best-Practice Management Critieria for sewerage (for all 9 criteria) were: 100% for LWUs with >10,000 properties; 87% for LWUs with 3,001 - 10,000 properties; 80% for LWUs with 1,501 - 3,000 properties and 70% for LWUs with 200 - 1,500 properties respectively. The overall level of compliance for sewerage for all LWUs was 83%.

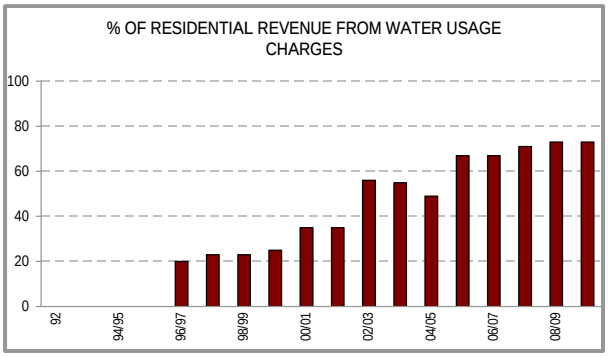
14 The overall compliance for water supply and sewerage was 85%.

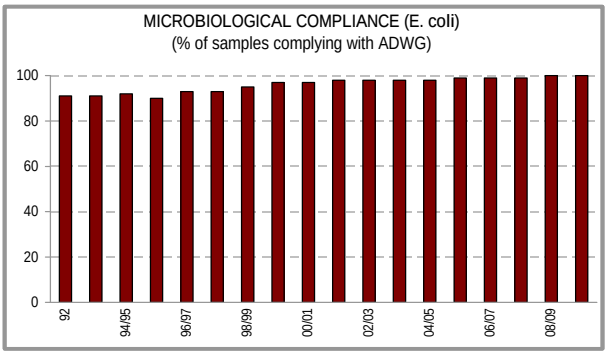
Table 4: Trends in statewide performance indicators – Water Supply 1991 to 2009-10

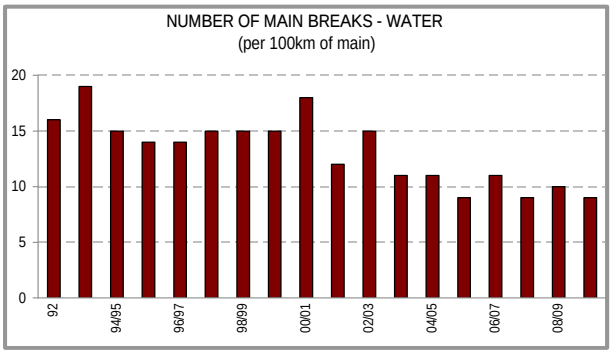


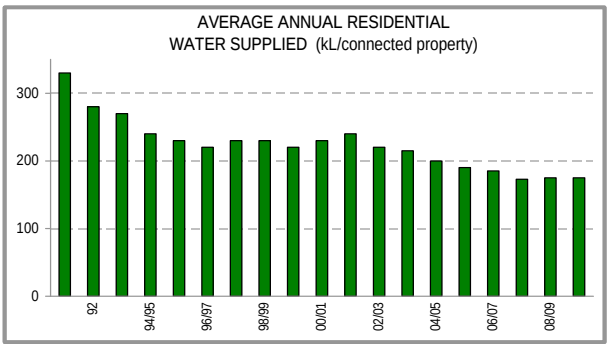


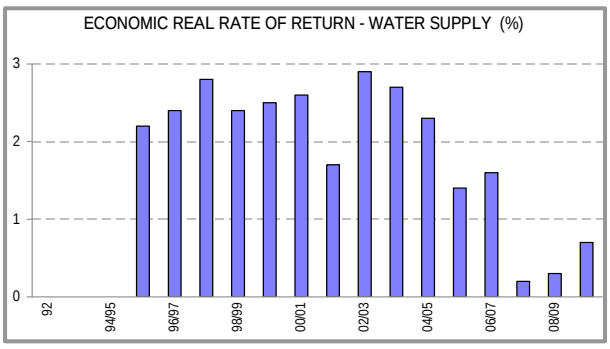


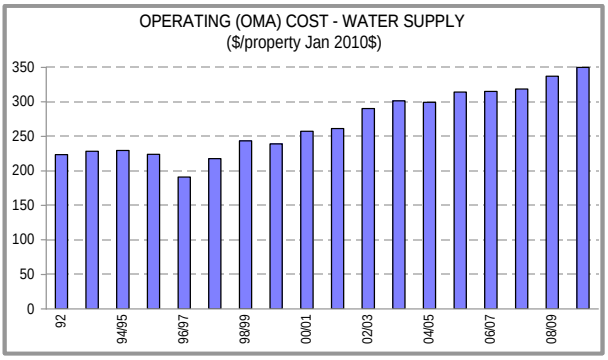












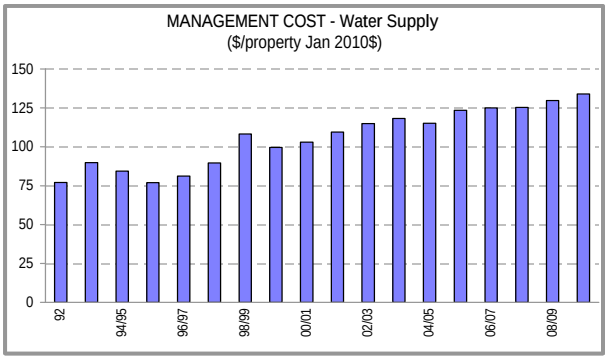
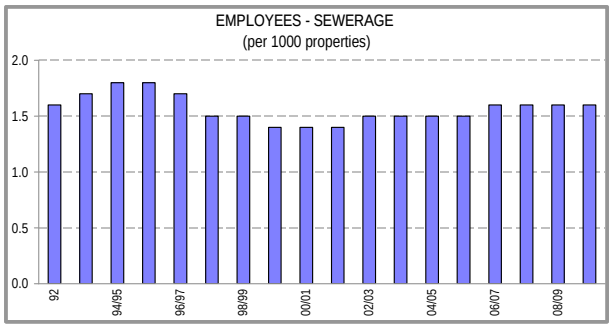
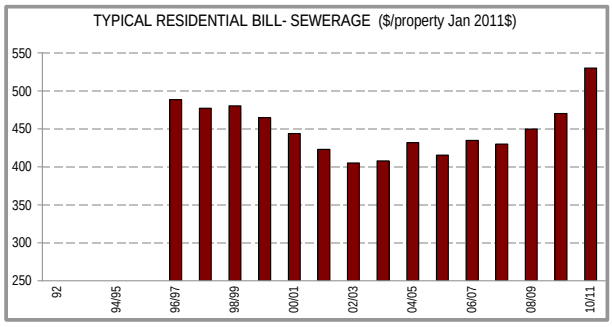
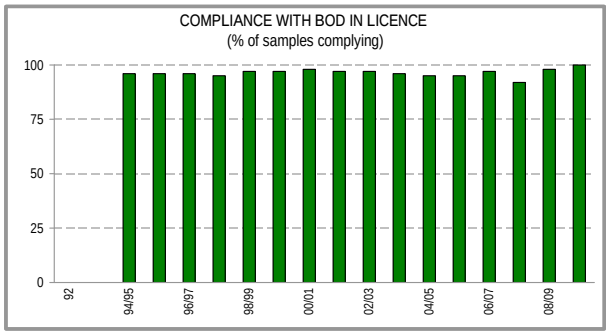
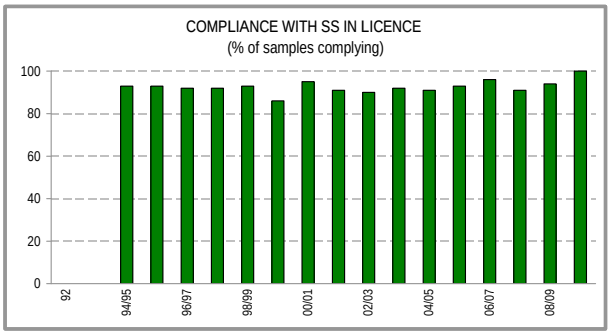


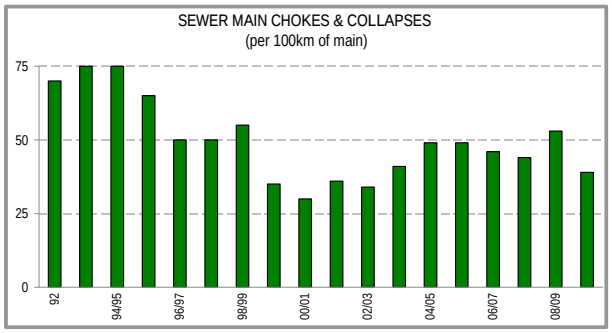
Table 4: Trends in statewide performance indicators – Sewerage 1991 to 2009-10

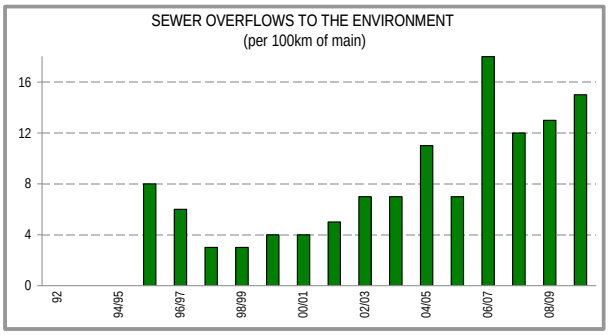


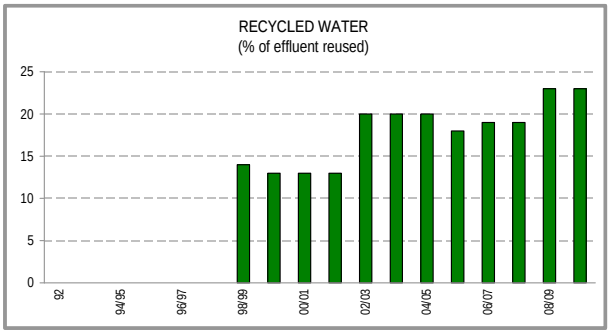


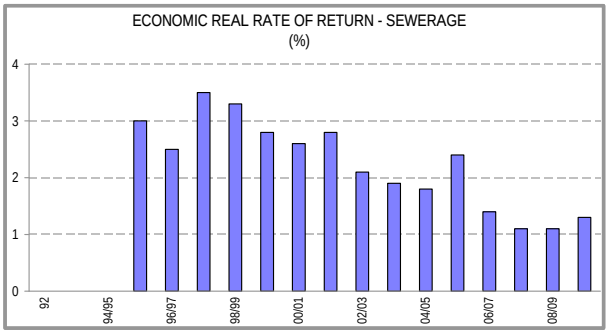


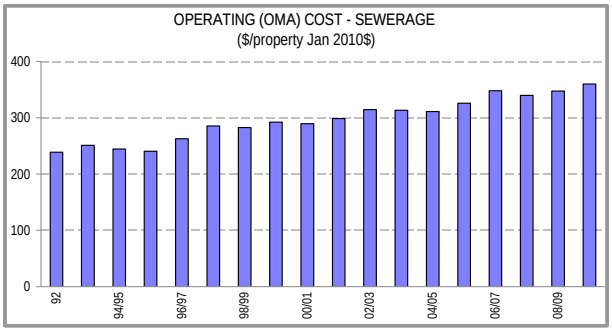


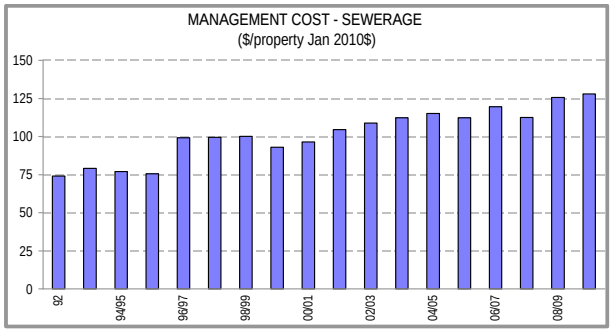












Notes:

1. The values shown are Statewide medians on a percentage of connected properties basis from 1992 to 2009/10, except for microbiological, BOD and SS compliance which are the percentage of samples complying, and % of effluent recycled, which is the Statewide total for non-metropolitan NSW.
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: 2009-10 NSW water utility performance summary

	WATER UTILITY	Water Supply												Sewerage						Water Supply & Sewerage - Current (2009-10) unless noted as 2010/11										
		Water Supply Connected Properties (No.)[5]	Total Water Supplied Potable + Non-potable + Recycled Excl Bulk Supply (ML)[2, 3]	Average Annual Residential Water Supplied Potable + Nonpotable (kL/connected property)	Water Main Breaks (per 100km of Main)	Avge Duration of Unplanned Interruption (mins)	Revenue ($M)[3, 8]	Water Quality Compliance (2004 NHMRC/NRMMC Guidelines)					Water Quality Complaints (per 1000 props)	Revenue ($M)[2,3,8]	% Sge Treated that was Compliant (%)	Sewer Overflows (No per 100km of Main) (10a) See also E13 in Table 15	Sewage Odour Complaints (per 1000 properties)	Recycled Water		Net Profit After Tax ($M)	2010/11 Typical Residential Bill ($/assessment)	2010/11 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 Completed ? Note 14 (Yes/No)
								Chemical Note 11 (%)	Zones	E. coli Note 12 (%)	Zones	% Pop'n with E. coli Compliance						(% of effluent recycled)	(Total ML)									($/prop)	($M)	
		(1) C4	(2) W11	(3) W12	(3a) A8	(3b) C15	(4) F1	(7)	(7a) H4	(8)	(8a) H2	(8b) H3	(8c) C9	(9) F2	(10) E4		(11)	(12) W27	(12a) W26	(13a) F24	(13b) P8	(14)	(15)	(17) F13	(18)	(19) F19	(19a) F22	(19b)	(19c) F16	(21)
	Sydney Water	1,772	505,650	205	28	140	1,073	100	13 of 13	100	13 of 13	100	0.3	1,075	97	0.2		7	33,683	446				556		1.9	120		1255.9	
	Hunter Water	225	68,233	184	32	119	113	100	5 of 5	100	5 of 5	100	3.4		95			10	5,348	45				496		2.5	39		159.9	
	Sydney Catchment Authority		496,226				196							NO SGE						43									54.4	
LWUs with > 10,000 Properties																														
1	Gosford	70,270	13,610	146	34	230	32.9	100	2 of 2	100	2 of 2	100	39	36.7	100	37	1.6	3	362	2.1	849	6,760	17,321	666	262	1.0	3	836	58.3	Yes
2	Wyong	59,820	13,900	154	6	204	46.3	100	1 of 1	100	1 of 1	100	5.1	29.0	100	31	0.9	7	1,024	-4.9	846	5,230	20,900	718	310	0.5	11	1,031	61.6	Yes
3	Shoalhaven	45,860	15,230	145	9	112	19.7	100	4 of 4	100	4 of 4	100	0.6	32.7	83	39	0.3	35	2,429	7.3	901	14,060	23,395	701	274	1.1	3	999	42.3	Yes
4	Rous (Bulk Supplier) (NO SGE)	45,660	1,570		21	180	16.5	100	2 of 2	100	2 of 2	100	0.4	NO SGE						-6.3		7,490	9,794	204	94	-0.4	10	109	5.0	Yes*
5	MidCoast (Unfiltered)	36,320	9,160	154	3	-	23.4	92	3 of 4	100	4 of 4	100	12	31.6	99	5	0.9	11	729	1.9	1,329	13,730	31,953	732	156	1.7	30	1,167	41.3	Yes
6	Tweed	31,180	10,450	176	3	120	20.6	100	3 of 3	100	3 of 3	100	2.9	26.3	93	3	0.1	9	822	-1.8	964	16,320	34,245	807	322	0.0	2	2,974	92.1	Yes
7	Port Macquarie-Hastings (Unfiltered)	28,920	6,500	166	2	236	23.6	100	5 of 5	100	5 of 5	100	8	19.6	58	16	0.2	5	369	10.2	1,097	13,020	28,946	675	222	1.7	0	778	20.9	Yes
8	Riverina (Groundwater) (NO SGE)	28,620	15,850	330	10	206	18.6	100	10 of 14	100	14 of 14	100	3.0	NO SGE						2.5	377	3,600	8,526	312	94	3.4	-5	233	6.7	Yes*
10	Coffs Harbour (Unfiltered)	24,050	6,620	186	11	120	32.3	100	3 of 3	100	3 of 3	100	3.5	24.6	100	4	1.8	16	1,029	19.9	1,233	17,140	31,912	785	298	4.5	24	844	19.5	Yes
11	Albury	22,560	6,800	220	7	200	9.2	81	0 of 1	100	1 of 1	100	1.1	14.9	92	3	0.0	100	4,358	1.0	675	7,560	28,998	654	247	0.4	4	0		Yes*
12	Fish River WS (Unfiltered, Bulk Supplier	23,500	1,460		2	1,440	7.2	100	1 of 1	100	1 of 1	100	0.0	NO SGE						0.0				0	31					Yes*
13	Tamworth Regional	20,630	9,440	256	5	-	15.7	100	6 of 7	100	6 of 7	99	-	21.2	99	11	0.9	38	1,850	17.0	1,196	5,910	24,944	784	234	4.2	-1	2,789	52.3	Yes
14	Clarence Valley	20,960	6,740	174	16	-	12.1	89	4 of 5	100	4 of 5	99	9	11.7	70	20	2.4	5	165	1.3	1,056	11,600	22,450	673	294	1.0	8	1,742	26.0	Yes
15	Eurobodalla (Unfiltered)	19,350	4,320	116	6	-	13.8	100	1 of 1	100	1 of 1	100	-	14.9	100	34	0.7	10	370	9.3	1,224	19,450	27,546	781	298	2.0	2	1,275	24.1	Yes
16	Wingecarribee	18,140	4,860	190	12	-	10.9	100	3 of 3	100	3 of 3	100	6	10.8	97	55	3.3	2	73	-0.6	947	13,300	33,049	676	281	0.8	1	1,070	16.0	Yes
17	Queanbeyan (Reticulator)	15,940	4,280	200	0	180	12.0	100	1 of 1	100	1 of 1	100	-	6.2	100	2	0.0	1	47	-2.5	1,037	8,930	24,672	819	225	-1.8	-15	106	1.7	Yes*
18	Dubbo	16,860	7,690	329	4	138	11.0	100	1 of 1	100	1 of 1	100	0.6	10.2	92	2	0.6	78	2,281	3.3	1,217	9,560	27,911	797	316	1.1	3	421	6.9	Yes
19	Orange	16,130	6,930	148	11	180	9.7	100	2 of 2	100	2 of 2	100	1.7	7.3	100	82	1.5	90	3,033	-1.3	740	10,580	27,015	581	253	0.1	-11	279	4.5	Yes*
20	Goulburn Mulwaree	10,230	2,210	136	14	180	7.2	100	2 of 2	100	2 of 2	100	3.6	8.3	100	0	1.4	80	1,261	3.1	1,167	5,910	37,810	765	228	1.5	5	590	5.9	Yes*
21	Bathurst Regional	14,680	6,000	252	9	120	10.8	100	1 of 1	100	1 of 1	100	17	7.9	100	6	0.0	100	3,636	2.5	853	5,300	25,080	775	324	1.3	-11	213	3.1	Yes
22	Lismore (Reticulator)	14,060	3,790	168	23	271	8.4	100	1 of 1	100	1 of 1	100	3.6	8.5	100	4	0.8	1	30	-0.2	1,113	9,730	39,088	789	185	-1.1	-5	564	7.2	Yes
23	Bega Valley (Unfiltered)	14,060	4,210	165	4	180	9.8	100	5 of 6	100	6 of 6	100	2.2	13.7	95	30	0.4	41	827	3.8	1,525	20,520	27,552	1,061	416	1.9	-4	362	4.9	Yes
24	Ballina (Reticulator)	14,350	4,770	188	13	120	7.7	100	1 of 1	100	1 of 1	100	3.0	10.6	96	2	0.3	19	768	2.6	978	11,400	23,286	990	300	-0.8	-10	613	8.1	Yes
25	Kempsey (Groundwater)	12,400	3,770	177	11	159	7.9	100	7 of 7	100	7 of 7	100	1.3	6.8	76	26	0.6	2	55	-2.7	1,122	15,470	50,756	806	283	0.0	6	1,078	11.2	Yes
26	Country Energy	10,470	5,930	280	12	-	12.7	100	2 of 2	100	2 of 2	100	0.1	4.9	100	6	0.8	46	622	3.0	1,007		3,600	1,071	250	0.0	0	2,613	27.3	Yes
27	Byron (Reticulator)	10,770	3,170	194	12	120	6.7	100	1 of 1	100	1 of 1	100	0.2	12.1	98	7	2.1	15	477	-1.1	1,300	16,990	31,114	993	280	1.4	18	2,798	28.4	Yes
28A	Goldenfields (Reticulator) (NO SGE)	10,040	5,160	259	19	272	6.4	100	1 of 1	100	1 of 1	100	6.6	NO SGE						-0.7	528	7,500	10,318	694	165	-1.1	-9	116	1.2	Yes
28B	Goldenfields (Bulk Supplier) (NO SGE)	18,830			0		6.7	100	3 of 3	100	2 of 3	99		NO SGE						0.0			5,427	252	62	-0.4	-8	178	3.4	Yes
	Totals or Medians (% of LWUs basis excl NO SGE suppliers) for >10,000	*587,000*	*184,420*	*176*	*10*	*180*	*420*	*24 of 27 complied with chemical guidelines 27 of 27 complied with E. coli guidelines*						*371*			*0.8*	*15*	*26,600*		*1,056*	*11,500*	*27,552*	*781*	*280.2*	*1.0*	*2*	*844*	*580*	
LWUs with 3,001 - 10,000 Properties																														
29	Armidale Dumaresq	8,430	2,640	221	15	-	6.5	100	1 of 1	100	1 of 1	100	0.0	5.1	100	66	0	40	853	3.8	975	9,290	21,040	779	352	2.5	-4	71	0.6	Yes
30	Griffith	8,280	7,740	584	19	120	7.6	100	1 of 2	100	2 of 2	100	1.2	6.2	39	1	0.0	9	188	3.7	1,259	5,200	27,119	1,062	419	1.3	-4	505	4.0	Yes
31	Lithgow	8,030	1,500	135	23	120	4.0	100	1 of 1	100	1 of 1	100	38	4.0	75	-	-	0		0.8	810	4,020	16,378	917	246	-1.6	-24	1,060	7.9	Yes
32	Mid-Western Regional	7,230	2,540	205	5	120	4.5	100	3 of 3	96	1 of 3	16	3	3.1	43	-	0	12	166	-0.4	972	10,820	25,994	756	277	-0.3	-19	339	2.4	Yes
33	Richmond Valley	7,010	3,180	195	15	-	5.2	100	1 of 1	100	1 of 1	100	0.1	6.9	100	14	0.8	19	344	1.8	1,272	17,520	28,665	947	456	2.2	-8	457	3.1	Yes
34	Nambucca (Groundwater)	6,260	1,530	143	4	120	2.9	100	1 of 1	100	1 of 1	100	1.3	4.3	45	17	0.9	8	131	5.3	671	8,650	28,107	632	233	1.6	-72	106	0.6	Yes*

Table 5: 2009-10 NSW water utility performance summary (continued)

	WATER UTILITY	Water Supply												Sewerage						Water Supply & Sewerage - Current (2009-10) unless noted as 2010/11										
		Water Supply Connected Properties (No.)[5]	Total Water Supplied Potable + Non-potable + Recycled Excl Bulk Supply (ML)[2, 3]	Average Annual Residential Water Supplied Potable + Nonpotable (kL/connected property)	Water Main Breaks (per 100km of Main)	Avge Duration of Unplanned Interruption (mins)	Revenue ($M)[3, 8]	Water Quality Compliance (2004 NHMRC/NRMMC Guidelines)					Water Quality Complaints (per 1000 props)	Revenue ($M)[2,3,8]	% Sge Treated that was Compliant (%)	Sewer Overflows (No per 100km of Main)	Sewage Odour Complaints (per 1000 properties)	Recycled Water		Net Profit After Tax ($M)	2010/11 Typical Residential Bill ($/assessment)	2010/11 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 Completed ?
								Chemical Note 11 (%)	Zones	E. coli Note 12 (%)	Zones	% Pop'n with E. coli Compliance						(% of effluent recycled)	(Total ML)									($/prop)	($M)	Note 14 (Yes/No)
		(1) C4	(2) W11	(3) W12	(3a) A8	(3b) C15	(4) F1	(7)	(7a) H4	(8)	(8a) H2	(8b) H3	(8c) C9	(9) F2	(10) E4	(10a) See also E13 in Table 15	(11)	(12) W27	(12a) W26	(13a) F24	(13b) P8	(14)	(15)	(17) F13	(18)	(19) F19	(19a) F22	(19b)	(19c) F16	(21)
35	Singleton	6,380	2,650	281	10	120	4.4	100	1 of 1	100	1 of 1	100	5.3	2.9	100	11	0.7	33	393	1.4	825	7,410	22,473	767	256	0.4	-2	253	1.5	Yes*
36	Parkes	5,880	6,730	344	11	120	6.7	100	1 of 1	100	1 of 1	100	-	2.5	47	-	0.0	36	178	3.2	1,002	9,400	30,189	806	114	2.7	-9	393	2.0	Yes
37	Inverell	5,320	*2,340*	277	3	60	4.0	100	3 of 3	100	3 of 3	100	0.9	1.7	92	2	0	0		1.0	966	13,500	24,068	773	214	0.9	-37	207	1.1	Yes
38	Moree Plains (Groundwater)	4,460	3,530	619	33	180	4.0	100	6 of 6	100	5 of 6	93	1	3.1	100	3	0.0	65	746	0.1	1,728	8,160	27,139	1,081	297	1.3	-1	1,862	8.1	Yes
39	Cowra	5,250	2,790	202	12	180	4.7	100	1 of 1	100	1 of 1	100	15	2.7		75	-	100	698	0.6	1,116	11,410	28,148	1,012	550	1.6	-9	1,615	6.4	Yes
40	Central Tablelands (NO SGE)	5,300	1,880	201	10	240	*4.1*	100	2 of 2	100	2 of 2	100	5	*NO SGE*						-0.3	465	8,260	20,053	421	211	0.3	-4	219	1.2	Yes
41	Muswellbrook	5,400	3,300	305	27	40	5.3	100	2 of 3	100	3 of 3	100	11	3.8	38	16	3.7	76	912	1.7	1,091	8,060	24,181	1,029	304	2.1	-6	486	2.5	Yes
42	Corowa	5,030	2,180	237	14	120	3.0	100	3 of 4	100	3 of 4	100	5	3.3	100	10	1.4	45	334	1.5	933	3,230	17,698	758	369	1.8	-8			Yes
43	Tumut	4,440	1,450	202	7	120	2.4	100	4 of 5	100	5 of 5	100	1	2.8	100	37	0	19	153	0.0	948	9,420	21,049	733	136	0.0	-3	488	2.1	Yes
44	Gunnedah (Groundwater)	4,640	2,300	338	19	120	3.0	100	4 of 4	100	3 of 4	99	0.9	1.3	60	81	-	75	605	1.4	799	6,430	25,281	457	181	1.4	-1	351	1.5	Yes*
45	Upper Hunter	4,380	3,050	448	20	45	3.5	100	4 of 4	100	4 of 4	100	1.1	1.9	100	0	0	10	165	0.6	1,271	7,640	20,166	885	314	0.0	-57	301	1.3	Yes
46	Narrabri (Groundwater)	4,380	2,290	544	82	120	2.3	100	6 of 6	100	6 of 6		18	1.8	100	2	0.0	4	37	1.6	1,066	6,940	34,943	642	128	3.3	-21	99	0.4	Yes
47	Bellingen (Unfiltered)	4,040	1,280	175	8	120	2.2	100	2 of 2	100	2 of 2	100	1	1.7	91	9	1.0	0		0.4	980	10,720	24,076	826	351	-0.4	-25	463	1.6	Yes
48	Leeton	3,990	2,960	442	6	120	3.1	100	4 of 4	100	4 of 4	100	0.0	2.2	98	6	0	1	20	0.7	1,035	8,200	25,787	911	237	1.2	-4	317	1.1	Yes
49	Young (Reticulator)	4,630	1,520	222	-	-	2.7	100	1 of 1	100	1 of 1	100	0.0	1.6	-	-	-	73	506	0.1	1,104	2,050	13,702	435	127	2.5	0	20	0.1	Yes
50	Cooma-Monaro	3,840	1,230	*195*	15	180	2.6	100	3 of 3	100	3 of 3	100	1.0	2.5	85	62	1	25	167	0.0	1,198	7,750	23,431	966	380	-0.1	-5	1,025	3.9	Yes
51	Forbes	3,640	1,950	338	33	113	2.2	100	1 of 1	100	1 of 1	100	1.9	2.1	83	7	0	82	528	0.0	821	8,210	27,286	726	133	-0.5	-18	351	1.2	Yes*
52	Snowy River (Unfiltered)	4,190	846	127	7	120	2.7	100	5 of 5	100	3 of 5	56	0.0	3.0	92	3	0	0		1.3	1,160	9,400	29,499	785	265	2.3	-1	966	3.5	Yes
53	Berrigan (Dual Supply)	3,520	1,560	272	13	120	2.6	100	4 of 4	100	4 of 4	100	0.0	1.3		0	0	34	145	0.0	994	6,060	23,292	727	194	0.1	-11	407	1.4	Yes
54	Deniliquin	3,380	2,430	466	-	-	2.2	100	1 of 1	100	1 of 1	100	-	1.9	-	-	-	74	410	0.2	1,187	7,500	26,028	973	518	0.0	-8	623	2.0	Yes*
55	Warrumbungle	3,300	807	190	4	120	2.2	100	8 of 8	95	4 of 8	46	13.7	1.3	92	0	0	25	113	0.2	925	2,670	27,064	772	143	0.3	-23	421	1.4	Yes*
56	Yass Valley	3,090	838	176	13	220	4.6	100	1 of 1	100	1 of 1	100	3	1.5	100	1	0	13	53	2.8	1,156	14,520	27,537	794	407	6.8		1,197	3.0	Yes
	Totals or Medians (% of LWUs basis) for 3,001 - 10,000 Properties	*213,000*	*69,030*	*229*	*13*	*120*	*105*	*28 of 28 complied with chemical guidelines 26 of 28 complied with E. coli guidelines*						*77*			*0*	*25*	*7,845*		*998*	*8,180*	*25,534*	*782*	*260*	*1*	*-8*	*407*	*66*	
LWUs with 1,501 - 3,000 Properties																													
57	Wellington	2,900	*1,180*	209	17	120	2.2	100	2 of 2	100	2 of 2	100	0.0	1.6	100	0	0	0		-0.2	1,093	6,270	20,298	846	344	1.2	0	661	1.8	Yes
58	Cootamundra (Reticulator)	2,920	*911*	179	52	120	1.6	100	1 of 1	100	1 of 1			1.0	75	3	0	50	204	-0.3	757	8,090	14,869	516	110	-0.3	-8			Yes*
59	Lachlan	2,820	1,430	360	7	90	6.6	100	3 of 3	100	2 of 3	89	3	0.7	20	0	1	26	138	4.0	1,124	13,250	35,571	838	225	8.9	-17			Yes*
60	Glen Innes Severn	3,000	714	*155*	6	180	1.2	100	2 of 2	100	2 of 2	100	0	1.1	100	106	0	12	73	-0.1	742	5,820	19,613	586	258	-0.6	-12	49	0.1	Yes
61	Liverpool Plains	2,690	920	*222*	11	85	1.7	100	2 of 2	100	2 of 2		0.0	0.7		-	-	0		0.0	1,050	4,170	31,397	610	280	-0.1	-39	1,116	2.8	
62	Narromine (Groundwater)	2,100	1,110	434	25	180	1.1	100	2 of 2	100	2 of 2		0.5	1.1	100	0	0	5	29	0.6	998	6,620	16,249	675	347	4.1	-61			Yes
63	Narrandera (Groundwater)	2,070	1,170	376	-	-	1.3	100	1 of 1	97	0 of 1		-	0.9	100	-	0	0		0.5	1,024		12,647	792	277	2.4	-40	27	0.1	Yes*
65	Murray (Dual Supply)	2,760	1,140	289	4	90	1.8	100	2 of 2	100	2 of 2	100	0.0	1.4	100	0	0	21	128	0.6	887	4,180	23,502	619	213	1.3	-40	213	0.6	Yes
67	Cobar	2,250	954	310	10	60	1.3	100	1 of 1	100	1 of 1	100	6.7	0.5	100	0	0	38	100	-0.2	723	2,180	19,579	714	56	-1.2	-1	189	0.4	Yes
66	Cobar Water Board	0	1,540		0		2.0							*NO SGE*						0.4			0	0	0	0.7	0			
68	Tenterfield	1,960	468	138	10	120	2.0	100	2 of 2	98	2 of 2	100	5.6	1.5	100	0	1	25	65	0.6	1,312	3,000	36,447	927	308	1.6	1	1,910	3.5	Yes
70	Kyogle	1,840	461	164	14	120	1.0	100	3 of 3	100	3 of 3	100	3	1.0	86	48	2	91	349	0.1	1,002	4,000	25,758	756	239	1.3	-3	713	1.3	Yes*
71	Palerang	2,000	490	187	13	60	1.8	100	3 of 3	100	3 of 3	100	3	2.2	84	15	1	2		2.6	1,473	19,850	31,392	733	253	4.0	-14	3,700	7.2	Yes*
73	Upper Lachlan	1,930	*296*	71	8	120	1.4	70	3 of 4	100	3 of 4	91	10	1.0	100	0	0	0		4.4	1,087	6,510	26,073	718	220	2.2	-44	2,892	4.3	Yes*
74	Wentworth (Dual Supply)	2,370	*1,540*	356	9	60	1.9	100	3 of 3	100	3 of 3	100	3	1.2	100	0	5	0		0.6	1,195	9,270	23,965	638	125	1.7	0	123	0.2	Yes
76	Harden (Reticulator)	1,870	1,020	330	8	60	1.6	100	1 of 1	100	1 of 1	100	-	0.6	45	3	0	69	350	0.0	1,439	6,310	27,005	709	188	0.0	-9			Yes*
75	Coonamble (Groundwater)	1,690	1,030	466	44	60	0.4	100	2 of 3	100	3 of 3	100	16.0	0.5	85	2	0	24	76	-0.3	655	1,250	21,810	569	109	-6.3	-39	176	0.3	Yes*
79	Walgett (Dual Supply)	1,920	1,660	912	-	-	1.3	100	2 of 2	95	1 of 2	100	1.0	0.6	100	0	-	83	517	-0.1	1,249		21,049	831	192	-0.7	-11	218	0.4	
80	Greater Hume	1,780	547	223	5	120	0.8	100	1 of 2	100	2 of 2	100	0.0	0.9	100	0	0	15	59	-0.4	640	7,400	24,859	705	201	-1.4	-7	133	0.3	Yes
	Totals or Medians (% of LWUs basis excl bulk suppliers) for 1,501 - 3,000	*48,000*	*18,580*	*256*	*10*	*105*	*33*	*17 of 18 complied with chemical guidelines 16 of 18 complied with E. coli guidelines*						*19*			*0*	*18*	*2,088*		*1,037*	*6,290*	*23,733*	*709*	*220*	*1.2*	*-11*	*216*	*23*	

Table 5: 2009-10 NSW water utility performance summary (continued)

	WATER UTILITY	Water Supply												Sewerage						Water Supply & Sewerage - Current (2009-10) unless noted as 2010/11										
		Water Supply Connected Properties (No.)[5]	Total Water Supplied Potable + Non-potable + Recycled Excl Bulk Supply (ML)[2, 3]	Average Annual Residential Water Supplied Potable + Nonpotable (kL/connected property)	Water Main Breaks (per 100km of Main)	Avge Duration of Unplanned Interruption (mins)	Revenue ($M)[3, 8]	Water Quality Compliance (2004 NHMRC/NRMMC Guidelines)					Water Quality Complaints (per 1000 props)	Revenue ($M)[2,3,8]	% Sge Treated that was Compliant (%)	Sewer Overflows (No per 100km of Main)	Sewage Odour Complaints (per 1000 properties)	Recycled Water		Net Profit After Tax ($M)	2010/11 Typical Residential Bill ($/assessment)	2010/11 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 Completed ?
								Chemical Note 11 (%)	Zones	E. coli Note 12 (%)	Zones	% Pop'n with E. coli Compliance						(% of effluent recycled)	(Total ML)									($/prop)	($M)	Note 14 (Yes/No)
		(1) C4	(2) W11	(3) W12	(3a) A8	(3b) C15	(4) F1	(7)	(7a) H4	(8)	(8a) H2	(8b) H3	(8c) C9	(9) F2	(10) E4	(10a) See also E13 in Table 15	(11)	(12) W27	(12a) W26	(13a) F24	(13b) P8	(14)	(15)	(17) F13	(18)	(19) F19	(19a) F22	(19b)	(19c) F16	(21)
LWUs with 200 - 1,500 Properties																													
81	Gwydir	1,460	669	209	21	180	1.6	100	4 of 4	100	4 of 4	100	4.1	0.7	100	49	0	17	55	0.6	1,144	4,000	20,815	687	162	6.5	-15			Yes
82	Gloucester	1,720	415	167	10	240	1.4	100	2 of 2	91	1 of 2	95	3.5	1.0	83	8	0	0		0.7	1,167	12,600	20,415	660	134	3.7	-8	1,390	2.3	Yes
83	Oberon (Reticulator)	1,390	568	128	18	90	1.0	100	1 of 1	100	1 of 1	100	4	0.6	83	21	0	100	240	0.1	771	2,730	10,442	938	218	0.6	0	148	0.2	
84	Gilgandra (Groundwater)	1,350	811	433	40	100	0.8	100	1 of 1	100	1 of 1	100	11	0.6	75	17	2.2	100	290	0.1	988		21,479	565	119	0.8	-7	684	0.9	Yes
85	Uralla	1,540	300	127	32	120	0.6	100	2 of 2	97	1 of 2	92	20	0.5	83	0	2	0		-0.1	871	1,400	18,983	683	237	0.4	-1	73	0.1	
86	Hay (Dual Supply)	1,310	1,340	1,020	32	300	1.0	100	1 of 1	100	1 of 1	100	0.0	0.8	100	0	0	0		-0.1	1,228		26,783	1,120	390	-1.5	-16	578	0.8	Yes
87	Bourke (Dual Supply)	1,190	4,050	3,750	167	60	1.3	100	1 of 1	96	0 of 1		3	0.7	29	0	1.6	0		0.0	2,160	1,470	28,253	1,082	189	-0.3	-18	222	0.3	Yes
88	Wakool (Dual Supply)	1,430	1,100	891	-	-	1.2	100	5 of 5	100	3 of 5		0.0	0.6	100	-	-	0		-0.2	1,404		44,569	781	145	-0.4	-7	78	0.1	Yes*
89	Bogan	1,030	*582*	365	36	120	0.9	100	1 of 1	100	1 of 1	100	-	0.5	100	0	3.9			-0.2	986		34,880	1,026	373	-1.3	-9	138	0.1	Yes
90	Guyra	1,200	491	217	8	120	0.9	100	1 of 1	100	1 of 1	100	1.7	0.5	100	2	0	0		0.3	1,055	1,100	30,402	833	247	1.1	-6	139	0.1	Yes
91	Cabonne	1,150	412	168	26	180	0.8	100	4 of 4	100	2 of 3	87	0	1.5	100	13	0	50	142	-0.4	718	11,550	48,184	895	399	-0.9	-9	1,545	3.1	Yes
92	Carrathool (Groundwater)	1,130	1,680	1,350	5	180	1.1	100	4 of 5	100	3 of 3	87	2	0.2	100	0	0	1		-1.1	1,175	1,650	70,818	1,076	170	-2.1	2	365	0.4	
93	Tumbarumba	1,150	302	177	8	120	0.6	100	2 of 2	97	1 of 2		2	0.5	100	2	1	0		0.2	1,008	920	28,091	594	223	0.6	0	219	0.2	Yes*
94	Gundagai	880	*730*	336	17	60	0.6	100	1 of 1	100	1 of 1	100	6	0.4	100	3	1	100	117	-0.2	754	2,550	28,816	966	312	-2.0	-7	130	0.1	
96	Warren (Dual Supply)	960	719	654	66	120	0.5	100	3 of 3	95	0 of 3		0	0.5	100	0	0	1	2	-0.1	1,119		24,549	805	246	-1.0	-75			Yes
97	Bombala	840	236	193	23	56	*0.5*	100	2 of 2	100	2 of 2	100	0.0	0.4	100	74	0.0	21	35	0.1	1,032	5,850	30,286	643	125	0.1	-16			
98	Walcha	910	213	171	4	60	0.5	100	1 of 1	100	1 of 1	100	1.1	0.3	58	10	0	0		0.0	897		27,872	745	236	-0.1	-7	162	0.1	Yes*
100	Balranald (Dual Supply)	900	594	758	33	60	0.6	100	2 of 2	100	2 of 2	100	1	0.2	100	0	0	73	147	-0.1	929	1,490	30,375	592	162	-0.3	-6			Yes
101	Murrumbidgee (Groundwater)	900	*672*	470	-	-	0.3	100	2 of 2	100	2 of 2		0.0	0.2		-	-	17	15	-0.1	602	2,000	12,780	549	145	-3.9	-2	339	0.3	Yes*
103	Central Darling (Dual Supply)	730	*357*	484	-	-	0.6	100	2 of 2	97	1 of 2		0	0.1	100	-	-	0		-0.5	1,199		63,796	787		-0.8	-2			
104	Boorowa	620	278	296	9	100	0.5	100	1 of 1	100	1 of 1	100	0.0	0.3	65	0	3.6	2	2	0.0	1,420	900	33,260	728	302	1.0	-14			
105	Brewarrina	490	729	1,440	52	60	0.7	100	2 of 2	100	1 of 2	84	0.0	0.3		0	0	100	212	-0.2	1,569		38,856	1,674	481	-1.1	-10	152	0.1	Yes*
106	Jerilderie (Dual Supply)	470	*430*	1,030	16	120	0.4	100	1 of 1	93	0 of 1		0.0	0.2	25	0	0	15	10	0.0	1,743	3,180	30,130	983	203	-0.6	-17			Yes*
	Totals or Medians (% of LWUs basis) for 200 - 1,500 Properties	*25,000*	*17,678*	*365*	*22*	*120*	*18.2*	*23 of 23 complied with chemical guidelines 16 of 23 complied with E. coli guidelines*						*11.5*			*0*	*2*	*1.3*		*1,055*	*2,000*	*28,816*	*787*	*221*	*0*	*-7*	*190*	*0.0*	
LWUs without Water Supply																													
9	Wagga Wagga (NO WS)	25,118	226											14.5	70	30	0.0	9	453	0.4	406	3,500	12,302	251	44	1.3	1	454	11.4	Yes
30A	Hawkesbury	7,522												16.4	100	25	0	7	176	0.0	494	7,110	18,189	435		14.1	0	1,498	11.3	Yes*
69	Temora	2,111	80											0.6	80	0	0	100	80	0.0	256	160	6,994	219	48	-0.3	2	10	0.0	Yes*
72	Bland	1,843												0.9	100	0	0	*45*	*118*	0.3	525	1,470	10,518	292	49	1.0	0	251	0.5	Yes*
77	Junee	1,587	164											0.6	75	0	0	60	164	0.0	344	1,650	12,107	275	57	-0.4	1	183	0.3	Yes
78	Blayney	1,903	212											1.1	70	3	0	77	212	0.0	450	3,030	11,986	335	151	0.4	0			Yes
95	Weddin	1,026	36											0.2	100	3	0	21	36	0.0	247	2,800	10,092	127	25	-1.0	-2			Yes*
99	Coolamon	990	50											0.4	100	2	0	*100*	*73*	0.0	280	4,500	10,283	271	67	0.1	3	131	0.1	Yes
102	Lockhart	825	27											0.3	100		0	15	27	0.0	442	1,000	12,759	281	24	-1.0	0	10	0.0	Yes
107	Urana	316												0.2	100	0	0.0	0		0.0	227	4,100	20,336	405	114	-0.6	0			Yes*
	Totals or Medians (% of LWUs basis) for LWUs without WS	*36,000*	*795*											*18.9*			*0*	*33*	*1,339*		*375*	*2,915*	*12,046*	*278*	*49*	*-0.1*	*0*	*183*	*23.6*	
	Statewide Totals & Medians[6]	796,000 WS Connected Properties	290,000 ML (note 6)	Median 175kL per connected property (note 7)	Median 9 Breaks per 100km (note 7)	Median 159 minutes (note 7)	Total $580M (note 6)	92 of 96 LWUs (96%) complied with the chemical guidelines. 85 of 96 LWUs (89%) complied with E.coli guidelines					Median 4 Quality Complaints per 1000 props	Total $496M (note 6)	84% of LWUs and 98% of samples complied with BOD licences	Median 15 Overflows per 100km	Reuse of effluent was carried out by 80% of LWUs 24% of effluent collected was recycled	Total 39,000 ML			Median $960 per assessment (note 7)	Median $8,900 per ET (note 7)	Median $24,800 per assessment (note 7)	Median $710 per connected property (note 7)	Median $262 per connected property (note 7)	Median 1.0% (note 7)	Median -7% (note 7)	Median $534 per assessment (note 7)	Total $700M (note 7)	65 Yes 31 Yes* (note 14)	

Notes

1. This table shows the key 2009-10 performance indicators/characteristics for NSW water utilities.
   A more detailed breakdown is provided in Tables 6 to 18 and Figures 1 to 65 of the *2009-10 NSW Water Supply and Sewerage Benchmarking Report.*
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 2009-10, 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 there are 110 water utilities comprising:
   - 4 metropolitan water utilities (Sydney and Hunter Water Corporations,
     Sydney Catchment Authority (SCA) and Hawkesbury Council), and
   - 106 non-metropolitan Local Water Utilities (LWUs).

   The 106 LWUs comprise:
   - 101 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 106 LWUs,
   - 97 were responsible for water supply (including 3 for bulk supply - Cobar WB, Fish River WS & Rous Water)
   - 100 were responsible for sewerage.
   - 91 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 below 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 796,000 (col (1)).
   - ***Total annual water supplied*** was 290,000 ML (column (2)).
   - ***Total revenue*** for water supply and sewerage was $1076M (columns (4) and (9)) and the current
     replacement cost of assets was $20,600M.
7. Statewide medians (non-metropolitan) were:
   - ***Average annual residential water supplied*** - 175kL/connected property (column (3)).
   - ***Typical residential bill (TRB)*** for water and sewerage - $960/assessment (column(13b). The 2010-11 TRB
     for water supply has been calculated on the basis of each LWU's 2010-11 tariff using the 2009-10 average annual
     residential water supplied (column (3)). The TRB for sewerage is based on the LWU's access charge (col(1))
     of Table 7 except for 3 LWUs where account was also taken of the usage charges. The TRB in col (13b) is for
     2010-11. However, NWI indicators P2, P4 and P5 are defined as the TRB for 2009-10 and will therefore differ from
     those shown in column (13b). The 2009-10 TRBs are shown in column 8 of Tables 6 & 7 on pages 120 and 132.
   - ***Typical developer charge*** for water and sewerage - $8,900/ET for 2010-11 (col (14) and Tables 6 & 7).
   - ***Economic real rate of return (ERRR)*** for water and sewerage - 1.0% (column (19)). As shown in
     Figures 13 and 14 of the *2009-10 NSW Water Supply and Sewerage Performance Monitoring Report* ,
     98% of LWUs are achieving full cost recovery for water supply and 96% are achieving full cost recovery for sewerage.
     The remaining 2 water utilities and 4 sewerage utilities which are not achieving full cost recovery need to do so.
     Refer also to Tables 6 and 7.
   - ***Net debt/equity*** for water and sewerage was -7% (column (19a)).
   - ***Water main breaks*** - 9 breaks per 100km of main (column (3a)).
   - ***Average duration of unplanned interruptions (water supply)*** - 159 minutes (column (3b)).
7. cont'd Statewide medians (non-metropolitan):
   - ***Water quality complaints*** - 4 per 1000 properties (column (8b)).
   - ***Operation, maintenance and administration (OMA)*** cost (water & sewerage) - $710/connected property (column (17)).
     OMA cost includes part of the OMA cost of the bulk water supplier but excludes the purchase cost of water. However,
     NWI indicator F11 includes the purchase cost of water and therefore may differ from column (17).
   - ***Management cost*** for water supply and sewerage - $262/connected property (column (18)).
   - ***Current replacement cost*** for water supply and sewerage - $24,800/assessment (column (15)).
   - ***Capital expenditure*** for water supply and sewerage - $534/property (column (19b)). The total capital
     expenditure for water supply and sewerage was $700M (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 56 LWUs
   responsible for water supply with a revenue of over $2M; and 42 such utilities responsible for sewerage (column (9).
9. Pay-for-use water supply tariff - 92 of the 94 LWUs providing reticulated water have a pay-for-use water supply tariff
   in 2010-11 (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, 96% of LWUs have pay-for-use pricing in 2009-10,
    residential tariffs independent of land value together with full cost recovery (col 2 of Table 3 on page 102).
    For sewerage, 95% of LWUs have tariffs independent of land value and full cost recovery (col 2 of Table 3).
    Such LWUs comply with the *COAG Strategic Framework for Water Reform* and the *National Water Initiative* .
11. Physical and chemical water quality - 98% of the 24,000 physical samples and 98% of the 21,400 chemical
    samples tested for NSW LWUs achieved 100% compliance with the 2004 NHMRC/NRMMC Guidelines.
    Col (7) shows that 96% of LWUs complied with chemical water quality (health related).
    100% of LWUs complied for physical water quality.
12. Microbiological water quality - E.coli contamination is the primary health-related indicator.
    - ***E.coli*** - 99% of the 20,700 samples tested for NSW LWUs achieved 100% compliance with the
      2004 NHMRC/NRMMC Guidelines. 89% of LWUs complied with these guidelines (column 8). Refer also to page 8.
13. Compliance with EPA Discharge Licence for Sewerage
    - ***BOD*** - 98% of the 4,020 sampling days for NSW LWUs achieved 100% compliance with the 90-percentile limit of
      their EPA licence for BOD (Biochemical Oxygen Demand). 83% of LWUs complied with the EPA licence (col 10).
    - ***SS*** - 94% of the 4,020 sampling days for NSW LWUs achieved 100% compliance with the 90-percentile limit of their
      EPA licence for SS (Suspended Solids). 73% of LWUs complied with their EPA licence for SS (Table 17 on p173).
      (16 LWUs had no EPA discharge licence limit and 5 did not report BOD or SS).
14. Strategic Business Plans - 96 LWUs have completed a sound water &/or sewerage Strategic Business Plan (col 21)
    and have demonstrated long term financial sustainability of their water and sewerage businesses to comply with
    National Competition Policy. The plans of 31 of these LWUs now need updating (these are shown as "Yes*" in column 21).
15. Total Water Supplied (col (2)) includes non-potable and recycled water (see Table 8 on page 141).
    Similarly, the average annual residential water supplied (col (3)) includes non-potable and recycled water.
16. Reuse of recycled water comprised 39,000ML which is 24% of the volume of sewage collected and was
    carried out by 80% of utilities, mostly for agriculture. Refer also to graph 13 on page 185 and Figure 55 on page 92.
17. National Water Initiative (NWI) Indicators - The 32 NSW water utilities with over 10,000 connected properties
    (3 metropolitan utilities and 29 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 2009-10.*
    Refer also to Notes 19 and 20 on pages 33 and 34. These results are shown in Appendix F on page 248.
18. The performance indicators for Sydney and Hunter Water Corporations and Sydney Catchment Authority are from the
    National Performance Report 2009-10 for Urban Water Utilities .

Table 5A: Water supply and sewerage indicators – financial

	WATER UTILITY	FINANCIAL																																			
		Operating Cost (OMA) WS & SGE ($/property) (23) F13			Income per Property ($/property) WS & Sge (24) F7			Total Income WS & Sge ($M) (24a) F3			Capital Expenditure (Assets, Renewals, Plant/Equip) WS & Sge ($ per prop) (24b) F28 + F29			Return on Assets WS & Sge (%) (24c)			Economic Real Rate of Return WS & Sge (%) (25) F19			Net Debt to Equity WS & Sge (%) (26) F22			Interest Cover WS & Sge (27) F23			Dividend Payable WS & Sge ($'000) (29) F20			Dividend Payout Ratio WS & Sge (%) (29) F21		CSOs WS & Sge ($'000) (30) F25			% Revenue from CSOs WS & Sge (%) (31) F8		Net Profit after Tax NPAT WS & Sge ($'000) (32) F24		NPAT Ratio WS & Sge (32a) F30	
		07/08	08/09	09/10	07/08	08/09	09/10	07/08	08/09	09/10	07/08	08/09	09/10	07/08	08/09	09/10	07/08	08/09	09/10	07/08	08/09	09/10	07/08	08/09	09/10	07/08	08/09	09/10	08/09	09/10	07/08	08/09	09/10	08/09	09/10	08/09	09/10
	Sydney Water Corporation	621	551	556	1,025	1,091	1,203	1,780	1,910	2,130	830	1,084	716				0.7	1.2	1.9	62	103	120	1	2	3	190,000	205,000	232,000	115	52	91295	112,736	130,607	6	6	177,501	445,854	0.1	0.2
	Hunter Water Corporation	455	466	496	958	929	1,044	200	202		399	658	737				2.2	2.2	2.5	30	32	39	3	3	2	34,600	30,400	34,100	69	76	8958	9,278	11,328	5	5	44,253	44,974	0.2	0.2
	Sydney Catchment Authority																									6,164	26,816	31,211	68	73						39,172	43,030		
LWUs with > 10,000 Properties																																					
1	Gosford	531	566	666	756	839	994	53	58.8	69.8	530	502	836	0.3	0.7	0.6	0.4	0.6	1.0	0	1.4	3.2	4	>100	2	1746	1,694	3,849	115	180	1115	1,162	591	2.0	0.8	1,477	2,134	0.0	0.0
2	Wyong	760	883	718	930	952	1260	55	56.6	75.3	321	330	1031	-1.1	-2.6	-0.1	-0.5	-1.0	0.5	8	9.6	10.7	0	0	1						1306	1,270	677	2.2	0.9	-22,922	-4,915	-0.4	-0.1
3	Shoalhaven	616	685	701	969	1022	1140	44	46.7	52.3	609	563	999	0.6	0.2	1.0	0.9	0.7	1.1	1	3.9	3.0	4	1	9	2208	1,173	940	-403	13	876	925	974	2.0	1.9	-291	7,322	0.0	0.1
5	MidCoast	662	700	732	1217	1248	1513	44	45.3	54.9	1569	1713	1167	-2.5	-1.0	0.4	0.0	0.2	1.7	16	24.6	30.0	0	0	1						952	825	875	1.8	1.6	-15,011	1,862	-0.3	0.0
6	Tweed	661	716	807	1553	1410	1417	49	44.6	44.2	2050	2061	2974	1.2	-0.2	0.3	1.1	0.0	0.0	-6	1.1	1.6	>100	0	0						713	718	727	1.6	1.6	-3,963	-1,809	-0.1	0.0
7	Port Macquarie-Hastings	659	600	675	1122	1349	1486	32	40.3	43.0	457	1098	778	0.5	0.0	2.3	0.6	1.9	1.7	-2	1.7	0.4	8	1	0						656	679	538	1.7	1.3	-7,344	10,204	-0.2	0.2
10	Coffs Harbour	642	706	785	1609	1540	2348	38	36.7	56.5	2935	2849	844	1.2	-0.8	3.3	3.2	1.9	4.5	13	25.8	23.8	2	1	4						471	451	476	1.2	0.8	-5,478	19,862	-0.1	0.4
11	Albury City	590	524	654	885	899	1065	19	20.0	24.0	366	423	0	-0.3	-0.3	0.3	-0.2	0.1	0.4	3	4.5	3.6	0	0	3						286	294	303	1.5	1.3	-1,121	1,008	-0.1	0.0
13	Tamworth Regional	602	673	784	1405	1648	1791	28	33.5	36.9	759	1426	2789	5.0	5.4	4.8	4.6	4.7	4.2	-12	-8.9	-0.9	>100	>100	0	1048	1,051	1,059	6	6	371	380	380	1.1	1.0	16,380	16,991	0.5	0.5
14	Clarence Valley	600	647	673	1960	1233	1134	40	25.7	23.8	2862	3391	1742	7.9	0.7	0.3	8.4	1.5	1.0	-1	5.8	8.3	17	2	1						414	423	421	1.7	1.8	1,959	1,294	0.1	0.1
15	Eurobodalla	770	714	781	1263	1287	1453	24	24.7	28.1	1133	974	1275	1.6	1.8	2.7	1.6	1.9	2.0	2	0.0	1.5	>100	12	0			345		4	364	373	381	1.5	1.4	4,033	9,286	0.2	0.3
16	Wingecarribee	617	620	676	991	1039	1194	18	18.7	21.7	414	1279	1070	1.8	0.5	0.6	1.4	0.5	0.8	-6	-1.8	0.6	>100	>100	5						265	369	300	2.0	1.4	422	-585	0.0	0.0
17	Queanbeyan	623	746	819	1120	968	1126	18	15.3	17.9	368	249	106	1.9	-0.5	-0.7	1.1	-0.9	-1.8	-16	-15.5	-15.4	>100	0	0						155	156	201	1.0	1.1	-1,947	-2,533	-0.1	-0.1
18	Dubbo	779	789	797	1147	1131	1232	18	18.2	20.8	271	397	421	0.2	0.3	1.1	0.6	0.7	1.1	3	3.5	2.6	2	2	29						181	180	178	1.0	0.9	13	3,281	0.0	0.2
19	Orange	618	629	581	1300	1647	1060	21	26.2	17.1	104	410	279	2.0	4.4	0.7	2.0	4.0	0.1	-12	-11.2	-11.5	>100	>100	0						240	244	246	0.9	1.4	7,441	-1,321	0.3	-0.1
20	Goulburn Mulwaree	680	712	765	1544	1449	1554	15	15.3	15.9	722	417	590	-0.5	0.4	1.2	1.9	1.6	1.5	7	6.5	5.1	1	1	7						175	173	176	1.1	1.1	463	3,094	0.0	0.2
21	Bathurst Regional	690	732	775	1064	1237	1277	16	18.5	18.7	391	373	213	1.6	2.4	1.6	1.1	2.0	1.3	-9	-10.0	-11.3	>100	>100	0						191	199	202	1.1	1.1	4,852	2,514	0.3	0.1
22	Lismore	727	744	789	1089	1043	1175	15	14.6	16.5	578	236	564	-1.3	-1.8	0.1	-1.1	-1.5	-1.1	-4	-3.8	-4.5	0	0	0						232	285	248	2.0	1.5	-4,869	-236	-0.3	0.0
23	Bega Valley	922	967	1061	1431	1483	1672	20	20.8	23.5	1714	874	362	1.9	1.3	1.7	1.8	1.5	1.9	0	0.0	-3.6	>100	8	10						244	252	254	1.2	1.1	2,767	3,803	0.1	0.2
24	Ballina	774	922	990	1067	1034	1276	15	14.5	18.3	351	442	613	0.3	-1.4	1.5	-1.0	-2.3	-0.8	-13	-11.0	-9.7	0	0	0	240					276	284	295	2.0	1.6	-3,019	2,591	-0.2	0.1
25	Kempsey	643	716	806	1048	1075	1169	13	13.2	14.5	308	1122	1078	-0.4	-0.6	-0.6	-0.1	-0.2	0.0	2	3.7	5.6	0	0	0						241	241	250	1.8	1.7	-3,311	-2,686	-0.3	-0.2
26	Country Energy	1137	1137	1071	1525	1629	1677	16	17.0	17.6	912	1893	2613						0.0	0	0.0	0.0	>100	>100	0						284	273	266	1.6	1.5		2,958		0.2
27	Byron	905	962	993	1382	1559	1738	15	16.6	18.7	710	842	2798	0.4	0.3	0.5	0.7	1.1	1.4	4	6.4	18.2	2	1	2						149	149	149	0.9	0.8	-1,158	-1,086	-0.1	-0.1
	Totals for >10,000 Properties									*$730M*															*4 LWUs paid a dividend*												*15 of 23 LWUs had a +ve NPAT*	
LWUs with 3,001 - 10,000 Properties																																					
29	Armidale Dumaresq	836	831	779	997	1038	1369	8	8.8	11.5	389	493	71	0.5	0.5	2.4	0.2	0.7	2.5	-1	2.2	-3.9	>100	3	38						119	59	202	0.7	1.8	-2,861	3,786	-0.3	0.3
30	Griffith	993	1058	1062	1292	1318	1657	10	10.8	13.7	615	626	505	0.0	0.0	1.8	0.3	0.2	1.3	-4	-3.4	-4.0	1	1	>100						115	35	127	0.3	0.9	-144	3,735	0.0	0.3
31	Lithgow	856	730	917	991	893	995	8	7.1	8.0	268	258	1060	0.1	1.3	1.4	-0.9	-0.1	-1.6	-7	-5.9	-23.9	0	0	0						266	177	180	2.5	2.3	613	811	0.1	0.1
32	Mid-Western Regional	718	786	756	1111	1006	1010	8	7.1	7.3	353	334	339	1.0	-0.6	0.0	0.7	-0.9	-0.3	-6	-6.3	-19.5	>100	0	0						128	124	130	1.7	1.8	-569	-360	-0.1	0.0
33	Richmond Valley	875	930	947	1550	1271	1613	10	8.8	11.3	717	781	457	1.8	0.4	2.2	1.6	1.0	2.2	-3	-0.3	-8.1	>100	2	44						160	166	155	1.9	1.4	-2,101	1,754	-0.2	0.2
34	Nambucca	499	578	632	866	1018	1153	5	6.3	7.2	96	208	106	0.4	0.8	4.8	0.6	1.2	1.6	-11	-9.1	-72.5	3	3	>100						134	134	137	2.1	1.9	786	5,303	0.1	0.7
35	Singleton	619	708	767	1096	1065	1137	7	6.7	7.3	393	259	253	2.8	2.2	2.0	1.3	0.3	0.4	-25	0.0	-2.2	>100	>100	>100						75	75	74	1.1	1.0	1,397	1,404	0.2	0.2
37	Inverell	706	736	773	998	1007	1088	5	5.3	5.8	140	607	207	-1.4	0.4	1.5	0.3	0.7	0.9	-7	-3.6	-37.4	0	2	>100						128	124	126	2.3	2.2	102	950	0.0	0.2
41	Muswellbrook	752	896	1029	1640	1512	1680	9	8.0	9.1	1140	390	486	5.1	2.3	3.0	4.0	1.9	2.1	-15	-15.4	-5.5	>100	>100	>100						68	66	66	0.8	0.7	1,856	1,692	0.2	0.2
36	Parkes	800	767	806	1236	1413	1573	7	8.3	9.3	399	539	393	-4.3	-0.2	4.6	1.0	0.5	2.7	-18	0.0	-9.1	0	1	>100						264	107	109	1.3	1.2	-1,026	3,188	-0.1	0.3
42	Corowa	792	733	758	966	1284	1227	5	6.2	6.2	2072	706		-0.7	0.7	2.8	-0.6	2.1	1.8	-4	-1.4	-7.6	0	1	>100						96	111	113	1.8	1.8	-59	1,492	0.0	0.2
38	Moree Plains	906	1019	1081	1282	1470	1492	6	6.5	6.7	1033	1378	1862	-2.2	0.5	0.8	0.6	1.2	1.3	10	14.9	-1.1	0	2	2						0					-342	75	-0.1	0.0

Table 5A: Water supply and sewerage indicators – financial (continued)

	WATER UTILITY	FINANCIAL																																			
		Operating Cost (OMA) WS & SGE ($/property) (23) F13			Income per Property ($/property) WS & Sge (24) F7			Total Income WS & Sge ($M) (24a) F3			Capital Expenditure (Assets, Renewals, Plant/Equip) WS & Sge ($ per prop) (24b) F28 + F29			Return on Assets WS & Sge (%) (24c)			Economic Real Rate of Return WS & Sge (%) (25) F19			Net Debt to Equity WS & Sge (%) (26) F22			Interest Cover WS & Sge (27) F23			Dividend Payable WS & Sge ($'000) (29) F20			Dividend Payout Ratio WS & Sge (%) (29) F21		CSOs WS & Sge ($'000) (30) F25			% Revenue from CSOs WS & Sge (%) (31) F8		Net Profit after Tax NPAT WS & Sge ($'000) (32) F24		NPAT Ratio WS & Sge (32a) F30	
		07/08	08/09	09/10	07/08	08/09	09/10	07/08	08/09	09/10	07/08	08/09	09/10	07/08	08/09	09/10	07/08	08/09	09/10	07/08	08/09	09/10	07/08	08/09	09/10	07/08	08/09	09/10	08/09	09/10	07/08	08/09	09/10	08/09	09/10	08/09	09/10
44	Gunnedah	370	421	457	795	895	923	4	4.1	4.3	365	365	351	1.2	1.7	2.9	1.5	1.6	1.4	-13	0.0	-0.6	5	>100	>100						94	82	88	2.0	2.1	743	1,427	0.2	0.3
46	Narrabri	531	576	642	724	733	947	3	3.2	4.1	391	154	99	-2.2	-1.4	5.8	0.0	-1.4	3.3	-17	-16.9	-21.1	0	0	>100						67	69	69	2.2	1.7	-590	1,606	-0.2	0.4
43	Tumut	728	706	733	1311	1035	1158	6	4.6	5.1		2800	488	1.6	-0.2	0.2	1.0	-0.3	0.0	-5	0.0	-2.6	>100	0	>100						83	83	89	1.8	1.7	-384	16	-0.1	0.0
49	Young	474	392	435	880	848	819	4	3.9	3.8	409	172	20	6.1	2.6	2.5	4.7	2.5	2.5	-22	-23.1	0.0	>100	>100	>100						80	80	76	2.1	2.0	522	59	0.1	0.0
39	Cowra	889	1073	1012	1277	1320	1422	7	6.9	7.5	646	453	1615	2.0	0.2	1.2	2.4	0.6	1.6	-3	-2.2	-8.9	6	1	4						99	103	104	1.5	1.4	-168	572	0.0	0.1
45	Upper Hunter	803	948	885	1265	1216	1224	5	5.1	5.4	376	540	301	3.1	1.5	1.3	1.3	-0.5	0.0	-21	0.0	-57.1	>100	0	0						76	77	77	1.5	1.4	727	592	0.1	0.1
52	Snowy River	724	691	785	986	1045	1352	4	4.3	5.7	868	397	966	-1.2	0.9	2.6	-1.8	0.5	2.3	-6	-8.0	-1.5	0	>100	>100						19	21	21	0.5	0.4	407	1,266	0.1	0.2
51	Forbes	707	710	726	1087	1114	1155	4	3.9	4.2	263	176	351	0.9	1.4	-0.1	0.3	0.6	-0.5	-10	-12.1	-18.3	>100	>100	0						63	64	64	1.6	1.5	643	-28	0.2	0.0
50	Cooma-Monaro	843	912	966	1221	1329	1312	4	5.1	5.0	406	432	1025	-0.2	1.7	0.2	0.1	1.3	-0.1	-11	-11.2	-5.0	0	>100	0						66	65	68	1.3	1.3	764	11	0.2	0.0
53	Berrigan	594	783	727	1164	1147	1100	4	4.0	3.9	280	432	407	2.4	0.9	0.6	1.6	0.3	0.1	-7	-8.5	-10.8	>100	>100	>100						81	81	83	2.0	2.1	46	-34	0.0	0.0
	Totals for 3,001 - 10,000 Props									*$152M*															*No. of LWUs paying dividend is 0*											*19 of 22 LWUs had a +ve NPAT*			
	LWUs with 1,501 - 3,000 Properties																																				
48	Leeton	771	920	911	1015	1211	1338	4	4.7	5.3	123	345	317	1.1	1.0	2.0	-0.2	0.2	1.2	-20	-21.4	-3.6	0	>100	>100						63	63	65	1.3	1.2	270	659	0.1	0.1
54	Deniliquin	828	833	973	1217	990	1189	4	3.3	4.0	433	358	623	2.1	1.4	2.0	0.4	0.3	0.0	-17	-14.1	-8.0	>100	>100	>100						70	69	70	2.1	1.7	-967	228	-0.3	0.1
47	Bellingen	402	755	826	882	929	976	4	3.7	3.9	319	366	463	1.4	1.8	1.1	-0.3	-0.2	-0.4	-29	-25.2	-25.1	0	0	0						89	91	90	2.4	2.3	590	360	0.2	0.1
60	Glen Innes Severn	532	580	586	807	743	780	2	2.2	2.3	109	74	49	0.0	-1.1	0.0	0.2	-0.9	-0.6	-4	-4.6	-11.5	1	0	0						54	56	56	2.5	2.4	-487	-79	-0.2	0.0
58	Cootamundra	495	446	516	697	775	837	2	2.2	2.4	16	30		-1.2	-0.7	-0.5	-1.1	-0.7	-0.3	-5	-6.3	-7.6	0	0	0						78	80	79	3.6	3.2	-173	-254	-0.1	-0.1
57	Wellington	795	924	846	1094	1190	1251	3	3.5	3.6	2120	1092	661	-0.4	-0.8	-0.1	0.9	0.5	1.2	18	24.3	-0.1	1	0	1						60	63	62	1.8	1.7	-425	-226	-0.1	-0.1
91	Cabonne	772	664	895	1723	1957	1955	2	2.3	2.2	268	1716	1545	0.5	0.8	-0.5	-0.4	0.3	-0.9	-14	-10.5	-9.4	0	>100	0						44	42	44	1.9	2.0	182	-436	0.1	-0.2
80	Greater Hume	656	671	705	869	991	931	1	1.7	1.7	437	172	133	-0.8	-0.5	-1.0	-1.4	-1.0	-1.4	-7	-7.5	-7.5	0	0	0						37	42	42	2.5	2.5	-159	-371	-0.1	-0.2
59	Lachlan	224	775	838	967	993	2610	3	2.8	7.4		175		0.6	-0.1	9.8	-0.5	-0.5	8.9	-17	0.0	-17.0	0	0	>100						44	45	45	1.6	0.6	-188	3,954	-0.1	0.5
65	Murray	635	594	619	1061	1048	1177	3	3.1	3.2	240	174	213	0.3	0.8	1.3	0.6	1.0	1.3	1	-0.9	-39.9	2	7	65						49	53	53	1.7	1.6	386	644	0.1	0.2
62	Narromine	665	608	675	927	968	1040	2	2.1	2.2	90	73		3.8	1.1	5.8	2.2	0.8	4.1	-35	0.0	-60.6	>100	>100	>100						36	36	37	1.7	1.7	626	615	0.3	0.3
56	Yass Valley	340	727	794	1028	1037	1959	3	3.2	6.1	534	2928	1197	1.0	0.5	7.1	1.0	0.5	6.8	-21	0.0		>100	>100	>100						43	45	43	1.4	0.7	104	2,756	0.0	0.5
61	Liverpool Plains	609	527	610	698	746	906	2	1.9	2.4	231	401	1116	-1.9	-0.2	0.1	-2.5	-0.5	-0.1	-10	-10.0	-38.8	0	0	0						62	60	59	3.2	2.4	-177	37	-0.1	0.0
55	Warrumbungle	684	751	772	0	967	1035	0	3.2	3.4		759	421		0.0	0.7		0.0	0.3		-11.8	-22.8	>100	0	>100							72	68	2.3	2.0	-201	191	-0.1	0.1
71	Palerang	395	725	733	1950	2072	1978	4	4.0	4.0	829	1715	3700	6.0	6.3	6.9	5.2	5.6	4.0	-15	-18.1	-13.5	>100	>100	>100						24	29	28	0.7	0.7	1,896	2,557	0.5	0.6
63	Narrandera	776	757	792	1009	1134	1102	2	2.3	2.3	348	343	27	1.2	3.2	4.8	1.2	3.0	2.4	-29	0.0	-40.0	>100	>100	>100						45	47	47	2.0	2.1	281	535	0.1	0.2
67	Cobar	691	674	714	869	1014	823	2	2.2	1.9	175	261	189	0.0	1.0	-1.1	-0.5	0.9	-1.2	-4	0.0	-1.4	0	>100	0						21	22	22	1.0	1.2	384	-234	0.2	-0.1
74	Wentworth	698	677	638	1228	1191	1302	3	2.7	3.1	25	100	123	0.4	0.1	1.7	0.8	0.3	1.7	-1	-1.1	-0.3	2	1	>100						35	33	35	1.2	1.1	-51	641	0.0	0.2
75	Coonamble	558	538	569	533	529	546	1	0.9	0.9			176	-2.7	-1.2	-2.7	-7.7	-6.1	-6.3	-45	-37.0	-39.2	0	0	0						23	24	24	2.7	2.6	-115	-286	-0.1	-0.3
	Totals for 1,501 - 3,000 Props									*$62M*															*No. of LWUs paying dividend is 0*											*12 of 19 LWUs had a +ve NPAT*			
	LWUs with 200 - 1,500 Properties																																				
70	Kyogle	623	624	756	913	1048	1099	2	1.9	2.0	847	1181	713	1.6	1.4	1.0	1.4	1.5	1.3	-3	-1.1	-3.2	>100	91	5						53	53	53	2.8	2.6	251	54	0.1	0.0
79	Walgett	776	766	831	1129	1199	1010	2	1.9	1.9			218	-0.2	0.1	-0.6	-0.4	0.1	-0.7	-17	-18.5	-11.3	0	>100	0						23	23	23	1.2	1.2	95	-136	0.0	-0.1
68	Tenterfield	805	974	927	1116	1168	1769	2	2.3	3.5	521	3801	1910	-2.9	-2.5	1.7	-0.5	-1.6	1.6	-7	4.9	0.9	0	0	>100						42	41	43	1.8	1.2	-840	579	-0.4	0.2
84	Gilgandra	415	521	565	868	882	1001	1	1.2	1.4	203	643	684	2.1	1.1	1.2	1.1	0.4	0.8	-14	-11.5	-7.2	>100	>100	>100						25	25	26	2.1	1.9	74	146	0.1	0.1
73	Upper Lachlan	687	735	718	1181	1615	1224	2	3.1	2.4	390	1355	2892	2.6	5.4	17.8	3.3	6.4	2.2	-4	-0.7	-44.3	5	6	>100						31	31	33	1.0	1.4	1,080	4,415	0.3	1.9
82	Gloucester	860	903	660	1091	1089	1353	2	1.8	2.3	116		1390	-0.8	0.8	4.0	-0.8	0.4	3.7	-14	0.0	-8.1	0	>100	>100						36	37	39	2.0	1.7	54	662	0.0	0.3
87	Bourke	1020	1147	1082	1514	1557	1675	2	1.9	2.0	199	389	222	-1.4	-0.1	0.3	-2.0	-0.3	-0.3	-9	-9.9	-18.4	0	0	0						10	10	10	0.5	0.5	-69	41	0.0	0.0

Table 5A: Water supply and sewerage indicators – financial (continued)

	WATER UTILITY	FINANCIAL																																	
		Operating Cost (OMA) WS & SGE ($/property) (23) F13			Income per Property ($/property) WS & Sge (24) F7			Total Income WS & Sge ($M) (24a) F3			Capital Expenditure (Assets, Renewals, Plant/Equip) WS & Sge ($ per prop) (24b) F28 + F29			Return on Assets WS & Sge (%) (24c)			Economic Real Rate of Return WS & Sge (%) (25) F19			Net Debt to Equity WS & Sge (%) (26) F22			Interest Cover WS & Sge (27) F23			Dividend Payable WS & Sge ($'000) (29) F20			Dividend Payout Ratio WS & Sge (%) (29) F21		CSOs WS & Sge ($'000) (30) F25			% Revenue from CSOs WS & Sge (%) (31) F8		Net Profit after Tax NPAT WS & Sge ($'000) (32) F24		NPAT Ratio WS & Sge (32a) F30	
		07/08	08/09	09/10	07/08	08/09	09/10	07/08	08/09	09/10	07/08	08/09	09/10	07/08	08/09	09/10	07/08	08/09	09/10	07/08	08/09	09/10	07/08	08/09	09/10	07/08	08/09	09/10	08/09	09/10	07/08	08/09	09/10	08/09	09/10	08/09	09/10
86	Hay	665	709	1120	949	1052	1311	1	1.4	1.7	118	378	578	-0.2	1.1	-0.9	-1.6	0.0	-1.5	-19	-19.0	-15.5	0	>100	0						24	24	25	1.7	1.5	92	-124	0.1	-0.1
83	Oberon	935	984	938	1184	1060	1169	2	1.4	1.6	290	170	148	1.0	-0.6	1.1	0.0	-1.1	0.6	-2	-3.1	-0.1	>100	0	>100						18	17	19	1.2	1.2	-83	136	-0.1	0.1
81	Gwydir	581	831	687	1308	1218	1572	2	1.8	2.3	710	119		-0.5	1.9	6.2	-0.1	2.2	6.5	5	-0.2	-15.1	0	7	17						45	46	47	2.6	2.0	151	605	0.1	0.3
85	Uralla	816	743	683	676	771	707	1	1.2	1.1	32	69	73	0.4	0.1	-0.5	-0.2	0.0	0.4	-5	-4.4	-0.6	0	>100	0						32	32	30	2.6	2.8	-60	-137	0.0	-0.1
89	Bogan	1051	1028	1026	1065	1135	1298	1	1.2	1.3	212	181	138	-1.8	-1.4	-1.0	-2.2	-1.8	-1.3	-6	-6.4	-9.4	0	0	0						17	17	17	1.5	1.3	-241	-175	-0.2	-0.1
76	Harden	878	671	709	1019	1150	1153	2	2.0	2.2	242			-0.9	0.2	0.1	-0.9	0.1	0.0	-2	-4.8	-9.4	0	>100	>100						35	34	36	1.7	1.7	38	15	0.0	0.0
88	Wakool	819	791	781	1201	1239	1238	2	1.7	1.8	238	171	78	-0.2	-0.2	-0.4	-0.1	-0.2	-0.4	0	-1.6	-6.6	0	0	0						26	26	27	1.5	1.5	-182	-219	-0.1	-0.1
93	Tumbarumba	495	540	594	948	957	935	1	1.1	1.1	565	384	219	2.0	0.9	1.9	0.8	0.8	0.6	-13	-12.6	-0.3	>100	>100	>100						19	19	18	1.7	1.7	79	234	0.1	0.2
94	Gundagai	665	733	966	682	878	1045	1	0.9	0.9	119	88	130	-1.5	-1.0	-1.7	-1.9	-1.4	-2.0	-6	0.0	-6.9	0	0	0						19	21	21	2.3	2.3	-130	-230	-0.1	-0.3
92	Carrathool	899	929	1076	1064		1135	1		1.3	425		365	-1.7		-2.1	-1.7		-2.1		0.0	2.1	0	>100	0						14		13		1.0		-1,073		-0.8
96	Warren	727	793	805	925	947	1013	1	0.9	1.0				0.3	-0.2	0.2	-0.8	-1.4	-1.0	-4	-19.7	-74.6	0	0	0						15	16	18	1.8	1.9	-62	-68	-0.1	-0.1
98	Walcha	727	812	745	951	921	926	1	0.8	0.8	40		162	0.2	-0.3	0.1	0.0	-0.4	-0.1	-3	-3.9	-7.3	>100	0	0						9	18	18	2.2	2.1	-163	36	-0.2	0.0
100	Balranald	648	631	592	1081	800	923	1	0.7	0.8	380	143		0.0	-1.1	-0.5	0.1	-1.0	-0.3	2	1.3	-6.3	1	0	0											-222	-100	-0.3	-0.1
97	Bombala	539	683	643	937	980	992	1	0.8	0.8				1.9	0.2	1.0	0.8	-0.3	0.1	-13	-13.4	-15.6	>100	0	>100						19	18	19	2.2	2.3	-31	82	0.0	0.1
101	Murrumbidgee	347	470	549	598	604	619	1	0.5	0.6	35	147	339	2.2	1.0	-1.3	-1.0	-2.0	-3.9	-34	0.0	-2.0	0	0	0						14	14	14	2.6	2.5	30	-56	0.1	-0.1
90	Guyra	670	792	833	1185	1130	1212	1	1.3	1.5	116	113	139	2.0	0.8	1.1	1.8	1.0	1.1	-1	-1.3	-5.6	>100	5	22						27	28	28	2.1	1.9	199	280	0.2	0.2
104	Boorowa	461	624	728	1294	1287	1377	1	0.9	0.9		257		2.0	1.9	1.4	1.8	1.7	1.0	-6	-8.7	-13.9	>100	>100	>100						14	15	15	1.7	1.8	63	23	0.1	0.0
105	Brewarrina	1329	1696	1674	1902	1988	2022	1	1.0	1.0			152	-0.6	-1.2	-0.9	-0.7	-1.3	-1.1	-8	-8.2	-9.9	0	0	0						4	4	4	0.4	0.4	-140	-179	-0.1	-0.2
106	Jerilderie	747	775	983	1241	1280	1260	1	0.6	0.6	58			2.6	2.4	0.9	0.8	0.7	-0.6	-20	0.0	-16.9	>100	>100	0						10	10	10	1.7	1.7	144	32	0.2	0.1
103	Central Darling	906	1003	787	990	1110	942	1	0.8	0.7				0.3	0.9	-0.7	-0.1	0.6	-0.8	-7	0.0	-1.6	0	>100	0											-62	-480	-0.1	-0.7
	Totals for 200 - 1,500 Props								*$39M*															*No. of LWUs paying dividend is 0*												*15 of 27 LWUs had a +ve NPAT*			
	LWUs with a single service (WS or Sge)																																					
4	Rous (Bulk Supplier) (NO SGE)	143	182	204	274	294	326	12	13.4	14.9	348	80	109	-1.2	-1.1	-1.1	-0.2	-0.3	-0.4	10	10.8	10.4	0	0	0						10	7	12	0.1	0.1	-5,240	-6,293	-0.4	-0.4
8	Riverina (Groundwater) (NO SGE)	277	303	312	600	626	648	17	17.7	18.6	17	306	233	3.9	3.7	3.6	3.4	3.4	3.4	-7	0.0	-5.0	>100	>100	0						187	190	192	1.1	1.0	3,940	2,545	0.2	0.1
12	Fish River WS (Bulk Supplier, NO SGE)																																					
28A	Goldenfields (Reticulator) (NO SGE)	700	657	694	555	612	631	6	6.1	6.3	5	134	116	0.1	-0.1	-0.6	-1.3	-0.9	-1.1		0.0	-9.4	0	0	0							96	97	1.6	1.5		-725		-0.1
28B	Goldenfields (Bulk) (NO SGE)	254	216	252	305	306	354	5	5.7	6.7				-0.5	-0.5	0.0	-0.5	-0.8	-0.4		0.0	-8.1	>100	0	0							0	0	0.0	0.0		-9		0.0
40	Central Tablelands (NO SGE)	401	439	421	656	766	732	3	4.0	3.9	210			-0.6	-0.7	0.0	-0.2	0.3	0.3	6	5.1	-4.1	0	0	1						57	56	56	1.4	1.4	-581	-318	-0.1	-0.1
9	Wagga Wagga (NO WS)	211	270	251	534	574	442	12	13.6	11.1	592					1.9	1.0	1.0	1.3	-9	3.6	4.8	>100	9	0						154	153	159	1.1	1.4	1,701	417	0.1	0.0
69	Temora (NO WS)	155	155	219	231	254	266	0	0.5	0.6	68			0.8	1.5	0.2	0.4	1.0	-0.3	-6	0.0	-4.1	>100	>100	0						25	25	25	4.7	4.4	130	18	0.2	0.0
72	Bland (NO WS)	324	312	292	0	537	539	0	0.9	1.0					0.1	2.0		0.5	1.0		0.0	-18.9	>100	1	>100								22		2.2	8	250	0.0	0.3
77	Junee (NO WS)	230	238	275	341	4382	396	1	0.6	0.6	86			0.4	0.7	0.0	-0.1	0.1	-0.4	-9	0.0	-0.3	0	>100	0						19	19	20	3.2	3.2	74	1	0.1	0.0
78	Blayney (NO WS)	301	335	335	557	518	560	1	0.9	1.1	27			-2.0	-0.4	0.2	0.3	-0.2	0.4	-10	-11.5	-16.1	0	0	2							16	24	1.7	2.3	-53	30	-0.1	0.0
95	Weddin (NO WS)	124	185	127	200	208	227	0	0.2	0.2				0.7	-1.6	-0.6	-0.1	-1.9	-1.0	-15	0.0	-0.8	0	0	0						16	14	16	6.6	6.9	-158	-31	-0.7	-0.1
99	Coolamon (NO WS)	147	197	271	425	600	425	0	0.6	0.4	88			1.6	3.0	0.6	1.0	2.4	0.1	-10	0.0	-10.0	>100	>100	>100						13	12	13	2.1	3.1	265	18	0.5	0.0
102	Lockhart (NO WS)	330	266	281	361	3245	406	0	0.3	0.3				-0.5	0.2	-0.2	-1.5	-0.8	-1.0	-17	0.0	-0.3	0	0	0						9	10		3.0		4	-9	0.0	0.0
	Totals for all LWUs								*Total Income for single service LWUs is $66 M*															*No single service LWUs paid a dividend*												*7 of 13 single service LWUs had a +ve NPAT*			
									Total Income is $1050 M including single service LWUs															*Total No. of LWUs paying dividend is 4*												*Total No. of LWUs with +ve NPAT is 68*			
																								Median ERRR (% LWU basis excluding single service LWUs) *0.6*														
																								Median Net Debt to Equity (% LWU basis excluding single service LWUs) -7.1														

Table 5B: Water supply and sewerage – levels of service, environmental

	WATER UTILITY	LEVELS OF SERVICE						ENVIRONMENTAL							
		Billing Complaints WS & Sge (per 1000 properties) (33) C12			% of calls Answered by Operator within 30 seconds (seconds) (34) C14			Greenhouse Gas Emissions							
								Water (tonnes CO2 per 1000 properties) (35a) E9		Sewerage (tonnes CO2 per 1000 properties) (35b) E10		Other (tonnes CO2 per 1000 properties) (35c) E11		Total (tonnes CO2 per 1000 properties) (35d) E12	
		07/08	08/09	09/10	07/08	08/09	09/10	08/09	09/10	08/09	09/10	08/09	09/10	08/09	09/10
	Sydney Water	5	4	1	89	85	89	68	71	192	184	-55	-87	200	164
	Hunter Water	3	2	2	56	72	70	132	144	273	294	21	26	412	448
	Sydney Catchment Authority														
LWUs with > 10,000 Properties															
1	Gosford		-	-		-	-	128	147	126	312	13	24	267	482
2	Wyong		0	0	88	92	65	-	-	-	-	-	-	-	-
3	Shoalhaven	0	0	0	100	100	100	239	205	163	164	7	8	408	377
5	MidCoast	0	0	0		-	-	165	117	138	129	12	80	315	326
6	Tweed		0	0		-	-	150	161	189	266	-	0	339	427
7	Port Macquarie-Hastings	0	0	0	86	81	85							12	103
11	Albury City	0	0	0		-	49	310	308	238	233			548	540
10	Coffs Harbour	0	0	0		-	85	104	113	278	322	76	19	458	453
13	Tamworth Regional	5	0	0		-	-	261	223	118	233			379	457
15	Eurobodalla	0	0	0		-	100	186	192	159	139		-	345	331
17	Queanbeyan	9	9	5		-	-	15	15	160	224	39	43	214	281
19	Orange	0	7	8		-	80	241	242	186	193			428	435
20	Goulburn Mulwaree	0	0	0		-	-	122	114	134	169	2	2	257	285
18	Dubbo	2	1	1	82	87	88	545	280	202	396	13	12	759	689
16	Wingecarribee	13	3	16	100	75	75	178	177	151	143	7	17	336	338
14	Clarence Valley	1	1	1		-	-	16	23	84	90	-	-	100	113
21	Bathurst Regional	0	0	0		-	-	-	-	-	-	-	-	-	-
24	Ballina		0	0	99	99	99	2	13	264	267	-	-	266	280
22	Lismore	0	0	0	75	75	75	7	14	162	185		-	169	198
	Totals for >10,000 Properties														
LWUs with 3,001 - 10,000 Properties															
23	Bega Valley	3	2	2	87	72	71	8	8	8	69	1	-	17	77
27	Byron	2	7	5		-	-	-	14	-	457	-	-	-	471
26	Country Energy	0	0	0		-	80	549	906	55	77		15	604	998
25	Kempsey	0	0	0		0	51	173	214	150	149	1	39	324	401
31	Lithgow		0	0		100	100	53	-	28	-	-	-	81	-
29	Armidale Dumaresq	0	-	0		-	-	113	177	53	61	25	22	191	259
30	Griffith	5	0	0		-	-	366	386	53	51	-	2	419	440
33	Richmond Valley	0	0	0		-	-	-	-	-	-	-	-	-	-
32	Mid-Western Regional	1	0	0		-	80	-	-	-	-	-	-	-	-
34	Nambucca	3	0	0		100	100	-	4218	-	177	-	-	-	4,395
35	Singleton	0	0	0		-	-	-		-	187	-	203	-	390
37	Inverell	1	1	1		100	100		144		103		19		266
41	Muswellbrook	1	0	1		-	-	-	-	-	-	-	-	-	-
36	Parkes	2	0	0		-	100	-		-	-	-		-	
42	Corowa	0	0	0	100	100	100	-	-	-	-	-	-	-	-
38	Moree Plains	17	9	15		90	80	64	45	64	56	-	-	128	101

Table 5B: Water supply and sewerage – levels of service, environmental (continued)

	WATER UTILITY	LEVELS OF SERVICE						ENVIRONMENTAL							
		Billing Complaints WS & Sge (per 1000 properties) (33) C12			% of calls Answered by Operator within 30 seconds (seconds) (34) C14			Greenhouse Gas Emissions							
								Water (tonnes CO2 per 1000 properties) (35a) E9		Sewerage (tonnes CO2 per 1000 properties) (35b) E10		Other (tonnes CO2 per 1000 properties) (35c) E11		Total (tonnes CO2 per 1000 properties) (35d) E12	
		07/08	*08/09*	*09/10*	*07/08*	*08/09*	*09/10*	*08/09*	*09/10*	*08/09*	*09/10*	*08/09*	*09/10*	*08/09*	*09/10*
44	Gunnedah	10	8	0	90	95	96	-	239	-	-	-	-	-	239
46	Narrabri	5	5	6		-	100	-		-		-		-	
43	Tumut	1	7	7		-	99	-	169	-	216	-	11	-	397
49	Young	3	5	1		95	-	-	-	-	-	-	-	-	-
39	Cowra	3	1	3	100	100	100	-	374	-	29	-		-	402
45	Upper Hunter	5	6	5		-	99	-	-	-	-	-	-	-	-
52	Snowy River	10	2	2	95	95	95	289	270	137	135			426	406
51	Forbes	0	0	0	100	100	100	180	231	122	176	36	23	339	430
50	Cooma-Monaro	1	16	10	95	95	98	-	221	-	176	-		-	397
53	Berrigan	9	19	18		-	-	-	1964	-	2355	-	-	-	4,319
	Totals for 3,001 - 10,000 Props														
LWUs with 1,501 - 3,000 Properties															
48	Leeton	1	3	3	100	100	100	-	-	-	-	-	-	-	-
54	Deniliquin	2	3	0		-	-	-	-	-	-	-	-	-	-
47	Bellingen	2	1	0	95	95	95	-	-	-	-	-	-	-	-
60	Glen Innes Severn	37	-	3	100	100	100	-	139	-	99	-	9	-	247
58	Cootamundra	1	2	2	80	80	80			-	68				68
57	Wellington	95	36	45	99	-	-	468	265					1004	460
91	Cabonne	10	9	8		-	-	-	-	-	-	-	-	-	-
80	Greater Hume	0	0	0	100	100	100	155	133	178	159	15	15	348	306
59	Lachlan		-	1	100	100	100	341	-	85	-	11	-	438	-
65	Murray	0	0	0	95	98	99	-	180	-	140	-	-	-	319
62	Narromine	6	4	11		87	87	283	288	113	1265	10	10	406	1,563
56	Yass Valley	5	4	6	95	95	95	-	115	-	123	-	16	-	255
61	Liverpool Plains		8	19		-	-	-	-	-	-	-	-	-	-
55	Warrumbungle	1	0	0		-	-	257	192	70	61	-	-	327	252
71	Palerang	24	16	23		90	90	152	128	101	107			252	235
63	Narrandera	3	-	-		-	-	-	-	-	-	-	-	-	-
67	Cobar	9	5	4		100	100		51	-	120		-		171
74	Wentworth	0	1	0		-	100								
75	Coonamble	0	0	3		90	90	-	150	-	178	-	8	-	337
	Totals for 1,501 - 3,000 Props														
LWUs with 200 - 1,500 Properties															
70	Kyogle	4	1	1	100	100	100	150	233	78	84	17	18	246	335
79	Walgett		-	-		-	-	-	-	-	-	-	-	-	-
68	Tenterfield	3	-	-	90	-	90	-	-	-		-		-	
84	Gilgandra	7	6	7	80	75	75	22	26	4	4	2	2	27	32
73	Upper Lachlan	3	2	5	95	90	90	131	130	-	-	-	-	131	130
82	Gloucester	1	8	7	50	50	50	176	136	77	237	27	0	279	373
87	Bourke	12	6	9	100	80	80								

Table 5B: Water supply and sewerage – levels of service, environmental (continued)

	WATER UTILITY	LEVELS OF SERVICE						ENVIRONMENTAL							
		Billing Complaints WS & Sge (per 1000 properties) (33) C12			% of calls Answered by Operator within 30 seconds (seconds) (34) C14			Greenhouse Gas Emissions: Water (tonnes CO2 per 1000 properties) (35a) E9		Sewerage (tonnes CO2 per 1000 properties) (35b) E10		Other (tonnes CO2 per 1000 properties) (35c) E11		Total (tonnes CO2 per 1000 properties) (35d) E12	
		07/08	*08/09*	*09/10*	*07/08*	*08/09*	*09/10*	*08/09*	*09/10*	*08/09*	*09/10*	*08/09*	*09/10*	*08/09*	*09/10*
86	Hay	2	2	2		-	-	-	-	-	-	-	-	-	-
83	Oberon	5	2	6		95	95	-	142	-	51	-	-	-	193
81	Gwydir	0	1	4		-	-	-	-	-	-	-	-	-	-
85	Uralla	3	3	14	85	85	95	97	104	145	111	8	5	249	221
89	Bogan	0	1	1	98	97	97	-	-	-	-	-	-	-	-
76	Harden	12	6	23	80	90	95	-	11		48		3		63
88	Wakool	0	0	0		100	-	-	-	-	-	-	-	-	-
93	Tumbarumba	2	6	5		100	-	-	-	-	-	-	-	-	-
94	Gundagai	7	8	13	95	98	98	339	407	-	171			339	578
92	Carrathool	1	2	0	100	-	100	1075	1058	69	65	-	-	1144	1,124
96	Warren	27	85	84	90	95	96	230	-	52	-	25	-	306	-
98	Walcha	2	2	2		-	100	-	342	-	25	-	17	-	384
100	Balranald	0	0	0	100	100	100	29078	-	-	-	-	-	29078	-
97	Bombala	0	0	0	100	100	100	141	184	49	47	178		367	231
101	Murrumbidgee		-	-		-	-	-	-	-	-	-	-	-	-
90	Guyra	0	4	2		100	100	334	447	111	120	10	10	455	577
104	Boorowa	0	0	0	98	99	99			-					
105	Brewarrina	0	0	0		-	95	589	495	-	135	-	-	589	631
106	Jerilderie	0	0	0	95	95	95	76	15	82	34	11	6	168	56
103	Central Darling	44	35	6		-	-	-	-	-	-	-	-	-	-
	Totals for 200 - 1,500 Props														
LWUs with a single service (WS or Sge)															
4	Rous (Bulk Supplier) (NO SGE)	0				95	95	-		-		-		-	
8	Riverina (Groundwater) (NO SGE)	0	1	2		99	98	395	407	-	-	0	0	395	407
12	Fish River WS (Bulk Supplier, NO SGE)	0				98	98	118		-				118	
28A	Goldenfields (Reticulator) (NO SGE)			-		-	-			-	-				
28B	Goldenfields (Bulk) (NO SGE)					-	-			-					
40	Central Tablelands (NO SGE)	0	0	0		-	98	303	297	-	-	4	5	308	302
9	Wagga Wagga (NO WS)	0				-	100	-	-	36	199	-	-	36	199
69	Temora (NO WS)	0	0	0		-	-	-	-	3	22	0	-	4	22
72	Bland (NO WS)		0	0		-	-	-	-	-	-	-	-	-	-
77	Junee (NO WS)	0	0	0		-	-	-	-	-	300	-	-	-	300
78	Blayney (NO WS)	0	0	0		-	-	-	-	133	121	-	6	133	128
95	Weddin (NO WS)	0	0	0		-	-	-	-		19				19
99	Coolamon (NO WS)		0	0		-	-	-	-	-	221	-	-	-	221
102	Lockhart (NO WS)		0	0		-	-	-	-	-	122	-	144	-	267

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

No.	WATER UTILITY	RESIDENTIAL CHARGES - Current and 2010/11: Type of Tariff (1) P1 09/10	Type of Tariff 10/11	Fixed Charge (or Minimum) ($) (2) P1.2 08/09	Fixed Charge 09/10	Fixed Charge 10/11	Usage Charge Step 1: Step (kL) (5a) P1.3 08/09	Step 1 Step (kL) 09/10	Step 1 Step (kL) 10/11	Step 1 Charges (c/kL) (5b) P1.3 08/09	Step 1 Charges 09/10	Step 1 Charges 10/11	Step 2: Step (kL) (5c) P1.4 08/09	Step 2 Step (kL) 09/10	Step 2 Step (kL) 10/11	Step 2 Charges (c/kL) (5d) P1.4 08/09	Step 2 Charges 09/10	Step 2 Charges 10/11	Billing (2006 National Guidelines) (% Imple-mentation) (5e) 08/09	Billing 09/10	Operating Cost (OMA) (c/kL) (6) 07/08	OMA 08/09	OMA 09/10	Typical Developer Charge ($/ET) (7) 08/09	Developer Charge 09/10	Developer Charge 10/11	BILLS: Typical Residential Bill based on avge res water supplied ($/assessment) (8) P3 08/09	Bill 09/10	Bill 10/11	COST RECOVERY: Return on Assets (%) (11) 07/08	Return on Assets 08/09	Return on Assets 09/10	ERRR (Water Supply) (%) (12) F17 07/08	ERRR 08/09	ERRR 09/10	Residential Revenue from Usage Charges (% of residential) (13) F4 08/09	Residential Revenue 09/10	Avge Annual Residential Water Supplied[3]: Potable kL/prop (14a) P2.1 08/09	Potable kL/prop 09/10	Pot + Non Pot kL/prop (14b) 08/09	Pot + Non Pot kL/prop 09/10	Pot + Non Pot L/c/d (14c) 09/10	Full Cost Recovery? (N / Y* / Y) (14c) 09/10	Total Connected Properties (15) C4 09/10
	Sydney Water	Two Part	Two Part	76	102	125	<400	All	All	161	187	201	>400			183								840			404	484	538				-0.5	1.7	2.3	78	82	198	205	198	205	207	Y	1,772,000
	Hunter Water	Two Part	Two Part	41	40	41	All	All	All	127	157	171												560			276	329	356				2.0	2.5	3.7	66	85	180	184	180	184	202	Y	225,000
	LWUs with > 10,000 Properties																																											
1	Gosford	Two Part	Two Part	88	92	94	All	All	All	167	178	186							100	100	156	158	182	2,380	2,470	2,560	321	353	366	-0.4	0.2	-0.7	-0.3	0.3	0.1	75	74*	140	146	140	146	167	Y	70,270
2	Wyong	Two Part	Two Part	97	102	121	All	All	All	167	178	187							100	100	94	118	127	2,600	2,690	2,770	332	376	409	-0.9	-1.8	0.6	0.0	-0.6	1.6	74	73*	141	154	141	154	161	Y	59,820
3	Shoalhaven	Inclining Block	Inclining Block	61	65	75	<450	<450	<450	100	130	145	>450	>450	>450	150	195	195	100	100	85	79	82	5,840	6,020	6,200	213	254	286	-0.1	-0.8	0.9	-0.3	-0.3	0.4	75*	74	152	145	152	145	188	Y	45,860
4	Rous (Bulk Supplier) (No Sge)	Two Part	Two Part																		67	76	76	3,600	3,690	7,490				-1.2	-1.1	-1.1	-0.2	-0.4	-0.4								Y*	45,660
5	MidCoast (Unfiltered)	Inclining Block	Inclining Block	124	142	156	<200	<200	<200	175	202	220	>200	>200	>200	195	224	246	60	90	132	113	125	5,090	5,220	5,340	386	453	495	-3.3	-1.7	2.3	0.2	0.8	3.5	75	77	150	154	150	154	184	Y	36,320
6	Tweed	Inclining Block	Inclining Block	98	102	106	All	<450	<350	136	150	165		>450	>350		225	250	10	10	99	103	106	10,400	10,710	11,020	342	366	396	1.6	-0.2	-0.1	1.3	0.2	0.4	73*	75	180	176	180	176	197	Y	31,180
7	Port Macquarie-Hastings (Unfiltere	Inclining Block	Inclining Block	110	141	145	<270	<270	<270	184	197	202	>270	>270	>270	368	394	404	33	33	112	121	137	8,660	8,780	9,020	388	468	480	0.5	0.3	2.6	0.7	1.7	1.9	74	70	151	166	151	166	151	Y	28,920
8	Riverina (Groundwater) (No Sge)	Inclining Block	Inclining Block	80	80	80	All	<600	<600	78	86	90		>600	>600		129	135	50	100	53	50	56	3,400	3,500	3,600	372	364	377	3.9	3.7	3.6	3.4	3.4	3.4	80*	80	374	330	374	330	351	Y	28,620
10	Coffs Harbour (Unfiltered)	Inclining Block	Inclining Block	113	124	127	<365	<365	<365	196	214	219	>365	>365	>365	255	300	329	95	100	99	102	109	6,800	7,010	8,760	436	523	535	1.6	-0.9	4.9	3.7	1.7	6.3	76	76*	165	186	165	186	174	Y	24,050
11	Albury City	Inclining Block	Inclining Block	87	87	90	<225	<225	<225	52	54	64	>225	>225	>225	104	109	130	100	100	98	82	85	3,400	3,400	3,400	203	206	231	-0.7	-1.5	-0.9	-0.8	-1.6	-1.0	64	64	222	220	222	220	246	N	22,560
12	Fish River WS (Bulk Supplier) (No Sge)			MAQ	MAQ	MAQ																																					Y*	23,500
13	Tamworth Regional	Inclining Block	Inclining Block	175	187	204	<400	<400	<400	99	106	116	400-80(	400-800	400-800	149	159	174	80	80	79	87	99	3,940	4,090	4,170	398	458	501	3.3	2.6	2.0	3.0	2.1	1.7	61	64	226	256	226	256	300	Y	20,630
14	Clarence Valley	Inclining Block	Inclining Block	112	119	127	<450	<450	<450	122	130	138	>450	>450	>450	183	195	207	75	90	75	97	97	4,330	4,330	4,600	322	340	362	9.7	1.1	0.1	9.9	1.7	0.7	69	65*	172	170	176	174	180	Y	20,960
15	Eurobodalla (Unfiltered)	Inclining Block	Inclining Block	295	305	234	<450	<450	<450	170	195	240	>450	>450	>450	255	290	360			139	150	151	9,820	10,190	10,400	515	531	512	3.0	2.2	2.4	2.4	2.3	2.3	45*	54*	129	116	129	116	159	Y	19,350
16	Wingecarribee	Inclining Block	Inclining Block	102	107	110	<225	<225	<225	128	131	136	>225	>225	>225	192	196	202			123	111	115	5,500	5,600	5,800	336	356	368	1.4	0.3	0.8	0.4	0.0	0.6	71	71	183	190	183	190	241	Y	18,140
17	Queanbeyan (Reticulator)	Inclining Block	Inclining Block	262	271	280	<200	<176	<160	170	181	190	>200	>176	>160	230	244	276	100	100	147	193	169	7,210	7,500	7,660	599	649	695	2.6	-0.5	-0.7	2.2	-0.7	-1.2	58*	62	198	200	198	200	208	Y*	15,940
18	Dubbo	Inclining Block	Two Part	121	126	176	<550	<450	All	91	94	153	>550	>450		145	175		100	100	93	82	99	4,480	4,740	4,780	423	435	680	-1.0	-0.5	0.1	-0.3	0.2	0.6	75	77	331	329	331	329	403	Y	16,860
19	Orange	Inclining Block	Inclining Block	111	118	170	<450	<450	<450	151	154	160	>450	>450	>450	227	231	240			62	63	65	6,460	6,620	6,810	502	345	406	1.2	2.5	1.0	1.0	2.5	0.6	77*	70	259	148	259	148	154	Y	16,130
20	Goulburn Mulwaree	Inclining Block	Inclining Block	230	230	321	<292	<292	<292	145	149	159	>292	>292	>292	200	200	214	25	25	135	149	177	4,070	4,170	2,140	425	432	537	-1.1	-0.5	0.0	0.5	0.3	0.1	46*	40	134	136	134	136	161	Y	10,230
21	Bathurst Regional	Inclining Block	Inclining Block	235	125	125	<250	<250	<250	76	125	130	>250	>250	>250	115	188	195			95	101	104	2,650	2,650	2,650	417	441	454	1.5	2.3	1.7	1.1	1.9	1.4	56*	81	240	252	240	252	277	Y	14,680
22	Lismore (Reticulator)	Two Part	Two Part	100	130	145	All	All	All	170	190	215								50	141	149	147	2,020	2,020	2,020	370	449	506	-1.6	-1.8	-0.8	-1.6	-1.7	-0.8	73	72	159	168	159	168	188	Y*	14,060
23	Bega Valley (Unfiltered)	Two Part	Two Part	130	164	175	All	All	All	210	210	220							90	95	125	131	134	11,000	11,340	11,660	454	511	539	2.7	2.4	2.7	1.6	1.5	1.9	73	68*	154	165	154	165	198	Y	14,060
24	Ballina (Reticulator)	Inclining Block	Inclining Block	110	123	142	<350	<350	<350	118	132	152	>350	>350	>350	177	198	228	100	100	124	151	125	4,510	4,510	4,510	316	371	428	-0.2	-1.6	-0.7	-1.2	-2.4	-1.3	66	70	175	188	175	188	185	Y*	14,350
25	Kempsey (Groundwater)	Inclining Block	Inclining Block	275	260	240	<250	<250	<250	110	120	145	>250	>250	>250	165	175	200	12	12	100	113	121	7,950	8,150	8,390	447	472	497	-0.8	-0.9	-0.8	-0.4	-0.5	-0.4	42*	52*	156	177	156	177	208	Y*	12,400
26	Country Energy	Inclining Block	Inclining Block	214	219	230	<400	<400	<400	91	105	125	>400	>400	>400	236	236	251	100	100	128	145	144				469	512	579							57*	60	280	279	284	280	367	Y	10,470
27	Byron (Reticulator)	Inclining Block	Inclining Block	123	115	121	All	<450	<450	144	170	180		>450	>450		250	270	80	80	134	137	139	6,460	6,460	7,480	383	445	470	-0.5	0.0	2.2	-1.3	0.2	1.3	73*	77	181	194	181	194	177	Y	10,770
28A	Goldenfields (Reticulator) (No Sge)	Inclining Block	Inclining Block	204	125	129	All	<600	<600	120	152	156		>600	>600		230	234	75	95	132	114	135	5,300	6,400	7,500	557	514	528	0.1	-0.1	-0.6	-1.3	-0.9	-1.1	78*	78	294	256	298	259		Y*	10,040
28B	Goldenfields (Bulk Supplier) (No Sge)																				68	45	54							-0.5	-0.5	0.0	-0.5	-0.8	-0.4								Y	18,830
	Medians (% of LWUs basis excl bulk suppliers) for >10,000 Properties					*142*						*159*											*125*			*5,570*			*480*			*0.7*			*0.6*		*70*		*177*		*177*	*188*	*1 LWU with N*	
	LWUs with 3,001 - 10,000 Properties																																											
29	Armidale Dumaresq	Inclining Block	Inclining Block	240	240	235	<400	<400	<400	98	148	178	>400	400-1000	400-1000	130	196	236	10	10	138	148	156	4,630	4,800	4,910	444	558	618	-0.2	-0.1	1.5	-0.3	0.3	1.8	68	62*	208	215	214	221	217	Y	8,430
30	Griffith	Inclining Block	Inclining Block	108	120	120	<200	<200	<200	45	55	55	>200	>200	>200	70	90	100	15	15	64	73	66	3,110	3,210	3,300	434	554	590	0.0	-0.2	2.0	0.4	0.1	1.4	77*	78*	537	560	566	584	467	Y	8,280
31	Lithgow	Inclining Block	Inclining Block	221	236	185	<500	<450	<250	88	102	181	>500	>450	>250	176	176	261			181	120	267	2,230	2,230	2,230	373	373	429	-0.2	1.5	-2.2	-1.4	1.0	-2.6	43*	57*	173	135	173	135	141	Y*	8,030
32	Mid Western Regional	Inclining Block	Inclining Block	135	139	143	<450	<450	<450	160	165	172	>450	>450	>450	240	247	258		20	128	181	118	7,000	7,000	7,430	388	478	496	0.6	-0.9	0.0	0.7	-0.8	0.1	72	71*	158	205	158	205	254	Y	7,230
33	Richmond Valley	Inclining Block	Inclining Block	120	100	114	<200	<200	<200	120	153	163	>200	>200	>200	160	203	245			95	101	109	4,950	4,950	4,950	331	398	432	1.1	-0.6	1.0	0.4	-0.6	0.5	73*	75*	175	195	175	195	211	Y	7,010
34	Nambucca (Groundwater)	Two Part	Two Part	48	67	73	All	All	All	125	138	149									79	90	99	4,090	4,400	4,490	220	264	286	0.9	1.2	1.6	0.9	1.5	0.8	79	75*	137	143	137	143	153	Y	6,260
35	Singleton	Inclining Block	Inclining Block	180	180	170	<450	<450	<450	83	89	91	>450	>450	>450	160	166	169		100	100	101	108	4,380	4,540	4,630	403	431	426	2.4	2.2	1.9	0.9	0.2	0.1	58	60*	269	281	269	281	234	Y	6,380
36	Parkes	Inclining Block	Inclining Block	320	295	240	<365	<365	<400	80	95	120	>365	>365	>400	190	200	240	50	50	49	50	52	5,300	5,300	5,300	568	617	647	-4.7	-0.2	4.1	0.7	0.6	2.1	51	63*	310	339	315	344	417	Y	5,880
37	Inverell	Inclining Block	Inclining Block	275	285	290	<700	<500	<500	100	100	105	>700	>500	>500	120	120	125			109	110	114	9,750	9,900	10,200	565	562	581	-0.6	1.4	1.9	1.0	0.6	1.5	50*	50*	290	277	290	277	313	Y	5,320
38	Moree Plains (Groundwater Dual Sup	Inclining Block	Inclining Block	225	225	235	<750	<750	<750	75	80	85	>750	>750	>750	105	110	125	60	60	23	29	80	3,800	4,000	4,000	993	1041	1118	-3.3	-0.3	-0.3	-0.2	0.6	0.7	78*	78*	946	946	1960	619	641	Y	4,460
39	Cowra	Inclining Block	Inclining Block	255	264	272	<600	<600	<600	115	120	134	>600	>600	>600	210	217	224			141	147	122	2,500	2,500	6,600	477	506	542	0.3	-1.9	-0.7	0.8	-1.4	-0.2	48	50*	193	202	211	202	307	Y*	5,250
40	Central Tablelands (No Sge)	Inclining Block	Inclining Block	124	124	124	<450	<450	<450	146	158	170	>450	>450	>450	219	237	255	50	70	102	103	109	7,800	8,090	8,260	411	441	465	-0.6	-0.7	0.0	-0.2	0.3	0.3	72	73*	196	201	196	201	187	Y	5,300
41	Muswellbrook	Inclining Block	Inclining Block	175	175	175	<350	<350	<350	130	133	133	>350	>350	>350	194	200	200	80	90	78	88	95	3,300	3,300	2,910	516	581	581	5.8	2.6	3.4	4.5	2.3	2.4	67*	70*	263	305	263	305	243	Y	5,400

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

	WATER UTILITY	RESIDENTIAL CHARGES - Current and 2010/11: Type of Tariff (1) P1 09/10	Type of Tariff (1) P1 10/11	Fixed Charge (or Minimum) ($) (2) P1.2 08/09	Fixed Charge (2) 09/10	Fixed Charge (2) 10/11	Usage Charge Step 1: Step (kL) (5a) P1.3 08/09	Step (kL) (5a) 09/10	Step (kL) (5a) 10/11	Step 1: Charges (c/kL) (5b) P1.3 08/09	Charges (5b) 09/10	Charges (5b) 10/11	Usage Charge Step 2: Step (kL) (5c) P1.4 08/09	Step (kL) (5c) 09/10	Step (kL) (5c) 10/11	Step 2: Charges (c/kL) (5d) P1.4 08/09	Charges (5d) 09/10	Charges (5d) 10/11	Billing (2006 National Guidelines) (% Imple-mentation) (5e) 08/09	Billing (5e) 09/10	Operating Cost (OMA) (c/kL) (6) 07/08	OMA (6) 08/09	OMA (6) 09/10	Typical Developer Charge ($/ET) (7) 08/09	Developer Charge (7) 09/10	Developer Charge (7) 10/11	BILLS: Typical Residential Bill based on avge res water supplied ($/assessment) (8) P3 08/09	Bill (8) 09/10	Bill (8) 10/11	COST RECOVERY: Return on Assets (%) (11) 07/08	Return on Assets (11) 08/09	Return on Assets (11) 09/10	ERRR (Water Supply) (%) (12) F17 07/08	ERRR (12) 08/09	ERRR (12) 09/10	Residential Revenue from Usage Charges (% of residential) (13) F4 08/09	Residential Revenue (13) 09/10	Avge Annual Residential Water Supplied[3]: Potable kL/prop (14a) P2.1 08/09	Potable kL/prop (14a) 09/10	Pot + Non Pot kL/prop (14b) 08/09	Pot + Non Pot kL/prop (14b) 09/10	Pot + Non Pot L/c/d (14c) 09/10	Full Cost Recovery ? (N / Y* / Y) (14c) 09/10	Total Connected Properties (15) C4 09/10
42	Corowa	Two Part	Two Part	155	160	170	All	All	All	80	83	90								95	75	85	88	910	910	730	351	356	383	-2.7	0.8	2.9	-2.7	2.6	1.2	56*	56*	245	237	245	237	309	Y	5,030
43	Tumut	Inclining Block	Inclining Block	99	111	128	<300	<300	<300	99	111	125	>300	>300	>300	149	167	192		50	99	98	107	4,390	4,540	4,540	316	335	380	-0.2	-1.1	-0.7	-0.7	-1.2	-0.6	73	67*	219	201	219	202	248	Y*	4,440
44	Gunnedah (Groundwater)	Inclining Block	Inclining Block	161	183	179	<400	<400	<400	75	90	83	>400	>400	>400	120	130	135			50	45	57	4,120	4,280	4,380	373	487	459	2.3	2.9	4.3	2.6	2.8	3.0	65	62*	282	338	282	338	363	Y	4,640
45	Upper Hunter	Inclining Block	Inclining Block	241	249	259	<300	<300	<300	112	116	121	>300	>300	>300	160	166	173		60	110	120	68	5,340	5,340	5,340	499	843	878	6.0	4.6	4.6	3.6	1.9	2.8	52*	71*	230	448	230	448	538	Y	4,380
46	Narrabri (Groundwater)	Two Part	Two Part	97	220	231	All	All	All	38	60	63									37	38	61	2,300	2,650	2,760	305	546	574	-6.0	-2.1	11.8	-2.5	-2.9	6.3	60	60*	548	544	548	544	513	Y	4,380
47	Bellingen (Unfiltered)	Inclining Block	Inclining Block	211	228	242	<365	<365	<365	90	98	103	>365	>365	>365	135	147	155			99	102	101	6,300	6,300	6,300	362	399	422	1.9	3.0	2.7	0.1	0.9	0.9	51	43*	168	175	168	175	188	Y	4,040
48	Leeton	Inclining Block	Inclining Block	185	198	218	<350	<350	<300	62	72	74	>350	>350	300-600	93	108	110			62	63	63	3,600	3,600	4,000	489	550	597	0.1	0.3	2.2	-1.4	-0.7	1.5	64*	64*	444	442	444	442	471	Y	3,990
49	Young (Reticulator)	Inclining Block	Inclining Block	175	157	155	<300	<320	<360	130	170	180	>300	>320	>360	175	265	270	50	50	81	70	84	2,000	950	950	445	534	554	3.8	0.6	0.1	3.0	0.7	0.2	69*	71*	207	222	207	222		Y	4,630
50	Cooma-Monaro	Inclining Block	Inclining Block	325	300	280	<300	<300	<300	80	100	115	>300	>300	>300	128	150	173	100	100	90	118	145	2,830	2,830	3,630	556	495	504	0.4	3.2	1.1	0.7	2.4	0.5	49*	44*	289	195	289	195	254	Y	3,840
51	Forbes	Inclining Block	Inclining Block	144	149	153	<600	<600	<600	66	68	69	>600	>600	>600	99	100	102	25	25	65	64	62	1,730	3,940	5,000	384	379	386	0.7	1.3	-0.3	-1.3	-0.9	-1.6	63	61*	363	338	363	338	380	Y*	3,640
52	Snowy River (Unfiltered)	Two Part	Inclining Block	360	435	399	All	All	<250	58	70	115			>250			175	90	100	195	148	164	4,000	4,000	4,000	450	524	545	-1.9	0.1	1.9	-1.8	0.1	1.9	21	27*	156	127	156	127	323	Y	4,190
53	Berrigan (Dual Supply)	Two Part	Two Part	380	430	420	All	All	All	90	100	100									108	96	95	4,360	4,360	4,360	619	645	635	2.2	2.5	2.0	1.9	2.3	1.8	39	34*	173	158	292	272		Y	3,520
53	Berrigan (Non Potable)	Two Part	Two Part				All	All	All	70	50	50																										119	114	292	272	348		3,520
54	Deniliquin	Inclining Block	Inclining Block	416	431	444	<800	<800	<800	26	27	40	>800	>800	>800	59	61	80			83	49	56	3,310	3,310	3,310	582	557	630	1.3	1.2	1.0	-0.3	0.2	0.2	29*	30*	640	466	709	466	470	Y	3,380
55	Warrumbungle	Inclining Block	Inclining Block	233	268	275	<450	<450	<450	100	100	106	>450	>450	>450	150	120	127				180	195	1,320	1,350	1,350	425	458	476		-0.3	-0.4		-0.5	-0.6	49	42*	192	190	192	190	243	Y*	3,300
56	Yass Valley	Two Part	Two Part	206	212	230	All	All	All	160	195	225							50	50	139	126	142	9,230	9,460	9,750	501	555	626	-0.7	-0.7	10.2	-0.7	-0.7	10.0	63*	62*	184	176	184	176	203	Y	3,090
	Medians (% of LWUs basis) for 3,000 to 10,000 Properties					*224*						*115*											*100*			*4,435*			*544*			*1.8*			*0.9*		*61*		*215*		*237*	*311*	*0 LWU with N*	
	LWUs with 1,501 - 3,000 Properties																																											
57	Wellington	Inclining Block	Inclining Block	192	199	230	<300	<300	<300	158	164	164	<500	<500	300-500	190	197	197	100	100	123	124	126	4,140	4,220	4,360	511	541	572	-1.9	-0.5	-0.6	-0.3	1.1	1.2	67	63*	202	209	202	209	227	Y	2,900
58	Cootamundra (Reticulator)	Inclining Block	Inclining Block	100	180	198	<450	<450	<450	137	147	151	>450	>450	>450	273	293	301	10	10	80	78	93	4,620	4,620	5,280	371	442	467	-5.5	-6.5	-2.8	-5.8	-6.8	-2.8	78	59*	198	179	198	179	164	Y*	2,920
59	Lachlan	Inclining Block	Inclining Block	225	225	250	<450	<450	<450	105	130	140	>450	>450	>450	160	180	225		50	105	87	107	5,500	5,750	5,750	578	678	738	0.4	0.0	14.9	-0.4	-0.3	14.3	66*	67*	337	349	351	360	402	Y	2,820
60	Glen Innes Severn	Inclining Block	Inclining Block	94	90	90	<450	<450	<450	138	160	164	>450	>450	>450	195	240	246			123	166	146	3,190	3,190	3,380	310	337	343	-0.4	-2.4	-1.4	-0.7	-3.4	-2.0	74*	73*	157	155	157	155	178	Y*	3,000
61	Liverpool Plains	Inclining Block	Inclining Block	253	303	443	<300	<300	<300	74	92	100	>300	>300	>300	122	141	165			88	92	104	3,390	3,560	3,560	418	507	665	-2.1	-0.4	0.2	-2.5	-0.7	0.2	45	40*	223	222	223	222	276	Y	2,690
62	Narromine (Groundwater)	Two Part	Two Part	150	155	160	All	All	All	75	80	85							85	87	52	33	69	2,700	2,790	2,870	472	502	529	4.7	1.3	7.2	2.1	0.9	4.8	69*	69*	430	434	430	434	450	Y	2,100
63	Narrandera (Groundwater)	Two Part	Two Part	220	220	237	All	All	All	62	62	87									52	71	74	1,000	1,000	1,000	458	453	564	3.0	4.9	6.8	3.0	4.5	4.1	60	51*	384	376	384	376	377	Y	2,070
65	Murray (Dual Supply)	Two Part	Two Part	207	216	220	All	All	All	71	74	76									96	92	84	2,130	2,130	2,130	467	507	517	-0.1	0.3	1.0	0.2	0.5	1.1	56*	57*	156	174	260	289		Y	2,760
65	Murray (Non Potable)	Two Part	Two Part	76	79	81	All	All	All	69	72	73																										104	116	260	289	314		2,760
67	Cobar	Inclining Block	Inclining Block	210	200	190	<450	<450	<450	80	85	90	>450	>450	450-550	140	150	160			52	66	138	1,410	1,410	1,410	560	463	468	0.0	1.0	-2.2	-1.1	0.9	-2.3	65*	57*	438	309	465	310	227	Y*	2,250
66	Cobar WB																				41		64							-2.1		0.7	-2.1		0.7								Y	
68	Tenterfield	Inclining Block	Inclining Block	270	305	334	All	<450	<450	145	159	174		>450	>450		183	200			190	197	170	1,500	1,500	1,500	473	524	574	-3.9	-2.6	4.0	-2.6	-2.3	3.7	49	42*	140	138	140	138	179	Y	1,960
70	Kyogle	Inclining Block	Inclining Block	204	224	246	<200	<200	<200	114	114	114	>200	>200	>200	175	175	175	90	90	142	119	153	1,000	2,000	2,000	409	411	433	3.0	2.6	2.5	2.2	2.3	2.6	51	46*	180	164	180	164	185	Y	1,840
71	Palerang	Inclining Block	Inclining Block	307	315	323	<200	<200	<200	116	120	123	>200	>200	>200	190	195	200	100	100	163	136	138	9,430	9,760	9,670	496	539	553	5.2	5.9	11.1	4.3	5.1	4.7	42	42*	163	187	163	187	199	Y	2,000
73	Upper Lachlan	Inclining Block	Inclining Block	430	320	330	<200	<200	<200	150	195	195	>200	>200	>200	200	260	260	75	75	150	270	261	3,150	3,150	3,150	538	459	469	4.6	1.0	2.9	4.7	1.6	2.5	40	30*	72	71	72	71	114	Y	1,930
74	Wentworth (Dual Supply)	Inclining Block	Inclining Block	250	240	235	<250	<250	<250	115	115	115	>250	>250	>250	270	270	270			41	58	60	3,600	3,930	3,930	617	585	575	2.5	1.5	3.5	2.8	1.4	3.2	60*	59*	119	113	376	356		Y	2,370
74	Wentworth (Non Potable)	Inclining Block	Inclining Block	135	125	120	<700	<700	<700	37	37	37	>700	>700	>700	80	80	100																				257	243	376	356	529		2,370
75	Coonamble (Groundwater)	Inclining Block	Inclining Block	68	75	82	<370	<370	<370	36	40	44	>370	>370	>370	55	61	67			57	39	44	620	670	890	228	282	309	-3.0	-0.4	-1.9	-8.3	-5.0	-5.1	73	73*	419	466	419	466	614	Y*	1,690
76	Harden (Reticulator)	Inclining Block	Inclining Block	288	200	206	<350	<450	<450	120	200	206	>350	>450	>450	150	300	309	15	90	178	84	86	3,310	3,310	3,310	684	860	886	-0.6	-0.2	-0.7	-0.6	-0.3	-0.7	77*	77*	330	330	330	330	288	Y*	1,870
79	Walgett (Dual Supply)	Unmetered	Unmetered	717	753	877	All	All	All												70	57	64				717	753	877	-2.0	0.0	-1.6	-2.1	-0.1	-1.7			195	169	938	912		Y*	1,920
79	Walgett (Non Potable)	Unmetered	Unmetered				All	All	All	Nil	Nil	Nil																										744	743	938	912	633		1,920
80	Greater Hume	Inclining Block	Inclining Block	80	90	120	<200	<200	<200	70	80	90	>200	>200	>200	90	95	110			117	101	129	1,400	1,400	1,400	256	271	325	-1.3	-0.2	-1.1	-1.8	-0.7	-1.5	71	67*	240	223	240	223	196	Y*	1,780
	Medians (% of LWUs basis) for 1,500 to 3,000 Properties					*233*						*115*											*104*			*3,150*			*541*			*0.7*			*1.1*		*59*		*198*		*256*	*227*	*0 LWU with N*	

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

RESIDENTIAL CHARGES - Current and 2010/11

No.	WATER UTILITY	Type of Tariff (1) P1 09/10	Type of Tariff 10/11	Fixed Charge (or Minimum) ($) (2) P1.2 08/09	09/10	10/11	Usage Charge Step 1: Step (kL) (5a) P1.3 08/09	09/10	10/11	Step 1: Charges (c/kL) (5b) P1.3 08/09	09/10	10/11	Step 2: Step (kL) (5c) P1.4 08/09	09/10	10/11	Step 2: Charges (c/kL) (5d) P1.4 08/09	09/10	10/11	Billing (2006 National Guidelines) (% Imple-mentation) (5e) 08/09	09/10
	LWUs with 200 - 1,500 Properties																			
81	Gwydir	Inclining Block	Inclining Block	430	440	440	<600	<600	<600	95	95	100	>600	>600	>600	195	195	195		
82	Gloucester	Inclining Block	Inclining Block	252	195	240	All	<200	<50	155	196	202		>200	>50		255	255		98
83	Oberon (Reticulator)	Two Part	Two Part	100	217	228	All	All	All	112	123	135								
84	Gilgandra (Groundwater)	Two Part	Two Part	180	186	192	All	All	All	82	84	86							5	5
85	Uralla	Two Part	Two Part	210	239	250	All	All	All	108	125	135							95	95
86	Hay (Dual Supply)	Inclining Block	Inclining Block	85	110	113	<300	<300	<300	69	95	98	>300	>300	>300	105	140	144		
86	Hay (Non Potable)	Unmetered	Unmetered	260	350	360	All	All	All											
87	Bourke (Dual Supply)	Two Part	Two Part	188	195	202	All	All	All	135	155	180								50
87	Bourke (Non Potable)	Unmetered	Unmetered	309	320	372	All	All	All											
88	Wakool (Dual Supply)	Inclining Block	Inclining Block	220	228	237	<600	<600	<600	83	86	90	>600	>600	>600	131	135	142		
88	Wakool (Non-Potable)	Unmetered	Unmetered	440	455	473														
89	Bogan	Inclining Block	Inclining Block	240	260	260	<500	<600	<600	80	90	92	>500	>600	>600	120	130	133	90	100
90	Guyra	Inclining Block	Inclining Block	284	293	280	<450	<450	<400	105	108	120	>450	>450	400-1000	120	124	150		
91	Cabonne	Inclining Block	Inclining Block	189	195	219	<300	<300	<300	130	130	136	>300	>300	300-500	300	310	315	100	100
92	Carrathool (Groundwater)	Inclining Block*	Inclining Block*	360	372	380	<350	<350	<350	75	82	80	>350	>350	>350	85	93	95	90	100
93	Tumbarumba	Inclining Block	Inclining Block	246	246	321	<200	<200	<200	99	104	137	>200	>200	>200	164	174	230		
94	Gundagai	Inclining Block	Inclining Block	88	96	105	<300	<300	<300	70	80	85	>300	>300	300-500	90	100	110	100	100
96	Warren (Dual Supply)	Inclining Block	Inclining Block	240	250	275	<450	<450	<450	79	83	87	>450	>450	>450	119	125	131	50	60
96	Warren (Non Potable)	Inclining Block	Inclining Block				<450	<450	<450	28	30	32	>450	>450	>450	50	52	56		
97	Bombala	Inclining Block	Inclining Block	416	433	455	<350	<350	<350	48	49	52	>350	>350	>350	103	108	113		
98	Walcha	Inclining Block	Inclining Block	128	133	140	<300	<300	<300	187	195	200	>300	>300	>300	277	287	294		
100	Balranald (Dual Supply)	Inclining Block	Inclining Block	130	135	135	<600	<600	<600	68	70	74	>600	>600	>600	102	105	111		
100	Balranald (Non Potable))	Inclining Block	Inclining Block	138	143	143	<600	<600	<600	31	36	40	>600	>600	>600	47	54	60		
101	Murrumbidgee (Groundwater)	Inclining Block	Inclining Block	180	180	180	All	<500	<500	24	25	26		>500	501-800		30	31		
103	Central Darling (Dual Supply)	Two Part	Two Part	105	105	105	All	All	All	300	300	300							5	5
103	(Non Potable-Wilcannia)	Unmetered	Unmetered	425	425	425	All	All	All											
104	Boorowa	Inclining Block	Inclining Block	388	388	404	<240	<200	<600	150	165	171	>240	>200	>600	250	280	291	2	2
105	Brewarrina	Unmetered	Unmetered	829	895	940	All	All	All											25
106	Jerilderie (Dual Supply)	Inclining Block	Inclining Block	185	195	205	<250	<250	<250	110	115	120	>250	>250	>250	140	140	140		
106	Jerilderie (Non Potable)	Two Part	Two Part	265	278	292	All	All	All	50	53	56								
	Medians (% of LWUs basis) for 200 to 1,500 Properties					*237*						*110*								

BILLS / COST RECOVERY

No.	WATER UTILITY	Operating Cost (OMA) (c/kL) (6) 07/08	08/09	09/10	Typical Developer Charge ($/ET) (7) 08/09	09/10	10/11	Typical Residential Bill based on avge res water supplied ($/assessment) (8) P3 08/09	09/10	10/11	Return on Assets (%) (11) 07/08	08/09	09/10	ERRR (Water Supply) (%) (12) F17 07/08	08/09	09/10	Residential Revenue from Usage Charges (% of residential) (13) F4 08/09	09/10	Avge Annual Residential Water Supplied[3] Potable kL/prop (14a) P2.1 08/09	09/10	Pot + Non Pot kL/prop (14b) 08/09	09/10	L/c/d (14c) 09/10	Full Cost Recovery ? (N / Y* / Y) (14c) 09/10	Total Connected Properties (15) C4 09/10
81	Gwydir	120	188	81	2,000	2,000	2,000	576	639	649	1.0	1.9	7.6	2.1	3.6	8.6	37	32*	154	209	154	209	278	Y	1,460
82	Gloucester	230	165	155	5,900	6,090	6,090	529	545	639	-2.0	1.4	4.6	-2.0	1.2	4.5	64*	64*	179	167	179	167	208	Y	1,720
83	Oberon (Reticulator)	97	130	136	1,130	1,170	1,200	301	374	401	0.2	-1.7	0.5	-0.1	-1.7	0.6	69*	43*	179	128	179	128	134	Y	1,390
84	Gilgandra (Groundwater)	41	54	52				531	550	564	2.3	1.0	1.8	1.2	0.1	1.2	66*	66*	428	433	428	433	491	Y	1,350
85	Uralla	235	258	197	750	800	800	319	398	422	-0.1	-0.5	-0.8	-0.5	-0.6	-0.2	41	41*	102	127	102	127	205	Y*	1,540
86	Hay (Dual Supply)	41	37	64				472	643	662	0.4	0.5	-1.1	-0.9	-0.5	-1.5	83*	83*	184	193	1140	1025		Y*	1,310
86	Hay (Non Potable)																		956	832	1140	1025	1098		1,310
87	Bourke (Dual Supply)	23	23	23	640	660	640	1225	1398	1599	-3.3	-0.2	-2.5	-3.3	-0.3	-2.7	86*	86*	539	569	3169	3755		Y*	1,190
87	Bourke (Non Potable)																		2631	3186	3169	3755	5073		1,190
88	Wakool (Dual Supply)	61	68	63				787	860	895	0.2	0.1	0.2	0.4	0.2	0.2	72*	73*	153	205	839	891		Y	1,430
88	Wakool (Non-Potable)																		685	686	839	891			1,430
89	Bogan	154	132	127				487	589	596	-2.7	-3.6	-1.8	-3.0	-3.8	-1.9	54	56*	309	365	309	365	360	Y*	1,030
90	Guyra	120	122	118	650	650	650	510	527	540	2.6	1.0	1.2	2.1	0.9	1.1	55	48*	215	217	215	217	213	Y	1,200
91	Cabonne	156	125	149	4,540	5,510	6,490	359	370	402	-0.8	0.2	-1.0	-1.7	-0.6	-1.7	69	47*	131	135	166	168	203	Y*	1,150
92	Carrathool (Groundwater)	60		54	980	1,010	1,010	704	930	936	-1.6		-1.9	-1.7		-1.9	50*	60*	446	641	1215	1351	1692	Y*	1,130
93	Tumbarumba	90	96	128	490	490	490	478	431	564	1.4	0.4	0.6	0.8	0.4	0.1	50*	43*	221	177	221	177	245	Y	1,150
94	Gundagai	54	59	67	800	2,000	2,000	284	372	400	-1.4	-0.9	-1.9	-2.0	-1.6	-2.4	72	74*	281	336	281	336	285	Y*	880
96	Warren (Dual Supply)	58	77	52				422	605	649	-0.7	-0.9	-0.2	-0.8	-1.1	-0.5	46	59*	164	300	352	654		Y*	960
96	Warren (Non Potable)																		189	354	352	654	837		960
97	Bombala	98	117	124	1,470	1,530	3,810	542	529	555	2.5	0.5	1.6	1.1	-0.1	0.6	28	18*	266	193	266	193	205	Y	840
98	Walcha	171	228	224				456	466	481	-0.3	-0.9	-0.6	-0.5	-1.1	-0.8	72*	71*	176	171	176	171	213	Y*	910
100	Balranald (Dual Supply)	58	56	71	910	910	910	672	630	660	-0.4	-2.3	-1.2	0.3	-1.6	-0.5	81*	79*	241	232	958	758		Y*	900
100	Balranald (Non Potable))																		717	526	958	758			900
101	Murrumbidgee (Groundwater)	32	38	56	1,000	1,000	1,000	294	297	302	0.4	-0.6	-5.9	-1.9	-2.9	-7.9	55	40*	474	470	474	470		N	900
103	Central Darling (Dual Supply)	111	110	90				965	839	839	0.0	0.0	-0.8	0.0	0.9	-0.9	89*	87*	145	103	526	484		Y*	730
103	(Non Potable-Wilcannia)																		382	381	526	484	601		730
104	Boorowa	110	115	106	400	400	400	822	983	907	3.2	2.1	1.1	3.1	2.1	1.1	57*	61*	270	295	271	296	721	Y	620
105	Brewarrina	58	68	76				829	895	940	0.0	-1.2	-0.8	-0.2	-1.5	-1.0			335	293	1721	1440	1193	Y*	490
106	Jerilderie (Dual Supply)	49	50	68	2,250	2,250	2,250	1113	1184	1243	1.9	1.6	-0.3	0.8	0.5	-1.3	83*	84*	245	264	1033	1025		Y*	470
106	Jerilderie (Non Potable)																		788	761	1033	1025	1123		470
	Medians (% of LWUs basis) for 200 to 1,500 Properties			*81*			*1,010*			*639*			*-0.6*			*-0.5*		*58*		*217*			*245*	*1 LWUs with N*	

Median All LWUs (% of LWUs basis) — *Fixed $205* — *Usage Charge for Step 1 132 c/kL* — *Usage Charge for Step 2 199 c/kL* — *OMA (c/kL) 107* — *Developer 4,000* — *TRB 530* — *ROA 0.6* — *ERRR 0.6* — *63%* — *221 kL/prop* — *63 LWUs have Y for FCR*

Median All LWUs (Statewide basis) — *Charge $130* — *163* — *116* — *Charge 4,700* — *430* — *0.7* — *73%* — *175 kL/prop* — *32 have Y* and 2 have N*

2 LWUs did not achieve FCR for WS

NOTES: 1. **Residential Revenue from Usage Charges**: Where this is marked *, it has been calculated from the projected typical residential bill for the 2010/11 financial year as this provides a higher value than the result for the 2009/10 financial year.

2. **Dual Water Supplies:** 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 6 on page 24).

3. **Average Annual Residential Water Supplied:** The 11 Dual Supply LWUs are shown on two rows. The first row is labelled Dual Supply while the second row is labelled Non-Potable.
The first row in column (14a) shows the potable average Annual Residential Water Supplied while the second row in column (14a) shows the non-potable Average Annual Residential Water Supplied (see also Note 6 on page 24).
The total potable plus non-potable Average Annual Residential Water Supplied is shown in column (14b).

4. **Full Cost Recovery** has been achieved by 95 LWUs (98%). These comprise 63 utilities which had either an Economic Real Rate of Return or Return on Assets of >=0 for the 2009/10 financial year (shown as "Y" in col(14a)).
They also include 32 utilities which have significantly increased their 2010/11 charges in order to recover their costs (shown as "Y*"). 2 LWUs did not achieve full cost recovery (shown as "N").
The Average Annual Residential Water Supplied has now fallen to 175kL/property which has significantly reduced the water supply revenue of many LWUs.

Table 6A: Water supply – 2010-11 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	235	Y	Nil	up to 400 kL	178
							401 kL to 1000 kL	236
							>1000 kL	274
		Armidale, untreated	Inclining Block	235	Y	Nil	up to 400 kL	87
							401 kL to 1000 kL	154
							>1000 kL	189
100	Balranald (Dual Supply)	Balranald & Euston, Filtered	Inclining Block	135	Y	Nil	up to 600 kL	74
							>600 kL	111
		Balranald & Euston, Raw	Inclining Block	143	Y	Nil	up to 600 kL	40
							>600 kL	60
21	Bathurst Regional	Filtered	Inclining Block	125	Y	Nil	up to 250 kL	130
							>250 kL	195
		Raw Water	Inclining Block	125	Y	Nil	up to 250 kL	58
							>250 kL	99
		Hillview Water	Inclining Block	128	Y	Nil	up to 250 kL	151
							>250 kL	318
53	Berrigan (Dual Supply)	Berrigan,Barooga,Finley(Potable)	Two Part	420	Y	Nil	All	100
		Berrigan,Barooga,Finley(Non-Potable)	Two Part	420	Y	Nil	All	50
		Tocumwal (Filtered)	Two Part	420	Y	Nil	All	67
89	Bogan	Nyngan	Inclining Block	260	Y	Nil	up to 600 kL	92
							>600 kL	133
		Nyngan, Raw Water	Inclining Block	330			up to 600 kL	55
							>600 kL	80
		Hermidale	Annual Charge	480	Y			
		Girilambone & Coolabah	Annual Charge	330	Y			
97	Bombala	Bombala	Inclining Block	455	Y	Nil	up to 350 kL	52
							>350 kL	113
		Delegate	Unmetered	348	Y			
87	Bourke (Dual Supply)	Bourke, Filtered	Two Part	202	Y	Nil	All	180
		Bourke, Raw	Unmetered	320	Y			
105	Brewarrina	Brewarrina	Unmetered	940				
		Goodooga	Unmetered	771				
91	Cabonne	Molong, Cumnock, Yeoval	Inclining Block	219	Y	Nil	up to 300 kL	136
							301 kL to 500 kL	315
							>500 kL	430
		North Yeoval Wellington	Inclining Block	149	Y	Nil	up to 300 kL	200
							301 kL to 500 kL	260
							>500 kL	420
92	Carrathool	Carrathool	Inclining Block	380	Y	Nil	up to 350 kL	80
							>350 kL	95
		Hillston	Inclining Block	172	Y	Nil	up to 350 kL	60
							>350 kL	80
		Melbergen	Inclining Block	300	Y	Nil	up to 400 kL	55
							>400 kL	80
		Goolgowi Potable Water	Inclining Block	290	Y	Nil	up to 200 kL	60
							>200 kL	85
		Goolgowi Raw Water	Inclining Block	290	Y	Nil	up to 250 kL	35
							>250 kL	62
		Merriwaga Town Water	Inclining Block	600	Y	Nil	up to 450 kL	60
							>450 kL	80
		Rankins Springs Town Water	Inclining Block	790	Y	Nil	up to 350 kL	50
							>350 kL	65
103	Central Darling	Wilcannia (Filtered)	Two Part	105	Y	Nil	All	300
		Wilcannia (Raw)	Unmetered	425	Y			
		White Cliffs, Raw	Two Part	400	Y	Nil	All	330
		Ivanhoe (Raw)	Two Part	200	Y	Nil	All	145
		Ivanhoe (Filtered)	Two Part	120	Y	Nil	All	340
40	Central Tablelands	Central Tablelands	Inclining Block	124	Y	Nil	up to 450 kL	170
							>450 kL	255
		Quandialla	Inclining Block	464	Y	Nil	up to 200 kL/quarter	134
							after 200 kL/quarter	222
67	Cobar	Cobar	Inclining Block	190	Y	Nil	up to 450 kL	90
							451 to 550 kL	160
							>551 kL	220

Table 6A: Water supply – 2010-11 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	82	Y	Nil	up to 370 kL	44
							>370 kL	67
		Gulargambone	Inclining Block	133	Y	Nil	up to 430 kL	60
							>430 kL	89
		Quambone	Inclining Block	137			up to 430 kL	62
							>430 kL	92
26	Country Energy	Broken Hill, Sunset Strp, Menindi, Silverton (filtered)	Inclining Block	230	Y	Nil	up to 400 kL	125
							> 400 kL	251
		Broken Hill, Sunset Strp, Menindi, Silverton (filtered) Summer Use					extra 0.549kL/day for summer	125
		Pipeline Customers or Unfiltered Water	Inclining Block	230	Y	Nil	up to 400 kL	69
							> 400 kL	114
54	Deniliquin	Deniliquin, Filtered &/or Raw	Inclining Block	444	Y	Nil	up to 800 kL	40
							>800 kL	80
51	Forbes	Filtered		153	Y	Nil	up to 600 kL	69
							> 600 kL	102
		Raw					All	31
		Ootha		184			up to 600 kL	69
							> 600 kL	102
84	Gilgandra (Groundwater)	Gilgandra	Two Part	192	Y	Nil	All	86
		Tooraweenah	Two Part	100	Y	Nil	All	120
60	Glen Innes Severn	Glen Innes	Inclining Block	90	Y	Nil	up to 450 kL	164
							>450 kL	246
		Deep water	Inclining Block	90	Y	Nil	up to 450 kL	72
							>450 kL	123
20	Goulburn Mulwaree Counci	Goulburn	Inclining Block	321	Y	Nil	up to 292 kL	159
							>292 kL	214
		Marulan	Inclining Block	353	Y	Nil	up to 292 kL	159
							>292 kL	214
80	Greater Hume	Culcairn	Inclining Block	120	Y	Nil	up to 200 kL	90
							>200 kL	110
		Villages	Inclining Block	190	Y	Nil	up to 200 kL	130
							>200 kL	180
30	Griffith	Griffith (Filtered)	Inclining Block	120	Y	Nil	up to 200 kL	55
							>200 kL	100
		Yenda (Dual), Filtered	Inclining Block	189	Y	Nil	up to 200 kL	55
							>200 kL	100
		Yenda (Dual), Raw	Two Part		Y	Nil	All	28
94	Gundagai		Inclining Block	105	Y	Nil	up to 300 kL	85
							301 to 500 kL	110
							> 500 kL	170
44	Gunnedah (Groundwater)	Gunnedah	Inclining Block	179	Y	Nil	up to 400 kL	83
							>400 kL	135
		Curlewis	Inclining Block	189	Y	Nil	up to 400 kL	93
							>400 kL	135
		Mullaley	Inclining Block	308	Y	Nil	up to 400 kL	138
							>400 kL	180
		Tambar Springs	Inclining Block	356	Y	Nil	up to 400 kL	223
							>400 kL	255
90	Guyra	Guyra	Inclining Block	280	Y	Nil	up to 400 kL	120
							401 to 1000 kL	150
							> 1000 kL	155
		Tingha	Inclining Block	280	Y	Nil	up to 400 kL	135
							401 to 1000 kL	160
							> 1000 kL	165

Table 6A: Water supply – 2010-11 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)
86	Hay (Dual Supply)	Hay (Filtered)	Inclining Block	113	Y	Nil	up to 300 kL	98
							>300 kL	144
		Hay (Unfiltered)	unmetered	360				
106	Jerilderie (Dual Supply)	Jerilderie, Filtered	Inclining Block	205	Y	Nil	up to 250 kL	120
							>250 kL	140
		Jerilderie, Raw	Two Part	292	Y	Nil	all	56
61	Liverpool Plains Shire Coun	Quirindi	Inclining Block	443	Y	Nil	up to 300 kL	100
							>300 kL	165
		Werris Creek	Inclining Block	493	Y	Nil	up to 300 kL	106
							>300 kL	174
		Villages	Inclining Block	295	Y	Nil	up to 300 kL	100
							>300 kL	165
38	Moree Plains Shire	Moree, Mungindi, Boggabilla, Pallamallawa	Inclining Block, Potable	235	Y	Nil	up to 750 kL	85
							>750 kL	125
		Garah, Boomi, Boggabilla, Gurley, Weemalah	Inclining Block, Non-Potable	235	Y	Nil	up to 750 kL	58
							>750 kL	110
65	Murray	Murray, Filt	Two Part	220	Y	Nil	All	76
		Murray, Raw	Two Part	81	Y	Nil	All	73
101	Murrumbidgee	Darlington Point	Two Part	180	Y	Nil	up to 500 kL	26
							501 to 800 kL	31
							> 800 kL	36
		Coleambally	Two Part	200	Y	Nil	up to 500 kL	25
							501 to 800 kL	30
							> 800 kL	35
46	Narrabri (Groundwater)	Narrabri	Two Part	231	Y	Nil	All	63
		Narrabri, unmetered	Unmetered	336	Y			
		Gwabegar	Two Part	368	Y	Nil	All	79
		Wee Wa	Two Part	226	Y	Nil	All	63
		Boggabri	Two Part	247	Y	Nil	All	74
		Bellata	Two Part	368	Y	Nil	All	79
		Pilliga	Two Part	368	Y	Nil	All	79
71	Palerang	Bungendore	Inclining Block	323	Y	Nil	up to 200 kL	123
							>200 kL	200
		Braidwood	Inclining Block	412	Y	Nil	up to 200 kL	176
							>200 kL	341
		Captains Flat	Inclining Block	388	Y	Nil	up to 200 kL	280
							>200 kL	381
8	Riverina (Groundwater) (No	WaggaWagga	Inclining Block	80	Y	Nil	up to 600 kL	90
							>600 kL	135
		Rural Towns & Villages	Inclining Block	100	Y	Nil	up to 600 kL	100
							>600 kL	150
35	Singleton	Singleton	Inclining Block	170	Y	Nil	up to 450 kL	91
							>450 kL	169
		Mt Thorley	Two Part	540	Y	Nil	All	159
		Jerry's Plains /Broke Water	Inclining Block	170	Y	Nil	up to 450 kL	126
							>450 kL	169
13	Tamworth	Tamworth	Inclining Block	204	Y	Nil	up to 400 kL	116
							401 to 800 kL	174
							>800 kL	261
		Calala Backwash Water	Inclining Block		Y	Nil	All	27
		Raw Water			Y		up to 400 kL	80
							401 to 800 kL	88
							>800 kL	98
		Dungowan Dam (if main crosses property)	Inclining Block	102	Y	Nil	up to 400 kL	40
		Raw Water					401 to 800 kL	80
							>800 kL	98
68	Tenterfield	Tenterfield, Jennings, Urbenville	Inclining Block	334	Y	Nil	up to 450 kL	174
							>450 kL	200
93	Tumbarumba (Unfiltered)	Tumbarumba	Inclining Block	321	Y	Nil	up to 200 kL	137
							>200 kL	230
		Khancoban, metered	IncliningBlock	314	Y	Nil	up to 200 kL	118
							>200 kL	209

Table 6A: Water supply – 2010-11 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)
43	Tumut	Tumut	Inclining Block	128	Y	Nil	up to 300 kL	125
							>300 kL	192
		Tumut Raw Water	Inclining Block	101	Y	Nil	up to 300 kL	53
							>300 kL	85
45	Upper Hunter Shire Council	Murrurundi	Inclining Block	322	Y	Nil	up to 300 kL	146
							>300 kL	173
		Merriwa/Cassilis	Inclining Block	259	Y	Nil	up to 300 kL	121
							>300 kL	173
		Aberdeen/Scone	Inclining Block	259	Y	Nil	up to 300 kL	121
							>300 kL	173
73	Upper Lachlan Council	Crookwell, Taralga, Dalton Water, Gunning	Inclining Block	330	Y	Nil	up to 200 kL	195
							> 200 kL	260
85	Uralla	Uralla, Bundarra	Two Part	250	Y	Nil	All	135
88	Wakool (Dual Supply)	Barham, Tooleybuc, Moulamein(Filtered + Raw Water)	Inclining Block, Raw Water is unmetered	237+473	Y	Nil	up to 600 kL	90
					Y		>600 kL	142
		Wakool , Murray Downs, Koraleigh (Filtered)	Inclining Block	220	Y	Nil	up to 600 kL	90
							>600 kL	142
79	Walgett	Walgett Shire	Unmetered	877	Y			
		Lightening Ridge	Unmetered	351				
		Collarenebri	Unmetered	820				
		Carinda Bore	Unmetered	345	Y			
		Rowena	Unmetered	406	Y			
		Cumborah	Unmetered	368				
96	Warren (Dual Supply)	Warren Bore Water	Inclining Block	275	Y	Nil	up to 450 kL	87
							>450 kL	131
		Warren River Water	Inclining Block			Nil	up to 450 kL	32
							>450 kL	56
		Nevertire	Inclining Block	390	Y	Nil	up to 450 kL	49
							>450 kL	73
		Collie	Inclining Block	280	Y	Nil	up to 400 kL	107
							>400 kL	163
55	Warrumbungle, Northern	Coonabarabran	Inclining Block	275	Y	Nil	up to 450 kL	106
							>450 kL	127
		Timore Dam (Raw)	Inclining Block	275	Y	Nil	up to 450 kL	106
							>450 kL	127
		Baradine	Inclining Block	299	Y	Nil	up to 450 kL	146
							>450 kL	176
		Binnaway	Inclining Block	408	Y	Nil	up to 450 kL	146
							>450 kL	176
		Villages: Bugaldie, Kenebri	Inclining Block	472	Y	Nil	up to 450 kL	127
							>450 kL	153
	Warrumbungle, Southern	Southern, Coolah, Dunedoo	Inclining Block	339	Y	Nil	up to 450 kL	146
							>450 kL	176
		Village	Inclining Block	472	Y	Nil	up to 450 kL	127
							> 450 kL	153
		Mendooran	Inclining Block	742	Y	Nil	up to 450 kL	146
							> 450 kL	176
57	Wellington	Wellington, Geurie	Inclining Block	230	Y	Nil	up to 300 kL	164
							301 to 10000 kL	197
							>10000 kL	212
74	Wentworth (Dual Supply)	Filtered	Inclining Block	235	Y	Nil	up to 250 kL	115
							>250 kL	270
		Raw	Inclining Block	120	Y	Nil	up to 700 kL	37
							>700 kL	100
56	Yass Valley	Yass, Bowning, Binalong & Rural Areas	Two Part	230	Y	Nil	All	225
		Murrumbateman	Two Part	173	Y	Nil	All	225
49	Young (Reticulator)	Young	Inclining Block	155	Y	Nil	up to 360 kL	180
							>360 kL	270

Table 6B: Water supply – 2010-11 non-residential tariffs

	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(d) of BPMG (8)
11	Albury City	Albury	Inclining Block	90	Meter Size* (eg 40mm:$360)	Y	Nil	up to 225 kL	64	Y
								226 kL to 19999kL	130	
								>19999	91	
29	Armidale Dumaresq	Armidale	Inclining Block	235	Uniform Access Charge	Y	Nil	up to 400 kL	178	Y
								401 kL to 1000 kL	236	
								>1000 kL	274	
		Armidale, Untreated Water	Inclining Block	235	Uniform Access Charge	Y	Nil	up to 400 kL	87	
								401 kL to 1000 kL	154	
								>1000 kL	189	
24	Ballina (Reticulator)	Ballina	Inclining Block	142	Service Connection Size* (eg. 40mm $567)	Y	Nil	up to 350 kL	152	Y
								>350 kL	228	
100	Balranald (Dual Supply)	Balranald & Euston, Filtered	Inclining Block	135	Service Connection Size* (eg. 40mm $540)	Y	Nil	up to 600 kL	74	Y
								>600 kL	111	
		Balranald & Euston, Raw	Inclining Block	143	Service Connection Size* (eg. 40mm $572)	Y	Nil	up to 600 kL	40	
								>600 kL	60	
21	Bathurst Regional	Bathurst (Filtered)	Inclining Block	125	Service Connection Size* (eg. 40mm $500)	Y	Nil	up to 250kL	130	Y
								>250 kL	195	
23	Bega Valley (Unfiltered)	Bega Valley	Two Part	175	Service Connection Size* (eg. 40mm $700)	Y	Nil	All	220	Y
47	Bellingen (Unfiltered)	Bellingen	Two Part	242	Service Connection Size* (eg 40mm $968)	Y	Nil	All	103	Y
53	Berrigan (Dual Supply)	Berrigan,Barooga,Finley(Potable)	Two Part	420	Uniform Access Charge	Y	Nil	All	100	Y
		Berrigan,Barooga,Finley(Non-Potable)	Two Part		Uniform Access Charge	Y	Nil	All	50	
		Tocumwal (Filtered)	Two Part	420	Uniform Access Charge	Y	Nil	All	67	
89	Bogan	Nyngan	Inclining Block	260	Service Connection Size* (eg. 40mm $1040)	Y	Nil	up to 600 kL	92	Y
								>600 kL	133	
		Nyngan, Raw Water	Inclining Block	330			Nil	up to 600 kL	55	
								>600 kL	80	
		Hermidale	Annual Charge	480						
		Girilambone & Coolabah	Annual Charge	330						
97	Bombala	Bombala	Inclining Block	455	Uniform Access Charge	Y	Nil	up to 350 kL	52	N
								>350 kL	113	
		Delegate	Unmetered	348	Uniform Access Charge	Y				
104	Boorowa	Boorowa	Inclining Block	404	Uniform Access Charge	Y	Nil	up to 600 kL	171	Y
								>600 kL	291	
87	Bourke (Dual Supply)	Bourke, Filtered	Two Part	202	Service Connection Size (eg. 40mm $691)	Y	Nil	All	180	Y
		Bourke, Raw	Unmetered	372	Service Connection Size (eg. 40mm $1172)					
105	Brewarrina	Brewarrina	Unmetered	940						N
		Goodooga	Unmetered	771						N
27	Byron (Reticulator)	Byron	Two Part	121	Service Connection* (40mm: $484)	Y	Nil	All	196	Y
91	Cabonne	Molong, Cumnock, Yeoval	Inclining Block	219	Service Connection (40mm: $438.80)	Y	Nil	up to 300 kL	136	Y
								301 kL to 500 kL	315	
								>500 kL	430	
		North Yeoval Wellington	Inclining Block	149	Service Connection (40mm: $297.20)	Y	Nil	up to 300 kL	200	
								301 kL to 500 kL	260	
								>500 kL	420	
92	Carrathool	Carrathool	Inclining Block	380	Service Connection (40mm $590)	Y	Nil	up to 350kL	80	Y
								>350kL	95	
		Hillston	Inclining Block	172	Meter Size (40mm $257.44)	Y	Nil	up to 350kL	60	
								>350kL	80	
		Melbergen	Inclining Block	300	Uniform Access Charge	Y	Nil	up to 400 kL	55	
								>400 kL	80	
		Merriwagga Town Water	Inclining Block	600	Uniform Access Charge	Y	Nil	up to 450 kL	60	
								>450 kL	80	
		Goolgowi Potable Water	Inclining block	290	Meter Size (40mm $430)	Y	Nil	up to 200 kL	60	
								>200 kL	85	
		Goolgowi Raw Water	Inclining Block	290	Meter Size (40mm $430)	Y	Nil	up to 250kL	35	
								>250kL	62	
		Rankins Springs	Inclining Block	790	Meter Size (40mm $880)	Y	Nil	up to 350kL	50	
								>350kL	65	
103	Central Darling	Wilcannia (Filtered)	Two Part	105	Uniform Access Charge	Y	Nil	All	300	Y
		Wilcannia (Raw)	Unmetered	425	Uniform Access Charge	Y	Nil			
		White Cliffs, Raw	Two Part	400	Uniform Access Charge	Y	Nil	All	330	
		Ivanhoe (Raw)	Two Part	200	Uniform Access Charge	Y	Nil	All	145	
		Ivanhoe (Filtered)	Two Part	120	Uniform Access Charge	Y	Nil	All	340	

Table 6B: Water supply – 2010-11 non-residential 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(d) 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	Two Part	124	Meter Size*(40mm:$496)	Y	Nil	All	170	Y
		Quandialla	Inclining Block	464		Y	Nil	up to 200 kL/quarter	134	
								after 200 kL/quarter	222	
14	Clarence Valley	Treated	Two Part	127	Service Connection Size (40mm:$508)	Y		All	138	Y
		Raw Water	Two Part	64	Service Connection Size (40mm:$254)	Y		All	69	
67	Cobar (Dual Supply)	Cobar	Inclining Block	260	Service Connection Size (40mm:$600)	Y	Nil	up to 450 kL	90	Y
								451 - 550 kL	160	
								>551 kL	220	
10	Coffs Harbour (Unfiltered)	Coffs Harbour, Nana Glen, Coramba	Two Part	127	Meter Size: 40mm $508	Y	Nil	All	219	Y
50	Cooma-Monaro	Cooma, Bredbo, Nimmitabel	Two Part	225	Service Connection Size (40mm:$900)	Y	Nil	All	115	Y
75	Coonamble Shire	Coonamble	Inclining Block	82	Meter Size 40mm :$330	Y	Nil	up to 370 kL	44	Y
								>370 kL	67	
		Gulargambone	Inclining Block	133	Meter Size 40mm :$532	Y	Nil	up to 430 kL	60	
								>430 kL	89	
		Quambone	Inclining Block	137	Meter Size 40mm :$550			up to 430 kL	62	
								>430 kL	92	
58	Cootamundra (Reticulator)	Cootamundra	Two Part	279	Meter Size*: 40 mm $1116	Y	Nil	All	142	Y
42	Corowa	Corowa, Mulwala, Howlong	Two Part	170	Service Connection (eg.40mm $680)	Y	Nil	All	90	Y
26	Country Energy	Broken Hill, Sunset Strp, Menindi, Silverton, Filtered	Inclining Block	230	Service Connection (eg.40mm $921.35)	Y	Nil	up to 400 kL	125	Y
								> 400 kL	251	
								extra 0.549kL/day for summer	125	
		Chlorinated	Inclining Block	230	Service Connection (eg.40mm $921.35)	Y	Nil	up to 400 kL	95	
								> 400 kL	212	
								extra 0.549kL/day for summer	95	
		Untreated	Two Part	230	Service Connection (eg.40mm $921.35)			All	140	
		Effluent Water	Two Part	230	Service Connection (eg.40mm $921.35)	Y	Nil	All	49	
39	Cowra	Cowra, Rural, Commercial, Government	Two Part	272	Meter Size: 40 mm $1088	Y	Nil	All	134	Y
		Cowra, Industrial	Two Part	272	Meter Size: 40 mm $800	Y	Nil	All	64	
		Raw Water	Two Part	272	Meter Size: 40 mm $1088		Nil	all	74	
54	Deniliquin	Deniliquin, Filtered	Two Part	444	Service connection(40mm $887)	Y	Nil	All	80	Y
		Deniliquin,Raw	Two Part	213		Y		All	40	
18	Dubbo	Dubbo	Two Part	176	Meter Size* (eg.40mm $702.92)	Y	Nil	All	153	Y
15	Eurobodalla (Unfiltered)	Eurobodalla	Inclining Block	234	Meter Size*: 40mm: $936	Y	Nil	up to 450 kL	240	Y
								>450 kL	360	
51	Forbes	Forbes	Inclining Block	153	Service Connection Size* (40mm:$611.50)	Y	Nil	<600 kL	69	Y
								>600 kL	102	
84	Gilgandra (Groundwater)	Gilgandra	Two Part	192	Service Connection Size* (40mm:$773)	Y	Nil	All	86	Y
		Tooraweenah	Two Part	100	Uniform Access Charge	Y	Nil	All	120	
60	Glen Innes Severn	Glen Innes	Two Part	90	Service Connection Size* (40mm:$360)	Y	Nil	All	164	Y
		Deepwater	Two Part	90	Service Connection Size* (40mm:$360)	Y	Nil	All	72	
28A	Goldenfields (Reticulator)	Retail	Two Part	129	Meter Size*(40mm: $515)	Y	Nil	All	156	Y
1	Gosford	Gosford	Two Part	94	Service Connection Size* (40mm:$374.71)	Y	Nil	All	186	Y
20	Goulburn	Goulburn	Inclining Block	321	Meter Size*(40mm: $1279)	Y	Nil	up to 292 kL (for 20mm	159	Y
								>292 kL (for 20mm meter)	214	
		Marulan	Inclining Block	353	Meter Size*(40mm: $1407)	Y	Nil	up to 292 kL (for 20mm	159	
								>292 kL (for 20mm meter)	214	

Table 6B: Water supply – 2010-11 non-residential 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(d) of BPMG (8)
80	Greater Hume	Culcairn	Inclining Block	120	Service Connection Size (40mm: $170)	Y	Nil	up to 200kL	90	Y
								>200kL	110	
		Villages	Inclining Block	190	Service Connection Size (40mm: $298)	Y	Nil	up to 200kL	130	
								>200kL	180	
30	Griffith	Griffith (Filtered)	Inclining Block	120	Meter Size*(40mm: $480)	Y	Nil	up to 200 kL	55	Y
								>200 kL	100	
		Yenda (Dual, Filtered)	Inclining Block			Y	Nil	up to 200 kL	55	
				189	Uniform Access Charge			>200 kL	100	
		Yenda (Dual), Raw	Two Part				Nil	All	28	
94	Gundagai	Gundagai	Two Part	105	Service Connection Size*: 40mm:$420	Y	Nil	All	110	Y
44	Gunnedah (Groundwater)	Gunnedah	Inclining Block	179	Service Connection Size: 20 to 40 mm:$179, 50mm: $400	Y	Nil	up to 400 kL	83	Y
								>400 kL	135	
		Curlewis	Inclining Block	189	Service Connection Size: 20 to 40 mm:$189, 50mm: $434	Y	Nil	up to 400 kL	93	
								>400 kL	135	
		Mullaley	Inclining Block	308	Service Connection Size: 20 to 40 mm:$308, 50mm: $579	Y	Nil	up to 400 kL	138	
								>400 kL	180	
		Tambar Springs	Inclining Block	356	Service Connection Size: 20 to 40 mm:$356	Y	Nil	up to 400 kL	223	
								>400 kL	255	
90	Guyra	Guyra	Inclining Block	280	Uniform Access Charge	Y	Nil	up to 400 kL	120	N
								401 to 1000 kL	150	
								> 1000 kL	155	
		Tingha	Inclining Block	280	Uniform Access Charge	Y	Nil	up to 400 kL	135	
								401 to 1000 kL	160	
								> 1000 kL	165	
81	Gwydir	Gwydir	Inclining Block	440	Meter Size*(40mm:$1760)	Y	Nil	up to 600 kL	100	Y
								>600 kL	195	
76	Harden (Reticulator)	Harden	Two Part	206	Service Connection Size*:40 mm:$824	Y	Nil	All	206	Y
7	Port Macquarie-Hastings (Unfiltered)	Hastings	Inclining Block	145	Meter Size* (eg. 40mm $580)	Y	Nil	up to 270 kL	202	Y
								>270 kL	404	
86	Hay (Dual Supply)	Hay (Filtered)	Inclining Block	113	Service Connection Size*:40 mm:$452	Y	Nil	up to 300 kL	98	Y
								>300 kL	144	
		Hay (Unfiltered) - commercial users	Inclining Block	113	Service Connection Size*:40 mm:$452	Y	Nil	up to 450 kL	41	
								>450 kL	62	
37	Inverell	Inverell/Ashford/Yetman, Filtered	Inclining Block	290	Uniform Access Charge	Y	Nil	up to 500 kL	100	Y
								> 500 kL	120	
106	Jerilderie (Dual Supply)	Jerilderie, Filtered	Inclining Block	205	Service Connection Size*(32mm:$525)	Y	Nil	up to 250 kL	120	Y
								>250 kL	140	
		Jerilderie, Raw	Two Part	292	Uniform Access Charge	Y	Nil	All	56	
25	Kempsey (Groundwater)	Kempsey	Two Part	240	Meter Size: 40 mm: $960	Y	Nil	All	145	Y
70	Kyogle	Kyogle, Bonalbo, Muli-Muli, Woodenbong	Inclining Block	246	Service Connection Size*:40 mm:$985	Y	Nil	up to 200 kL	114	Y
								> 200 kL	175	
59	Lachlan	Condoblin	Two Part	250	Service Connection Size*:40 mm:$1000	Y	Nil	All	150	Y
48	Leeton	Leeton, Whitton, Murrami	Inclining Block	218	Meter Size*(40mm:$800)	Y	Nil	up to 300 kL	74	Y
								300 to 600 kL	110	
								> 600 kL	190	
22	Lismore (Reticulator)	Lismore, Nimbin	Two Part	145	Service Connection Size*(40mm: $580)	Y	Nil	All	215	Y
31	Lithgow	Lithgow	Inclining Block	560	Service Connection Size (50mm:$740)	Y	Nil	All	181	Y
61	Liverpool Plains Shire Council	Quirindi	Inclining Block	443	Service Connection Size (eg. 40mm $1101)	Y	Nil	up to 300 kL	100	Y
								>300 kL	165	
		Werris Creek	Inclining Block	493	Service Connection Size(eg. 40mm $1737)			up to 300 kL	106	
								>300 kL	174	
		Villages	Inclining Block	295	Service Connection Size(eg. 40mm $672)			up to 300 kL	100	
								>300 kL	165	
5	MidCoast		Inclining Block	156	Meter Size* (eg. 40mm $624)	Y	Nil	up to 200 kL	220	Y
								>200 kL	246	
32	Mid Western Regional Council	Mudgee, Gulgong & Rylstone	Two Part	143	Meter Size* (eg. 40mm $573)	Y	Nil	All	172	Y
38	Moree Plains Shire	Moree, Mungindi, Boggabilla, Pallamallawa Potable	Inclining Block	235	Service Connection Size (eg. 40mm $940)	Y	Nil	up to 750 kL	85	Y
								>750 kL	125	
		Weemalah Non-Potable	Inclining Block	235	Service Connection Size (eg. 40mm $940)	Y	Nil	up to 750 kL	58	
								>750 kL	110	
65	Murray	Murray, Filt	Two Part	220	Service Connection Size (eg. 40mm $880.22)	Y	Nil	All	76	Y
		Murray, Raw	Two Part	81	Service Connection Size (eg. 40mm $324.32)	Y	Nil	All ($73.40 for stage 2 and 3 water restrictions)	73	

Table 6B: Water supply – 2010-11 non-residential 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(d) of BPMG (8)
101	Murrumbidgee	Darlington Point	Inclining Block	180	Service Connection Size (eg. 40mm $340)	Y	Nil	up to 500 kL	26	Y
								501 to 800 kL	31	
								> 800 kL	36	
		Coleambally	Inclining Block	200	Service Connection Size (eg. 40mm $360)	Y	Nil	up to 500 kL	25	
								501 to 800 kL	30	
								> 800 kL	35	
41	Muswellbrook	Muswellbrook,Denman, Sandy Hollow	Two Part	175	Service Connection Size* (eg. 40mm $700)	Y	Nil	All	168	Y
34	Nambucca	Nambucca	Two Part	73	Service Connection Size (eg. 40mm $292)	Y	Nil	All	149	Y
46	Narrabri (Groundwater)	Narrabri	Two Part	231	Service Connection Size (eg. 40mm $269)	Y	Nil	All	63	Y
		Narrabri, non - metered	Unmetered	336	Service Connection Size (eg. 40mm $806)					
		Gwabegar	Two Part	368	Service Connection Size* (eg. 40mm $484)	Y	Nil	All	79	
		Wee Wa	Two Part	226	Service Connection Size* (eg. 40mm $273)	Y	Nil	All	63	
		Boggabri	Two Part	247	Service Connection Size* (eg. 40mm $605)	Y	Nil	All	74	
		Bellata	Two Part	368	Service Connection Size* (eg. 40mm $806)	Y	Nil	All	79	
		Pilliga	Two Part	368	Service Connection Size* (eg. 40mm $484)	Y	Nil	All	79	
63	Narrandera (Groundwater)	Narrandera	Two Part	237	Meter Size (eg. 40mm $948)	Y	Nil	All	87	Y
62	Narromine (Groundwater)	Narromine, Trangie, Tomingley	Two Part	160	Service Connection Size* (eg. 40mm $640)	Y	Nil	All	85	Y
83	Oberon (Unfiltered, Reticulator)	Oberon	Two Part	228	Service Connection Size* (eg. 38mm $489)	Y	Nil	All	135	Y
19	Orange	Orange	Two Part	170	Service Connection Size* (eg. 40mm $680.60)	Y	Nil	All	160	Y
71	Palerang	Bungendore	Inclining Block	323	Service Connection Size* (eg. 40mm $1292)	Y	Nil	up to 200 kL	123	Y
								>200kL	200	
		Braidwood	Inclining Block	412	Service Connection Size* (eg. 40mm $1647)	Y	Nil	up to 200 kL	176	
								>200kL	341	
		Captains Flat	Inclining Block	388	Service Connection Size* (eg. 40mm $1550)	Y	Nil	up to 200 kL	280	
								>200kL	381	
36	Parkes	Parkes	Inclining Block	240	Meter Size, eg : 40mm $960	Y	Nil	All	150	Y
17	Queanbeyan (Reticulator)	Queanbeyan	Inclining Block	280	Meter Size, eg : 40mm $1210	Y	Nil	up to 160 kL	190	Y
								>160 kL	276	
33	Richmond Valley	All	Inclining Block	114	Service Connection Size* (eg. 40mm $456)	Y	Nil	up to 200 kL	163	Y
								>200 kL	245	
8	Riverina	WaggaWagga	Inclining Block	120	Uniform Access Charge	Y	Nil	up to 600 kL	90	N
								>600 kL	135	
		Rural Towns & Villages	Inclining Block	125	Uniform Access Charge		Nil	up to 600 kL	100	
						Y		>600 kL	150	
4	Rous County Council	Rous Retail	Two Part	124	Uniform Access Charge	Y	Nil	All	130	N
3	Shoalhaven	Shoalhaven, treated	Inclining Block	75	Service Connection Size(40mm:$300)	Y	Nil	up to 450 kL	145	Y
								>450 kL	195	
35	Singleton	Singleton	Two Part	170	Meter Size* (eg. 40mm $680)	Y	Nil	All	91	Y
		Mt Thorley	Two Part	504	Meter Size* (eg. 40mm $1014)	Y	Nil	All	159	
		Jerry's/Broke Plains	Inclining Block	170	Uniform Access Charge	Y	Nil	up to 450 kL	126	
								>450 kL	169	
52	Snowy River (Unfiltered)	Snowy River	Inclining Block	300	Meter Size, eg : 40mm $1200	Y	Nil	up to 250 kL	115	Y
								>250 kL	175	
13	Tamworth	Tamworth	Inclining Block	204	Service Connection Size* (eg. 40mm $822)	Y	Nil	up to 400 kL	116	Y
								401 to 800 kL	128	
								>800 kL	141	
		Calala Backwash Water	Two Part					All	27	
		Raw Water	Inclining Block					up to 400 kL	80	
								401 to 800 kL	88	
								>800 kL	98	
		Dungowan Dam (if main crosses property)	Inclining Block	102	Uniform Access Charge	Y	Nil	up to 400 kL	40	
		Raw Water						401 to 800 kL	88	
								>800 kL	98	
68	Tenterfield	Tenterfield, Jenning, Urbenville	Inclining Block	125	Meter Size* (eg. 40mm $500)	Y	Nil	up to 450 kL	174	Y
								> 450 kL	200	
93	Tumbarumba (Unfiltered)	Tumbarumba	Inclining Block	321	Meter Size* (eg. 40mm $1284)	Y	Nil	up to 200 kL	137	Y
								>200 kL	230	
		Khancoban	Inclining Block	314	Meter Size* (eg. 40mm $1256)	Y	Nil	up to 200 kL	118	
								>200 kL	209	
43	Tumut	Tumut	Inclining Block	128	Meter Size* (eg. 40mm $509)	Y	Nil	up to 300 kL	125	Y
								>300 kL	192	
		Tumit Raw Water	Inclining Block	101	Meter Size (eg. 40mm $256)			up to 300 kL	53	
								>300 kL	85	

Table 6B: Water supply – 2010-11 non-residential 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(d) of BPMG (8)
6	Tweed	Tweed	Two Part	106	Meter Size*(40mm:$424)	Y	Nil	All	150	Y
45	Upper Hunter Shire Council	Murrurundi	Two Part	322	Meter Size(40mm:$644)	Y	Nil	All	145	Y
		Merriwa/Cassilis	Two Part	259	Meter Size(40mm:$525)	Y	Nil	All	141	
		Aberdeen/Scone	Two Part	259	Meter Size(40mm:$525)	Y	Nil	All	141	
73	Upper Lachlan Council	Crookwell, Taralga, Dalton, Gunning	Inclining Block	330	Uniform	Y	Nil	up to 200 kL	195	Y
								> 200 kL	260	
85	Uralla	Uralla, Bundarra	Two Part	250	Uniform Access Charge	Y	Nil	All	135	Y
88	Wakool (Dual Supply)	Barham, Tooleybuc, Moulamein (Filt + Raw)	Two Part	473	Service Connection Size*(40mm:$1893)	Y	Nil	All potable	90	Y
		Filtered	Two Part	237	Service Connection Size*(40mm:$948)	Y	Nil	All	90	
98	Walcha	Walcha	Two Part	140	Service Connection Size 38mm:$505)	Y	Nil	All	200	Y
79	Walgett (Dual Supply)	Walgett Shire	Unmetered	877	Uniform Access Charge	Y	Unmetered			N
		Lightening Ridge	Unmetered	351	Uniform Access Charge	Y	Unmetered			
		Collarenebri	Unmetered	820	Uniform Access Charge	Y	Unmetered			
		Carinda Bore	Unmetered	345	Uniform Access Charge	Y	Unmetered			
		Rowena	Unmetered	406	Uniform Access Charge	Y	Unmetered			
		Cumborah	Unmetered	368	Uniform Access Charge	Y	Unmetered			
96	Warren (Dual Supply)	Warren Bore Water	Inclining Block	275	Uniform Access Charge	Y	Nil	up to 450 kL	87	Y
								>450 kL	131	
		Warren River Water	Inclining Block	275			Nil	up to 450 kL	32	
								>450 kL	56	
		Nevertire	Inclining Block	390	Uniform Access Charge	Y	Nil	up to 450 kL	49	
								>450 kL	73	
		Collie	Inclining Block	280	Uniform Access Charge	Y	Nil	up to 400 kL	107	
								>400 kL	163	
55	Warrumbungle, Northern	Coonabarabran	Inclining Block	275	Uniform Access Charge	Y	Nil	up to 450 kL	106	Y
								>450 kL	127	
		Timore Dam (Raw)	Inclining Block	275	Uniform Access Charge	Y	Nil	up to 450 kL	106	
								>450 kL	127	
		Baradine	Inclining Block	299	Uniform Access Charge	Y	Nil	up to 450 kL	146	
								>450 kL	176	
		Binnaway	Inclining Block	408	Uniform Access Charge	Y	Nil	up to 450 kL	146	
								>450 kL	176	
		Villages: Bugaldie, Kenebri	Inclining Block	472	Uniform Access Charge	Y	Nil	up to 450 kL	127	
								>450 kL	153	
	Warrumbungle, Southern	Southern, Coolah, Dunedoo	Inclining Block	339	Uniform Access Charge	Y	Nil	up to 450 kL	146	
								>450 kL	176	
		Village	Inclining Block	472	Uniform Access Charge	Y	Nil	up to 450 kL	127	
								> 450 kL	153	
		Mendooran	Inclining Block	742	Uniform Access Charge	Y	Nil	up to 450 kL	146	
								> 450 kL	176	
57	Wellington	Wellington, Geurie	Inclining Block	310	Service Connection Size 40mm:$1232.37)	Y	Nil	up to 300 kL	112	Y
								301 to 500 kL	124	
								500 to 10000kL	135	
								>10000 kL	212	
74	Wentworth (Dual Supply)	Filtered	Inclining Block	235	Service Connection Size*(40mm:$995)	Y	Nil	up to 250 kL	115	Y
								>250 kL	270	
		Raw	Inclining Block	120	Service Connection Size(40mm:$495)	Y	Nil	up to 700 kL	37	
								>700 kL	100	
16	Wingecarribee	Wingecarribee	Inclining Block	110	Meter Size*(40mm: $440)		Nil	up to 225 kL	136	Y
								>225 kL	202	
2	Wyong	Wyong	Two Part	121	Service Connection Size (eg. 40mm: $483.06)	Y	Nil	All	187	Y
56	Yass Valley	Yass, Bowning, Binalong & Rural Areas	Two Part	230	Meter Size (40mm:$359)	Y	Nil	All	225	Y
		Murrumbateman	Two Part	173	Uniform Access Charge	Y	Nil	All	225	
49	Young (Reticulator)	Young	Two Part	155	Meter Size* (40mm:$620)	Y	Nil	All	180	Y

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

	WATER UTILITY	RESIDENTIAL CHARGES (Current & 2010/11)																		BILLS			COST RECOVERY										
		Fixed Charge (or Minimum) ($) (1) P4.1			Operating Cost (OMA) (c/kL) (2)			Access Charge Independent of Land Value ? Yes/No (3)		Non-residential Sewer Usage Charge (Not incl SDF) c/kL (3a)		Trade Waste Usage Charge c/kL (3b)		Complying Liquid Trade Waste Fees and Charges* ? (4)		Non-Res & Trade Waste Charges (% of Annual rates & Charges) (5)	Non-Res & Trade Waste Volume (% of Sewage Collected) (6)	Typical Developer Charge ($/Equivalent Tenement [ET]) (7)			Typical Residential Bill ($/assessment) (8) P6			Return on Assets (%) (9)			Economic Real Rate of Return (Sewerage) (11) F18			Full Cost Recovery? (N / Y* / Y) (11a)	Recycled Water Usage Charge in place? (c/kL) (11b)	Connected Properties (No.) (12) C8
		08/09	09/10	10/11	07/08	08/09	09/10	09/10	10/11	09/10	10/11	09/10	10/11	09/10	10/11	2009/10	2009/10	08/09	09/10	10/11	08/09	09/10	10/11	07/08	08/09	09/10	07/08	08/09	09/10	09/10	10/11	2009/10
	Sydney Water	491	501	517				Y	Y	142	145			Y	Y			4,740			491	501	517				1.2	0.9	1.7	Y		1,724,000
	Hunter Water	372*	496	489				Y	Y	62	63			Y	Y			3,090			372	496	489				2.3	2.0	1.8	Y		213,000
	LWUs with > 10,000 Properties																															
1	Gosford	399	464	483	121	146	167	Y	Y	99	103	141	149	Y	Y	18	18	3,660	3,960	4,200	399	464	483	1.1	1.4	2.1	1.3	1.1	2.1	Y		68,545
2	Wyong	398	429	437	124	124	138	Y	Y	77	78	31	54	Y	Y	13		2,400	2,400	2,460	398	429	437	-1.2	-1.6	-1.0	-1.2	-1.6	-1.0	Y*	69	59,157
3	Shoalhaven	557	585	615	211	257	249	Y	Y	91	95	139	147	Y	Y	14	17	5,840	7,630	7,860	557	585	615	1.1	0.8	1.1	1.6	1.3	1.6	Y		40,508
5	MidCoast (Combined)	690	794	834	163	180	212	Y	Y	204	214	200	220	Y	Y	14	18	8,010	8,210	8,390	690	794	834	-1.9	-1.8	-1.1	-0.1	-0.2	0.3	Y		32,841
6	Tweed	509	527	568	138	137	151	Y	Y	95	105	112	151	Y	Y	13	9	4,970	5,150	5,300	509	527	568	0.9	-0.2	0.7	1.0	-0.2	-0.3	Y		29,440
7	Port Macquarie-Hastings	556	601	617	119	104	123	Y	Y	92	94	140	140	Y	Y	13		3,550	3,800	4,000	556	601	617	0.5	-0.7	1.8	0.3	2.1	1.4	Y	69	26,408
9	Wagga Wagga	356	380	406	107	119	122	Y	Y	100	150	66	152	Y	Y	32	16	3,500	3,500	3,500	356	380	406	1.2	0.9	1.9	1.0	1.0	1.3	Y	52	25,118
10	Coffs Harbour	630	676	698	138	142	171	Y	Y	172	178	40	120	Y	Y	21		4,930	4,930	8,380	630	676	698	0.9	-0.7	1.6	2.8	2.1	2.6	Y		22,690
11	Albury City	399	426	444	152	138	178	Y	Y	185	218	135	140	Y	Y	26	7	4,160	4,160	4,160	399	426	444	0.8	1.2	1.7	1.3	2.1	2.1	Y		20,953
13	Tamworth Regional	638	675	695	114	107	128	Y	Y	60	83	57	124	Y	Y	21	44	1,640	1,700	1,740	638	675	695	7.5	8.8	7.4	6.9	7.8	6.5	Y		18,600
15	Eurobodalla	617	662	712	241	246	217	Y	Y	50	77	120	210	Y	Y	10	5	8,550	8,870	9,050	617	662	712	0.4	1.3	3.1	0.7	1.6	1.8	Y		17,705
17	Queanbeyan	323	334	342	110	100	161	Y	Y	64	67	135	147	Y	Y	12	18	1,160	1,210	1,270	323	334	342	1.3	-0.5	-0.6	0.1	-1.0	-2.3	Y*		16,087
19	Orange	292	292	334	128	112	137	Y	Y	137	142	137	142	Y	Y		19	3,560	3,660	3,770	292	292	334	3.1	6.8	0.3	3.3	5.8	-0.4	Y		15,642
18	Dubbo	478	502	537	167	204	184	Y	Y	144	154	130	154	Y	Y	30	38	4,480	4,740	4,780	478	502	537	1.7	1.2	2.2	1.7	1.4	1.7	Y		15,421
16	Wingecarribee	530	546	579	112	148	169	Y	Y	92	97	135	200	Y	Y	13	19	7,000	7,300	7,500	530	546	579	2.0	0.7	0.5	2.2	1.0	0.9	Y		14,478
14	Clarence Valley	585	637	694	166	157	172	Y	Y	193	210	167	199	Y	Y	19	12	8,000	8,000	7,000	585	637	694	1.9	-0.1	0.6	3.6	1.2	1.7	Y		14,395
21	Bathurst Regional	381	399	399	126	168	127	Y	Y	89	100	150	170	Y	Y	36	32	2,050	2,050	2,650	381	399	399	1.8	2.7	1.5	1.3	2.2	1.1	Y		14,806
24	Ballina	440	480	550	254	149	187	Y	Y	125	140	110	120	Y	Y	19		6,460	6,740	6,890	440	480	550	0.8	-1.2	3.4	-0.7	-2.3	-0.3	Y		13,098
22	Lismore	476	545	607	145	107	90	Y	Y					Y	Y	22		7,310	7,490	7,710	476	545	607	-1.2	-1.8	0.5	-0.9	-1.3	-1.3	Y		12,395
23	Bega Valley	890	957	986	357	400	390	Y	Y	322	356		100	Y	Y	16		8,370	8,620	8,860	890	957	986	1.3	0.4	0.8	2.1	1.5	1.9	Y		11,888
27	Byron	576*	603*	633*	163	170	180	Y	Y	180	180	153	180	Y	Y	24	21	10,300	10,300	9,510	722	777	829	0.6	0.4	0.0	1.3	1.4	1.5	Y	100	10,133
26	Country Energy	361	397	428	197	264	181	Y	Y	95	103	139	158	Y	Y	19	39				361	397	428						0.0	Y		9,708
20	Goulburn Mulwaree	600	600	630	193	214	231	Y	Y	235	245	200	212	Y	Y	27		5,100	5,100	3,770	600	600	630	0.4	1.8	3.3	4.2	3.6	3.6	Y		9,552
25	Kempsey	570	595	625	125	115	163	Y	Y	146	154	140	155	Y	Y	25	19	6,700	6,870	7,080	570	595	625	0.2	0.0	-0.2	0.5	0.4	0.6	Y		9,022
	Medians (% of LWUs basis excl bulk suppliers) for >10,000 Properties			*579*			*170*			*23 out of 24 have non-res sewer usage charges*				*24 out of 24 have trade waste charges*					*5,300*			*593*			*1.1*			*1.3*	*0 LWUs did not achieve FCR*		
	LWUs with 3,001 - 10,000 Properties																															
29	Armidale Dumaresq	300	357	357	150	156	111	Y	Y			23	28	Y	Y	38	14	4,160	4,280	4,380	300	357	357	1.5	1.3	4.0	0.9	1.3	3.7	Y		8,183
31	Lithgow	399	482	381	174	125	142	Y	Y	103	112	120	147	Y	Y	10		1,790	1,790	1,790	399	482	381	0.5	-1.4	5.1	-0.3	-1.6	-0.7	Y		7,425
30A	Hawkesbury	429	445	494	130	134	137	Y	Y				103	N	N	25		5,590	6,800	7,110	429	445	494	-1.6	0.1	14.4	-1.7	0.0	14.1			7,522
30	Griffith	438	558	669	143	152	158	Y	Y	130	135	75	110	Y	Y	26	20	1,800	1,840	1,900	438	558	669	-0.1	0.1	1.7	0.2	0.3	1.3	Y		7,565
33	Richmond Valley	775	810	840	127	147	160	Y	Y	162	168		138	Y	Y	12		9,230	9,470	12,570	775	810	840	2.4	1.1	3.1	2.6	2.2	3.5	Y		6,489
32	Mid Western Regional	440	462	476	98	174	156	Y	Y		44					10	24	3,200	3,200	3,390	440	462	476	1.7	0.1	-0.1	0.6	-1.0	-1.2	Y*		6,562
34	Nambucca	340	385	385	102	104	133	Y	Y	186	220	120	152	Y	Y	40	8	3,930	4,080	4,160	340	385	385	0.1	0.5	7.0	0.4	0.9	2.0	Y		5,347
35	Singleton	373	387	399	103	109	144	Y	Y	110	135	40	90	Y	Y	21		2,550	2,720	2,780	373	387	399	3.6	2.3	2.2	2.0	0.5	0.8	Y		5,385
37	Inverell	363	374	385	183	145	163	Y	Y					N	N	7	9	3,010	3,200	3,300	363	374	385	-2.4	-1.0	0.9	-0.5	0.7	0.2	Y		4,629
41	Muswellbrook	437	459	510	136	155	190	Y	Y	168	168		90	Y	Y	20		4,800	4,980	5,150	437	459	510	4.4	1.9	2.5	3.3	1.4	1.7	Y		5,100

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

	WATER UTILITY	RESIDENTIAL CHARGES (Current & 2010/11)																		BILLS			COST RECOVERY								
		Fixed Charge (or Minimum) ($) (1) P4.1			Operating Cost (OMA) (c/kL) (2)			Access Charge Independent of Land Value ? Yes/No (3)		Non-residential Sewer Usage Charge (Not incl SDF) c/kL (3a)		Trade Waste Usage Charge c/kL (3b)		Complying Liquid Trade Waste Fees and Charges* ? (4)		Non-Res & Trade Waste Charges (% of Annual rates & Charges) (5)	Non-Res & Trade Waste Volume (% of Sewage Collected) (6)	Typical Developer Charge ($/Equivalent Tenement [ET]) (7)			Typical Residential Bill ($/assessment) (8) P6			Return on Assets (%) (9)			Economic Real Rate of Return (Sewerage) (11) F18			Full Cost Recovery? (N / Y* / Y) (11a)	Recycled Water Usage Charge in place? (c/kL) (11b)	Connected Properties (No.) (12) C8
		08/09	09/10	10/11	07/08	08/09	09/10	09/10	10/11	09/10	10/11	09/10	10/11	09/10	10/11	2009/10	2009/10	08/09	09/10	10/11	08/09	09/10	10/11	07/08	08/09	09/10	07/08	08/09	09/10	09/10	10/11	2009/10
36	Parkes	290	320	355	98	120	118	Y	Y	104	104	140	150	Y	Y	25	27	4,100	4,350	4,100	290	320	355	-3.1	-0.2	6.0	1.5	0.4	4.3	Y		4,945
42	Corowa	400	500	550	208	240	240	Y	Y	100	103	138	138	Y	Y	16	9	2,000	2,000	2,500	400	500	550	1.8	0.5	2.8	1.9	1.4	2.7	Y		4,869
38	Moree Plains	570	591	610	112	142	145	Y	Y	104	110		138	Y	Y	23		3,870	3,900	4,160	570	591	610	-0.6	1.8	2.4	1.7	2.3	2.2	Y	10	3,736
44	Gunnedah	314	320	340	97	111	119	Y	Y	24	24		125	Y	Y	11	22	1,950	2,000	2,050	314	320	340	-0.4	-0.2	0.9	-0.2	-0.3	-0.8	Y		3,999
46	Narrabri	450	469	492	97	115	142	Y	Y			175	200	Y	Y			4,020	4,020	4,180	450	469	492	0.0	-1.0	2.2	1.5	-0.6	1.4	Y		3,730
43	Tumut	496	531	568	213	196	194	Y	Y	155	166			Y	Y	21		4,710	4,880	4,880	496	531	568	3.9	1.1	1.4	3.3	0.9	1.0	Y		4,154
49	Young	375	395	550	60	77	77	Y	Y					Y	Y	35		1,100	1,160	1,100	375	395	550	10.1	5.8	6.9	7.6	5.4	6.6	Y		3,708
39	Cowra	538	557	574	148	196	184	Y	Y				143	Y	Y	20		4,490	4,650	4,810	538	557	574	5.3	4.0	4.3	5.6	4.2	4.7	Y		3,552
45	Upper Hunter	365	378	393	155	161	180	Y	Y	70	73			Y	Y	18		2,300	2,300	2,300	365	378	393	0.6	-1.2	-1.7	-0.7	-2.6	-2.7	N		4,136
52	Snowy River	435*	525*	615	338	286	346	Y	Y	100	202		152	Y	Y			5,400	5,400	5,400	536	634	615	-0.3	1.8	3.3	-1.7	0.9	2.7	Y		3,606
51	Forbes	403	435	435	139	154	164	Y	Y	124	127	55	57	Y	Y	26	17	1,850	2,520	3,210	403	435	435	1.2	1.4	0.1	1.6	1.6	0.3	Y		3,076
50	Cooma-Monaro	641	667	694	316	317	257	Y	Y					N	N	17		3,850	3,850	4,120	641	667	694	-0.8	0.4	-0.7	-0.4	0.3	-0.7	Y*		3,405
53	Berrigan	340	350	359	216	258	234	Y	Y					N	N	19		1,700	1,700	1,700	340	350	359	2.5	-1.9	-1.8	1.2	-3.1	-3.0	N		3,297
48	Leeton	414	426	438	93	138	158	Y	Y	68	70		156	Y	Y	47	21	4,000	4,000	4,200	414	426	438	2.4	1.4	1.6	1.2	0.7	0.7	Y		3,202
54	Deniliquin	525	543	557	203	222	271	Y	Y		38	139	15	Y	Y	3		4,190	4,140	4,190	525	543	557	3.8	2.0	3.8	1.8	0.8	-0.2	Y		3,158
	Medians (% of LWUs basis excl bulk suppliers) for 3,000 to 10,000 Properties			*484*			*159*			*17 out of 24 have non-res sewer usage charges*				*20 out of 24 have trade waste charges*						*4,110*			*484*			*2.3*			*1.1*	*2 LWU did not achieve FCR*	
	LWUs with 1,501 - 3,000 Properties																															
47	Bellingen	499	531	558	141	136	213	Y	Y	115	120	109	120	Y	Y	4		3,970	4,250	4,420	499	531	558	0.8	0.3	-0.6	-0.7	-1.7	-1.8	Y*		2,973
60	Glen Innes Severn	385	390	399	120	78	108	Y	Y	90	90	135		Y	Y			2,470	3,190	2,440	385	390	399	0.3	-0.1	1.1	1.1	1.2	0.6	Y		2,791
58	Cootamundra	275	290	290	134	143	152	Y	Y	153	161			N	Y	25	15	2,580	2,750	2,810	275	290	290	-0.4	0.3	-0.1	-0.3	0.4	0.1	Y		2,762
57	Wellington	492	508	521	157	223	152	Y	Y	72	74	127	134	Y	Y	23	8	1,910	1,910	1,910	492	508	521	0.8	-1.1	0.3	1.8	0.0	1.2	Y		2,665
91	Cabonne	189.6*	196*	203*	212	210	304	Y	Y	131	120	140	140	Y	Y	18	5	4,280	4,300	5,060	297	306	316	1.5	1.2	-0.1	0.7	0.9	-0.3	Y*		2,384
80	Greater Hume	270	285	315	181	193	201	Y	Y	80	90			N	N	23	13	6,000	6,000	6,000	270	285	315	-0.5	-0.6	-0.9	-1.1	-1.2	-1.4	Y*		2,555
59	Lachlan	332	338	386	94	117	129	Y	Y	105	105	120	120	Y	Y	5	24		7,500	7,500	332	338	386	1.1	-0.4	-1.4	-0.6	-1.0	-3.1	Y*		2,160
65	Murray	363	366	370	155	134	123	Y	Y	50	51	125	125	Y	Y	26	31	2,050	2,050	2,050	363	366	370	0.9	1.7	1.9	1.0	1.7	1.7	Y		2,670
62	Narromine	440*	455	469	105	102	102	Y	Y	165	170	160	170	Y	Y	15		3,240	3,340	3,750	440	455	469	3.3	1.0	4.8	2.2	0.8	3.6	Y		1,952
56	Yass Valley	505	515	530	208	232	214	Y	Y	148	160	120	125	Y	Y		14	4,520	4,640	4,770	505	515	530	5.6	2.7	1.8	5.5	2.6	1.4	Y		2,205
61	Liverpool Plains	319	350	385	116	102	134	Y	Y	141	145		300	Y	Y			610	2,570	610	319	350	385	-1.3	0.0	-0.2	-2.3	-0.1	-0.9	Y*		1,961
55	Warrumbungle	366	461	450		149	162	Y	Y		119		119	N	N	27	30	1,100	1,320	1,320	366	461	450		0.4	2.1		0.6	1.6	Y		2,459
69	Temora	232	244	256	96	288	370	Y	Y	25	25			N	N	10	8	150	160	160	232	244	256	0.8	1.5	0.2	0.4	1.0	-0.3	Y	35	2,111
71	Palerang	873	897	920	194	234	256	Y	Y	271	278	127		Y		6	3	7,500	10,000	10,180	873	897	920	6.7	6.6	4.0	6.0	6.0	3.6	Y		1,917
72	Bland	493	510	525		243	203	Y	Y				10	N	N			1,000	1,000	1,470	493	510	525		0.1	2.0		0.5	1.0	Y		1,843
63	Narrandera	443	443	460	198	177	100	Y	Y	113	117			N	N	21					443	443	460	-1.2	0.8	2.1	-1.2	0.9	0.0	Y		1,696
67	Cobar	245	250	255	78	74	84	Y	Y					Y	Y	3		770	770	770	245	250	255	0.6	1.2	0.4	0.3	1.1	0.3	Y	35	1,735
74	Wentworth	500	570	620	23	24	21	Y	Y					N	N	10		3,280	5,340	5,340	500	570	620	-1.0	-0.9	0.5	-0.7	-0.5	0.7	Y		1,792
75	Coonamble	324	337	346	143	163	133	Y	Y	74	81			N	N	14	11			360	324	337	346	-2.2	-2.5	-3.9	-6.9	-7.5	-8.1	N		1,410
70	Kyogle	557	569	569	153	105	163	Y	Y	91	91	100	100	Y	Y	20	20	3,000	3,000	2,000	557	569	569	0.9	0.9	0.2	1.1	1.1	0.6	Y		1,693
77	Junee	325	335	344	164	128	160	Y	Y					N	N	14	15	1,650	1,650	1,650	325	335	344	0.4	0.7	0.0	-0.1	0.1	-0.4	Y	15	1,587
78	Blayney	420	430	450	164	224	233	Y	Y	110	110	105	115	Y	N	10	11	2,040	2,160	3,030	420	430	450	-2.0	-0.4	0.2	0.3	-0.2	0.4	Y		1,903
79	Walgett	338	355	372	61	54	72	Y	Y						Y						338	355	372	1.9	0.5	0.6	1.8	0.5	0.5	Y		1,605
68	Tenterfield	600	669	738	188	292	258	Y	Y	90	90	125	125	Y	Y	19		1,500	1,500	1,500	600	669	738	-2.0	-2.4	0.1	1.3	-1.2	0.2	Y		1,630
	Medians (% of LWUs basis excl bulk suppliers) for 1,500 to 3,000 Properties			*450*			*156*			*19 out of 24 have non-res sewer usage charges*				*15 out of 24 have trade waste charges*						*2,245*			*424*			*0.3*			*0.3*	*1 LWU did not achieve FCR*	

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

	WATER UTILITY	RESIDENTIAL CHARGES (Current & 2010/11)																		BILLS			COST RECOVERY								
		Fixed Charge (or Minimum)			Operating Cost (OMA)			Access Charge Independent of Land Value ?		Non-residential Sewer Usage Charge (Not incl SDF) c/kL		Trade Waste Usage Charge c/kL		Complying 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 (Sewerage)			Full Cost Recovery?	Recycled Water Usage Charge in place?	Connected Properties
		($)			(c/kL)			Yes/No										($/Equivalent Tenement [ET])			($/assessment)			(%)						(N / Y* / Y)	(c/kL)	(No.)
		(1) P4.1			(2)			(3)		(3a)		(3b)		(4)		(5)	(6)	(7)			(8) P6			(9)			(11) F18			(11a)	(11b)	(12) C8
		08/09	09/10	10/11	07/08	08/09	09/10	09/10	10/11	09/10	10/11	09/10	10/11	09/10	10/11	2009/10	2009/10	08/09	09/10	10/11	08/09	09/10	10/11	07/08	08/09	09/10	07/08	08/09	09/10	09/10	10/11	2009/10
	LWUs with 200 - 1,500 Properties																															
84	Gilgandra	393	403	424	86	89	120	Y	Y	97	101	143	158	Y	Y	22	25				393	403	424	1.8	1.3	0.5	1.0	0.7	0.3	Y		1,367
73	Upper Lachlan	570	600	618	167	188	188	Y	Y	195	195		120	N	Y	15	13	3,500	3,500	3,360	570	600	618	0.2	-0.3	2.4	1.4	1.3	1.9	Y		1,417
82	Gloucester	360	463	528	289	119	182	Y	Y	195	200			Y	Y	27	15	6,310	6,510	6,510	360	463	528	0.1	0.3	3.6	0.1	-0.2	3.0	Y		1,598
87	Bourke	525	543	561	357	270	183	Y	Y					N	N	12		460	830	830	525	543	561	0.5	0.2	2.9	-0.8	-0.4	1.8	Y		1,248
86	Hay	477	550	566	103	133	207	Y	Y	95	98			N	N	18	5				477	550	566	-1.1	2.1	-0.6	-2.7	0.9	-1.5	Y*		1,274
83	Oberon	352	361	370	117	214	223	Y	Y	119	122		135		Y	43	23	1,440	1,490	1,530	352	361	370	1.9	0.7	1.9	0.2	-0.3	0.6	Y		1,368
81	Gwydir	485	485	495		159	113	Y	Y	245	245	120	120	Y	Y	29	11	2,000	2,000	2,000	485	485	495	-3.3	2.0	3.4	-4.2	0.9	2.3	Y	12	1,147
85	Uralla	425	435	449	187	260	228	Y	Y	100	100			Y	Y	4	4	550	600	600	425	435	449	1.6	1.3	0.2	0.7	1.4	1.8	Y		1,084
95	Weddin	205	225	247	74	124	77	Y	Y					N	N	7	7		2,800	2,800	205	225	247	0.7	-1.6	-0.6	-0.1	-1.9	-1.0	Y*		1,026
89	Bogan	380	390	390	47	49	52	Y	Y	195	190			N	N						380	390	390	-0.3	2.0	0.2	-1.0	1.2	-0.4	Y		1,026
76	Harden	519	537	553	46	76	44	Y	Y	157	157			N	N	20			3,000	3,000	519	537	553	-1.9	2.3	4.2	-2.0	2.2	3.9	Y		937
88	Wakool	472	489	509	70	86	96	Y	Y					N	N	23					472	489	509	-1.0	-0.9	-1.2	-1.1	-1.0	-1.3	Y*		1,074
93	Tumbarumba	390	404	444	78	72	85	Y	Y	83	91	120	130	Y	Y	23		430	430	430	390	404	444	2.7	1.7	3.8	0.7	1.4	1.3	Y		976
94	Gundagai	270	308	354	221	244	261	Y	Y	132	152	140	184	Y	Y	38	26			550	270	308	354	-1.7	-1.1	-1.4	-1.8	-1.2	-1.5	Y*		757
92	Carrathool	224	232	238	152		205	Y	Y					N	N	7		610	640	640	224	232	238	-2.0		-3.9	-2.1		-3.9	N		847
96	Warren	465	470	470	158	191	185	Y	Y					N	N	22					465	470	470	1.8	1.1	0.8	-1.3	-1.8	-2.0	Y		812
99	Coolamon	260	267	280	148	198	273	Y	Y					N	N	20	4		4,500	4,500	260	267	280	1.6	3.0	0.6	1.0	2.4	0.1	Y		990
102	Lockhart	377	388	442	201	139	129	Y	Y	180	172		75	N	Y	6		1,000	1,000	1,000	377	388	442	-0.5	0.2	-0.2	-1.5	-0.8	-1.0	Y*	58	825
98	Walcha	390	405	416	126	123	103	Y	Y	90	94	134	143	Y	Y		17				390	405	416	1.3	1.0	1.8	1.1	1.1	1.4	Y		866
100	Balranald	269	269	269	99	61	50	Y	Y	15	15	125	125	Y		15		680	680	580	269	269	269	0.5	0.1	0.3	-0.1	-0.3	-0.2	Y		847
97	Bombala	436	454	477	73	125	130	Y	Y	15	18		18	N	N	18		1,910	1,980	2,040	436	454	477	1.4	-0.1	0.5	0.5	-0.4	-0.3	Y		758
101	Murrumbidgee	300	300	300	71	163	119	N						Y	Y	7		1,000	1,000	1,000	300	300	300	4.6	3.0	4.6	0.2	-0.9	1.3	Y		747
90	Guyra	500	515	515	252	207	323	Y	Y					Y	Y	10	5	420	450	450	500	515	515	1.3	0.6	0.9	1.5	1.1	1.1	Y		998
104	Boorowa	471	492	513	95	136	156	Y	Y					Y	Y			500	500	500	471	492	513	-0.4	1.4	2.2	-1.1	0.7	0.7	Y		558
105	Brewarrina	530	572	629	101	120	143	N						N	N	19					530	572	629	-1.1	-1.1	-1.1	-1.1	-1.2	-1.1	Y*		495
106	Jerilderie	500	500	500	148	173	226	Y	Y	70	70			N	N	31		930	930	930	500	500	500	3.5	3.4	2.4	0.9	1.0	0.2	Y		424
103	Central Darling	360	360	360	103	83	71	Y	Y					N	Y			400	400	400	360	360	360	-0.3	-0.5	0.6	-0.6	-0.7	0.4	Y		205
107	Urana	214	221	227	103	112	142	Y	Y					N	N			4,100	4,100	4,100	214	221	227	0.5	0.0	-0.5	0.1	-0.2	-0.6	Y*		316
	Medians (% of LWUs basis excl bulk suppliers) for 200 to 1,500 Properties			*446*			*142*			*16 out of 28 have non-res sewer usage charges*				*14 out of 28 have trade waste charges*					*1,000*			*446*			*0.6*			*0.3*	*1 LWUs did not achieve FCR*		
	Median All LWUs (% of LWUs basis)	*Access Charge*		*$473*	*OMA (c/kL)*		*$160*	*Non Res Usage Charge*		*$112*								*Developer Charge*		*$3330*	*TRB*		*$473*	*ROA*		*0.9*	*ERRR*		*0.6*	*80 LWUs have Y for FCR*		
	Median All LWUs (Statewide basis)			*$525*			*$ 164*			*$ 105*										*$ 4200*			*$530*						*1.3*	*16 have Y* and 4 have N*		
	75 out of 100 LWUs have nonresidential usage charges and 73 out of 100 have complying trade waste charges																													*4 LWUs did not achieve FCR for SGE*		

NOTES: 1. 75 LWUs have non-residential sewerage charges which substantially comply with the Best-Practice Management Guidelines (Appendix C, page 66) and 73 LWUs have complying trade waste fees and charges.

2 Full Cost Recovery for sewerage has been achieved by 96 utilities (96%). These comprised the 80 utilities which had either an Economic Real Rate of Return or Return on Assets of >=0 for the 2009/10 financial year, shown as 'Y' in col(11a). In addition they include the 16 utilities which have significantly increased their 2010/11 charges in order to recover all their costs which are shown as "Y*". A total of 4 LWUs did not achieve full cost recovery. These are shown as "N".

3. * in column (1) indicates that this LWU has a residential sewer usage charge as follows; Byron 135 c/kL and Cabonne 120c/kL.

Table 7A: Sewerage – 2010-11 residential multiple tariffs

WATER UTILITY		Town	Access Charge (or Minimum) ($) (1)	Access Charge Independent of Land Value ? (2)
78	Blayney	Blayney	450	Y
		Millthorpe	720	Y
87	Bombala	Bombala	477	Y
		Delegate	387	Y
105	Brewarrina	Brewarrina	629	
		Goodooga	273	
91	Cabonne	Molong	203	Y
		Canowindra	417	Y
		Eugowra	354	Y
		Cudal	417	Y
		Manildra, Cumnock, Yeoval	417	Y
92	Carrathool	Hilston	238	Y
		Goolgowi	154	Y
75	Coonamble	Coonamble	346	Y
		Gulargambone	492	Y
20	Goulburn Mulwaree Council	Goulburn	630	Y
		Marulan	760	Y
80	Greater Hume	Burrumbuttock	490	Y
		Jindera	270	Y
		Holbrook	355	Y
		Culcairn	315	Y
		Henty	240	Y
		Walla Walla	360	Y
44	Gunnedah	Gunnedah	340	Y
		Curlewis	517	Y
90	Guyra	Guyra	515	Y
		Tingha	361	Y
102	Lockhart	Lockhart	442	Y
		The Rock	389	Y
		Yerong Creek	375	Y
101	Murrumbidgee	Darlington Point	300	N
		Coleambally	250	N
46	Narrabri	Narrabri	492	Y
		Wee Waa	502	Y
		Boggabri	382	Y
71	Palerang	Bungendore	920	Y
		Braidwood	928	Y
		Captaind Flat	844	Y
93	Tumbarumba	Tumbarumba	444	Y
		Khancoban	473	Y
73	Upper Lachlan Council	Crookwell	618	Y
		Gunning	618	Y
		Taralga	402	Y
88	Wakool	Wakool, Barham, Moulamein, Murray Downs	509	Y
		Tooleybuc	472	Y
79	Walgett	Walgett	372	Y
		Lightening Ridge	353	Y
		Collarenebri	403	Y
96	Warren	Warren	470	Y
		Nevertire	495	Y
55	Warrumbungle Shire Council	Coolah	374	Y
		Dunedoo	380	Y
		Coonabarabran	450	Y
		Baradine	489	Y
57	Wellington	Wellington	521	Y
		Mumbli	501	Y
		Guerie	521	Y

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 – 2010-11 non-residential tariffs

	WATER UTILITY	Town	Access Charge (or Minimum) ($) (1)	Access Charge Independent of Land Value? (2)	Basis for Access Charge *Proportional to square of size of service connection or water meter (3)	Sewer Usage Charge (for estimated volume discharged to sewerage system = water usage x sewer discharge factor) (4)	Subtantial Compliance with 2(c) of BPMG Yes/No (5)
11	Albury	Albury	162xSDF	Y	Service Connection (40mm:$648xSDF)	218 c/kL	Y
29	Armidale Dumaresq	Armidale	357	Y	Multiple Units: $318/WC; Hotels, Motels: $117/WC, $50/Urinals		N
24	Ballina	Ballina	415	Y	Service connection size* (40mm $1654)	140 c/kL	Y
100	Balranald	Balranald	269	Y	Service connection size* (40mm $1076)	15 c/kL	Y
21	Bathurst Regional	Bathurst	342	Y	Service Connection Size*(40mm: $1371)	100 c/kL	Y
23	Bega Valley	Bega Valley	986	Y	Meter size* (eg. 40mm $3944)	356 c/kL	Y
47	Bellingen	Bellingen, Urunga, Dorrigo	558	Y	Uniform Access Charge	120 c/kL for >365kL discharge	Y
53	Berrigan	Berrigan, Finley, Tocumwal, Barooga	359	Y	Uniform Access Charge, after two WCs $78/WC		
72	Bland	Bland	525	N	Uniform Access Charge $107/WC, $54/Urinal		Y
78	Blayney	Blayney	395	Y	Service connection size* (40mm $1579)	110 c/kL	Y
		Millthorpe	675	Y	Service connection size* (40mm $2698)	110 c/kL	
89	Bogan	Nyngan	103	Y	Service connection size* (40mm $412)	190 c/kL	Y
97	Bombala	Bombala	458	Y	Uniform Access Charge	18 c/kL	Y
		Delegate	387	Y	Uniform Access Charge	78 c/kL	
104	Boorowa	Boorowa	513	Y	Uniform Access Charge	$90.48/WC	N
87	Bourke	Bourke	561	Y	Uniform Access Charge		N
105	Brewarrina	Brewarrina	629			$53.45/Urinals, Additional WCs (2-5) $158.95, additional WC $53.45/WC	N
		Goodooga	273			$53.45/Urinals, Additional WCs (2-5) $158.95, additional WC $53.45/WC	
27	Byron	Byron	633	Y	Service connection size* (40mm $2532)	180 c/kL	Y
91	Cabonne	Molong	203	Y	Service connection size (40mm $570.30)	120 c/kL	Y
		Canowindra	417	Y	Service connection size (40mm $577.20)	120 c/kL	
		Eugowra	354	Y	Service connection size (40mm $560)	120 c/kL	
		Manildra, Cudal	417	Y	Service connection size (40mm $577.20)		
		Cumnock, Yeoval	500	N	Land Value		
92	Carrathool	Hilston	238.10+$23.80/unit	Y	Base Charge: Motels:Base+10% Base charge/unit; Service Station:1.5 Base Charge;laundromat, Clubs & Hotels:2xBase Charge	$80.10/WC, $40.10/Urinal	N
		Goolgowi	153.60+$15.30/unit		Base Charge: Motels:Base+10% Base charge/unit; Service Station:1.5 Base Charge;laundromat, Clubs & Hotels:2xBase Charge	$80.10/WC, $40.10/Urinal	
103	Central Darling	Wilcannia	360	Y	Uniform Access Charge for two fittings, $120/additional fitting		N
14	Clarence Valley		400	Y	Service connection size* (40mm: $1600)	210 c/kL	Y
67	Cobar		275	Y	Uniform Access Charge for 3 WCs, additional $75/WC		N
10	Coffs Harbour	Coffs Harbour	682*water meter factor*discharge factor	Y	Based on water meter factor	178 c/kL	Y
99	Coolamon	Coolamon & Gainmain	280	Y	Uniform Access Charge	for >2 Pedestals, $79/Pedestal	N
50	Cooma-Monaro	Cooma,Nimmitabel	738	Y	$738 for consumption < 100 kL, increasing to $17538 for consumption > 8,000 kL		N
75	Coonamble	Coonamble	346	Y	Uniform Access Charge	81 c/kL	Y
		Gulargambone	492	Y	Uniform Access Charge	97 c/kL	
58	Cootamundra	Cootamundra	168	Y	Meter Size* 40mm:$672	161 c/kL	Y
42	Corowa	Corowa, Howlong & Mulwala	314	Y	Service connection size (40mm:$1254)	103 c/kL	Y
26	Country Energy	Broken Hill	590	Y	Service connection size* (40mm:$2360.42)	103 c/kL	Y
39	Cowra	Cowra	574+125	Y	Uniform Access Charge	$63/cistern	N
54	Deniliquin	Deniliquin	444	Y	Uniform Access Charge	38 c/kL	N
18	Dubbo	Dubbo	284	Y	Service connection size* (40mm: $1134.44)	154 c/kL	Y
15	Eurobodalla	Eurobodalla	712	Y	Meter Size (Availability Factor based)* (eg. 40mm $2848)	77 c/kL	Y
51	Forbes	Forbes	435	Y	Service Connection Size* 40mm:1740	127 c/kL	Y

Table 7B: Sewerage – 2010-11 non-residential 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)	Subtantial Compliance with 2(c) of BPMG Yes/No (5)
84	Gilgandra	Gilgandra	200	Y	Service Connection Size*(40mm:$793)	101 c/kL	Y
60	Glen Innes Severn	Glen Innes	163	Y	Service Connection Size*(40mm:$652)	90 c/kL	Y
1	Gosford	Gosford	361	Y	Meter Size*(40mm $1444.13)	103 c/kL	Y
20	Goulburn Mulwaree	Goulburn	345	Y	Meter Size* (40mm: $1390)	245 c/kL	Y
		Marulan	765	Y	Meter Size* (40mm: $3045)	245 c/kL	
80	Greater Hume	Burrumbuttock	118	Y	Service Connection Size(40mm:$382)	90 c/kL	Y
		Jindera	135	Y	Service Connection Size(40mm:$219)	90 c/kL	
		Holbrook	131	Y	Service Connection Size(40mm:$227)	90 c/kL	
		Culcairn	156	Y	Service Connection Size(40mm:$252)	90 c/kL	
		Henty	150	Y	Service Connection Size(40mm:$250)	90 c/kL	
		Walla Walla	183	Y	Service Connection Size(40mm:$286)	90 c/kL	
30	Griffith	Griffith	381	Y	Service Connection Size* (40mm:$1308)	135 c/kL	Y
94	Gundagai	Gundagai	105	Y	Service Connection(40mm:$420)	152 c/kL	Y
44	Gunnedah	Gunnedah	179	Y	Service Connection Size (40mm:$716)	24 c/kL	Y
		Curlewis	189	Y	Service Connection Size(40mm:$756)	24 c/kL	
90	Guyra	Guyra	515	Y	Uniform Access Charge	Ist WC/Urinal covered by rate, 2 to 6: $219/WC or Urinal, All additional: $110/WC or Urinal	N
		Tingha	361	Y	Uniform Access Charge		
81	Gwydir	Bingara, Warialda	410	Y	Meter Size(eg 40mm:1640)	245 c/kL	Y
76	Harden	Harden	206	Y	Service Connection*(eg 40mm:$824)	157 c/kL	Y
7	Port Macquarie-Hastings	Hastings	617	Y	Uniform Access Charge	94 c/kL	Y
30A	Hawkesbury	Category 1, Vol < 1kL/d	575	Y	Uniform Access Charge		N
		Category 2, Vol : 1kL to 5 kL/d	2883	Y	Uniform Access Charge		
		Category 3, Vol < 5kL to 10 kL/d	5743	Y	Uniform Access Charge		
		Category 4, Vol : 10kL to 20 kL/d	11451	Y	Uniform Access Charge		
		Category 5, Vol > 20 kL/d	11451	Y	Uniform Access Charge	for waste > 20 kL/d, 206c/kL	
86	Hay	Hay	463	Y	Uniform Access Charge	98 c/kL	Y
37	Inverell	Inverell, Ashford, Delungra, Gilgai	385	Y	Uniform Access Charge		N
106	Jerilderie	Jerilderie	500	Y	Service Connection*(eg 32mm:1280)	70 c/kL	Y
77	Junee	Junee	344	Y	$86.20/WC, $33.20/Urinal		N
25	Kempsey	Kempsey	563	Y	Meter Size(eg 40mm:$2250)	154 c/kL	Y
70	Kyogle	Kyogle	224	Y	Service Connection Size*(40mm:$896)	91 c/kL	Y
59	Lachlan	Lachlan	250	Y	Service Connection*(eg 40mm:$1000)	105 c/kL	Y
48	Leeton	Leeton	438	Y	Uniform Access Charge	70 c/kL	Y
22	Lismore	Lismore, Nimbin & Perradenya	607	Y	Uniform Access Charge		Y
31	Lithgow	Lithgow,Wallerawang, Portland	560	Y	Service Connection Size(50mm:$740)	112 c/kL	Y
61	Liverpool Plains	Quirindi, Werris Creek	233	Y	Service Connection Size*(40mm:$938)	145 c/kL	Y
102	Lockhart	Lockhart	386	Y	Uniform Access Charge	172 c/kL	Y
		The Rock	664	Y	Uniform Access Charge	78 c/kL	
5	MidCoast		630	Y	Meter Size*(eg 40mm: $2520)	214 c/kL	Y
32	Mid Western Regional	Mudgee, Gulgong & Rylstone	400	Y	Uniform Access Charge		N
38	Moree Plains Shire	Moree, Mungindi, Balone, Bogabilla and Gurly	610	Y	Service Connection Size (40mm:$1460)	110 c/kL	Y
65	Murray	Moama, Mathoura	266	Y	Service Connection Size*(40mm:$1064.70)	50.5 c/kL	Y
101	Murrumbidgee	Darlington Point	300	N	Land Value		N
		Coleambally	250	N	Land Value		
41	Muswellbrook	Muswellbrook, Denman	215	Y	Service Connection Size*(40mm:$860)	168 c/kL	Y
34	Nambucca	Nambucca	186	Y	Service Connection Size (40mm:$574)	220 c/kL	Y

Table 7B: Sewerage – 2010-11 non-residential 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)	Subtantial Compliance with 2(c) of BPMG Yes/No (5)
46	Narrabri	Narrabri	492	Y	Uniform Access Charge	$75/Pedestal, $75/Cistern	N
		Wee Waa	502	Y	Uniform Access Charge	$76/Pedestal, $76/Cistern	
		Bogabri	382	Y	Uniform Access Charge	$58/Pedestal, $58/Cistern	
63	Narrandera	Narrandera	332	Y	Service Connection Size* (40mm:$1328)	117 c/kL	Y
62	Narromine	Narromine, Trangie	168	Y	Service Connection Size*(40mm:$672)	170 c/kL	Y
83	Oberon	Oberon	100	Y	Service Connection Size*(38mm:$361)	122 c/kL	Y
19	Orange	Orange	105	Y	Service connection Size 40mm: $420.80	142 c/kL	Y
71	Palerang	Bungendore	920	Y	Service connection Size 40mm:$3681	278 c/kL	Y
		Braidwood	1370	Y	Service connection Size 40mm:$5479	159 c/kL	
		Captains Flat	1061	Y	Service connection Size 40mm:$4244	284 c/kL	
36	Parkes	Parkes	194	Y	Meter Size* (40mm:$776)	104 c/kL	Y
17	Queanbeyan	Queanbeyan	278	Y	Service Connection Size (40mm: $1210)	67 c/kL	Y
33	Richmond Valley	All	114	Y	Service Connection Size*(40mm:$456), C=Water Cons in kL, SDF=0.95	168 c/kL	Y
3	Shoalhaven	Shoalhaven	615	Y	Meter Size (40mm: $1741.95)	95 c/kL	Y
35	Singleton	Singleton	190	Y	Service connection Size* 40mm:4x$190	135 c/kL	Y
52	Snowy River	Snowy River	450	Y	Meter Size (40mm: $1800)	202 c/kL	Y
13	Tamworth	Tamworth	510	Y	Meter Size (40mm: $1523.80)	83 c/kL Strata lot availability:$695	Y
69	Temora	Temora	202	Y	Meter Size* (40mm: $810.30)	25 c/kL	Y
68	Tenterfield	Tenterfield, Urbenville	374	Y	Service Connection Size*(40mm:$1496)	90 c/kL	Y
93	Tumbarumba	Tumbarumba	256	Y	Meter Size (40mm:$990)	91 c/kL	Y
		Khancoban	256	Y	Meter Size (40mm:$1025)	91 c/kL	
43	Tumut	Tumut	539	Y	Meter Size* (40mm:$2157)	166 c/kL	Y
6	Tweed	Tweed	568	Y	Uniform Access Charge	105 c/kL for >200 kL/y	Y
45	Upper Hunter	Murrurundi, Merriwa, Aberdeen/Scone	474	Y	Meter Size (40mm $953)	73 c/kL	Y
73	Upper Lachlan	Crookwell	618	Y	Uniform Access Charge	195 c/kL	Y
		Gunning	618	Y	Uniform Access Charge	195 c/kL	
		Taralga	402	Y	Uniform Access Charge	195 c/kL	
85	Uralla	Uralla	314	Y	Uniform Access Charge	100 c/kL	Y
107	Urana		227	Y	Uniform Access Charge		
9	Wagga Wagga	Wagga Wagga	812	Y	Access charge includes first 4 pan equivalent fixtures. Additional $95/equivalent fixture	150 c/kL	N
88	Wakool	Wakool, Barham, Moulamein, Murray Downs	509	Y	Hotels: SC+20%SC/Cistern+10%SC/Room, Clubs: SC+20%SC/Cistern, Shops/Motels/Units: SC+10%SC		N
		Tooleybuc	472	Y	Hotels: SC+20%SC/Cistern+10%SC/Room, Clubs: SC+20%SC/Cistern, Shops/Motels/Units: SC+10%SC		
98	Walcha	Walcha	401	Y	Service Connection Size*(40mm:4x20mm Access Charge))	94 c/kL	Y
79	Walgett	Walgett	372	Y	Uniform Access Charge Additional SC/Pedestal, $58.33/Cistern		Y
		Lightening Ridge	353	Y	Uniform Access Charge Additional SC/Pedestal, $54.96/Cistern		
		Collarenebri	403	Y	Uniform Access Charge Additional SC/Pedestal, $63.23/Cistern		
96	Warren	Warren	470	Y	Uniform Access Charge for multiple users:$235/WC/Urinal	$235/WC	N
		Nevertire	495	Y	Uniform Access Charge		
55	Warrumbungle	Coolah	346	Y	Meter Size* (40mm $1264.32)	18 c/kL	Y
		Dunedoo	278		Meter Size* (40mm $1111.24)	26 c/kL	
		Coonabarabran	175	N	Meter Size* (40mm $700)	119 c/kL	
		Baradine	265	Y	Meter Size* (40mm $1060.84)	52 c/kL	
95	Weddin	Grenfell	247	Y	Uniform Access Charge		N
57	Wellington	Wellington, Mumbli, Guerie	286	Y	Meter Size* (40mm $1145.04)	74 c/kL	Y
74	Wentworth	Wentworth, Nimatjira	620	Y	Uniform Access Charge		N
16	Wingecarribee	Wingecarribee	477	Y	Meter Size* (40mm: $1908)	97 c/kL	Y
2	Wyong	Wyong	158	Y	Meter Size* (40mm: $630.30)	78 c/kL	Y
56	Yass Valley	Yass	530	Y	Uniform Access Charge	160 c/kL	Y
49	Young	Young	550	Y	Uniform Access Charge	after 2 WCs, $275/WC	N

Table 7C: Sewerage – Liquid trade waste fees and charges (2010-11)

	WATER UTILITY	Does LWU have complying Liquid Trade Waste Policy[1,2] ? (1) 2009-10	Complying Trade Waste Fees & Charges (Yes/No) (2)	All liquid trade waste approvals (Yes/No) (3)	ANNUAL TRADE WASTE FEE ($) Category 1 (4)	Category 2 (6)	Category 3 (7)	Reinspection Fee $/inspection Cat/1/2/3 (8)	Category 2 Trade Waste Usage Charge (c/kL) (9)	Category 2 Non Compliance Trade Waste Usage Charge ($/kL) (9A)	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	66				140	6.5	28	18	45	
29	Armidale Dumaresq	Yes*	Yes	Yes	214	245	600		28		54	68	95	
24	Ballina	Yes	Yes	Yes	70	135	450	100	120	11.5	57	75	250	Yes
100	Balranald		No		110	110	495	75	125	12.5	62	79	111	
21	Bathurst Regional	Yes	Yes		80	80	537	75	170	14	69	88	123	
23	Bega Valley	Yes	Yes		100			50	100	9				Yes
47	Bellingen	Yes	Yes		80			115	120					
53	Berrigan		No											
72	Bland		No						10					
78	Blayney	Yes	Yes	Yes	74	74	283	69	115	14	44	43	87	Yes
89	Bogan	Yes	No											
97	Bombala		No		84	84	551		18					
104	Boorowa	Yes	Yes		134	134	134	62						
87	Bourke	Yes	No											
105	Brewarrina		No											
27	Byron	Yes	Yes	Yes	254				180	12.5	105	130	150	
91	Cabonne	Yes	Yes		80	159	536.5	74.8	140	13.7	60	80	110	Yes
92	Carrathool		No											
103	Central Darling		Yes											
14	Clarence Valley	Yes	Yes		103		694	120	199	17.25				
67	Cobar	Yes	Yes	Yes	250	500	EMC + 100				10	25	25	
66	Cobar WB										18	18	32	
10	Coffs Harbour	Yes	Yes		170			110	120	11	54	69	97	Yes
99	Coolamon		No											
50	Cooma-Monaro		No											
75	Coonamble		No											
58	Cootamundra		Yes											
42	Corowa	Yes	Yes		74	148	496	69	138	12.68	62	80	112	Yes
26	Country Energy	Yes	Yes		85	567.03		79.12	158	14.51	71	91	127	Yes
39	Cowra	Yes	Yes		78	155	525	71	143	13.08	64	82	115	Yes
54	Deniliquin	Yes	Yes		64	128	300	60	15	1.37	54	69	97	
18	Dubbo	Yes	Yes	Yes	150	717	717	142	154	13.7	135	112	246	
15	Eurobodalla	Yes	Yes	Yes	76	446	446	79	210	15	60	80	110	
51	Forbes	Yes	Yes		114	114.3		114.3	57					
84	Gilgandra	Yes*	Yes	Yes	90			90	158		60	100		
60	Glen Innes Severn	Yes	Yes		162	162	564	79		13.2				
1	Gosford	Yes	Yes	Yes	156	269	339	144	149	12.7	149	149	770	
20	Goulburn Mulwaree	Yes	Yes	Yes	82	300	300	66	212	19.15	67	86	120	
80	Greater Hume		No											
30	Griffith	Yes	Yes	Yes	72	177	486	65	110	6.5	127	123		Yes
94	Gundagai		Yes		99				184					
44	Gunnedah	Yes	Yes		132	132	265	60	125	11	56	71	100	
90	Guyra	Yes*	Yes	Yes	98						52	65	72	
81	Gwydir	Yes	Yes		64	64	430	60	120	11				
76	Harden		No		158			158						
7	Port Macquarie-Hastings	Yes*	Yes	Yes	170	170	525	90	140	13	65	80	115	
30A	Hawkesbury	Yes	No						103		220	191	269	Yes
86	Hay	Yes	No	Yes										
37	Inverell	Yes	No											
106	Jerilderie		No											
77	Junee													
25	Kempsey	Yes	Yes	Yes	90	90	90	103	155	13.78	100	200	200	

Table 7C: Sewerage – Liquid trade waste fees and charges (2010-11) (continued)

	WATER UTILITY	Does LWU have complying Liquid Trade Waste Policy[1,2] ? (1) 2009-10	Complying Trade Waste Fees & Charges (Yes/No) (2)	All liquid trade waste approvals (Yes/No) (3)	ANNUAL TRADE WASTE FEE ($) Category 1 (4)	Category 2 (6)	Category 3 (7)	Reinspection Fee $/inspection Cat/1/2/3 (8)	Category 2 Trade Waste Usage Charge (c/kL) (9)	Category 2 Non Compliance Trade Waste Usage Charge ($/kL) (9A)	Excess Mass Charge (c/kg) BOD (10)	Suspended Solids (11)	Oil & Grease (12)	Non Compliance Excess Mass Charge for BOD (Yes/No) (13)
70	Kyogle	Yes	Yes	Yes	72	72	477	68	100	11	54	69	97	Yes
59	Lachlan	Yes	Yes	Yes	75	75	515	72.5	120	12.8				
48	Leeton	Yes	Yes		138	138	531.5	77	156	14.23	57	91	126	Yes
22	Lismore	Draft - Yes*	Yes	Yes	85	84.5		93			64	80	110	
31	Lithgow	Yes	Yes	Yes	141	210	384	74	147	13.5				Yes
61	Liverpool Plains	Yes	Yes		77	77	513	73	300	14	150	150	250	
102	Lockhart		Yes		69	162	462	65	75	6.2	110	112		
5	MidCoast	Yes	Yes	Yes	110	132	474	88	220	10.1	49	49	68	Yes
32	Mid Western Regional		No	Yes										
38	Moree Plains	Yes	Yes		70	148	496	69	138	12.68				
65	Murray	Yes	Yes		100	200	300	100	125	11	58	74	102	
101	Murrumbidgee	Yes	Yes											
41	Muswellbrook	Yes	Yes	Yes	78	78	Variable	93	90	14.35	59	76	104	Yes
34	Nambucca	Yes	Yes	Yes	79	133	133	116	152	14	100	100		
46	Narrabri	Yes*	Yes	Yes	540	780	800	120	200		200			
63	Narrandera		No											
62	Narromine	Yes	Yes		75	75	495	71	170					
83	Oberon	Yes	Yes						135					
19	Orange	Yes	Yes	Yes	68	68.25	458.4	63.95	142	11.73	44	48	85	Yes
71	Palerang		No											
36	Parkes	Yes	Yes	Yes	167	167	620	85	150	14				
17	Queanbeyan	Yes	Yes	Yes	80	80	520	78	147	12.55	202	190	122	
33	Richmond Valley	Yes	Yes		74	148	496	140	138	12.68	62	80	112	
3	Shoalhaven	Yes	Yes	Yes	106	132	510	66	147	13.77	66	83	119	
35	Singleton	Yes	Yes	Yes	78	78	78	93	90	14.35	59	76	104	
52	Snowy River	Yes	Yes		85	85	85	110	152	13.93	300	193	160	
13	Tamworth Regional	Yes	Yes	Yes	128	128	567	83	124	14.15	71	91	128	Yes
69	Temora		No											
68	Tenterfield	Yes	Yes	Yes	110	110	495	75	125	12.5	62	79	111	
93	Tumbarumba	Yes	Yes	Yes	67			63	130	11.5	72	102	170	Yes
43	Tumut	Yes	Yes	Yes	120	250	526	117		4.1	135	125	225	
6	Tweed	Yes	Yes	Yes	83	165.3	620	77	151	9.7	70	90	120	Yes
45	Upper Hunter	Yes	Yes		313			94		13	65	84	114	
73	Upper Lachlan	Yes	Yes		75	75	575	73	120	12.8				
85	Uralla		Yes	Yes	68			120						
107	Urana		No											
9	Wagga Wagga	Yes	Yes	Yes	81		546	76	152	13.97	68	88	123	
88	Wakool		No											
98	Walcha	Draft	Yes		76	152		77	143	13.18				
79	Walgett	Yes	Yes											
96	Warren	Yes	No											
55	Warrumbungle		No		70	70		70	119	11				
95	Weddin	Yes	No											
57	Wellington	Yes	Yes	Yes	70			62	134	12.51				
74	Wentworth		No											
16	Wingecarribee	Yes	Yes	Yes	76	146	494	70	200	13	64	82	115	
2	Wyong	Yes	Yes	Yes	80	318	534	75	54	13.66	66	85	119	Yes
56	Yass Valley	Yes	Yes	Yes	82	154	461	75	125					
49	Young	Yes*	Yes		88	88		88						

Notes:

1. Yes* in column 1 indicates that the LWU has adopted a trade waste policy before 2006, which needs to be updated.
2. Draft in column 1 indicates that the LWU has prepared a draft trade waste policy which needs to be finalised.
3. 76% of LWUs have a complying trade waste policy and 73% of LWUs have complying trade waste fees and charges.

Table 8: 2009-10 NSW urban water supplied

	WATER UTILITY	POTABLE URBAN WATER SUPPLIED (ML) (Excludes bulk water)											NON-POTABLE URBAN WATER SUPPLIED (ML) (Excludes bulk water)				TOTAL URBAN WATER SUPPLIED	BULK WATER EXPORTS	RECYCLED URBAN + NON-URBAN		WATER SOURCES FOR URBAN WATER USE (ML)				
		REVENUE WATER (Potable)							NON REVENUE WATER (Potable) See Table 8A				Recycled Urban Water[11]	Non-potable Urban											
		Residential	Commercial	Industrial	Rural	Institutional	Public Parks & Gardens	Total Revenue Water (Potable)	Real Loss (Leakage)[7]	Apparent Loss (illegal use, meter error)	Unbilled (Fire Fighting, Flushing, Public Amenities)	Total Non Rev Water Sum (8) to (8b) See Table 8A	Total Potable Urban Water Revenue + Non Revenue Water (7) + (9)	Urban Res	Urban Non Res	Other than Recycled Res	Other than Recycled Non Res	TOTAL Non-Potable Urban Water (11)+(11a)+(12a)+(12b)	(Potable + Non-potable including Recycled Urban) Excludes Bulk Water =(10)+(12c)	(Potable + Non-potable)	NON-URBAN See Table 8A[11]	TOTAL URBAN + NON-URBAN (11) + (11a) + (11b)	Surface Water	Ground Water	Recycled Water Urban Use Only	Bulk Purchase	Total Sourced Water Excluding Non Urban Recycled =Sum (15) to (17)
		Sum (1) to (6)						(7)	(8) [W10]	8a) [W10]	(8b) [W10]	(9) [W10]	(10) [W11]	(11) [W8] W20	(11a) W21, W25	(12a) [W8]	(12b) [W9]	(12c)	(13) W11	(14) W14	(11b) W22, W23, W24	(11c) W26	(15) W1	(16) W2	(16b) W4	(17) W5	(17b) W7
	Sydney Water Corporation													2,209	7,537				505,650	0	23,937	33,683	6,065		10,253	479,633	515,903
	Hunter Water Corporation														2,648				68,233	2,316	2,700	5,348	63,433		2,899		73,449
	Sydney Catchment Authority																			481,961			582,623				582,623
LWUs with > 10,000 Properties																											
1	Gosford	9,848	1,162	405	12	287	279	11,993	1,124	269	208	1,601	13,594		14			14	13,608		348	362	11,476	96	14	2,120	13,706
2	Wyong	8,767	3,205					11,972	644	344		988	12,960		940			940	13,900	4,491	84	1,024	13,480	292	940	3,595	18,307
3	Shoalhaven	6,200	1,870	2,447	692	125	112	11,446	1,156	243	57	1,456	12,902		144	8	2,180	2,332	15,234		2,285	2,429	14,724		144	87	14,955
4	Rous (Bulk Supplier) (NO SGE)	286	28		1,093			1,407	160			160	1,567						1,567	10,789			12,070				12,070
5	MidCoast (Unfiltered)	5,209	1,475	640		145	115	7,584	1,021	375	183	1,579	9,163						9,163		729	729	8,477	687			9,164
6	Tweed	5,281	1,855	18	617	216	187	8,174	773	678	49	1,500	9,674		778			778	10,452	1	44	822	10,555		778	9	11,342
7	Port Macquarie-Hastings (Unfiltered)	4,329	987	33	42	311	50	5,752	*383*	*227*	29	*639*	*6,391*		109			109	*6,500*		260	369	6,283		109		6,392
8	Riverina (Groundwater) (NO SGE)	8,678	2,388	1,021	1,035	595	434	14,151	553	298	851	1,702	15,853						15,853				4,463	10,517		22	15,002
10	Coffs Harbour (Unfiltered)	4,194	1,009	129		160	154	5,646	*376*	*161*	90	*627*	*6,273*		346			346	*6,619*		683	1,029	5,976		346		6,322
11	Albury	4,527	605	260	32	428	259	6,111	*407*	*238*	34	*679*	*6,790*				8	8	*6,798*	328	4,358	4,358	6,881				6,881
12	Fish River WS (Unfiltered, Bulk Supplie			14	86	1		491	968			968	1,459						1,459	3,999			5,124				5,124
13	Tamworth Regional	4,733	968	1,428	149	385	521	8,184	1,016	106	48	1,170	9,354				88	88	9,442		1,850	1,850	8,966	678			9,644
14	Clarence Valley	3,173	1,050	405	527		93	5,248	907	308	40	1,255	6,503		165	68		233	6,736			165	7,057		165		7,222
15	Eurobodalla (Unfiltered)	2,128	550		44	134	15	2,871	1,081	62	20	1,163	4,034		281			281	4,315		89	370	4,034		281		4,315
16	Wingecarribee	3,239	551	29	168	126	48	4,161	540	88		628	4,789		73			73	4,862			73	1,512		73	3,628	5,213
17	Queanbeyan (Reticulator)	2,985	276	271		43	153	3,728	433	100	18	551	4,279						4,279		47	47				3,747	3,747
18	Dubbo	4,908	601	135	26	450	500	6,620	885	146	41	1,072	7,692						7,692		2,281	2,281	6,398	1,663			8,061
19	Orange	2,145	420	114	52	209	24	2,964	466	466		932	3,896		3,033			3,033	6,929			3,033	3,896	55	3,033		6,984
20	Goulburn Mulwaree	1,271	237	230	13	211	30	1,992	*133*	*89*		*221*	*2,213*						*2,213*	3	1,261	1,261	2,443				2,443
21	Bathurst Regional	3,364	1,150	802	26	55		5,397	362	*213*	27	*602*	*5,999*			2		2	*6,001*	6	3,636	3,636	6,617				6,617
22	Lismore (Reticulator)	2,152	813		113			3,078	616	80	17	713	3,791						3,791	4	30	30	173			3,622	3,795
23	Bega Valley (Unfiltered)	2,144	588	80	136	126	54	3,128	243	216	13	472	3,600		613			613	4,213		214	827	1,450	2,017	613		4,080
24	Ballina (Reticulator)	2,447	727					3,174	789	67	20	876	4,050		717			717	4,767		51	768	130		717	3,900	4,747
25	Kempsey (Groundwater)	1,874	451	181	427	125	27	3,085	261	239	149	649	3,734		40			40	3,774	27	15	55	1,396	2,338	40		3,774
26	Country Energy	2,664	309	970		299	30	4,272	*285*	*190*		*475*	*4,747*		622	12	545	1,179	*5,926*			622	1,030		622	3,929	5,581
27	Byron (Reticulator)	1,855	723					2,578	353	8	15	376	2,954		218			218	3,172	5	259	477	392		218	2,617	3,227
28A	Goldenfields (Reticulator) (NO SGE)	1,775	467	112	1,804	161	215	4,534	352	107	45	504	5,038			22	105	127	5,165							5,179	5,179
28B	Goldenfields (Bulk Supplier) (NO SGE)																			8,716			3,817	4,509		390	8,716
	Totals (excluding bulk suppliers) for LWUs with >10,000 Properties												*173,300*	*0*	*8,093*	*112*	*2,926*	*11,131*	*184,430*	*28,369*	*18,524*	*26,617*	*148,820*	*22,852*	*8,093*	*32,845*	*212,610*
LWUs with 3,001 - 10,000 Properties																											
29	Armidale Dumaresq	1,656	236			402	41	2,335	*156*	*104*		*259*	*2,594*			45		45	*2,639*		853	853	2,665				2,665
30	Griffith	3,894	1,419		773		217	6,303	405	*247*	33	*685*	*6,988*			164	584	748	*7,736*		188	188				7,643	7,643
31	Lithgow	1,017	329					1,346	*90*	*60*		*150*	*1,496*						*1,496*								
32	Mid-Western Regional	1,346	319	93		78	272	2,108	172	243	13	428	2,536						2,536		166	166	2,369	180			2,549
33	Richmond Valley	1,204	422	1,086	27		34	2,773	335	58	14	407	3,180						3,180		344	344	2,460			707	3,167
34	Nambucca (Groundwater)	800	400	26	83	49	18	1,376	97	*53*	8	*158*	*1,534*						*1,534*		131	131		1,615			1,615
35	Singleton	1,549	303	247	47	243		2,389	*159*	*106*		*265*	*2,654*						*2,654*		393	393	2,556				2,556
36	Parkes	1,684	219	3,265	137	146	450	5,901	465	92	148	705	6,606		98	23		121	6,727		80	178	2,056	2,578	98	431	5,163

Table 8: 2009-10 NSW urban water supplied (continued)

	WATER UTILITY	POTABLE URBAN WATER SUPPLIED (ML) (Excludes bulk water)											NON-POTABLE URBAN WATER SUPPLIED (ML) (Excludes bulk water)					TOTAL URBAN WATER SUPPLIED	BULK WATER EXPORTS	RECYCLED URBAN + NON-URBAN		WATER SOURCES FOR URBAN WATER USE (ML)				
		REVENUE WATER (Potable)							NON REVENUE WATER (Potable) See Table 8A				Total Potable Urban Water	Recycled Urban Water[11]		Non-potable Urban		TOTAL Non-Potable Urban Water			NON-URBAN	TOTAL					
		Residential	Commercial	Industrial	Rural	Institutional	Public Parks & Gardens	Total Revenue Water (Potable)	Real Loss (Leakage)[7]	Apparent Loss (illegal use, meter error)	Unbilled (Fire Fighting, Flushing, Public Amenities)	Total Non Rev Water Sum (8) to (8b) See Table 8A	Revenue + Non Revenue Water (7) + (9)	Urban Res	Urban Non Res	Other than Recycled Res	Other than Recycled Non Res	(11)+(11a)+(12a)+(12b)	Excludes Bulk Water =(10)+(12c)		See Table 8A[11]	URBAN + NON-URBAN	Surface Water	Ground Water	Recycled Water	Bulk Purchase	Total Sourced Water Excluding Non Urban Recycled
		Sum (1) to (6)												(11)	(11a)						(11b)	(11) + (11a) + (11b)	Urban Use Only			=Sum (15) to (17)
		(1) [W8]	(2) [W9]	(3) [W9]	(4) [W9]	(5) [W9]	(6) [W9]	(7)	(8) [W10]	8a) [W10]	(8b) [W10]	(9) [W10]	(10) [W11]	[W8] W20	W21, W25	(12a) [W8]	(12b) [W9]	(12c)	(13) W11	(14) W14	W22, W23, W24	(11c) W26	(15) W1	(16) W2	(16b) W4	(17) W5	(17b) W7
37	Inverell	1,350	200	400			150	2,100	*140*	100		*240*	*2,340*						*2,340*				150	36		2,164	2,350
38	Moree Plains (Groundwater)	2,327	176	25			176	2,704	409	70		479	3,183		271	73	4	348	3,531	1	475	746	457	2,132	271		2,860
39	Cowra	963	349	275	359	34	104	2,084	353		353	706	2,790						2,790	6	698	698	2,345	14			2,359
40	Central Tablelands (NO SGE)	790	231	315	287	41	28	1,692	112	*25*	50	*187*	*1,879*						*1,879*	156			1,744	266			2,010
41	Muswellbrook	1,473	405	73		95	104	2,150	140	*83*	12	*235*	*2,385*		912			912	*3,297*			912	2,329	26	912		3,267
42	Corowa	1,079	221	524	3	42	107	1,976	120	*87*		*207*	*2,183*						*2,183*		334	334	2,190				2,190
43	Tumut	779	102	186	49	25	31	1,172	*78*	*35*	17	*130*	*1,302*		106	1	44	151	*1,453*		47	153	1,458	50	106		1,614
44	Gunnedah (Groundwater)	1,413	168	217	28	107	136	2,069	*138*	*92*		*230*	*2,299*						*2,299*		605	605		2,337			2,337
45	Upper Hunter	1,808	255	404	12	17	123	2,619	*175*	*116*		*291*	*2,910*		135			135	*3,045*		30	165	1,583	443	135		2,161
46	Narrabri (Groundwater)	2,002		1				2,003	200	*92*		*292*	*2,295*						*2,295*		37	37		2,817			2,817
47	Bellingen (Unfiltered)	635	372			144		1,151	*77*	*14*	37	*128*	*1,279*						*1,279*	1			163	1,059			1,222
48	Leeton	1,515	360	175	40	66	325	2,481	300	110	65	475	2,956						2,956	30	20	20	2,576				2,576
49	Young (Reticulator)	860						*1,372*	*90*	*60*		*151*	*1,523*						*1,523*		506	506				1,340	1,340
50	Cooma-Monaro	648	169	112	91		84	1,104	*74*	*49*		*123*	*1,227*						*1,227*		167	167	1,230	41			1,271
51	Forbes	1,054	400	36	7	97	20	1,614	*108*	*62*	10	*179*	*1,793*				156	156	*1,949*	307	528	528	1,020	1,147			2,167
52	Snowy River (Unfiltered)	478	94	41	16	60	1	690	140		16	156	846						846				968				968
53	Berrigan (Dual Supply)	490	113	1	23	24	47	698	105	8		113	811		145	355	250	750	1,561			145	1,748		145		1,893
54	Deniliquin	1,371						*2,189*	*144*	*96*		*241*	*2,430*						*2,430*		410	410					
55	Warrumbungle	520	150		20	30	6	726	*48*	*32*		*81*	*807*						*807*		113	113	508	510			1,018
56	Yass Valley	490	135				29	654	100	14	70	184	838						838	4	53	53	805	37			842
	Totals (excluding bulk suppliers) for 3,000 - 10,000 Properties												*65,700*	*0*	*1,667*	*661*	*1,038*	*3,366*	*69,030*	*505*	*6,178*	*7,845*	*33,380*	*15,288*	*1,667*	*12,285*	*62,620*
	LWUs with 1,501 - 3,000 Properties																										
57	Wellington	537	180	12		85	52	866	246	67	5	318	1,184						1,184				1,111	73			1,184
58	Cootamundra (Reticulator)	456	104	12	2	46	7	627	80			80	707		204			204	911			204			204	707	911
59	Lachlan	767	132	41	102	30	18	1,090	124	32	27	183	1,273		119	26	12	157	1,430	19	19	138	1,056	118	119	107	1,400
60	Glen Innes Severn	402	106			22	1	531	112	9	3	124	655		59			59	714		14	73	654		59		713
61	Liverpool Plains	575	77	26	20	43	76	817	65	29	9	103	920						920	13			263	827			1,090
62	Narromine (Groundwater)	803	68		1	1	67	940	72	54	45	171	1,111						1,111	35	29	29	15	1,094		37	1,146
63	Narrandera (Groundwater)	661						*1,056*	*70*	*46*		*116*	*1,172*						*1,172*					222			222
65	Murray (Dual Supply)	422	185	1	4	7	1	620	75	16		91	711			282	149	431	1,142	3	128	128	1,385				1,385
66	Cobar WB (NO SGE)												*0*			29	1,514	1,543	*1,543*	962			3,279	72			3,351
67	Cobar	578	94	38	18	1	49	778	40	*35*		*75*	*853*		100	1		101	*954*			100			100	1,058	1,158
68	Tenterfield	235	40	2	2	2	4	376	*25*	*17*		*42*	*418*		50			50	*468*	15	15	65	357		50		407
70	Kyogle	247	49	24	38	22	6	386	29	20		49	435		26			26	461		323	349	364		26	71	461
71	Palerang	334	87				20	441	*29*	*20*		*49*	*490*						*490*				197	259			456
73	Upper Lachlan	120	40	2	1	20	40	223	*18*	30	25	*73*	*296*						*296*				396	25			421
74	Wentworth (Dual Supply)	245	55			1		301	*55*		559	*614*	*915*			528	*96*	*624*	*1,539*				1,619				1,619
76	Harden (Reticulator)	409	65	1	187	10		672	*45*	*24*	6	*75*	*747*		275			275	*1,022*		75	350			275	678	953
75	Coonamble (Groundwater)	687	51	10	59	25	64	896	*60*	*25*	15	*100*	*996*		34			34	*1,030*	13	42	76		929	34		963
79	Walgett (Dual Supply)	270						*431*	*28*	*19*		*47*	*478*			*1,186*		*1,186*	*1664*		517	517					
80	Greater Hume	322	50	2	48	2	4	428	*29*	25	6	*60*	*488*		59			59	*547*	8		59		169	59	314	542
	Totals (excluding bulk suppliers) for 1,500 - 3,000 Properties												*13,800*	*0*	*926*	*2,052*	*1,771*	*4,749*	*18,600*	*1,068*	*1,162*	*2,088*	*10,696*	*3,788*	*926*	*2,972*	*18,382*

Table 8: 2009-10 NSW urban water supplied (continued)

	WATER UTILITY	POTABLE URBAN WATER SUPPLIED (ML) (Excludes bulk water)											NON-POTABLE URBAN WATER SUPPLIED (ML) (Excludes bulk water)				TOTAL URBAN WATER SUPPLIED	BULK WATER EXPORTS (Potable + Non-potable)	RECYCLED URBAN + NON-URBAN		WATER SOURCES FOR URBAN WATER USE (ML)				
		REVENUE WATER (Potable)							NON REVENUE WATER (Potable) See Table 8A				Recycled Urban Water[11]	Non-potable Urban					NON-URBAN	TOTAL					
		Residential	Commercial	Industrial	Rural	Institutional	Public Parks & Gardens	Total Revenue Water (Potable)	Real Loss (Leakage)[7]	Apparent Loss (illegal use, meter error)	Unbilled (Fire Fighting, Flushing, Public Amenities)	Total Non Rev Water Sum (8) to (8b) See Table 8A	Total Potable Urban Water	Urban Res	Urban Non Res	Other than Recycled		TOTAL Non-Potable Urban Water	(Potable + Non-potable including Recycled Urban)		See Table 8A[11]	URBAN + NON-URBAN	Surface Water	Ground Water	Recycled Water	Bulk Purchase	Total Sourced Water
								Sum (1) to (6)					Revenue + Non Revenue Water (7) + (9)			Res	Non Res	(11)+(11a)+(12a)+(12b)	Excludes Bulk Water =(10)+(12c)		(11) + (11a) + (11b)			Urban Use Only		Excluding Non Urban Recycled =Sum (15) to (17)
		(1) [W8]	(2) [W9]	(3) [W9]	(4) [W9]	(5) [W9]	(6) [W9]	(7)	(8) [W10]	8a) [W10]	(8b) [W10]	(9) [W10]	(10) [W11]	(11) W8 W20	(11a) W21, W25	(12a) [W8]	(12b) [W9]	(12c)	(13) W11	(14) W14	(11b) W22, W23, W24	(11c) W26	(15) W1	(16) W2	(16b) W4	(17) W5	(17b) W7
LWUs with 200 - 1,500 Properties																										
81	Gwydir	264	27	9	8	24	72	404	172	50		222	626		43			43	669		12	55	363	418	43		824
82	Gloucester	241	46	26	30	5	13	361	53	1		54	415						415				441				441
83	Oberon (Reticulator)	149	27	318				494	45	29		74	568						568	1	240	240					
84	Gilgandra (Groundwater)	520	120	30	10	15	15	710	80	16	5	101	811						811	5	290	290		721			721
85	Uralla	177	29	3	9	5	9	232	31	4	33	68	300						300	3			303				303
86	Hay (Dual Supply)	221	128					349	23	*16*		*39*	*388*			954		954	*1,342*				1,303				1,303
87	Bourke (Dual Supply)	574	40	3				617	*41*	*27*		*69*	*686*			3,211	155	3,366	*4,052*	1							
88	Wakool (Dual Supply)	215						*344*	*23*	*15*		*38*	*382*			*720*		*720*	*1,102*								
89	Bogan	328						*524*	*35*	*23*		*58*	*582*						*582*				1,500				1,500
90	Guyra	230	200	2		1	5	438	*29*	7	17	*53*	*491*						*491*	1			400			56	456
91	Cabonne	133	43					176	43	4	9	56	232		140	33	7	180	412		2	142	244	11	140		395
92	Carrathool (Groundwater)	586	-42		378		3	925	*62*	*41*		*103*	*1,028*			649		649	*1,677*					1,045		696	1,741
93	Tumbarumba	179	16	27		16	4	242	24	1	35	60	302						302				341	4			345
94	Gundagai	250	125	60	50	8	5	498	50	60	5	115	613		117			117	730	3		117	600		117		717
96	Warren (Dual Supply)	253	23		1		6	283	61	35	6	102	385			299	35	334	719		2	2	334	250			584
97	Bombala	143	8	7		6	1	165	*12*	1	23	*36*	*201*		35			35	*236*			35	400		35		435
98	Walcha	128	39	1	6	11	7	192	*13*	*6*	3	*21*	*213*						*213*	2			204				204
100	Balranald (Dual Supply)	174	5					179	*12*	*8*		*20*	*199*			395		395	*594*		147	147	569				569
101	Murrumbidgee (Groundwater)	379						*606*	*40*	*27*		*67*	*672*						*672*		15	15					
103	Central Darling (Dual Supply)	65						*104*	*7*	*5*		*11*	*116*			*241*		*241*	*357*								
104	Boorowa	180	21	30			18	*249*	*17*	*11*		*28*	*277*	1				1	*278*	5	1	2	220				220
105	Brewarrina	129	74					203	*14*	*9*		*23*	*226*			503		503	*729*		212	212	731	100			831
106	Jerilderie (Dual Supply)	95	33	2		1		131	*9*	*6*		*15*	*146*		10	274		284	*430*			10	402		10		412
	Totals (excluding bulk suppliers) for 200 - 1,500 Properties												*9,900*	*1*	*345*	*7,279*	*197*	*7,822*	*17,680*	*1097*	*921*	*1,267*	*8,355*	*2,549*	*345*	*752*	*12,001*
LWUs without Water Supply																										
9	Wagga Wagga (NO WS)														226			226	226		227	453			226		226
30A	Hawkesbury																				176	176					
69	Temora														80			80	80			80			80		80
72	Bland																				118	118					
77	Junee														164			164	164			164			164		164
78	Blayney														212			212	212			212			212		212
95	Weddin														36			36	36			36			36		36
99	Coolamon														50			50	50		23	73			50		50
102	Lockhart														27			27	27			27			27		27
107	Urana																										
	Total for the 85 LWUs reporting cols (1) & (2) or cols (1) & (3)	145,000	34,300	17,900	8,900	6,700	6,400		21,700			33,400	252,300		11,000	7,900	4,400	23,300	275,600	5,500	25,300	36,300	175,000	39,700	11,000	47,100	267,700
	% of Total Potable Supply (Col(10))	57%	14%	7%	4%	3%	3%		9%			13%															
	TOTAL for all LWUs (excluding double counting for bulk water exports)[3]												263,000		11,800	10,100	5,900	28,000	290,000	31,000	27,200	38,900	201,000	44,500	11,800	48,900	275,000

Table 8: 2009-10 NSW urban water supplied (continued)

Notes:

1. Source: Data provided by the 106 non-metropolitan NSW water utilities for the *2009-10 NSW Water Supply and Sewerage Benchmarking Repor*t. 97 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 2009-10* and have not been included in the totals shown above.
3. 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.
   Similarly, the total water sourced shown in the bottom line of the table excludes double counting between bulk suppliers and reticulators.
4. Incomplete Data: Where a water utility has not reported its residential use (col 1), the residential use has been calculated based on the average percentage of 57% of the Total Potable Urban Water Supplied shown in Note 8.
   Where a water utility has not reported its total potable Urban Water Supplied (col (10), the previous years' reported value has been used and is shown in ***italics bold*** (see also Note 6).
5. Where an LWU has only reported data for 'residential' use but not for 'commercial' or for 'industrial' use, the reported '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 percentage of 57% of the Total Urban Water Supplied shown in Note 8.
6. Non Revenue Water: Non Revenue Water includes Unbilled Water (Unbilled Authorised Supply), Real Losses (mostly Leakage) and Apparent Losses (under registration of customer meters and illegal use).
   Leakage studies for over 40 NSW LWUs together with Statewide analysis of Non Revenue Water for NSW water utilities, indicate Leakage is a minimum of 6% of potable Urban Water Supplied (range 6% to 35%) while Non Revenue Water is a minimum of 10% (comprising Leakage [minimum 6%] and Apparent Loss plus Unbilled Water [minimum 4%]). Recent analysis of reported data for utilities with over 10,000 connected properties tends to corroborate these minimum values. Therefore, for those utilities reporting Non Revenue Water of less than 10% (col (9)), the Non-revenue Water has been increased to 10% of the Urban Water Supplied (col 10) (shown in ***italics bold***), unless the LWU has provided evidence of a lower value of Leakage under Note 7.
   In such a case, the adopted value for Non Revenue Water is the reported Leakage plus 4%.
7. Real Losses (mostly Leakage): Leakage is a component of Non Revenue Water. As described in Note 6 above, a minimum of 6% of the Total Urban Water Supplied (potable) has been adopted for Leakage, unless evidence of a lower value has been provided by the LWU. Therefore, unless corroborated by evidence, (eg. a reservoir drop test, detailed waste metering or night flow analysis of district meter areas (see Table 10)), reported Leakage of less than 6% (column (8)) has been increased to 6% (shown in ***italics bold***).
8. Potable Water Supplied: The above analysis shows that the total 2009-10 urban water supplied for non-metropolitan NSW was 283,000 ML (column (13)), of which 258,000 ML (column (10)) was potable water.
   The average uses as a percentage of the total potable water supply were:
   - Residential - 57% (column (1))
   - Commercial - 14% (column (2))
   - Industrial - 7% (column (3))
   - Non Revenue Water - 13% (column (9c))
9. Non-Potable Water Supplied: The total non-potable urban water supplied was 28,000 ML (column (12c)) which included 11,600 ML recycled urban water supply (column (11)+(11a)).
   The non-potable supply was mainly for outdoor uses in dual water supplies, but also includes supplies to industry and other outdoor uses.
10. The total urban water supplied (column (13)) comprises the sum of the potable water supplied (column (10)) and non-potable water supplied (column (12c)) which includes recycled urban water (columns (11) & (11a)).
11. Recycled water used for non-potable urban water supply is shown in columns (11) & (11a). Recycled water used for non-potable non-urban water supply (agriculture, environmental and on-site use) is shown in column (11b).
    The total volume of recycled water for NSW non-metropolitan water utilities is shown in column (11c). For the utilities that did not report this year but reported >25% recycled water in the previous year, the percentage recycled is assumed to be the same as that of previous year. This results in a volume of recycled water of 39,000 ML (see also Table 15) which is about 24% of the total volume of sewage collected.
    Refer also to Figure 55 on page 92.
12. All LWUs recorded nil for Volume Sourced from Desalination (W3), Bulk Recycled Water Purchased (W6), Water Supplied for Environmental Flows (W13) and Bulk Recycled Water Exports (W15).

Table 8A: 2009-10 potable 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)	NON URBAN RECYCLED WATER		
		REAL LOSS[4] (Leakage)			APPARENT LOSS			UNBILLED WATER[2]	APPARENT LOSS + UNBILLED				TOTAL NON-REVENUE WATER Potable (Real Loss + Apparent Loss + Unbilled)			Excl Bulk Sales	Non Revenue Water + Revenue Water			Agricultural + Other	Environ-mental	On-site
		Reported	Adopted		Reported				Reported		Adopted		Reported	Adopted							
			See note 5	% of Total Potable (2)/(19)	Illegal Use	Under-registration of meters	Total (4)+(5)	Fire Fighting, Mains Flushing	(6) + (9)	% of Total Potable (10)/(19)	See note 5	% of Total Potable (12)/(19)	(1) + (10)	(2) + (12)	% of Total Potable (15)/(19)	Metered and Unmetered (See Table 8)	Total Reported (14) + (17)	Total Adopted (Table 8 Col (10)) (15)+(17)	Potable and Nonpotable (See Table 8)	(ML)	(ML)	(ML)
		(1)	(2)	(3)	(4)	(5)	(6)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20) W14	(21) W22 + W25	(22) W23	(23) W24
	Sydney Water Corporation																		0	3,034	0	15,549
	Hunter Water Corporation																		161	2,623	0	180
LWUs with > 10,000 Properties																						
1	Gosford City Council	1,124	1,124	8%	-	269	269	208	477	4%	477	4%	1,601	1,601	12%	11,993	13,594	13,594				348
2	Wyong Shire Council	644	644	5%	344	-	344	-	344	3%	344	3%	988	988	8%	11,972	12,960	12,960	4,491			84
3	Shoalhaven City Council	1,156	1,156	9%	13	230	243	57	300	2%	300	2%	1,456	1,456	11%	11,446	12,902	12,902		2,261		24
4	Rous County Council	160	160										160	160		1,407	1,567	1,567	10,789			
5	MidCoast County Council	1,021	1,021	11%	192	183	375	183	558	6%	558	6%	1,579	1,579	17%	7,584	9,163	9,163		703		26
6	Tweed Shire Council	773	773	8%	515	163	678	49	727	8%	727	8%	1,500	1,500	16%	8,174	9,674	9,674	1	38		6
7	Port Macquarie-Hastings (Unfiltered)	261	*383*	*6%*	6	116	122	29	151	2%	*256*	*4%*	412	*639*	*10%*	5,752	6,164	*6,391*		207		53
8	Riverina Water County Council	553	553	3%	15	283	298	851	1,149	7%	1,149	7%	1,702	1,702	11%	14,151	15,853	15,853				
10	Coffs Harbour City Council	298	*376*	*6%*	-	-		90	90	1%	*251*	*4%*	388	*627*	*10%*	5,646	6,034	*6,273*		516		167
11	Albury City Council		*407*	*6%*	7	90	97	34	131	2%	*272*	*4%*	131	*679*	*10%*	6,111	6,242	*6,790*	328	4,358		
12	Fish River Water Supply	968	968		-	-		-					968	968		491	1,459	1,459	3,999			
13	Tamworth Regional Council	1,016	1,016	11%	6	100	106	48	154	2%	154	2%	1,170	1,170	13%	8,184	9,354	9,354		1,727		123
14	Clarence Valley Council	907	907	14%	8	300	308	40	348	5%	348	5%	1,255	1,255	19%	5,248	6,503	6,503				
15	Eurobodalla Shire Council	1,081	1,081	27%	4	58	62	20	82	2%	82	2%	1,163	1,163	29%	2,871	4,034	4,034		18		71
16	Wingecarribee Shire Council	540	540	11%	5	83	88		88	2%	88	2%	628	628	13%	4,161	4,789	4,789				
17	Queanbeyan City Council	433	433	10%	100		100	18	118	3%	118	3%	551	551	13%	3,728	4,279	4,279				47
18	Dubbo City Council	885	885	12%	8	138	146	41	187	2%	187	2%	1,072	1,072	14%	6,620	7,692	7,692		2,183		98
19	Orange City Council	466	466	12%		466	466		466	12%	466	12%	932	932	24%	2,964	3,896	3,896				
20	Goulburn Mulwaree Council		*133*	*6%*		-		-			*89*	*4%*		*221*	*10%*	1,992	1,992	*2,213*	3	1,261		
21	Bathurst Regional Council	362	362	6%	-	-		27	27	0%	*240*	*4%*	389	*602*	*10%*	5,397	5,786	*5,999*	6	2,945		691
22	Lismore City Council	616	616	16%	4	76	80	17	97	3%	97	3%	713	713	19%	3,078	3,791	3,791	4	30		
23	Bega Valley Shire Council	243	243	7%	26	190	216	13	229	6%	229	6%	472	472	13%	3,128	3,600	3,600		214		
24	Ballina Shire Council	789	789	19%	4	63	67	20	87	2%	87	2%	876	876	22%	3,174	4,050	4,050		51		
25	Kempsey Shire Council	261	261	7%	90	149	239	149	388	10%	388	10%	649	649	17%	3,085	3,734	3,734	27	9		6
26	Country Energy	142	*285*	*6%*	4	88	92		92	2%	*190*	*4%*	234	*475*	*10%*	4,272	4,506	*4,747*				
27	Byron Shire Council	353	353	12%	3	5	8	15	23	1%	23	1%	376	376	13%	2,578	2,954	2,954	5	231		28
28A	Goldenfields Water Reticulator	352	352	7%	7	100	107	45	152	3%	152	3%	504	504	10%	4,534	5,038	5,038				
28B	Goldenfields Water County Council	647																	8,716			
	Medians (% of LWUs basis) for LWUs with >10,000 Properties			*8%*								*4%*			*13%*							
LWUs with 3,001 - 10,000 Properties																						
29	Armidale Dumaresq Council	111	*156*	*6%*		47	47		47	2%	*104*	*4%*	158	*259*	*10%*	2,335	2,493	*2,594*		853		
30	Griffith City Council	405	405	6%	19	135	154	33	187	3%	*280*	*4%*	592	*685*	*10%*	6,303	6,895	*6,988*				188
31	Lithgow City Council	-	*90*	*6%*	-	-		-			*60*	*4%*		*150*	*10%*	1,346	1,346	*1,496*		-		
32	Mid-Western Regional Council	172	172	7%	3	240	243	13	256	10%	256	10%	428	428	17%	2,108	2,536	2,536		166		
33	Richmond Valley Council	335	335	11%	3	55	58	14	72	2%	72	2%	407	407	13%	2,773	3,180	3,180		344		
34	Nambucca Shire Council	97	97	6%	2	12	14	8	22	1%	*61*	*4%*	119	*158*	*10%*	1,376	1,495	*1,534*		129		2
35	Singleton Shire Council	77	*159*	*6%*	39	51	90		90	3%	*106*	*4%*	167	*265*	*10%*	2,389	2,556	*2,654*		393		
36	Parkes Shire Council	465	465	7%		92	92	148	240	4%	240	4%	705	705	11%	5,901	6,606	6,606		80		
37	Inverell Shire Council	100	*140*	*6%*		100	100	-	100	4%	100	4%	200	*240*	*10%*	2,100	2,300	*2,340*				
38	Moree Plains Shire Council	409	409	13%	-	70	70	-	70	2%	70	2%	479	479	15%	2,704	3,183	3,183	1	475		
39	Cowra Shire Council	353	353	13%				353	353	13%	353	13%	706	706	25%	2,084	2,790	2,790	6	698		
40	Central Tablelands Water	112	112	6%	-	-		50	50	3%	*75*	*4%*	162	*187*	*10%*	1,692	1,854	*1,879*	156			
41	Muswellbrook Shire Council	140	140	6%	2	29	31	12	43	2%	*95*	*4%*	183	*235*	*10%*	2,150	2,333	*2,385*				
42	Corowa Shire Council	120	120	5%	40	40	80		80	4%	*87*	*4%*	200	*207*	*9%*	1,976	2,176	*2,183*		334		

Table 8A: 2009-10 potable 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)	NON URBAN RECYCLED WATER		
		REAL LOSS[4] (Leakage)			APPARENT LOSS			UNBILLED WATER[2]	APPARENT LOSS + UNBILLED				TOTAL NON-REVENUE WATER Potable (Real Loss + Apparent Loss + Unbilled)			Excl Bulk Sales	Non Revenue Water + Revenue Water			Agricultural + Other	Environ-mental	On-site
		Reported	Adopted		Reported			Reported	Reported		Adopted		Reported	Adopted							
			See note 5	% of Total Potable (2)/(19)	Illegal Use	Under-registration of meters	Total (4)+(5)	Fire Fighting, Mains Flushing	(6) + (9)	% of Total Potable (10)/(19)	See note 5	% of Total Potable (12)/(19)	(1) + (10)	(2) + (12)	% of Total Potable (15)/(19)	Metered and Unmetered (See Table 8)	Total Reported (14) + (17)	Total Adopted (Table 8 Col (10)) (15)+(17)	Potable and Nonpotable (See Table 8)	(ML)	(ML)	(ML)
		(1)	(2)	(3)	(4)	(5)	(6)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20) W14	(21) W22 + W25	(22) W23	(23) W24
43	Tumut Council	-	*78*	*6%*	-	-		17	17	1%	*52*	*4%*	17	*130*	*10%*	1,172	1,189	*1,302*		31		16
44	Gunnedah Shire Council	60	*138*	*6%*	23	23	46		46	2%	*92*	*4%*	106	*230*	*10%*	2,069	2,175	*2,299*		605		
45	Upper Hunter Shire Council	-	*175*	*6%*	5	25	30		30	1%	*116*	*4%*	30	*291*	*10%*	2,619	2,649	*2,910*		30		
46	Narrabri Shire Council	200	200	9%							*92*	*4%*	200	*292*	*13%*	2,003	2,203	*2,295*		37		
47	Bellingen Shire Council	57	*77*	*6%*	2	12	14	37	51	4%	*51*	*4%*	108	*128*	*10%*	1,151	1,259	*1,279*	1			
48	Leeton Shire Council	300	300	10%	10	100	110	65	175	6%	175	6%	475	475	16%	2,481	2,956	2,956	30			20
49	Young Shire Council	-	*90*	*6%*	-	-	-	-			*60*	*4%*		*151*	*10%*	*1,372*	1,372	*1,523*		-		-
50	Cooma-Monaro Council	-	*74*	*6%*	-	-		-			*49*	*4%*		*123*	*10%*	1,104	1,104	*1,227*				167
51	Forbes Shire Council	48	*108*	*6%*	10	21	31	10	41	2%	*72*	*4%*	89	*179*	*10%*	1,614	1,703	*1,793*	307	522		6
52	Snowy River Shire Council	140	140	17%				16	16	2%	16	2%	156	156	18%	690	846	846				
53	Berrigan Shire Council	105	105	13%	3	5	8		8	1%	8	1%	113	113	14%	698	811	811				
	Medians (% of LWUs basis) for 3,000 to 10,000 Properties			*6%*								*4%*			*10%*						
	LWUs with 1,501 - 3,000 Properties																					
54	Deniliquin Council	-	*144*	*6%*	-	-	-	-			*96*	*4%*		*241*	*10%*	*2,189*	2,189	*2,430*		-		-
55	Warrumbungle Shire Council	-	*48*	*6%*	-	-					*32*	*4%*		*81*	*10%*	726	726	*807*		113		
56	Yass Valley Council	100	100	12%	4	10	14	70	84	10%	84	10%	184	184	22%	654	838	838	4	53		
57	Wellington Council	246	246	21%	9	58	67	5	72	6%	72	6%	318	318	27%	866	1,184	1,184				
58	Cootamundra Shire Council	80	80	11%	-	-							80	80	11%	627	707	707				
59	Lachlan Shire Council	124	124	10%	6	26	32	27	59	5%	59	5%	183	183	14%	1,090	1,273	1,273	19	7		12
60	Glen Innes Severn Shire Council	112	112	17%	1	8	9	3	12	2%	12	2%	124	124	19%	531	655	655		13		1
61	Liverpool Plains Shire Council	65	65	7%	11	18	29	9	38	4%	38	4%	103	103	11%	817	920	920	13	-		
62	Narromine Shire Council	72	72	6%	13	41	54	45	99	9%	99	9%	171	171	15%	940	1,111	1,111	35			
63	Narrandera Shire Council	80	*70*	*6%*	10	2	12	-	12	1%	*46*	*4%*	92	*116*	*10%*	*1,056*	1,148	*1,172*				
65	Murray Shire Council	75	75	11%	1	15	16		16	2%	16	2%	91	91	13%	620	711	711	3	128		
66	Cobar Water Board	445											445				445		962			
67	Cobar Shire Council	40	40	5%							*35*	*4%*	40	*75*	*9%*	778	818	*853*		-		
68	Tenterfield Shire Council	-	*25*	*6%*							*17*	*4%*		*42*	*10%*	376	376	*418*	15	15		
70	Kyogle Council	29	29	7%		20	20		20	5%	20	5%	49	49	11%	386	435	435		267		56
71	Palerang Council	5	*29*	*6%*	1	9	10		10	2%	*20*	*4%*	15	*49*	*10%*	441	456	*490*				
73	Upper Lachlan Council	15	*18*	*6%*	5	25	30	25	55	19%	55	19%	70	*73*	*25%*	223	293	*296*				
74	Wentworth Shire Council		*55*	*6%*				559	559	61%	559	61%	559	*614*	*67%*	301	860	*915*				
75	Coonamble Shire Council	30	*60*	*6%*	5	1	6	15	21	2%	*40*	*4%*	51	*100*	*10%*	896	947	*996*	13	37		5
	Medians (% of LWUs basis) for 1,500 to 3,000 Properties			*6%*								*4%*			*11%*						
	LWUs with 200 - 1,500 Properties																					
76	Harden Shire Council	12	*45*	*6%*	4	2	6	6	12	2%	*30*	*4%*	24	*75*	*10%*	672	696	*747*				75
79	Walgett Shire Council	-	*28*	*6%*	-	-		-			*19*	*4%*		*47*	*10%*	*431*	431	*478*		-		
80	Greater Hume Shire Council	16	*29*	*6%*	17	8	25	6	31	6%	31	6%	47	*60*	*12%*	428	475	*488*	8			
81	Gwydir Shire Council	172	172	27%	20	30	50	-	50	8%	50	8%	222	222	35%	404	626	626		10		2
82	Gloucester Shire Council	53	53	13%		1	1		1	0%	1	0%	54	54	13%	361	415	415				
83	Oberon Council	45	45	8%	-	29	29	-	29	5%	29	5%	74	74	13%	494	568	568	1	240		
84	Gilgandra Shire Council	80	80	10%	6	10	16	5	21	3%	21	3%	101	101	12%	710	811	811	5	290		
85	Uralla Shire Council	31	31	10%	1	3	4	33	37	12%	37	12%	68	68	23%	232	300	300	3			
86	Hay Shire Council	23	23	6%				-			*16*	*4%*	23	*39*	*10%*	349	372	*388*				
87	Bourke Shire Council	5	*41*	*6%*							*27*	*4%*	5	*69*	*10%*	617	622	*686*	1			

Table 8A: 2009-10 potable 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)	NON URBAN RECYCLED WATER		
		REAL LOSS[4] (Leakage)			APPARENT LOSS			UNBILLED WATER[2]	APPARENT LOSS + UNBILLED				TOTAL NON-REVENUE WATER Potable (Real Loss + Apparent Loss + Unbilled)			Excl Bulk Sales	Non Revenue Water + Revenue Water			Agricultural + Other	Environ-mental	On-site
		Reported	Adopted		Reported			Reported	Reported		Adopted		Reported	Adopted								
			See note 5	% of Total Potable (2)/(19)	Illegal Use	Under-registration of meters	Total (4)+(5)	Fire Fighting, Mains Flushing	(6) + (9)	% of Total Potable (10)/(19)	See note 5	% of Total Potable (12)/(19)	(1) + (10)	(2) + (12)	% of Total Potable 15)/(19)	Metered and Unmetered (See Table 8)	Total Reported (14) + (17)	Total Adopted (Table 8 Col (10)) (15)+(17)	Potable and Nonpotable (See Table 8)	(ML)	(ML)	(ML)
		(1)	(2)	(3)	(4)	(5)	(6)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20) W14	(21) W22 + W25	(22) W23	(23) W24
88	Wakool Shire Council	-	*23*	*6%*	-	-	-	-			*15*	*4%*		*38*	*10%*	*344*	344	*382*		-		
89	Bogan Shire Council	-	*35*	*6%*		-		-			*23*	*4%*		*58*	*10%*	*524*	524	*582*				
90	Guyra Shire Council	10	*29*	*6%*	2	5	7	17	24	5%	24	5%	34	*53*	*11%*	438	472	*491*	1			
91	Cabonne Council	43	43	19%	1	3	4	9	13	6%	13	6%	56	56	24%	176	232	232		2		
92	Carrathool Shire Council		*62*	*6%*	1	10	11		11	1%	*41*	*4%*	11	*103*	*10%*	925	936	*1,028*				
93	Tumbarumba Shire Council	24	24	8%	1	-	1	35	36	12%	36	12%	60	60	20%	242	302	302				
94	Gundagai Shire Council	50	50	8%	10	50	60	5	65	11%	65	11%	115	115	19%	498	613	613	3			-
96	Warren Shire Council	61	61	16%	5	30	35	6	41	11%	41	11%	102	102	26%	283	385	385		2		
97	Bombala Council	3	*12*	*6%*		1	1	23	24	12%	24	12%	27	*36*	*18%*	165	192	*201*				
98	Walcha Council	3	*13*	*6%*		4	4	3	7	3%	*9*	*4%*	10	*21*	*10%*	192	202	*213*	2			
100	Balranald Council	1	*12*	*6%*		1	1		1	1%	*8*	*4%*	2	*20*	*10%*	179	181	*199*				
101	Murrumbidgee Shire Council	-	*40*	*6%*	-	-	-	-			*27*	*4%*		*67*	*10%*	*606*	606	*672*		-		
103	Central Darling Shire Council	-	*7*	*6%*	-	-	-	-			*5*	*4%*		*11*	*10%*	*104*	104	*116*		-		-
104	Boorowa Council	8	*17*	*6%*							*11*	*4%*	8	*28*	*10%*	249	257	*277*	5	1		
105	Brewarrina Shire Council	5	*14*	*6%*							*9*	*4%*	5	*23*	*10%*	203	208	*226*		212		
106	Jerilderie Shire Council		*9*	*6%*							*6*	*4%*		*15*	*10%*	131	131	*146*				
	Medians (% of LWUs basis) for 200 to 1,500 Properties			*6%*								*4%*			*10%*							
	Median All LWUs (% of LWUs basis)	*Real Loss (leakage)*		*6%*										*Non-revenue Water*	*11%*							
	Median All LWUs (Statewide basis)			*6%*											10%							

Notes:

1. **Revenue water** (potable) = Billed, Authorised water supplied (metered and unmetered).
2. **Non-revenue water** (potable) = Real Losses (mostly Leakage) + Apparent Losses (under registration of customer meters and illegal use) + Unbilled Water (authorised Unbilled consumption for firefighting and mains flushing)
3. **Real Losses** (Leakage) in column (2) above are the same as those shown in column (8) of Table 8. They relate only to Total Urban Water Supplied (potable) and exclude bulk water exports.
4. **Total Urban Water Supplied** (Revenue Water (potable) plus Non-Revenue Water (potable)) in column (18) above is the same as that shown in column (10) of Table 8.
5. **Minimum Losses:** The minimum adopted in this report for Real Loss (Leakage) is 6% of the Total Urban Water Supplied (potable) and the minimum adopted for (Apparent Loss plus Unbilled Water) is 4%, unless the utility has provided evidence for the adoption of a lower Leakage (eg. a reservoir drop test, detailed waste metering or night flow analysis of district meter areas (see Table 10)). This results in a minimum Non Revenue Water of 10% of Urban Water Supplied (potable). Therefore, for those utilities reporting Non Revenue Water of less than 10% (col (14)), the Non-revenue Water has been increased to 10% of the Urban Water Supplied (col 15) (shown in italics bold), unless the LWU has provided evidence of a lower value of Leakage under Note 6. In such a case, the adopted value for Non Revenue Water is the reported Leakage plus 4%.
6. **Real Losses (Leakage):** As described in Note 5 above, a minimum of 6% of the Total Urban Water Supplied (potable) has been adopted for Leakage. Therefore, unless corroborated by evidence (eg. a reservoir drop test, detailed waste metering or night flow analysis of district meter areas (see Table 10)), reported Leakage of less than 6% (column (8)) has been increased to 6% (shown in italics bold).
7. **Leakage Reduction Programs:** As shown in column 7 of Table 8C, 52 of the 94 reticulating local water utilities have recently carried out a leakage reduction program. In addition, Table 10 indicates that 48 LWUs have reported carrying out recent leakage testing.

Table 8B: 2009-10 water supplied from source catchments in non-metropolitan NSW

SOURCE CATCHMENT	Source Catchment	POTABLE URBAN WATER SUPPLIED (ML)									RECYCLED WATER		Non-Potable Urban Water Supplied	Total Urban Water Supplied	BULK	WATER SOURCE (ML)					
		Residential	Commercial	Industrial	Rural	Institutional	Public Parks & Gardens	Unbilled Water	Water Losses	Potable Urban Water Supplied	For Urban Water Supply	For Non-urban Water Supply	(Excluding Bulk Exports & Recycled)	Excluding BULK Exports Including Recycled	Bulk Water Exports	Surface Water	Ground Water	Desalination	Recycling	Bulk Purchases	Bulk Recycled Water Purchased
										= SUM (1) to (9)				=(10)+(11)+(12)		W1	W2	W3	W4	W5	W6
		(1)	(2)	(3)	(4)	(5)	(7)	(8)	(9)	(10)	(11)	(11b)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)
Bega	Bega	2,140	588	80	136	126	54	13	459	3,596	613	214	0	4,209		1,450	2,020	000	613	000	
Bellinger	Bellinger	635	372			144		37	91	1,279				1,279	1	163	1,060				
Castlereagh/Macquarie	Castlereagh/Macquarie	16,530	3,460	1,660	267	1,000	1,060	157	4,871	29,005	3,070	7,011	839	32,914	4,060	28,600	5,580	000	3,070	037	
Clarence	Clarence	7,610	2,110	558	565	182	253	130	1,801	13,209	537	1,006	68	13,814		13,400			537	71	
Clyde	Clyde	2,130	550		44	134	15	20	1,143	4,036	281	89	0	4,317		4,030	000	000	281	000	
Darling	Darling	4,130	514	1,020	22	304	82	559	684	7,315	722		4,790	12,827	963	5,930	72		722	4,990	
Gwydir	Gwydir	4,350	632	439	17	30	412	50	1,013	6,943	314	487	77	7,334	5	1,670	2,590	000	314	2,220	
Hastings	Hastings	4,330	987	33	42	311	50	29	610	6,392	109	260		6,501		6,280			109		
Hawkesbury (Country Towns only)	Hawkesbury	15,380	2,280	664	193	624	357	208	2,392	22,098	87	1,785	0	22,185	3	15,430	096	000	87	5,750	
Hunter (Country Towns only)	Hunter	4,830	963	724	59	355	227	12	780	7,950	1,050	423		9,000		6,470	469		1,050		
Lachlan	Lachlan	5,690	1,440	3,960	893	368	678	622	1,495	15,146	685	1,446	257	16,088	493	9,080	4,160	000	685	538	
Macleay	Macleay	3,530	687	181	427	527	68	149	759	6,328	40	868	45	6,413	27	4,060	2,340		40		
Manning	Manning	5,450	1,520	666	30	150	128	183	1,450	9,577	0	729	0	9,577		8,920	687	000	000	000	
Moonie/Macintyre	Moonie/Macintyre	637	146	2	2	24	5	3	163	982	109	29		1,091	15	1,010			109		
Murray	Murray	8,730	1,610	1,020	209	595	493	75	1,429	14,161	214	5,230	2,040	16,415	339	12,950	173	000	214	314	
Murrumbidgee	Murrumbidgee	26,250	6,460	2,430	2,900	1,020	1,520	1,110	4,056	45,746	1,170	1,515	2,920	49,836	8,750	17,020	16,700		1,170	19,100	
Nambucca	Nambucca	800	400	26	83	49	18	8	150	1,534	0	131	0	1,534		000	1,620	000	000	000	
Namoi	Namoi	9,130	1,320	1,710	220	559	752	60	1,803	15,554		3,009	1,270	16,824	15	9,430	6,660				
Shoalhaven	Shoalhaven	6,200	1,870	2,447	692	125	112	57	1,399	12,902	144	2,285	2,190	15,236		14,720	000	000	144	87	
Snowy	Snowy	621	102	48	16	66	2	39	153	1,047	35			1,082		1,370			35		
Tuggerah Lake	Tuggerah Lake	8,770	3,210					0	988	12,968	940	84	0	13,908	4,490	13,480	292	000	940	3,600	
Tweed/Richmond	Tweed/Richmond	13,230	4,570	1,100	1,850	216	221	115	3,917	25,219	1,710	728		26,929	10,800	25,780			1,710	10,900	
	Totals	151,000	35,800	18,800	8,700	6,900	6,500	3,600	31,600	263,000	11,800	27,300	14,500	289,000	30,000	201,000	45,000	0	12,000	48,000	0

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 urban water supplied (column 10) and the consumptions for each category summed for each catchment to obtain the above values.

Table 8C: 2009-10 water conservation initiatives

	WATER UTILITY	CUSTOMER FOCUSSED MEASURES					BUSINESS FOCUSSED		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 Non Revenue Water	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 2009/10	(15) W12 2009/10	(16) W11 2009/10	(17) 2009/10	(18) 2009/10	(19) A10 2009/10	(20) 2009/10	(21) 2009/10
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	64	130	64	220	6,798	679	407	50	Y	Y
29	Armidale Dumaresq	Yes	No	No	No		Yes	No	Full pay-for-use pricing, demand management plan, member of waterwise, public education program.	Yes	Yes	178	236	62*	215	2,639	259	156	60		
24	Ballina (Reticulator)	Yes	Yes	Yes	Yes	670	Yes	Yes		Yes	Yes	152	228	70	188	4,767	876	789	200	Y	Y
100	Balranald (Dual Supply)	Yes	No	No	No		Yes	No	Full pay-for-use pricing, member of waterwise, restrictions.	Yes	Yes	74	111	79*	232	594	20	12	40		
21	Bathurst Regional	Yes	No	No	Yes	1500	Yes	No	Member of waterwise, public education program.	Yes	Yes	130	195	81	252	6,001	602	362	70	Y	Y
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		220		68*	165	4,213	472	243	60		
47	Bellingen (Unfiltered)	Yes	No	No	No		No	No	Full pay-for-use pricing, member of waterwise, retrofit program, public education program.	Yes	Yes	103	155	43*	175	1,279	128	77	50	Y	
53	Berrigan (Dual Supply)	Yes	No	No	No		Yes	No	Public education.	Yes	Yes	100		34*	158	1,561	113	105	90		
72	Bland (No WS)						Yes														
78	Blayney (No WS)						Yes									212				Y	
89	Bogan	Yes	No	No	No		Yes	Yes	Full pay-for-use pricing, member of waterwise, restrictions, public education program.		Yes	92	133	56*	365	582	58	35	90		
97	Bombala	No	Yes	No			Yes	No	Full pay-for-use pricing, member of waterwise, public education program.	Yes	Yes	52	113	18*	193	236	36	12	40		
104	Boorowa	Yes	Yes	Yes	No		Yes	Yes	Full pay-for-use pricing, public education program.		Yes	171	291	61*	295	278	28	17			
87	Bourke (Dual Supply)	No	No	No	No		No	No	Full pay-for-use pricing, member of waterwise, public education program, waterwise program with local schools.	Yes	Yes	180		86*	569	4,052	69	41	110		
105	Brewarrina	No	No	No	No		Yes	No		Yes	Yes				293	729	23	14	70		
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	180	270	77	194	3,172	376	353	100	Y	Y
91	Cabonne	Yes	No	No	No		Yes	Yes	Member of waterwise, public education program.	Yes	Yes	136	315	47*	135	412	56	43	110	Y	
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.	Yes	Yes	80	95	60*	641	1,677	103	62			
103	Central Darling (Dual Supply)							No	Full Pay-for-use pricing, customer billing 3 times/a, water restrictions.	Yes	Yes	300		87*	103	357	11	7			
40	Central Tablelands (No Sge)	Yes	No	No	No		NA	No	Full pay-for-use pricing, member of waterwise, public education program, free showerhead exchange program.	Yes	Yes	170	255	73*	201	1,879	187	112	50	Y	
14	Clarence Valley	Yes	Yes	Yes	Yes	1,100	Yes	No	Full pay-for-use pricing, restrictions, retrofit program, public education program.	Yes	Yes	138	207	65*	170	6,736	1,255	907	120	Y	Y
67	Cobar	Yes	Yes	No	No		Yes	Yes	Full Pay-for-use pricing, member of waterwise, restrictions, retrofit program, public education program.	Yes	Yes	90	160	57*	309	954	75	40	50	Y	
66	Cobar WB (Bulk Supplier) (No Sg	No	No	No	No		NA	No								1,543	0				
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	219	329	76*	186	6,619	627	376	50	Y	Y
99	Coolamon (No WS)															50					
50	Cooma-Monaro	Yes	Yes	No	No		Yes	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	115	173	44*	195	1,227	123	74	50		
75	Coonamble (Groundwater)	No	Yes	No	No		Yes	No	Public education program.		Yes	44	67	73*	466	1,030	100	60	100		
58	Cootamundra (Reticulator)	No	Yes	No	No		Yes	No	Member of waterwise, public education program.		Yes	151	301	59*	179	911	80	80	70		
42	Corowa	No	No	No	Yes	500	Yes	No	Full pay-for-use pricing, member of waterwise, restrictions, public education program.	Yes	Yes	90		56*	237	2,183	207	120	70	Y	Y
26	Country Energy	Yes	Yes	Yes	No		Yes	No	Full pay-for-use pricing, member of waterwise, rainwater tank subsidy, public education program.	Yes	Yes	125	251	60	279	5,926	475	285	80	Y	Y
39	Cowra	Yes	Yes	No	No		Yes	No	Full pay-for-use pricing, member of waterwise, restrictions, public education program.	Yes	Yes	134	224	50*	202	2,790	706	353	150		
54	Deniliquin	Yes	No	No			Yes	Yes	Member of waterwise, public education program, integrated water cycle management study.	Yes	Yes	40	80	30*	466	2,430	241	144		Y	
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	153		77	329	7,692	1,072	885	160	Y	Y
15	Eurobodalla (Unfiltered)	Yes	Yes	Yes	Yes	1500	Yes	No	Member of waterwise, public education program, restrictions, integrated water cycle management study.	Yes	Yes	240	360	54*	116	4,315	1,163	1,081	170	Y	Y
12	Fish River WS (Bulk Supplier) (N	Yes	No	No	No		NA	No		Yes	Yes					1,459	968	968			
51	Forbes	Yes	No	No	No		Yes	Yes	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	69	102	61*	338	1,949	179	108	80		
84	Gilgandra (Groundwater)	Yes	No	No	Yes	1020	Yes	Yes	Full pay-for-use pricing, member of waterwise, public education program.	Yes	Yes	86		66*	433	811	101	80			
60	Glen Innes Severn	Yes	No	No	No		Yes	Yes	Full pay-for-use pricing, rainwater tank subsidy, restrictions, ad hoc public education.	Yes	Yes	164	246	73*	155	714	124	112	90	Y	Y
82	Gloucester	No	No	No	No		No	No	Full pay-for-use pricing, restrictions, retrofit program, public education program.	Yes	Yes	202	255	64*	167	415	54	53	90	Y	Y
28B	Goldenfields (Bulk Supplier) (No																0				
28A	Goldenfields (Reticulator) (No Sg	Yes	No	No	No		NA	Yes	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.			156	234	78	256	5,165	504	352	90		

Table 8C: 2009-10 water conservation initiatives (continued)

	WATER UTILITY	CUSTOMER FOCUSSED MEASURES					BUSINESS FOCUSSED		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 Non Revenue Water	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 2009/10	(15) W12 2009/10	(16) W11 2009/10	(17) 2009/10	(18) 2009/10	(19) A10 2009/10	(20) 2009/10	(21) 2009/10
1	Gosford	Yes	No	No	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	186		74*	146	13,608	1,601	1,124	50	Y	Y
20	Goulburn Mulwaree	Yes	Yes	Yes	No		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	159	214	40	136	2,213	221	133	40	Y	Y
80	Greater Hume	Yes	Yes	No	No		Yes	Yes	Full pay-for-use pricing, restrictions, public education program.	Yes	Yes	90	110	67*	223	547	60	29	50	Y	
30	Griffith	Yes	No	Yes	No		Yes	Yes	Full pay-for-use pricing, restriction policy in place, public education program.	Yes	Yes	55	100	78*	560	7,736	685	405	120	Y	
94	Gundagai	Yes	No	No	No		Yes	Yes	Full pay-for-use pricing, member of waterwise, restrictions, public education program.	Yes	Yes	85	110	74*	336	730	115	50	130		
44	Gunnedah (Groundwater)	No	No	No	No		Yes	Yes	Full pay-for-use pricing, member of waterwise, restrictions, public education program.	Yes	Yes	83	135	62*	338	2,299	230	138	80	Y	
90	Guyra	No	No	No	No		Yes	Yes	Full pay-for-use pricing, restrictions, public education program.	Yes	Yes	120	150	48*	217	491	53	29	70		
81	Gwydir	Yes	No	No	No		Yes	Yes		Yes	Yes	100	195	32*	209	669	222	172	280	Y	Y
76	Harden (Reticulator)	Yes	Yes	No	No		Yes	Yes	Full pay-for-use pricing.	Yes		206	309	77*	330	1,022	75	45	70		
7	Port Macquarie-Hastings (Unfilter	Yes	No	No	No		Yes	No	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	202	404	70	166	6,500	639	383	40	Y	
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	98	144	83*	193	1,342	39	23	30		
	Hunter Water	Yes	Yes	Yes	Yes	1500	Yes	Yes	Full pay-for-use pricing, member of waterwise, rainwater tank subsidy, restrictions, retrofit program, public education program, leakage reduction, effluent reuse.	Yes	Yes	171		85	184	68,233	0	0	88		
37	Inverell	No	No	No	No		No	No	Full pay-for-use pricing, member of waterwise, public education program.	Yes	Yes	105	125	50*	277	2,340	240	140	70		
106	Jerilderie (Dual Supply)	Yes	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	Yes	120	140	84*	264	430	15	9	50		
77	Junee (No WS)						Yes									164					
25	Kempsey (Groundwater)	Yes	Yes	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	145	200	52*	177	3,774	649	261	60	Y	Y
70	Kyogle	Yes	Yes	No	Yes	670	Yes	No	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	114	175	46*	164	461	49	29	40	Y	Y
59	Lachlan	Yes	No	No	No		Yes	Yes	Full pay-for-use pricing, restrictions, retrofit program under investigation, public education program .	Yes	Yes	140	225	67*	349	1,430	183	124	130		
48	Leeton	Yes	No	Yes	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	74	110	64*	442	2,956	475	300	190	Y	
22	Lismore (Reticulator)	Yes	Yes	Yes	Yes	670	Yes	No	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	215		72	168	3,791	713	616	130	Y	Y
31	Lithgow	Yes	No	Yes	Yes	800	No	No	Full pay-for-use pricing, member of waterwise, public education program, water restrictions implemented from Drought Management Plan.	Yes	Yes	181	261	57*	135	1,496	150	90	30		
61	Liverpool Plains	Yes	No	No	No		No	No			Yes	100	165	40*	222	920	103	65	70	Y	
102	Lockhart (No WS)						Yes									27				Y	
5	MidCoast (Unfiltered)	Yes	Yes	Yes	Yes	1500	Yes	Yes	Full pay-for-use pricing, member of waterwise, rainwater tank subsidy, restrictions, retrofit program, public education program, other.	Yes	Yes	220	246	77	154	9,163	1,579	1,021	90	Y	Y
32	Mid Western Regional	Yes	No	No	No		Yes	Yes		Yes	Yes	172	258	71*	205	2,536	428	172	70		
38	Moree Plains (Groundwater)	No	No	No	Yes	1500	Yes	Yes	Full pay-for-use pricing, member of waterwise, restrictions, public education program (media).	Yes	Yes	85	125	78*	946	3,531	479	409	230	Y	
65	Murray (Dual Supply)	Yes	No	No	No		Yes	Yes	Full pay-for-use pricing, restrictions, public education.	Yes	Yes	76		57*	174	1,142	91	75	80	Y	
101	Murrumbidgee (Groundwater)						Yes	No	Full pay-for-use pricing, rainwater tank guidelines, encouraging retrofit program.			26	31	40*	470	672	67	40			
41	Muswellbrook	Yes	No	No	No		Yes	Yes	Full pay-for-use pricing, member of waterwise, restrictions, public education program.	Yes	Yes	133	200	70*	305	3,297	235	140	70	Y	Y
34	Nambucca (Groundwater)	No	No	Yes	Yes	500	Yes	Yes	Full pay-for-use pricing, member of waterwise, restrictions, retrofit program, public education program.	Yes	Yes	149		75*	143	1,534	158	97	50	Y	Y
46	Narrabri (Groundwater)	Yes	Yes	No	No		Yes	No	Full pay-for-use pricing, member of waterwise, restrictions, retrofit program, public education program.	Yes	Yes	63		60*	544	2,295	292	200			
63	Narrandera (Groundwater)	Yes	Yes	Yes	Yes		Yes	No	Full pay-for-use pricing, member of waterwise, restrictions, public education program.	Yes	Yes	87		51*	376	1,172	116	70			
62	Narromine (Groundwater)	Yes	No	No	No		Yes	Yes	Full pay-for-use pricing, member of waterwise, restrictions, public education program.	Yes	Yes	85		69*	434	1,111	171	72	90		
83	Oberon (Reticulator)	Yes	No	No	No		Yes	No	Full pay-for-use pricing, restrictions.	Yes		135		43*	128	568	74	45	100		
19	Orange	Yes	Yes	No	Yes	650	Yes	Yes	Full pay-for-use pricing, member of waterwise, rainwater tank subsidy, restrictions, public education program.	Yes	Yes	160	240	70	148	6,929	932	466		Y	
71	Palerang	Yes	Yes	Yes	Yes	500	Yes	No		Yes	Yes	123	200	42*	187	490	49	29	40		
36	Parkes	Yes	No	No	Yes	500	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	120	240	63*	339	6,727	705	465	200	Y	Y

Table 8C: 2009-10 water conservation initiatives (continued)

	WATER UTILITY	CUSTOMER FOCUSSED MEASURES					BUSINESS FOCUSSED		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 Non Revenue Water	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 *2009/10*	(15) W12 *2009/10*	(16) W11 *2009/10*	(17) *2009/10*	(18) *2009/10*	(19) A10 *2009/10*	(20) *2009/10*	(21) *2009/10*
17	Queanbeyan (Reticulator)	Yes	Yes	Yes	Yes	1100	Yes	Yes	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	190	276	62	200	4,279	551	433	100	Y	
33	Richmond Valley	Yes	Yes	Yes	Yes	670	Yes	No	Full pay-for-use pricing, member of waterwise, rainwater tank subsidy, restrictions, retrofit program, public education program.	Yes	Yes	163	245	75*	195	3,180	407	335		Y	Y
8	Riverina (Groundwater) (No Sge)	Yes	Yes	Yes	No		NA	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	90	135	80	330	15,853	1,702	553	50	Y	
4	Rous (Bulk Supplier) (No Sge)	Yes	Yes	Yes	Yes	670	Yes	No	Full pay-for-use pricing, member of waterwise, restrictions, retrofit program, public education program, appliance rebates, residential tune up program, school grants.	Yes	Yes					1,567	160	160		Y	Y
3	Shoalhaven	Yes	No	Yes	Yes	150	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	145	195	74	145	15,234	1,456	1,156	70	Y	Y
35	Singleton	Yes	No	Yes	Yes	450	Yes	No	Full pay-for-use pricing, member of waterwise, restrictions, public education program.	Yes	Yes	91	169	60*	281	2,654	265	159	70		
52	Snowy River (Unfiltered)	No	No	No	No		No	Yes	Full pay-for-use pricing, member of waterwise, subsidy, restrictions, DCP rainwater tanks required in new developments.		Yes	115	175	27*	127	846	156	140	130		
	Sydney Water	Yes	Yes	Yes	Yes	1500	Yes	Yes	Full pay-for-use pricing, member of waterwise, rainwater tank subsidy, restrictions, retrofit program, public education program, leakage reduction, effluent reuse.	Yes	Yes	201		82	205	505,650	0	0	73		
13	Tamworth Regional	Yes	Yes	Yes	Yes	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	116	174	64	256	9,442	1,170	1,016	140		
69	Temora No WS)						Yes		Effluent reuse.							80					
68	Tenterfield	Yes	No	No	No		Yes	Yes	Full pay-for-use pricing, member of waterwise, water restrictions, public education program, effluent reuse, leakage reduction program, retrofit program.	Yes	Yes	174	200	42*	138	468	42	25	30		
93	Tumbarumba	No	Yes	Yes	Yes	1500	No	No	Full pay-for-use pricing, restrictions, public education program.	Yes	Yes	137	230	43*	177	302	60	24		Y	
43	Tumut	Yes	No	No	No		Yes	Yes	Full pay-for-use pricing, restrictions, public education program, metering.	Yes	Yes	125	192	67*	201	1,453	130	78	40	Y	
6	Tweed	Yes	No	No	No		Yes	No	Full pay-for-use pricing, member of waterwise, restrictions, public education program.	Yes	Yes	165	250	75	176	10,452	1,500	773	90	Y	Y
45	Upper Hunter	Yes	Yes	Yes	Yes	400	Yes	No		Yes	Yes	121	173	71*	448	3,045	291	175	120	Y	
73	Upper Lachlan	Yes	No	No	No		No	No		Yes	Yes	195	260	30*	71	296	73	18	30		
85	Uralla	No	No	No	No		No	No	Full pay-for-use pricing, restrictions, considering retrofit program.		Yes	135		41*	127	300	68	31	70		
107	Urana (No WS)						No													Y	
9	Wagga Wagga (No WS)						Yes									226				Y	
88	Wakool (Dual Supply)							Yes	Full pay-for-use pricing, member of waterwise, restrictions, public education program.	Yes	Yes	90	142	73*	205	1,102	38	23	40		
98	Walcha	No	No	No	No		No	Yes	Full pay-for-use pricing, member of waterwise, restrictions.			200	294	71*	171	213	21	13	40	Y	
79	Walgett (Dual Supply)	No	No	No			Yes	No	Introducing full pay-for-use pricing, member of waterwise, considering rainwater tank subsidy, restrictions, public education program, proposing introduction of water meters.	Yes	Yes				169	1,664	47	28		Y	
96	Warren (Dual Supply)	Yes	No	No	No		Yes	Yes	Full pay-for-use pricing, member of waterwise, restrictions, public education program.	Yes	Yes	87	131	59*	300	719	102	61	170		
55	Warrumbungle	No	No	No	No		Yes	No		Yes	Yes	106	127	42*	190	807	81	48	40		
95	Weddin (No WS)						Yes									36				Y	
57	Wellington	Yes	Yes	No	No		Yes	Yes	Full Pay-for-use pricing, member of waterwise, restrictions, public education program.	Yes	Yes	164	197	63*	209	1,184	318	246	220	Y	Y
74	Wentworth (Dual Supply)	Yes	No	No	No		No	No	Full pay-for-use pricing, restrictions.	Yes	Yes	115	270	59*	113	1,539	614	55	80		
16	Wingecarribee	Yes	No	No	No		Yes	Yes	Full pay-for-use pricing, customer billing 4 times/a, member of waterwise, restrictions, showerhead retrofit program, public education program.	Yes	Yes	136	202	71	190	4,862	628	540	90	Y	Y
2	Wyong	Yes	Yes	Yes	Yes	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	187		73*	154	13,900	988	644	30	Y	Y
56	Yass Valley	Yes	Yes	Yes	Yes	200	Yes	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	225		62*	176	838	184	100	90	Y	Y
49	Young (Reticulator)						Yes	Yes	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.	Yes	Yes	180	270	71*	222	1,523	151	90	60		
	Percent "Yes" (Retail)	76%	36%	28%	30%	32%	82%	51%	Percent reporting "YES" (Retail ie. excluding Bulk Suppliers)	89%	93%			Percent reporting completion of IWCM Evaluation Strategy						53%	28%

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			New Residential Dwellings Connected			Population				Transfer Mains	Trunk + Retic 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	% Undergoing Training	Out-sourcing	Injuries	Days Lost		
					(Single + Mult + Non-res Dwellings + Fire) To Calc Losses	(Ratio of Connected Properties to Assessment	Connected Properties (18) x (19)	(Ratio of Residential Assessments to Total Assessments	(Ratio of Residential Connections to Residential Assessments	Connected Residential Properties (18)x(21)x(22)		(%)		(Permanent)			(Peak) (% of Permanent)				(Providing Full Treatment) (No.)												Total (%)	Due to Injuries	
		(18)			(18a)	(19)	(20) C 4	(21)	(22)	(22a) C2		(22b)		(23) C1			(24)	(25)	(25a) A 2	(26) A 3	(27) A 1	(28)	(29)	(30)	(30a)	(31) F28		(31b) F26	(32)	(34)	(37)	(38)	(39)	No. (40a)	(%) (40b)
		2007/08	2008/09	2009/10	2009/10	2009/10	2009/10	2009/10	2009/10	2009/10	2007/08	2008/09	2009/10	2007/08	2008/09	2009/10	2009/10	2009/10	2009/10	2009/10	2009/10	2009/10	2009/10	2009/10	2009/10	2009/10	2009/10	2009/10	2009/10	2009/10	2009/10	2009/10	2009/10	2009/10	2009/10
	Sydney Water						1,772,000			1,635,000					4,435,000				21,015	84	10					452	801	0							
	Hunter Water						225,000			209,000					522,000				4,857	46	6					238	54	0							
	Sydney Catchment Authority																										54							
	LWUs with > 10,000 Properties																																	
1	Gosford	66,980	67,400	67,420	59,510	1.04	70,270	0.95	1.05	67,240	0.3	0.1	0.2	158,400	159,900	161,200		228	1,014	69	2	2	35	24	2	593	41.7	15,829	1.4	76	10	14	4	72	0
2	Wyong	61,180	61,660	61,720	57,050	0.97	59,820	0.95	0.97	56,880	2.9	0.3	0.6	143,200	145,300	148,900	170		1,145	52	1	1	12	21	2	862	51.6	12,835	1.3	100		12	1	149	1
3	Shoalhaven	49,350	49,640	49,850	45,670	0.92	45,860	0.92	0.93	42,680	0.7	0.4	1.0	88,400	89,300	90,700	350	42	1,519	30	4	4		25	2	348	16.0	75	1.3	100	4	7	2	15	0
4	Rous (Bulk Supplier) (NO SGE)	46,800	47,570	47,570	42,890	0.96	45,660	0.89	0.96	40,470				113,100	113,100	113,100		309	125		2	2	3	4	3	109	5.0	1,779	1.6	69		4	3	10	0
5	MidCoast (Unfiltered)	37,580	37,780	37,830	32,910	0.96	36,320	0.93	0.96	33,850	0.8	0.2	0.9	77,200	77,600	77,600	120	21	1,251	29	2	2	15	26	2	873	31.7	734	1.5	100		4	4	62	0
6	Tweed	34,590	34,790	34,260	23,880	0.91	31,180	0.94	0.93	30,020	1.1	0.8	1.0	71,600	72,500	73,500	120	3	690	45	3	1		27	4	2,611	81.4		1.8	96	7	5	5	72	1
7	Port Macquarie-Hastings (Unfiltered)	30,110	31,450	30,450	26,210	0.95	28,920	0.90	0.95	26,120	1.5	0.4	1.0	76,500	78,000	78,500	130		775	37	4	2	1	19	2	131	3.8	623	1.2	100	10	1	6	4	0
8	Riverina (Groundwater) (NO SGE)	28,940	29,450	29,810	30,110	0.96	28,620	0.92	0.96	26,300	1.5	0.5	1.3	64,700	69,100	67,700	110	64	1,612	18	17	3	28	37	2	233	6.7	11	3.0	57		4	4	34	0
10	Coffs Harbour (Unfiltered)	25,090	25,350	25,580	22,620	0.94	24,050	0.94	0.94	22,520	1.6	0.5	1.8	62,700	64,900	66,000	120	12	615	39	2	2	-	7	1	261	6.3		1.5	100		1	6	1	0
11	Albury City	21,300	21,560	21,910	21,800	1.03	22,560	0.91	1.03	20,530	1.0	0.6	1.6	47,700	49,800	50,500	110	7	562	40	1			21	4				0.5	114	44				
12	Fish River WS (Unfiltered, Bulk Supplier)	25,000	25,000	25,000	240	0.94	23,500	0.88	0.94	20,680				62,000	62,000	62,000		10	241		1	2		3	1				0.6	100	10	1	0	1	0
13	Tamworth Regional	20,170	20,350	20,630	19,430	1.00	20,630	0.90	1.00	18,490	1.8	0.6	1.5	43,000	43,600	43,200	190	60	655	31	5	2	10	16	2	195	4.0	121	1.8	61		5	2	39	0
14	Clarence Valley	20,980	21,240	21,390	21,430	0.98	20,960	0.89	0.98	18,640	1.4	0.6	2.0	49,500	49,500	49,200	120	104	1,097	19	0	1		16	1	136	2.8	674	1.3	100		1	0	5	0
15	Eurobodalla (Unfiltered)	20,190	20,430	20,590	17,880	0.94	19,350	0.95	0.94	18,400	0.9	0.7	1.0	36,800	36,200	36,600	330		934	21	0	1	7	13	1	915	17.7	2,186	2.1	100	2	2	3	51	1
16	Wingecarribee	18,810	18,940	19,100	16,920	0.95	18,140	0.93	0.96	17,060	0.8	0.3	1.2	36,200	38,000	36,800	120	9	653	28	3	2		16	2	153	2.8		1.4	56	21	4	3	54	1
17	Queanbeyan (Reticulator)	15,500	15,320	15,480	11,470	1.03	15,940	0.93	1.04	14,910	2.1	0.5	1.0	35,700	36,000	39,400	100		279	57	0			4	1	43	0.7		0.5	100					
18	Dubbo	14,080	14,530	15,190	14,830	1.11	16,860	0.88	1.11	14,910	1.2	1.9	2.3	36,100	33,000	33,300	110	8	466	36	1		7	9	2	285	4.8	5	0.9	80			2		
19	Orange	16,080	15,890	16,130	15,370	1.00	16,130	0.90	1.00	14,540	3.0	0.7	1.4	35,700	38,000	38,100	100	3	503	32	2	3	2	7	1	222	3.6	2,950	0.8	100	5	1	3	10	0
20	Goulburn Mulwaree	9,400	10,240	9,930	9,100	1.03	10,230	0.92	1.03	9,380	1.7	0.3	1.3	21,100	21,100	21,600	100	23	269	38	2	2	2	8	3	417	4.3	1,000	1.6	61		5	3		
21	Bathurst Regional	13,890	14,100	13,980	13,980	1.05	14,680	0.89	1.07	13,350	1.4	0.4	1.3	32,700	33,000	33,300	180		370	40	1	2	2	10	3	97	1.4	32	1.4	100		4	1	43	1
22	Lismore (Reticulator)	13,200	13,300	13,400	13,400	1.05	14,060	0.90	1.06	12,800	0.9	0.3	1.1	34,900	35,100	31,400	100		339	41	0	1		5	1	108	1.5		1.1	100	25	16	2	15	0
23	Bega Valley (Unfiltered)	14,230	14,330	14,350	11,530	0.98	14,060	0.92	0.98	12,970	0.9	0.3	0.8	28,500	29,100	29,600	150	51	576	24	0	3	11	19	3	282	4.0	2,876	1.6	100		3	3	22	0
24	Ballina (Reticulator)	14,970	15,070	15,430	10,960	0.93	14,350	0.91	0.93	13,000	1.1	0.2	1.0	32,400	35,600	36,300			348	41	1	1	2	4	1	27	0.4		0.7	70		2	1	13	1
25	Kempsey (Groundwater)	11,770	11,820	11,920	11,370	1.04	12,400	0.86	1.03	10,590	0.9	0.3	0.7	23,200	24,500	24,700	130	59	547	23	2	2	38	20	4	441	5.5	504	1.2	80	10	1	0	11	0
26	Country Energy	10,790	10,450	10,470	10,370	1.00	10,470	0.91	1.00	9,550	0.2	0.1	0.2	18,700	20,400	20,000	100	156	364	29	3	3		11	3	2,514	26.3	184	7.5	71			1		
27	Byron (Reticulator)	10,940	11,090	11,220	9,590	0.96	10,770	0.89	0.96	9,560	0.7	0.3	0.8	28,800	28,800	28,800	120		237	45	1			7	3	23	0.2		0.8	100		1	13	143	7
28A	Goldenfields (Reticulator) (NO SGE)	10,550	10,620	10,680	10,680	0.94	10,040	0.69	0.94	6,930	0.8		0.6	20,800	20,800	22,900			1,821	6	1			22	1	116	1.2		5.6	43	5	7	4	47	0
28B	Goldenfields (Bulk Supplier) (NO SGE)	18,950	19,780	20,030		0.94	18,830	0.75	0.94	14,090				37,600	37,600	37,600			315	60	3	-	6	15	5	178	3.4								
	Medians (% of LWUs basis excl bulk suppliers) or Totals for >10,000 Properties			*691,320*			*674,660*									*1,401,800*		*1,168*	*19,323*	*37*						*261*	*329*		*1.3*			*4*	*3*		
	LWUs with 3,001 - 10,000 Properties																																	
29	Armidale Dumaresq	8,440	8,640	8,600	7,740	0.98	8,430	0.91	0.98	7,700	1.9	0.3	1.8	20,500	21,000	21,500	110	75	266	32	2	3		11	4	49	0.4		2.0	29	5		3		
30	Griffith	9,540	9,680	9,740	8,970	0.85	8,280	0.85	0.84	6,950	3.6	0.6	2.1	22,000	23,500	23,800	110		501	17	2			4	1	260	2.2	116	2.9	100	10	1	0	1	0
31	Lithgow	7,980	8,130	8,190	8,120	0.98	8,030	0.94	0.98	7,550		0.2	0.2	20,000	19,800	19,800	100	5	460	17	1	1	1	3	1	43	0.3		1.5	100		2	0	2	0
32	Mid-Western Regional	6,920	6,960	7,090	6,490	1.02	7,230	0.90	1.03	6,550	1.5		1.8	13,800	13,800	14,500	140	17	266	27	3	1	28	13	5	237	1.7		1.5	91	1	-		-	
33	Richmond Valley	6,720	7,180	7,230	6,850	0.97	7,010	0.88	0.97	6,170	0.8	0.3	1.0	15,800	15,500	15,600	120	2	190	37	1			7	4	232	1.6		2.2	83	5	3	5	29	1
34	Nambucca (Groundwater)	6,450	6,530	6,590	5,820	0.95	6,260	0.89	0.95	5,600	0.6	1.9	0.8	13,300	13,300	14,300	140		201	31	1		8	2	1	44	0.3		1.0	33	10	-		-	
35	Singleton	6,570	6,630	6,710	6,410	0.95	6,380	0.86	0.95	5,500	3.8	0.0	1.4	17,600	17,900	18,200	100	25	247	26	1			9	4	136	0.9	189	1.1	63	40		4		
36	Parkes	6,160	6,150	6,190	6,500	0.95	5,880	0.85	0.95	4,970	1.6	0.3		11,500	11,200	11,200	110	70	454	13	1	2	5	8	2	82	0.5	65	2.0	100				-	
37	Inverell	5,430	5,380	5,430	5,500	0.98	5,320	0.91	0.99	4,870	1.0		1.0	11,700	11,700	11,800	110		254	21	2		1	7	3	182	1.0		1.5	50	10				
38	Moree Plains (Groundwater)	4,560	4,550	4,600	4,790	0.97	4,460	0.88	0.96	3,880	0.1	0.3	0.2	10,300	10,000	10,300	100	9	150	30	4	2	14	4	3	1,559	7.0	52	2.5	100	10	1	0	2	0
39	Cowra	5,520	5,520	5,520	5,470	0.95	5,250	0.91	0.95	4,770	0.4	0.5		8,600	8,600	8,600	120	2	452	12	2		2	18	4	391	2.1	895	0.6	100			2		
40	Central Tablelands (NO SGE)	5,520	5,540	5,580	5,630	0.95	5,300	0.74	0.95	3,930	0.6	0.2	1.1	11,300	11,500	11,600	110	24	559	9	2	2	7	32	6	219	1.2		3.6	63	60		1		
41	Muswellbrook	5,600	5,630	5,720	5,410	0.94	5,400	0.88	0.96	4,830	2.0	1.0	1.7	16,100	16,200	16,600			168	32	3		3	8	5	112	0.6	263	2.2	88	12	1	1	17	1

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			New Residential Dwellings Connected			Population				Transfer Mains	Trunk + Retic 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	% Undergoing Training	Out-sourcing	Injuries	Days Lost		
					(Single + Mult + Non-res Dwellings + Fire) To Calc Losses	(Ratio of Connected Properties to Assessment	Connected Properties (18) x (19)	(Ratio of Residential Assessments to Total Assessments	(Ratio of Residential Connections to Residential Assessments	Connected Residential Properties (18)x(21)x(22)							(Peak) (% of Permanent)																	Total (%)	Due to Injuries
		(18)			(18a)	(19)	(20) C 4	(21)	(22)	(22a) C2	(22b)			(23) C1			(24)	(25)	(25a) A 2	(26) A 3	(27) A 1	(28)	(29)	(30)	(30a)	(31) F28	(31a) F14	(31b) F26	(32)	(34)	(37)	(38)	(39)	(40a)	(40b)
		2007/08	2008/09	2009/10	2009/10	2009/10	2009/10	2009/10	2009/10	2009/10	2007/08	2008/09	2009/10	2007/08	2008/09	2009/10	2009/10	2009/10	2009/10	2009/10	2009/10	2009/10	2009/10	2009/10	2009/10	2009/10	2009/10	2009/10	2009/10	2009/10	2009/10	2009/10	2009/10	2009/10	2009/10
42	Corowa	5,160	5,150	5,400	4,900	0.93	5,030	0.91	0.93	4,560	1.7	0.5	1.1	10,200	10,200	9,600	200	2	161	31	3			8	5				1.0	100			4		
43	Tumut	4,470	4,640	4,670	4,900	0.95	4,440	0.87	0.95	3,870	2.1	1.8	0.2	11,700	11,700	8,600	140		172	26	5	1	4	12	7	312	1.4		1.6	57		1	2	26	2
44	Gunnedah (Groundwater)	4,440	4,440	4,550	4,460	1.02	4,640	0.90	1.02	4,180	0.8	0.2	0.3	10,500	10,600	10,700	110	42	156	30	0		17	21	13	155	0.7		1.3	100	5	2	3	4	0
45	Upper Hunter	4,560	4,560	4,760	3,900	0.92	4,380	0.91	0.93	4,030	3.6	1.7	1.9	9,000	9,100	9,200	100		142	31	4	1	8	11	8	218	1.0		2.1	100	5	4	9	178	9
46	Narrabri (Groundwater)	4,420	4,460	4,470	3,980	0.98	4,380	0.84	0.98	3,680	0.5	0.2	0.6	10,700	10,700	10,700	100		112	39	0		11	12	11	52	0.2		1.8	100		4	0	2	0
47	Bellingen (Unfiltered)	4,210	4,230	4,260	4,260	0.95	4,040	0.90	0.95	3,630	0.6	0.2	0.7	9,200	9,200	9,300	100	4	164	25	2	1	4	6	4	165	0.7	246	1.5	100	5	2	2	7	1
48	Leeton	4,320	4,250	4,340	4,340	0.92	3,990	0.86	0.92	3,430	1.5	0.4		8,600	8,700	8,800	110	2	147	27	3	3		6	4	120	0.5		1.8	57		5			
49	Young (Reticulator)	4,170	4,410	4,450	3,960	1.04	4,630	0.84	1.04	3,880	1.6	0.6		9,100	9,200	9,200			145	32		-	-	-		12	0.1					-		-	
50	Cooma-Monaro	3,760	4,030	4,050	3,780	0.95	3,840	0.86	0.95	3,320	0.3		0.3	7,600	7,600	7,000	140		130	30	1		4	7	5	852	3.3		2.3	89		2	1	9	0
51	Forbes	3,340	3,500	3,600	3,540	1.01	3,640	0.86	1.01	3,120	0.7	0.3	0.8	7,800	7,700	7,600	110	10	130	28	1		2	6	5	301	1.1		2.2	25	25		1		
52	Snowy River (Unfiltered)	2,730	2,860	2,930	2,750	1.43	4,190	0.90	1.43	3,760	0.8	2.9	2.0	4,700	4,000	4,100	380	15	137	31	7			9	7	86	0.4		1.4	100	20				
53	Berrigan (Dual Supply)	3,560	3,560	3,590	3,250	0.98	3,520	0.88	0.98	3,110	3.3	1.2	1.1	6,900	6,600	6,700	110	4	216	16	4	4		8	4	387	1.4	305	1.6	100	7	2	3	9	1
54	Deniliquin	3,320	3,480	3,520	3,560	0.96	3,380	0.88	0.95	2,940	0.9	0.1	0.0	8,000	8,000	8,000	150	1	148	23	1		1	4	3	230	0.8	14				-		-	
55	Warrumbungle	3,310	3,330	3,330	3,140	0.99	3,300	0.85	0.97	2,740	0.6	0.1	1.2	5,900	5,900	5,900	100		148	22	4	1	6	8	5	389	1.3	460	3.0	50			0		
56	Yass Valley	3,070	3,100	3,150	2,950	0.98	3,090	0.90	0.98	2,780	2.0	0.8	1.5	6,700	6,800	6,600	120	2	159	19	1	1	5	12	8	436	1.3	277	1.8	55	8		15		
Medians (% of LWUs basis) or totals 3,001 to 10,000 Properties				*148,260*			*143,720*									*319,800*		*310*	*6,432*	*27*					*218*			*1.8*			*2*	*2*		
LWUs with 1,501 - 3,000 Properties																																		
57	Wellington	2,920	2,970	2,960	3,080	0.98	2,900	0.89	0.98	2,570	0.4	0.2	0.4	6,300	6,500	6,500	100	5	103	28	2		2	7	7	354	1.0	60	1.7	40	3		0		
58	Cootamundra (Reticulator)	2,910	2,930	2,950	3,010	0.99	2,920	0.87	0.99	2,550	0.5	0.3	0.7	7,300	7,500	7,600	110		92	32	0				0				0.7	100		1	1	5	1
59	Lachlan	2,620	2,760	2,770	2,700	1.02	2,820	0.78	1.02	2,200		0.4	0.4	5,500	5,500	5,400	110	3	225	13	3	4	1	8	4				1.8	100	21				
60	Glen Innes Severn	3,180	3,310	3,330	3,320	0.90	3,000	0.86	0.91	2,600	0.6	0.2	0.6	6,500	6,500	6,200	120	5	102	29	1			2	2	43	0.1	53	1.3	100		1	0	2	0
61	Liverpool Plains	2,580		2,750	2,540	0.98	2,690	0.96	0.98	2,590			0.3	5,000	5,700	5,700	110	31	102	26	1	1	10	14	14	864	2.3	731				-		-	
62	Narromine (Groundwater)	2,200	2,330	2,210	2,220	0.95	2,100	0.88	0.95	1,850	0.3	0.2	0.5	5,400	4,800	4,900	130	5	60	35	3	2	15	3	5	64	0.1		2.4	80	9				
63	Narrandera (Groundwater)	2,190	2,240	2,250		0.92	2,070	0.85	0.92	1,760				4,800	4,800	4,800	110		66	31	0		3	3	5	24	0.1	7				-		-	
65	Murray (Dual Supply)	2,800	3,090	2,900	2,640	0.95	2,760	0.88	0.95	2,430	8.3	1.0	1.2	5,900	6,000	6,100	210	7	137	20	2			8	6	119	0.3	20	1.4	100					
67	Cobar	2,270	2,300	2,370	2,200	0.95	2,250	0.83	0.95	1,870	3.8		0.5	4,500	7,000	7,000	110	212	116	19	1	5	1	6	5	138	0.3		4.4	100					
66	Cobar WB																	336	0		0	3		3							100				
68	Tenterfield	1,880	2,090	2,070	2,050	0.95	1,960	0.87	0.95	1,710	1.9	0.4	0.9	3,600	3,600	3,600			69	28	1	1	1	2	3	1,139	2.2	898	3.1	100	3				
70	Kyogle	2,000	1,930	1,940	2,020	0.95	1,840	0.82	0.95	1,500	0.7	0.2	0.8	3,700	3,700	3,700	120	15	56	33	2	1	3	5	9	669	1.2	621	3.8	100	5	2	7	90	6
71	Palerang	1,980	2,020	2,110	2,030	0.95	2,000	0.89	0.95	1,790	5.0		2.2	3,800	4,500	4,600	100	6	45	44	2	2	4	3	7	777	1.6	1,349	1.5	100					
73	Upper Lachlan	1,850	1,920	1,930	1,800	1.00	1,930	0.87	1.00	1,680	0.6	0.1	0.9	2,900	2,900	2,900	110	2	64	30	1	2	7	3	5	377	0.7		2.6	100	2	1	0	20	2
74	Wentworth (Dual Supply)	2,350	2,360	2,490	1,820	0.95	2,370	0.92	0.95	2,170			0.9	4,000	4,000	4,000	130		167	14	3			8	5	20	0.0		3.0	100			2		
75	Coonamble (Groundwater)	1,570	1,640	1,660	1,640	1.02	1,690	0.87	1.02	1,470	0.1	0.2	0.1	3,200	3,200	3,100	170		64	26	0		6		0	77	0.1		3.5	100		2	3	43	3
76	Harden (Reticulator)	1,830	1,820	1,940	1,850	0.96	1,870	0.67	0.95	1,240	0.7	0.4	0.2	3,900	3,900	3,900	100		170	11	0			3	2	41	0.1		2.1	113	1	2	3	12	1
79	Walgett (Dual Supply)	1,870	1,870	2,260	1,460	0.85	1,920	0.83	0.85	1,600				6,600	6,600	6,300	210	6	102	19	2		6	7	7	209	0.4	71	2.1			-		-	
80	Greater Hume	1,750	1,780	1,870	1,740	0.95	1,780	0.81	0.95	1,450	1.5	0.6	2.8	4,300	4,500	4,500	100		149	12	1		2	2	1	52	0.1		1.4	100	4				
Medians (% of LWUs basis) or totals 1,501 to 3,000 Properties				*42,760*			*40,870*									*90,800*		*633*	*1,887*	*27*					*128*			*2.1*			*2*	*2*		

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			New Residential Dwellings Connected			Population				Transfer Mains	Trunk + Retic 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	% Undergoing Training	Out-sourcing	Injuries	Days Lost		
					(Single + Mult + Non-res Dwellings + Fire) To Calc Losses	(Ratio of Connected Properties to Assessment	Connected Properties (18) x (19)	(Ratio of Residential Assessments to Total Assessments	(Ratio of Residential Connections to Residential Assessments	Connected Residential Properties (18)x(21)x(22)							(Peak) (% of Permanent)																Total (%)	Due to Injuries
		(18)			(18a)	(19)	(20) C 4	(21)	(22)	(22a) C2	(22b)			(23) C1			(24)	(25)	(25a) A 2	(26) A 3	(27) A 1	(28)	(29)	(30)	(30a)	(31) F28	(31a) F14	(31b) F26	(32)	(34)	(37)	(38)	(39)	(40a)	(40b)
		2007/08	2008/09	2009/10	2009/10	2009/10	2009/10	2009/10	2009/10	2009/10	2007/08	2008/09	2009/10	2007/08	2008/09	2009/10	2009/10	2009/10	2009/10	2009/10	2009/10	2009/10	2009/10	2009/10	2009/10	2009/10	2009/10	2009/10	2009/10	2009/10	2009/10	2009/10	2009/10	2009/10	2009/10
LWUs with 200 - 1,500 Properties																																	
81	Gwydir	1,530	1,530	1,530	1,670	0.95	1,460	0.87	0.95	1,260	0.4	0.1	0.1	2,600	2,600	2,600	130		87	17	1		9	1	1	473	0.7		2.7	100	10				
82	Gloucester	1,790	1,760	1,810	1,660	0.95	1,720	0.84	0.95	1,440	2.3	1.3	2.6	3,100	3,200	3,200	120		63	27	1		1	6	10	745	1.3		1.2	100	75				
83	Oberon (Reticulator)	1,290	1,300	1,380	1,360	1.01	1,390	0.83	1.02	1,160	0.5	0.2		3,000	3,000	3,100	130		39	36	1				0	125	0.2		0.7	400	8				
84	Gilgandra (Groundwater)	1,400	1,400	1,380	1,350	0.98	1,350	0.89	0.98	1,200	0.4	0.2	0.5	2,900	2,900	2,900	110	3	51	27	1	-	5	1	2	370	0.5		1.1	67			3		
85	Uralla	1,560	1,560	1,520	1,160	1.01	1,540	0.90	1.02	1,390	1.8	0.3	0.6	2,600	2,600	2,400	100		37	41	1	1		1	3	37	0.1		1.3	100	8	2	3	8	2
86	Hay (Dual Supply)	1,330	1,330	1,330	2,430	0.98	1,310	0.88	0.98	1,150	0.4	0.2	0.3	2,900	2,900	2,900	100	2	47	28	1			3	6	461	0.6		1.5	100					
87	Bourke (Dual Supply)	1,180	1,200	1,190	1,010	1.00	1,190	0.85	1.00	1,010	0.4	0.2	0.5	2,100	2,000	2,000	100		27	44	1		1	2	7	141	0.2	169	2.5	100					
88	Wakool (Dual Supply)	1,470	1,480	1,500	1,230	0.95	1,430	0.74	0.95	1,050	1.2	0.0		2,600	2,500	2,800			161	9	5	-	-	-		41	0.1					-		-	
89	Bogan	1,030	1,020	1,020	1,080	1.01	1,030	0.87	1.01	900	0.3	0.0	0.2	2,500	2,500	2,500	140	3	48	22	1			1	2	42	0.0	15	2.9	0	2				
90	Guyra	1,230	1,230	1,270	1,120	0.95	1,200	0.88	0.95	1,060		0.3	0.7	2,900	3,000	3,000	100	10	62	19	1	2		1	2	45	0.1		2.5	67	3		2		
91	Cabonne	1,210	1,210	1,210	1,110	0.95	1,150	0.86	0.95	990	0.6	0.2	0.0	2,200	2,200	2,200	100	50	42	28	1	3	5	4	10	504	0.6	282	4.4	100			2		
92	Carrathool (Groundwater)	1,070	1,190	1,190	1,070	0.95	1,130	0.81	0.95	910	0.6	0.4	1.1	2,000	2,000	2,000	110	10	476	2	4	3	9	20	4	187	0.2	263	5.3	100	1				
93	Tumbarumba	1,200	1,200	1,210		0.95	1,150	0.88	0.95	1,010			1.6	2,000	2,000	2,000	170		66	17	0	1	1	2	3	197	0.2		4.4	40					
94	Gundagai	1,030	1,030	1,030	1,090	0.85	880	0.86	0.84	740	1.9	0.7	1.6	2,400	2,400	2,400	210		36	24	1			2	6	56	0.0		2.3	100	5		2		
96	Warren (Dual Supply)	1,060	1,060	1,050	1,000	0.91	960	0.89	0.90	840	0.2	0.4	0.2	1,800	1,800	1,800	100	7	53	18	0		5	2	4				2.6	100					-
97	Bombala	890	890	890	850	0.95	840	0.87	0.95	740	0.4	0.1	0.1	1,900	1,900	1,900	110	4	38	22	2			3	8	27	0.0		2.4	100					
98	Walcha	880	880	900	930	1.01	910	0.83	1.01	750	0.5	0.3	1.1	1,700	1,700	1,700	110	17	57	16	1	1		3	5	41	0.0		2.2	100					
100	Balranald (Dual Supply)	850	910	950	880	0.95	900	0.83	0.95	750	3.0	0.3	1.6	2,000	2,000	2,000		2	30	30	2			3	10	34	0.0		1.1	100	9				
101	Murrumbidgee (Groundwater)	820	880	880	990	1.03	900	0.89	1.03	810	2.5			1,700	1,700	1,700			29	31	1	-	-	-		185	0.2					-		-	
103	Central Darling (Dual Supply)	690	690	730	680	1.00	730	0.87	1.00	630	0.3	0.1		1,400	1,400	1,400	110		66	11	2	4	2	8	12							-		-	
104	Boorowa	660	720	660		0.94	620	0.98	0.94	610	2.0		0.7	1,200	700	690	730		58	11	1		1	1	2	169	0.1		4.8	67					-
105	Brewarrina	560	560	580	540	0.86	490	0.89	0.86	440	0.0	0.1	0.7	1,500	1,500	1,500	110	7	38	13	2	1	1	2	5	140	0.1	46	7.1	100		1	1	3	0
106	Jerilderie (Dual Supply)	500	500	500	510	0.93	470	0.77	0.93	360	0.6	0.3	0.6	770	900	900	100	3	44	11	1			1	2	103	0.0	13	4.3	100					
Medians (% of LWUs basis) or totals 200 to 1,500 Properties				*25,710*			*24,750*									*49,590*		*118*	*1,653*	*22*					*140*			*2.5*			*2*	*2*		
Median All LWUs (% of LWUs basis)												*New res dwellings*	*0.9 %*				*Properties served per km of main*		*28*					*Capital Expenditure/prop*	*$180*			*1.8*					
Median All LWUs (Statewide basis)													*1 %*						*32*						*$282*			*1.4*					

Totals (excluding bulk suppliers)

815,000 assessments

796,000 connected properties

724,000 residential connected properties

Total Population 1.8 M

180 water treatment works (Note 1)

100 dams

37,600 km of main (includes bulk suppliers)

Total WS Capital Expenditure $380 M (including bulk suppliers)

Reported No. of WS employees 1,390

Notes: 1. In addition to these 180 water treatment works, the LWUs also have 105 chlorinators/aerators (see Appendix D1 on page 233).

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

WATER UTILITY		ASSET MANAGEMENT																				WATER RESOURCE MANAGEMENT																	
		Real Losses (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 (RDT) Waste Metering (WM) or Night Flow Metering (NF[Z]) Z is No. of District Meter Areas			(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 Exports) (ML) (from Table 8)			For outdoor uses of industry (Including Recycled) (ML) (from Table 8)			(Total Vol Recycled (Urban + Ag Use)/Total Urban Water Supplied		(%)	From Tables 8 & 9 (1) ÷ [(22a)] Potable (kL/property)			From Tables 8 & 9 [(1)+(11)+(12a)] ÷ [(22a)] Potable+Nonpotable (kL/property)		
		(41) A 10			(41a) A 11	(41b) A 9	Type (41c)	Year (41d)	Result % (41e)	(42) A 8			(43) C 17			(44)	(45)	(45a)	(46)	(47)	(48)	(49) W 11			(50)			(51)		(53)	(56a)			(56) W12					
		2007/08	2008/09	2009/10	2009/10	2009/10	2009/10	2009/10	2009/10	2007/08	2008/09	2009/10	2007/08	2008/09	2009/10	2009/10	2009/10	2009/10	2009/10		2009/10	2007/08	2008/09	2009/10	2007/08	2008/09	2009/10	2007/08	2008/09	2009/10	2008/09	2009/10	2007/08	2008/09	2009/10	2007/08	2008/09	2009/10
	Sydney Water	91	81	73	4.6	1.3				30	34	28	5	5	4							481,701	491,968	505,650											182	198	205
	Hunter Water	80	94	88	3.5	1.3				30	33	32	225	271	255							66,009	67,020	68,233											177	180	184
	Sydney Catchment Authority																																						
LWUs with > 10,000 Properties																																							
1	Gosford	20	30	50	3.0	1.0		-	-	29	27	34	181	203	239	0.2	0.3	1.7			319	12,100	12,600	13,600		68	14	2	3	126	133	135	140	146	135	140	146
2	Wyong	30	30	30	1.5	1.0		2004	5.0	4	9	6	39	61	61	0.1	0.8	2.5			360	12,800	13,400	13,900	832	865	940	9	7	126	142	146	141	154	146	141	154
3	Shoalhaven	80	60	70	2.1	1.0		-	-	9	14	9	59	-	39	0.7		2.8	62	0.2	69	12,400	15,000	15,200	147	2,012	2,332	29	35	151	126	144	152	145	144	152	145
4	Rous (Bulk Supplier) (NO SGE)				3.5			-	-	24	16	21	2	2	2	3.2	0.0	0.5	2948	0.8	346	630	430	1,570							865						
5	MidCoast (Unfiltered)	90	100	90	2.2	1.1	NF[34]	2008	11.0	9	5	3		-	-	0.2					232	8,940	9,170	9,160		4		2	11	158	144	149	150	154	149	150	154
6	Tweed	70	60	90	3.1	1.5		-	-	10	5	3	34	9	14	0.5	0.1	1.6	11189	14.1	201	9,030	9,210	10,500	262	645	778	8	9	125	147	174	180	176	174	180	176
7	Port Macquarie-Hastings (Unfiltered)	40	40	40	1.4	1.0		-	-	2	3	2	7	11	5	0.4	0.1	1.2	199	0.3	66	6,090	6,120	6,500	158	64	109	3	5	122	109	154	151	166	154	151	166
8	Riverina (Groundwater) (NO SGE)	130	60	50	0.9	1.0		-	-	13	14	10	54	34	39	0.3	0.1	19.1	139	0.9	50	14,800	17,100	15,900						194	186	327	374	330	327	374	330
10	Coffs Harbour (Unfiltered)	50	50	50	1.7	1.0		2008	-	7	11	11	20	24	20	0.1	0.0	2.0	97	0.1	180	5,630	5,690	6,620	93		346	23	16	116	121	169	165	186	169	165	186
11	Albury City	50	50	50	2.0	1.4		-	-	8	12	7		-	-	0.6	0.1	5.0			130	5,730	6,890	6,800		6	8	96	100	201	212	193	222	220	193	222	220
12	Fish River WS (Unfiltered, Bulk Supplier				11.0			-	-	2	5	2		0	1			0.0				1,270	680	1,460							457						
13	Tamworth Regional	200	190	140	4.2	5.0		-	-	28	12	5	7	-	-	0.1	0.3	6.3			195	8,470	9,270	9,440	150	157	88	36	38	218	187	192	226	256	192	226	256
14	Clarence Valley	100	50	120	2.3	1.1		-	-	19	10	16		-	-	0.1	-	1.9	44	0.2	109	6,650	6,220	6,740	176	186	233	4	5	136	124	174	172	170	174	176	174
15	Eurobodalla (Unfiltered)	170	90	170	3.2	2.1		-	-	3	4	6	3	2	3	0.4		4.4	92	0.3	79	4,440	4,000	4,320	184	171	281	8	10	176	145	119	129	116	119	129	116
16	Wingecarribee	70	110	90	2.3	1.0		-	-	9	8	12	60	46	61	0.4	0.0	1.4	157	0.3	68	4,240	4,830	4,860	54	64	73	2	2	212	173	168	183	190	168	183	190
17	Queanbeyan (Reticulator)	50	60	100	4.3	1.8	RDT	2007	12.0	5	1	0		6	5	0.5		7.4	246	0.4	76	3,780	4,050	4,280				1	1	136	133	188	198	200	188	198	200
18	Dubbo	150	180	160	5.2	3.4		2009	-	7	7	4	20	24	31	0.4		3.8	71	0.2	191	7,350	8,210	7,690				97	78	220	235	322	331	329	322	331	329
19	Orange	140			2.5			2009	10.0	30	28	11	116	175	-	20.5	0.2	1.3	67	0.1	91	8,170	8,350	6,930	3,394	3,291	3,033	87	90	103	130	177	259	148	177	259	148
20	Goulburn Mulwaree	40	40	40	1.4	1.0		-	-	28	14	14		-	-	1.0	1.4	7.8	232	0.3	246	2,360	2,480	2,210				100	80	122	137	147	134	136	147	134	136
21	Bathurst Regional	80		70	2.7	1.0		-	-	11	9	9	3	2	2	0.4	0.6	1.6	107	0.2	251	5,780	5,780	6,000	2	2	2	100	100	232	215	241	240	252	241	240	252
22	Lismore (Reticulator)	40	110	130	5.0	2.0		-	-	20	20	23	42	49	37	0.5	1.0	2.1	445	1.0		3,330	3,520	3,790				0	1			163	159	168	163	159	168
23	Bega Valley (Unfiltered)	80	60	60	1.2	1.0		2009	7.0	7	5	4		-	-	0.7	0.1	5.0	131	0.4	132	3,700	3,990	4,210	457	556	613	46	41	158	151	144	154	165	144	154	165
24	Ballina (Reticulator)	40	120	200	6.2	3.2	RDT	2005	19.0	4	9	13		-	-	0.1	0.1	2.2	26	0.1	90	3,550	3,570	4,770	107	119	717	3	19			186	175	188	186	175	188
25	Kempsey (Groundwater)	120	80	60	1.3	1.0		2008	11.0	12	24	11	69	114	23	0.0	0.2	7.4	392	0.6	131	3,730	3,630	3,770	34	32	40	1	2	158	147	169	156	177	169	156	177
26	Country Energy	80	70	80	2.1	1.3		-	-	18	11	12		-	-	0.6	0.1	0.7	531		446	6,730	5,760	5,930	1,790	999	1,179	41	46	187	187	280	280	279	280	284	280
27	Byron (Reticulator)	50	50	100	4.1	2.6		-	-	8	8	12	10	9	11		0.0	0.5			25	2,930	3,020	3,170	340	235	218	13	15			181	181	194	181	181	194
28A	Goldenfields (Reticulator) (NO SGE)	100		90	0.5	1.0		-	-	7	6	19	159		117	1.3	0.3	4.5	64	1.1	45	4,940	5,530	5,160	130	121	127			326	319	252	294	256	252	298	259
28B	Goldenfields (Bulk Supplier) (NO SGE)										0	0							1066	3.1	86															
	Medians (% of LWUs basis excl bulk suppliers) for >10,000 Properties		60	*85*	*2.3*	*1.1*	Note: ILI < 1.0 is meaningless & has been increased to 1.0			9	9	*10*	39	24	*27*				*131*		*131*							*9*	*15*			*174*	*175*	*177*	*174*	*176*	*177*
LWUs with 3,001 - 10,000 Properties																																							
29	Armidale Dumaresq	70	60	60	1.6	1.0		-	-	24	12	15		-	-		0.6	4.5	75	0.2	403	3,140	2,710	2,640	40	50	45	33	40	215	185	254	208	215	254	214	221
30	Griffith	110	120	120	2.2	1.0		-	-	15	16	19	27	24	24	1.2	0.2	3.0	289	1.2	36	7,010	6,670	7,740	629	630	748	11	9	264	189	548	537	560	548	566	584
31	Lithgow		30	30	0.5	1.0		-	-		6	23		13	-	-	-	-			150	2,050	2,330	1,500					-		115	160	173	135	160	173	135
32	Mid-Western Regional	50	70	70	1.8	1.0		2010	6.0	8	2	5	34	49	56	0.1	0.1	3.2			262	2,210	1,760	2,540				7	12	201	206	199	158	205	199	158	205
33	Richmond Valley	110			4.8			-	-	9	5	15	4	-	-	1.9	2.1	-	540	1.2	136	3,010	3,090	3,180				13	19		112	189	175	195	189	175	195
34	Nambucca (Groundwater)	40	50	50	1.3	1.0		2010	-	2	6	4	8	-	-	0.2		4.8	119	0.3		1,550	1,550	1,530				7	8	131	136	146	137	143	146	137	143
35	Singleton	120	70	70	1.8	1.0		-	-	12	12	10	320	318	219	0.5	2.1	5.9	23	0.1	63	2,320	2,680	2,650				33	33	187	173	211	269	281	211	269	281
36	Parkes	240	200	200	2.8	5.2		2004	6.0	15	11	11				0.1		0.1			13	6,760	6,510	6,730	344	122	121	54	36	137	133	212	310	339	212	315	344
37	Inverell	70	70	70	1.5	1.1		-	-	6	4	3	4	2	2	0.4	0.1	0.0	159	0.5	93	2,350	2,340	*2,340*						123	156	294	290	277	294	290	277

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

WATER UTILITY		ASSET MANAGEMENT																				WATER RESOURCE MANAGEMENT																	
		Real Losses (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 (RDT) Waste Metering (WM) or Night Flow Metering (NF[Z]) Z is No. of District Meter Areas			(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 Exports) (ML) (from Table 8)			For outdoor uses or industry (Including Recycled) (ML) (from Table 8)			(Total Vol Recycled (Urban + Ag Use)/Total Urban Water Supplied		(%)		From Tables 8 & 9 (1) ÷ [(22a)] Potable (kL/property)			From Tables 8 & 9 [(1)+(11)+(12a)] ÷ [(22a)] Potable+Nonpotable (kL/property)		
		(41) A 10			(41a) A 11	(41b) A 9	Type (41c)	Year (41d)	Result % (41e)	(42) A 8			(43) C 17			(44)	(45)	(45a)	(46)	(47)		(49) W 11			(50)			(51)		(53)		(56a)			(56) W12					
		2007/08	2008/09	2009/10	2009/10	2009/10	2009/10	2009/10	2009/10	2007/08	2008/09	2009/10	2007/08	2008/09	2009/10	2009/10	2009/10	2009/10	2009/10		2009/10	2007/08	2008/09	2009/10	2007/08	2008/09	2009/10	2007/08	2008/09	2008/09	2009/10	2007/08	2008/09	2009/10	2007/08	2008/09	2009/10
38	Moree Plains (Groundwater)	160	230	230	7.5	6.9		2010	-	46	45	33	453	739	659	0.8	0.8	0.4			397	9,720	9,010	3,530	4,944	4,300	348	76	65	102	180	936	946	946	936	1,960	619
39	Cowra	90	150	150	2.1	1.8		-		8	10	12	8	1	2	0.1	0.5	5.9			132	2,060	2,420	2,790		85		100	100	196	155	198	193	202	198	211	202
40	Central Tablelands (NO SGE)	50	50	50	0.5	1.0		-	-	11	10	10	60	49	50	1.3	1.6	2.9	112	0.6	47	1,770	2,100	1,880						209	233	190	196	201	190	196	201
41	Muswellbrook	60	70	70	2.3	1.3		2010	-	22	35	27	10	11	24	0.7	0.2	2.0	182	0.5	139	2,870	2,200	3,300	959	136	912	75	76			240	263	305	240	263	305
42	Corowa	150	70	70	2.0	1.9		-	-	19	19	14	30	15	46	1.2	0.2	0.7			129	2,690	2,060	2,180	682				45	228	241	207	245	237	207	245	237
43	Tumut	50	40	40	1.2			2010	-	4	6	7		-	3		-	3.6			63	1,470	1,530	1,450	25	33	151	4.0	19	132	148	224	219	201	224	219	202
44	Gunnedah (Groundwater)	100	80	80	2.4	1.1		2009	3.0	13	15	19	3	3	3	0.6	0.6	5.5			256	2,190	2,270	2,300				42	75	184		247	282	338	247	282	338
45	Upper Hunter	60	120	120	3.4			-	-	74	28	20	17	33	27	2.1	0.7	6.8	675	2.4	474	1,680	1,700	3,050	167		135	11	10			216	230	448	216	230	448
46	Narrabri (Groundwater)	130			4.9			-	-	81	96	82	90	23	16	1.8	0.4	2.4	88	0.2	121	3,480	3,550	2,290				4	4	200	309	773	548	544	773	548	544
47	Bellingen (Unfiltered)	120	50	50	1.3	1.0		-	-	7	6	8		-	-	1.8	0.6	5.6			49	1,280	1,190	1,280						105	135	173	168	175	173	168	175
48	Leeton	380	190	190	5.6	5.2		2007	22.0	35	21	6	40	26	11	3.4	2.5	7.1			373	2,790	3,090	2,960				1	1	182	168	384	444	442	384	444	442
49	Young (Reticulator)	110	60	60	1.7			-	-	17	17	-	25	26	-	-	-	-			105	1,570	1,610	1,520	129	99		73	-	201		217	207	222	217	207	222
50	Cooma-Monaro	70	50	50	1.6			-	-	22	16	15		-	-	0.6	0.4	2.3	199	0.6	176	1,700	1,430	1,230				3	25		179	320	289	195	320	289	195
51	Forbes	80	80	80	2.3	2.2		2009	15.0	34	49	33	123	88	118		1.0	4.8			255	1,890	1,870	1,950	166	137	156	1.1	82.2	290	230	356	363	338	356	363	338
52	Snowy River (Unfiltered)	130	130	130	2.8	1.6	RDT	2007	6.0	10	7	7	1		4			0.5			20	860	870	850						398	468	126	156	127	126	156	127
53	Berrigan (Dual Supply)	90	90	90	1.3	2.0		-	-	29	22	13	11	59	57		0.8	159.3	261	1.4		1,330	1,500	1,560	626	686	750	20	34	460	366	131	173	158	215	292	272
54	Deniliquin	70			2.7			-	-	13	18	-	2	15	-				111	0.3	240	1,870	3,010	2,430	380	600		74	-	163		403	640	466	403	709	466
55	Warrumbungle	30	50	40	0.9			-	-	3	5	4		-		0.7		4.0	41	0.1	215	590	850	810				10	25	232	162	148	192	190	148	192	190
56	Yass Valley	90	100	90	1.7	2.1		-	-	8	12	13	27	36	42	0.3	0.9	5.8			74	740	860	840				33	13	140	137	165	184	176	165	184	176
	Medians (% of LWUs basis) for 3,000 to 10,000 Properties			*70*	*2*	*1*	Note: ILI < 1.0 is meaningless & has been increased to 1.0					*13*			*26*					*139*	*134*			69,000					*25*					*218*			*229*
LWUs with 1,501 - 3,000 Properties																																							
57	Wellington	130	270	220	6.5	3.5	RDT	2004	23	9	12	17	29	45	39	4.7	7.3	2.1	912	3.5	318	1,120	1,180	*1,180*						167	123	304	202	209	304	202	209
58	Cootamundra (Reticulator)	50	70	70	2.4	1.0		-	-	27	66	52	9	9	9		0.6	4.6			268	950	910	*910*	199	202	204	52	50			208	198	179	208	198	179
59	Lachlan	90	170	130	1.5	1.7		2009	14.0	12	8	7	23	16	11	0.8	0.3	5.8			76	1,470	1,570	1,430	129	160	157	24	26	200	193	360	337	349	360	351	360
60	Glen Innes Severn	100	30	90	3.0	1.0		2010	15.0	7	4	6	70	40	33	0.3	1.3	2.0	126	0.4	119	680	580	710			59	100	12		143	164	157	155	164	157	155
61	Liverpool Plains		60	70	1.7	1.0		-	-		9	11		28	38		0.6	1.5	839	1.8		950	850	920					-	234	215	242	223	222	242	223	222
62	Narromine (Groundwater)	100	250	90	3.3	2.2		2010	55.0	20	18	25	64	51	24	1.3	5.7	7.4	225	0.8	298	1,380	2,170	1,110	134	2		5			361	490	430	434	490	430	434
63	Narrandera (Groundwater)				2.9			-	-	9	-	-	75	-	-		-	-			255	1,400	1,160	1,170				-		355		419	384	376	419	384	376
65	Murray (Dual Supply)	40	80	80	1.5	1.7		2010	14.0	7	9	4	50	28	8	0.6	1.5	0.7	139	0.5	65	930	1,130	1,140	220	436	431	26	21	181	176	179	156	174	225	260	289
67	Cobar		120	50	0.9			-	6.0	10	6	10	2	1	3	0.9	0.4	2.7				2,260	1,670	950	220	48	101	35	38	154	257	721	438	309	721	465	310
66	Cobar WB																						1,170	1,540		1,172	1,543										
68	Tenterfield	40	30	30	1.0	1.0		2009	-	9	-	10	39	-	-	1.4	1.5	8.1	229	0.4		410	420	470			50	-	25		125	199	140	138	199	140	138
70	Kyogle	30	40	40	1.4	1.0		-	-	9	5	14	3	4	7		0.7	1.3			327	390	450	460	13	20	26	100	91	109	108	134	180	164	134	180	164
71	Palerang	30	60	40	1.8	1.0		-	-	29	24	13	33	31	30	1.1	1.0	1.0	1022	1.7	152	410	480	490				2		185	138	141	163	187	141	163	187
73	Upper Lachlan	40	30	30	0.8	1.0		-	-	5	3	8	3	3	5	4.7	1.0	2.6	1142	3.1	17	460	300	*300*						159	212	179	72	71	179	72	71
74	Wentworth (Dual Supply)		80	80	0.9			-	-		12	9		9	6		0.7	0.3			93	1,980	1,540	*1,540*	1,690	624	624					83	119	113	560	376	356
75	Coonamble (Groundwater)	190	160	100	2.6	2.8		-	-	39	27	44	63	60	35	0.8	1.8	5.7				1,060	1,110	1,030	41	37	34	32	24	213	173	408	419	466	408	419	466
76	Harden (Reticulator)	60	50	70	0.7	1.0	RDT	2006		7	9	8	3	6	11		1.3	18.8	45	0.3	104	550	800	1,020		248	275	70	69	103		322	330	330	322	330	330
79	Walgett (Dual Supply)	50			0.8			-	-		-	-		-	-	2.9	0.3	-	80	0.3	243	1,510	480	1,660	1,042		1,186	-	-			189	195	169	938	938	912
80	Greater Hume	50	50	50	0.5	1.0	RDT	2006	-	3	7	5	30	30	28	0.5	0.6	2.2			20	530	640	550	61	90	59	25	15	207	224	223	240	223	223	240	223
	Medians (% of LWUs basis) for 1,500 to 3,000 Properties			*70*	*1.5*	*1.0*	Note: ILI < 1.0 is meaningless & has been increased to 1.0					*10*			*11*					*227*	*136*			18,600					*26*					*198*			*256*

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

WATER UTILITY	ASSET MANAGEMENT																					WATER RESOURCE MANAGEMENT																	
	Real Losses (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 (RDT) Waste Metering (WM) or Night Flow Metering (NF[Z]) Z is No. of District Meter Areas				(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 Exports) (ML) (from Table 8)			For outdoor uses or industry (Including Recycled) (ML) (from Table 8)			(Total Vol Recycled (Urban + Ag Use)/Total Urban Water Supplied		(%)	From Tables 8 & 9 (1) ÷ [(22a)] Potable (kL/property)			From Tables 8 & 9 [(1)+(11)+(12a)] ÷ [(22a)] Potable+Nonpotable (kL/property)		
	(41) A 10			(41a) A 11	(41b) A 9	Type (41c)	Year (41d)	Result % (41e)		(42) A 8			(43) C 17			(44)	(45)	(45a)	(46)	(47)	(48)	(49) W 11			(50)			(51)		(53)	(56a)						(56) W12		
	2007/08	2008/09	2009/10	2009/10	2009/10	2009/10	2009/10	2009/10	2007/08	2008/09	2009/10	2007/08	2008/09	2009/10	2009/10	2009/10	2009/10	2009/10			2009/10	2007/08	2008/09	2009/10	2007/08	2008/09	2009/10	2007/08	2008/09	2008/09	2009/10	2007/08	2008/09	2009/10	2007/08	2008/09	2009/10
LWUs with 200 - 1,500 Properties																																							
81 Gwydir	260	40	280	5.4	4.9		2009	12.0	13	40	21	11	13	10	0.4	3.7	1.1	114	0.7	122	680	380	670	24	27	43	16	17	365	283	219	154	209	219	154	209
82 Gloucester	50		90	2.3	2.2		-	-	7		10	62		10	0.8	1.9	1.3	820	2.8	207	400		420							126	166	179	167	166	179	167
83 Oberon (Reticulator)	100	70	100	3.2			-	-		17	18	31	14	32	2.7	0.6	3.2	379	1.8	121	760	590	570					100			175	179	128	175	179	128
84 Gilgandra (Groundwater)	140			4.3			2000	15.0	30	30	40	37	36	37	1.2	0.4	0.7	617	2.1	237	820	840	810				100	100	162	167	413	428	433	413	428	433
85 Uralla		70	70	2.3	1.3		-	-	19	14	32	29	17	78	0.3	0.9				250	270	240	300						329	209	123	102	127	123	102	127
86 Hay (Dual Supply)	50	30	30	1.3	1.1		-	-	32	32	32	11	11	11	0.6	0.4	0.8			245	1,320	1,460	1,340	963	1,096	954			115	108	179	184	193	1,021	1,140	1025
87 Bourke (Dual Supply)	110	110	110	4.2	3.6		-		57	78	167	823	815	844		0.4	3.4			507	3,670	3,500	4,050	2,999	2,825	3,366			162	160	383	539	569	3,350	3,169	3755
88 Wakool (Dual Supply)	100	100	40	0.4			-	-	0	0	-			-	-	-	-			43	1,020	1,090	1,100	623	715	720		-			173	153	205	853	839	891
89 Bogan	80	330	90	2.0	2.5		2010	-	32	32	36	19	10	71		0.2	4.7			137	520	580	*580*						290		479	309	365	479	309	365
90 Guyra	60	60	70	1.3	1.0		2009	3.0		10	8		19	15	0.2	0.2	4.5	87	0.3	185	410	410	490						151	180	227	215	217	227	215	217
91 Cabonne	140	130	110	2.8	2.4		2010	22.0	37	29	26	25	-	-		1.8	1.6			79	380	390	410	145	158	180	46	50	157	157	131	131	135	131	166	168
92 Carrathool (Groundwater)	110			0.4			-	-	10	12	5	394	-	221			3.3	44	0.3	33	1,320	1,300	1,680	618	651	649	-		184	112	482	446	641	482	1,215	1351
93 Tumbarumba				1.0			-	-	6	9	8	13	22	35	2.0	0.5	2.0	99	0.4	58	380	390	300				-			173	219	221	177	219	221	177
94 Gundagai	140	130	130	3.8	1.5		-	7.0	8	11	17	28	29	34	0.8	2.3	3.4			106	680	730	*730*	111	117	117	100	100	194	196	230	281	336	230	281	336
96 Warren (Dual Supply)	260	180	170	3.2	5.2		-	33.0	42	51	66	3	3	-		0.2	5.3			115	580	470	720	256	191	334	3	1	186	135	172	164	300	412	352	654
97 Bombala	80	90	40	0.9	1.0		-	-	26	26	23					0.2	1.4	60	0.2	37	230	250	240			35	100	21	104	156	249	266	193	249	266	193
98 Walcha	50	40	40	0.6	2.8		2010	2.0	4	4	4	6	7	6	0.4	0.3	2.0			48	250	220	210						168	196	204	176	171	204	176	171
100 Balranald (Dual Supply)	20	40	40	1.1	1.0		-	-	17	13	33						1.3	67	0.1	187	660	740	590	458	536	395	73		609	131	257	241	232	910	958	758
101 Murrumbidgee (Groundwater)	240			3.8			-	-	7	-	-		-	-	-	-	-			21	670	670	*670*	10			-	-			550	474	470	550	474	470
103 Central Darling (Dual Supply)	20			0.3			-	-	32	32	-	87	29	-		0.1	1.1			108	350	360	*360*	270	245	241		-	228		140	145	103	601	526	484
104 Boorowa				0.8			2009	4.0	28	21	9	44	7	3	-	-	-	181	0.9	26	220	240	280		3	1	5	2			216	270	295	216	271	296
105 Brewarrina	130	70	70	1.0	1.5		-	-	39	50	52			40	3.1	0.6		60	0.2	317	830	840	730	540	591	503	-	100	169	116	400	335	293	400	1,721	1440
106 Jerilderie (Dual Supply)	40	40	50	0.5			-	-	30	21	16	9		9		4.9	0.4			131	390	430	*430*	269	300	284	26	15	159		208	245	264	942	1,033	1025
Medians (% of LWUs basis) for 200 to 1,500 Properties			*70*	*1*	*2*	Note: ILI < 1.0 is meaningless & has been increased to 1.0					*22*			*33*	*1*			*99*		*121*			17,700					*36*				*217*				*365*
Median All LWUs (% of LWUs basis)	*Leakage*		*70*	*2.0*	*1.1*				*Main Breaks per 100km of main*		*12*	*Interruptions*		*24*		*Mains*	*0.6*	*Renewals 0.6% of CRC*							*% of Total Urban Water Recycled*		*24%*					*Av Annual Res Water Supplied*			*225*		
Median All LWUs (Statewide basis)			*70*								*10*			*37*	*Rehabilitations*			*0.3 %*																		*175*
Totals for all LWUs (excluding bulk suppliers)	*34 LWUs reported recent leakage testing*																				*Total Urban Water Supplied 291,000 ML*			*Non-potable Urban Water Supplied 27,900 ML*														

+ There are 11 LWUs with a dual water supply in 2009-10; Balranald, Berrigan, Bourke, Central Darling, Hay, Jerilderie, Murray, Wakool, Walgett, Warren, Wentworth.
For these 11 LWUs, note 12 on page 20 reports the approximate total potable annual residential water supplied per property. This is lower than the value reported in Column 56 as it is calculated only for those towns with a dual supply.

Note: 1. The reported Real Losses shown above for NWI indicator A10 have been rounded in recognition of the significant inherent errors in the determination of distribution system leakage.
2. 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.
3. Leakage relates only to Total Urban Water Supplied (potable) and excludes bulk water exports.
4. 42 LWUs have reported carrying out recent leakage testing. (columns (41c), (41d), (41e))

Table 11: Water supply – financial and efficiency

WATER UTILITY	WATER SUPPLY FINANCIAL (SEE ALSO COST RECOVERY TABLE 6)																								EFFICIENCY (SEE ALSO COST RECOVERY TABLE 6)							
	Total Revenue Water (excl. Capital Works Grants)		Revenue per property	Residential Revenue			Current Replacement Cost (CRC) of System Assets			Net Debt to Equity			ERRR			Return on Assets			Operating Result		Cross Subsidies		Externalities (Fees to State Water)	Loan Payment			Operating Cost (OMA)				Management Cost			
	($'000)		($)	Res Revenue (% of rates & charges) (%)*	Res Water Supplied (% of water supplied excluding water	Res Revenue (% of Usage Charges) (%)	Written Down Cost ($M)	Current Replacement Cost ($M)	Current Replacement Cost per Assessmnt ($)	(%)			see also Table 6 Col (12)						($/property)		Annual Fees & Charges ($/assessment)	Developer Charge ($/assessment)	($/property)	($/property)			($/property)				($/property)			
	(57) F 1		(57a) F5	(58)	(59)	(58a) F4	(60)	(61) F9	(62)	(63) F22			(63a) F 17			(63b)			(65)		(64a)	(64b)	(66)	(66a)			(67) F 11**				(68)+			
	08/09	09/10		09/10	09/10	09/10	09/10	09/10	09/10	07/08	08/09	08/09	07/08	08/09	08/09	07/08	08/09	08/09	08/09	09/10	09/10	09/10	09/10	07/08	08/09	06/07	07/08	08/09	09/10	06/07	07/08	08/09	09/10
Sydney Water	928,376	1,072,500	605			82		11592		62	103		-0.5	1.7	2.3											284	354	306	311				
Hunter Water	92,171	112,479	500					1579		30	32		2.0	2.5	3.7											230	196	189	190				
Sydney Catchment Authority	180,332	196,274																														
LWUs with > 10,000 Properties																																
1 Gosford	28,900	32,900	468	89	75	74*	524	655	9,714	5	8	11	-0.3	0.3	0.1	-0.4	0.2	-0.7	-36	-87			0.003	25	43	84	285	270	284	353	138	130	127	133
2 Wyong	39,000	46,300	774	*90*	73	73*	511	713	11,555	15	18	18	0.0	-0.6	1.6	-0.9	-1.8	0.6	-189	-16			0.02	169	137	239	314	276	564	391	124	107	152	184
3 Shoalhaven	16,500	19,700	431	63	54	74	290	472	9,469	-8	-2	-4	-0.3	-0.3	0.4	-0.1	-0.8	0.9	-65	60			0.02	15	21	14	219	233	260	274	113	119	124	124
4 Rous (Bulk Supplier) (NO SGE)	13,800	16,500		10			310	466	9,794	10	11	10	-0.2	-0.4	-0.4	-1.2	-1.1	-1.1	-115	-138			0.05	84	89	89	143	159	182	204	67	73	85	94
5 MidCoast (Unfiltered)	18,200	23,400	645	79	69	77	326	507	13,408	6	23	29	0.2	0.8	3.5	-3.3	-1.7	2.3	-181	186			0.29	120	42	243	258	326	285	316	53	79	84	72
6 Tweed	18,300	20,600	659	80	65	75	420	547	15,958	-5	6	9	1.3	0.2	0.4	1.6	-0.2	-0.1	-54	-135			0.02	475	78	157	289	287	303	356	142	142	153	159
7 Port Macquarie-Hastings (Unfiltered)	21,500	23,600	814	72	75	70	356	510	16,736	1	1	-2	0.7	1.7	1.9	0.5	0.3	2.6	-77	274		57	0.04	54	55	56	282	239	251	308	94	100	109	124
8 Riverina (Groundwater) (NO SGE)	17,700	18,600	649	73	61	80	148	254	8,526	-7	0	-5.0	3.4	3.4	3.4	3.9	3.7	3.6	140	90					0	0	277	283	303	312	75	81	85	94
10 Coffs Harbour (Unfiltered)	16,200	32,300	1,343	77	74	76*	316	407	15,900	13	27	25	3.7	1.7	6.3	1.6	-0.9	4.9	-117	641		67	0.004	353	579	585	227	236	277	300	106	115	117	134
11 Albury City	7,860	9,160	406	66	74	64	189	337	15,394	-2	0	-0.6	-0.8	-1.6	-1.0	-0.7	-1.5	-0.9	-123	-75		22	3.8	3	0	0	228	270	270	269	94	114	115	105
12 Fish River WS (Unfiltered, Bulk Suppli	7,154	*7,154*																													31	31	31	*31*
13 Tamworth Regional	15,100	15,700	762	64	58	64	162	292	14,166	-8	-8	-9	3.0	2.1	1.7	3.3	2.6	2.0	204	159			12.2	35	42	46	340	333	396	451	115	109	129	139
14 Clarence Valley	15,300	12,100	579	65	60	65*	223	259	12,092	10	7	5	9.9	1.7	0.7	9.7	1.1	0.1	138	19			0.03	54	171	168	246	244	290	313	143	153	116	145
15 Eurobodalla (Unfiltered)	12,900	13,800	713	85	74	54*	192	273	13,267	0	-2	2	2.4	2.3	2.3	3.0	2.2	2.4	140	221			0.04	8	11	8	329	326	312	336	155	160	158	133
16 Wingecarribee	9,050	10,900	600	81	75	71	174	294	15,374	-16	-7	-7	0.4	0.0	0.6	1.4	0.3	0.8	-11	-16				0	3	21	249	292	297	308	108	120	127	138
17 Queanbeyan (Reticulator)	9,670	12,000	755	*90*	75	62	106	173	11,189	-11	-11	-7	2.2	-0.7	-1.2	2.6	-0.5	-0.7	-81	-97			0.02	0	0	0	363	349	497	453	97	110	112	118
18 Dubbo	9,220	11,000	650	77	74	77	190	220	14,484	11	12	12	-0.3	0.2	0.6	-1.0	-0.5	0.1	-76	-3			5.2	89	112	107	444	437	419	451	162	150	159	159
19 Orange	12,600	9,710	602	*90*	72	70	134	253	15,667	-8	-7	-7	1.0	2.5	0.6	1.2	2.5	1.0	85	-34			0.1	27	61	60	300	317	333	281	109	128	144	118
20 Goulburn Mulwaree	7,150	7,180	702	71	64	40	140	233	23,483	3	3	3	0.5	0.3	0.1	1.5	-0.5	0.0	-84	-1			0.1	134	172	174	340	330	360	383	108	92	106	116
21 Bathurst Regional	10,600	10,800	739	73	62	81	128	209	14,958	-6	-7	-8	1.1	1.9	1.4	-1.6	2.3	1.7	210	107			0.1	11	15	16	403	373	390	427	147	138	143	169
22 Lismore (Reticulator)	7,010	8,400	597	74	70	72	75	145	10,846	-1	0	-0.8	-1.6	-1.7	-0.8	2.7	-1.8	-0.8	-101	-63			0.02	3	4	6	306	340	378	397	80	97	91	84
23 Bega Valley (Unfiltered)	8,660	9,840	700	75	69	68*	104	173	12,030	-15	-15	-18	1.6	1.5	1.9	-0.2	2.4	2.7	168	203			1.3	1	1	1	348	336	371	402	167	162	174	188
24 Ballina (Reticulator)	6,150	7,730	539	74	75	70	84	146	9,446	-11	-11	-11	-1.2	-2.4	-1.3	-0.8	-1.6	-0.7	-97	-44			0.1	0	0	0	317	317	385	417	90	102	108	106
25 Kempsey (Groundwater)	7,300	7,880	636	69	61	52*	232	330	27,722	3	4	5	-0.4	-0.5	-0.4		-0.9	-0.8	-223	-170			1.6	134	164	160	277	305	334	372	120	114	118	139
26 Country Energy	12,500	12,700	1,213	52	62	60										-0.5			97	144				0		0	869	800	800	817	366	210	216	181
27 Byron (Reticulator)	5,680	6,660	618	74	72	77	50	77	6,863	-16	-16	-16	-1.3	0.2	1.3	0.1	0.0	2.2	-31	29			0.02	2	2	2	353	375	391	409	132	126	130	122
28A Goldenfields (Reticulator) (NO SGE)	6,190	6,350	632	63	39	78	110	110	10,318		0	-9.4	-1.3	-0.9	-1.1	-0.5	-0.1	-0.6		-72						0	700	657	657	694	83	107	107	165
28B Goldenfields (Bulk Supplier) (NO SGE	5,690	6,670					109	109	5,427		0	-8.1	-0.5	-0.8	-0.4	0.5	-0.5	0.0		0						0	254	216	216	252	40	49	49	62
Medians (% of LWUs basis excl bulk suppliers) for >10,000 Properties										*-2*	*0*	*-1*	*0.5*	*0.3*	*0.6*				*-60*	*9*							*303*	*317*	*334*	*364*	*114*	*117*	*125*	*133*
LWUs with 3,001 - 10,000 Properties																																
29 Armidale Dumaresq	4,730	6,450	766	40	71	62*	105	112	13,009	1	6	-2	-0.3	0.3	1.8	-0.2	-0.1	1.5	-198	164			0.1	35	58	61	467	526	474	489	211	264	249	217
30 Griffith	6,060	7,550	912	24	62	78*	104	121	12,381	-7	0	-6	0.4	0.1	1.4	0.0	-0.2	2.0	-24	245					0	0	562	551	594	616	219	228	252	269
31 Lithgow	3,710	3,980	496	51	75	57*	28	61	7,392	-8	-9	-12	-1.4	1.0	-2.6	-0.2	1.5	-2.2	50	-77				155	8	60	467	473	351	498	218	173	46	174
32 Mid-Western Regional	4,080	4,530	626	25	64	71*	64	104	14,682	1	0	-7	0.7	-0.8	0.1	0.6	-0.9	0.0	-79	-34		22,426		86	84	86	419	403	450	415	128	118	173	151
33 Richmond Valley	4,130	5,170	737	18	43	75*	50	82	11,348	-9	0	-7	0.4	-0.6	0.5	1.1	-0.6	1.0	-225	-15			0.1	0	0	0	458	439	448	492	208	206	221	233
34 Nambucca (Groundwater)	2,950	2,870	458	19	58	75*	45	77	11,721	-15	-12	-20	0.9	1.5	0.8	0.9	1.2	1.6	84	115			0.7	1	9	35	186	200	226	242	73	80	101	108
35 Singleton	4,240	4,440	696	36	65	60*	50	83	12,379	-25	0	-1	0.9	0.2	0.1	2.4	2.2	1.9	134	140			14.2	0	0	0	352	371	432	451	98	109	135	150

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

	WATER UTILITY	WATER SUPPLY FINANCIAL (SEE ALSO COST RECOVERY TABLE 6)																				EFFICIENCY (SEE ALSO COST RECOVERY TABLE 6)							
		Total Revenue Water (excl. Capital Works Grants)		Revenue per property	Residential Revenue			Current Replacement Cost (CRC) of System Assets			Net Debt to Equity			ERRR			Return on Assets			Operating Result		Cross Subsidies		Externalities (Fees to State Water)	Loan Payment			Operating Cost (OMA)				Management Cost			
		($'000)		($)	Res Revenue (% of rates & charges) (%)*	Res Water Supplied (% of water supplied excluding water	Res Revenue (% of Usage Charges) (%)	Written Down Cost ($M)	Current Replacement Cost ($M)	Current Replacement Cost per Assessmnt ($)	(%)			see also Table 6 Col (12)			($/property)					Annual Fees & Charges ($/assessment)	Developer Charge ($/assessment)	($/property)	($/property)			($/property)				($/property)			
		(57) F 1		(57a) F5	(58)	(59)	(58a) F4	(60)	(61) F9	(62)	(63) F22			(63a) F 17			(63b)			(65)		(64a)	(64b)	(66)	(66a)			(67) F 11**				(68)+			
		08/09	09/10		09/10	09/10	09/10	09/10	09/10	09/10	07/08	08/09	08/09	07/08	08/09	08/09	07/08	08/09	08/09	08/09	09/10	09/10	09/10	07/08	08/09	09/10	06/07	07/08	08/09	09/10	06/07	07/08	08/09	09/10
36	Parkes	6,180	6,650	1,131	32	29	63*	66	136	21,946	-20	0	-22	0.7	0.6	2.1	-4.7	-0.2	4.1	-67	464			8.4	0	0	0	551	570	557	598	72	70	78	78
37	Inverell	3,470	4,040	760	45	64	50*	45	76	13,917	-6	-4	-5	1.0	0.6	1.5	-0.6	1.4	1.9	119	159	6		0.6	52	52	52	390	479	486	503	123	140	138	102
38	Moree Plains (Groundwater)	3,710	3,970	889	46	75	78*	43	66	14,443	5	16	-1	-0.2	0.6	0.7	-3.3	-0.3	-0.3	-98	-46			1.3	276	120	124	474	496	596	632	151	183	252	241
39	Cowra	4,340	4,730	901	43	46	50*	40	97	17,588	3	4	-4	0.8	-1.4	-0.2	0.3	-1.9	-0.7	-202	-91			9.2	53	60	84	524	557	679	651	281	273	366	309
40	Central Tablelands (NO SGE)	4,070	*4,070*	*768*	20	47	73*	55	112	20,053	6	5	-4	-0.2	0.3	0.3	-0.6	-0.7	0.0	-110	-60				111	110	110	401	383	439	421	184	186	221	211
41	Muswellbrook	4,680	5,250	972	28	69	70*	43	66	11,554	-15	-16	-3	4.5	2.3	2.4	5.8	2.6	3.4	218	204				78	78	76	549	424	503	581	131	128	149	157
42	Corowa	3,600	3,010	598	38	55	56*	40	52	9,688	-9	-5	-7	-2.7	2.6	1.2	-2.7	0.8	2.9	44	174			12.3	0	0	0	352	422	366	384	130	185	189	198
43	Tumut	2,030	2,370	535	26	66	67*	35	53	11,411	-5	0	-1	-0.7	-1.2	-0.6	-0.2	-1.1	-0.7	-122	-55			2.6	3	0	9	321	340	342	352	88	78	58	61
44	Gunnedah (Groundwater)	2,640	2,960	639	27	68	62*	32	52	11,531	-11	0	0	2.6	2.8	3.0	2.3	2.9	4.3	189	271			0.2	15	7	0	237	244	240	280	69	63	69	105
45	Upper Hunter	3,310	3,520	804	39	69	71*	26	39	8,226	-26	0	-26	3.6	1.9	2.8	6.0	4.6	4.6	244	242			0.1	0	0	0	369	441	532	473	151	157	162	163
46	Narrabri (Groundwater)	1,470	2,340	534	43	75	60*	11	50	11,207	-35	-33	-19	-2.5	-2.9	6.3	-6.0	-2.1	11.8	-64	286			1.5	4	4	2	292	297	304	322	92	97	81	102
47	Bellingen (Unfiltered)	2,070	2,210	545	48	55	43*	27	45	10,495	-30	0	-29	0.1	0.9	0.9	1.9	3.0	2.7	155	153			0.5	0	0	0		319	304	321		189	174	177
48	Leeton	2,550	3,100	777	31	61	64*	23	53	12,199	-17	-18	-16	-1.4	-0.7	1.5	0.1	0.3	2.2	-28	110				6	4	4	413	436	500	472	166	191	114	117
49	Young (Reticulator)	2,410	2,690	581	26	63	71*	15	26	5,845	-18	-18	-1	3.0	0.7	0.2	3.8	0.6	0.1	5	-44				9	8	8	362	294	246	290	35	35	49	60
50	Cooma-Monaro	2,670	2,570	668	52	59	44*	26	47	11,591	-18	0	-7	0.7	2.4	0.5	0.4	3.2	1.1	183	59				0	0	0	372	428	438	464	118	170	175	213
51	Forbes	2,010	2,150	591	31	65	61*	21	53	14,657	-23	-25	-26	-1.3	-0.9	-1.6	0.7	1.3	-0.3	73	-16			12.8	34	29	24	355	410	400	384	61	59	52	76
52	Snowy River (Unfiltered)	2,070	2,650	632	80	69	27*	25	40	13,551	1	-3	-9	-1.8	0.1	1.9	-1.9	0.1	1.9	8	117			0.2	37	34	33	264	432	314	330	81	134	130	138
53	Berrigan (Dual Supply)	2,580	2,560	726	63	70	34*	28	42	11,557	-7	-5	-8	1.9	2.3	1.8	2.2	2.5	2.0	138	108			4.6	94	57	55	379	411	415	421	97	97	100	102
54	Deniliquin	2,030	2,240	662	75	63	30*	27	47	13,241	-16	-13	-11	-0.3	0.2	0.2		1.2	1.0	-263	-4			10.9	23	21	21	444	489	443	496	216	249	228	260
55	Warrumbungle	2,100	2,150	651	52	72	42*	21	51	15,396		-5	-12		-0.5	-0.6	1.3	-0.3	-0.4	-79	-39				0	5	25	383	383	466	478	60	60	96	88
56	Yass Valley	1,640	4,590	1,488	36	75	62*	25	53	16,729	-14	0	-34	-0.7	-0.7	10.0		-0.7	10.2	-69	819			0.3	2	1	0		345	356	388		149	156	177
	Medians (% of LWUs basis) for 3,000 to 10,000 Properties												*-7*			*1*				*112*									*458*					*154*
	LWUs with 1,501 - 3,000 Properties																																	
57	Wellington	2,140	2,190	756	35	62	63*	17	27	9,050	26	33	1	-0.3	1.1	1.2	-0.7	-0.5	-0.6	-55	-79			1.4	218	167	168	430	483	503	513	149	175	171	187
58	Cootamundra (Reticulator)	1,300	1,590	544	41	73	59*	3	13	4,573	-21	0	-21	-5.8	-6.8	-2.8	-1.9	-6.5	-2.8	-74	-34				0	0	0	310	265	245	289	42	45	49	50
59	Lachlan	2,060	6,610	2,344	39	70	67*	28	60	21,832	-12	0	-17	-0.4	-0.3	14.3	-5.5	0.0	14.9	-9	1465			10.8	0	0	0		574	491	551		77	77	142
60	Glen Innes Severn	1,030	1,200	401	27	75	73*	17	35	10,430	-12	-12	-12	-0.7	-3.4	-2.0	0.4	-2.4	-1.4	-154	-92				1	1	1	287	293	351	348	99	107	166	142
61	Liverpool Plains	1,190	1,700	633	46	70	40*	28	48	17,466	-6	-6	-2	-2.5	-0.7	0.2	-0.4	-0.4	0.2	-70	22				26	32	57	379	331	322	362	119	88	88	137
62	Narromine (Groundwater)	1,110	1,130	540	35	75	69*	4	16	7,453	-40	0	-45	2.1	0.9	4.8	-2.1	1.3	7.2	151	152			2.3	0	0	0	357	345	328	378	110	101	140	149
63	Narrandera (Groundwater)	1,380	1,340	647	43	63	51*	9	15	6,763	-32	0	-36	3.0	4.5	4.1	4.7	4.9	6.8	147	215			5.2	0	0	0	370	362	402	420	114	118	138	142
65	Murray (Dual Supply)	1,680	1,810	656	50	68	57*	29	40	13,781	3	2	-3	0.2	0.5	1.1	3.0	0.3	1.0	27	102			5.4	115	63	117	319	340	353	350	108	127	112	105
67	Cobar	1,700	1,340	596	41	74	57*	13	25	10,633	-4	0	-2	-1.1	0.9	-2.3		1.0	-2.2	123	-122			0.3	0	0	0	527	546	538	586	47	34	27	36
66	Cobar WB (Bulk Supplier)		2,020					62					0			0.7			0.7															
68	Tenterfield	1,140	1,980	1,010	53	63	42*	14	39	18,790	-4	-3	1	-2.6	-2.3	3.7		-2.6	4.0	-166	291			0.3	0	5	15	384	451	406	417	171	191	182	155
70	Kyogle	880	1,030	561	46	64	46*	8	20	10,127	-10	0	-7	2.2	2.3	2.6	0.0	2.6	2.5	61	22			0.2	0	0	10	304	292	292	382	117	104	140	134
71	Palerang	1,730	1,770	884	49	75	42*	16	28	13,320	-14	-19	-42	4.3	5.1	4.7	-2.1	5.9	11.1	421	829			0.1	20	10	58		354	339	337		128	118	108
73	Upper Lachlan	1,270	1,410	731	46	54	30*	12	23	12,183	-4	-2	-6	4.7	1.6	2.5	-3.9	1.0	2.9	50	172				64	62	62	368	376	417	400	103	116	113	117
74	Wentworth (Dual Supply)	1,680	1,930	815	49	75	59*	17	21	8,548	-5	-6	-12	2.8	1.4	3.2	3.0	1.5	3.5	85	235			15.9	135	161	30	438	360	401	387	92	90	74	69
75	Coonamble (Groundwater)	410	440	257	28	75	73*	6	14	8,628	-45	0	-44	-8.3	-5.0	-5.1	5.2	-0.4	-1.9	-12	-70			0.4	0	0	0	262	377	263	269	28	154	48	56
76	Harden (Reticulator)	1,460	1,600	855	27	61	77*	14	29	15,001	-2	-3	-6	-0.6	-0.3	-0.7		-0.2	-0.7	-20	-55			0.1	107	107	173	558	557	387	471	80	103	78	92
79	Walgett (Dual Supply)	1,280	1,300	677	*90*	63		12	28	12,608	-19	-21	-19	-2.1	-0.1	-1.7	-3.0	0.0	-1.6	-13	-101			17.9	17	13	13	582	664	545	551	209	252	128	115
80	Greater Hume	840	800	448	32	75	67*	15	24	12,880	-6	0	-7	-1.8	-0.7	-1.5	-0.1	-0.2	-1.1	-21	-104			0.9	0	0	0	379	374	388	402	77	78	79	100
	Medians (% of LWUs basis) for 1,500 to 3,000 Properties												*-7*			*1.1*				*22*									*394*					*116*

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

	WATER UTILITY	WATER SUPPLY FINANCIAL (SEE ALSO COST RECOVERY TABLE 6)																								EFFICIENCY (SEE ALSO COST RECOVERY TABLE 6)							
		Total Revenue Water (excl. Capital Works Grants)		Revenue per property	Residential Revenue			Current Replacement Cost (CRC) of System Assets			Net Debt to Equity			ERRR			Return on Assets			Operating Result		Cross Subsidies		Externalities (Fees to State Water)	Loan Payment			Operating Cost (OMA)				Management Cost			
		($'000)		($)	Res Revenue (% of rates & charges) (%)*	Res Water Supplied (% of water supplied excluding water	Res Revenue (% of Usage Charges) (%)	Written Down Cost ($M)	Current Replacement Cost ($M)	Current Replacement Cost per Assessmnt ($)	(%)			see also Table 6 Col (12)						($/property)		Annual Fees & Charges ($/assessment)	Developer Charge ($/assessment)	($/property)	($/property)			($/property)				($/property)			
		(57) F 1		(57a) F5	(58)	(59)	(58a) F4	(60)	(61) F9	(62)	(63) F22			(63a) F 17			(63b)			(65)		(64a)	(64b)	(66)	(66a)			(67) F 11**				(68)+			
		08/09	09/10		09/10	09/10	09/10	09/10	09/10	09/10	07/08	08/09	08/09	07/08	08/09	08/09	07/08	08/09	08/09	08/09	09/10	09/10	09/10	07/08	08/09	09/10	06/07	07/08	08/09	09/10	06/07	07/08	08/09	09/10
LWUs with 200 - 1,500 Properties																																		
81	Gwydir	1,100	1,590	1,093	55	65	32*	10	15	9,591	19	12	-11	2.1	3.6	8.6		1.9	7.6	58	338			1.8	116	181	214		562	496	372		116	114	90
82	Gloucester	1,090	1,350	781	30	67	64*	9	18	10,106	-5	0	-5	-2.0	1.2	4.5	-0.6	1.4	4.6		211			0.3	0		3	468	543	543	373	103	94	94	77
83	Oberon (Reticulator)	810	980	704	32	30	43*	7	8	6,105	4	2	-2	-0.1	-1.7	0.6	-2.0	-1.7	0.5	-55	30		41126		87	86	81	378	567	586	555	65	89	141	91
84	Gilgandra (Groundwater)	690	750	557	37	73	66*	10	15	10,675	-16	0	-8	1.2	0.1	1.2		1.0	1.8	34	124			2.4	0	0	0	235	251	335	315	30	31	59	75
85	Uralla	580	630	408	60	75	41*	17	18	11,600	-3	0	-3	-0.5	-0.6	-0.2	-1.3	-0.5	-0.8	-76	-87			0.1	0	0	0	417	401	393	389	88	148	129	135
86	Hay (Dual Supply)	720	950	724	62	63	83*	9	17	12,583	-17	-16	-10	-0.9	-0.5	-1.5	1.0	0.5	-1.1	8	-74			10.2	0	0	0	355	410	410	654	83	93	132	211
87	Bourke (Dual Supply)	1,230	1,330	1,118	64	75	86*	6	23	19,289	0	-1	-16	-3.3	-0.3	-2.7	-2.0	-0.2	-2.5	-77	-122			0.7	177	154	156	646	725	670	796	70	92	179	138
88	Wakool (Dual Supply)	1,230	1,190	837	77	63	73*	24	30	20,253	3	1	-2	0.4	0.2	0.2	0.2	0.1	0.2	-36	-15			10.3	223	182	155	479	448	525	485	74	73	71	76
89	Bogan	700	880	856	45	63	56*	10	25	24,945	0	0	-6	-3.0	-3.8	-1.9	2.3	-3.6	-1.8	-368	-183			0.2	8	0	0	923	771	735	711	290	176	182	192
90	Guyra	810	910	760	37	53	48*	16	20	15,760	-4	-5	-8	2.1	0.9	1.1	-0.1	1.0	1.2	121	155			0.1	2	2	2	370	420	430	484	100	93	88	139
91	Cabonne	870	790	693	30	75	47*	19	42	34,531	-14	0	-15	-1.7	-0.6	-1.7	0.4	0.2	-1.0	-10	-212			1.8	0	0	0	557	515	424	536	119	128	151	216
92	Carrathool (Groundwater)	920	1,130	997	48	63	60*	44	71	59,601	-1		1	-1.7		-1.9			-1.9		-731			7.6	37		9	752	782	782	807	133	190	190	143
93	Tumbarumba	630	610	531	58	74	43*	10	18	14,980	-5	-4	-5	0.8	0.4	0.1	-3.3	0.4	0.6	8	21			0.6	9	54	6	258	300	323	338	112	121	129	141
94	Gundagai	560	550	627	25	50	74*	8	15	14,271	-10	0	-11	-2.0	-1.6	-2.4		-0.9	-1.9	-63	-170			7.2	0	0	0	356	355	416	563	80	80	90	215
96	Warren (Dual Supply)	450	510	533	51	75	59*	6	12	11,437	-4	-5	-6	-0.8	-1.1	-0.5	0.2	-0.9	-0.2	-73	-67			9.1	25	19	3	340	349	379	393	91	93	101	112
97	Bombala	480	*480*	*570*	79	75	18*	6	13	14,554	-16	0	-18	1.1	-0.1	0.6		0.5	1.6		83			0.6	0	0	0	366	271	396	346	137	71	92	84
98	Walcha	460	490	543	31	67	71*	15	16	18,191	-3	0	-2	-0.5	-1.1	-0.8	-2.7	-0.9	-0.6	-239	-103			0.1	0	0	0	442	478	558	533	106	126	188	173
100	Balranald (Dual Supply)	460	600	665	51	75	79*	10	14	14,825	13	13	-2	0.3	-1.6	-0.5	2.6	-2.3	-1.2	-272	-140			11.8	185	145	140	489	479	479	471	126	124	128	122
101	Murrumbidgee (Groundwater)	330	340	370	47	63	40*	2	5	6,074	-28	0	-26	-1.9	-2.9	-7.9	-0.8	-0.6	-5.9	-22	-149				0	0	0	211	254	282	412	93	101	93	92
103	Central Darling (Dual Supply)	670	590	815	46	63	87*	30	39	53,650	-7	0	-1	0.0	0.9	-0.9	-1.6	0.0	-0.8	-73	-664							514	565	575	441	75	75	75	75
104	Boorowa	550	510	825	52	72	61*	5	12	17,890	-2	-3	-5	3.1	2.1	1.1	1.4	2.1	1.1	66	11			0.3	97	88	87	292	385	424	482	37	42	40	196
105	Brewarrina	640	660	1,327	*90*	63	0	5	11	19,729	-12	0	-14	-0.2	-1.5	-1.0	-1.4	-1.2	-0.8	-137	-158	433		0.6	0	0	0	821	1001	1173	1126	96	233	265	313
106	Jerilderie (Dual Supply)	340	350	738	70	73	84*	4	8	15,841	-14	0	-17	0.8	0.5	-1.3	-0.7	1.6	-0.3	97	-68			6.7	0	0	0	425	412	462	620	86	84	101	109
	Medians (% of LWUs basis) for 200 to 1,500 Properties												*-6*			*0*					*-74*									*484*				*135*
	Median All LWUs (% of LWUs basis)						*Current Replacement Cost $/Assessment*			*12,880*			*Net D/E -6.6*			*ERRR 0.5*								*Loan payment $/prop*				*OMA $ per property*		*$410*		*Management Cost*			*$130*
	Median All LWUs (Statewide basis)									*12,200*			*-1.0*			*0.7*										*55*				*$350*				*$134*
	Totals for all LWUs (including bulk suppliers)			*$580 M Total Water Supply Revenue*					*Total CRC $11,000 M*																									

* Where the residential revenue from usage charges is reported to be greater than 90%, a maximum value of 90% has been adopted. This is shown in ***italics bold*** in column (58).

** 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. This differs from the NWI definition, as indicated in Note 15 on page 27.

\+ If the reported management cost is less than $20/property or not reported, the previous year's management cost has been adopted in column (68) and is shown in ***italics bold*** . In such cases, the OMA cost per property has not been increased to include this adopted management cost.

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 (per 1000 properties) (73) C 9			Water Service Complaints (per 1000 properties) (74) C 10			Customers with Restrictions or Legal Action for non-payment of Bills per 1000 props		Average Frequency of Unplanned Interruptions (No./1000 properties) (77) C 17			Average Duration of Interruptions (Minutes) (78) C 15			Drought Water Restrictions (% of time) (78A)		
				Physical (69)			Chemical (70)			No. zones compliant (70a) H 4	Microbiological (E. coli) (71)			No. zones compliant (71a) H 2	% Pop'n with compliance (71b) H 3							Restrictions (75a) C18	Legal Action (75b) C19								
		Basis? (69a) H6	External Assessmnt (69b) H5	1996 NHMRC/ARMCANZ Guidelines			1996 NHMRC/ARMCANZ Guidelines				1996 NHMRC/ARMCANZ Guidelines					07/08	08/09	09/10	07/08	08/09	09/10	09/10	09/10	07/08	08/09	09/10	07/08	08/09	09/10	07/08	08/09	09/10
	Sydney Water	ISO 9001	Yes				100	100	100	13 of 13	100			13 of 13	100	1	1	0	1	0.4	0.1	4.2	0.0	6	5	4	167	141	140			
	Hunter Water	ADWG	No				100	100	100	5 of 5	100			5 of 5	100	3	3	3	4	0	0.3	4.5	0.0	225	271	255	118	121	119			
	Sydney Catchment Authority																															
LWUs with > 10,000 Properties																																
1	Gosford	ADWG		100	100	100	100	100	100	2 of 2	100	100	100	2 of 2	100	94	25	39		-	-	0	7.2	181	203	239	232	238	230	100	100	100
2	Wyong	ADWG		100	100	100	100	100	100	1 of 1	100	100	100	1 of 1	100	3	5	5	2	4	3	0	0.1	39	61	61	202	210	204	100	100	100
3	Shoalhaven	HACCP		100	100	100	100	100	100	4 of 4	100	100	100	4 of 4	100	3	3	1	6	1	0	1	0	59	-	39	180	-	112	0	33	35
4	Rous (Bulk Supplier) (NO SGE)	ADWG		100	100	100	100	100	100	2 of 2	100	100	100	2 of 2	100	0	0.2	0.4	0	0	0.1	0	0	2	2	2	180	180	180	43	0	0
5	MidCoast (Unfiltered)	ADWG	Yes	100	100	100	92	93	92	3 of 4	100	100	100	4 of 4	100	27	9	12	27	2	2	2	4.6		-	-	348	-	-	0	0	0
6	Tweed	ADWG		100	100	100	100	100	100	3 of 3	100	100	100	3 of 3	100	1	1	2.9	23	20	3	0	1	34	9	14	120	120	120	0	0	0
7	Port Macquarie-Hastings (Unfiltered)	ADWG		100	100	100	100	87	100	5 of 5	100	100	100	5 of 5	100	6	9	8	22	18	22	0.7	0.4	7	11	5	210	178	236	100	100	100
8	Riverina (Groundwater) (NO SGE)	HACCP	Yes	100	100	100	100	100	100	10 of 14	100	100	100	14 of 14	100	4	2	3	9	13	3	1	0	54	34	39	114	334	206	75	100	100
10	Coffs Harbour (Unfiltered)	ADWG		100	100	100	100	100	100	3 of 3	100	100	100	3 of 3	100	3	8	4	26	40	10	2	0	20	24	20	120	120	120	0	0	0
11	Albury City	ADWG		100	100	100	100	100	81	0 of 1	95	100	100	1 of 1	100	0	0	1.1	8	5	4	0	13		-	-	227	180	200	100	100	100
12	Fish River WS (Unfiltered, Bulk Supplier)	ADWG		100	100	100	100	100	100	1 of 1	100	100	100	1 of 1	100	0	1	0.0	0	0	0	0	0		0.3	0.6	2550	2160	1440	100	100	100
13	Tamworth Regional	ADWG		100	100	100	100	100	100	6 of 7	100	100	100	6 of 7	99	0	-	-	44	43	48	4	0	7	-	-		-	-	100	26	82
14	Clarence Valley	ADWG		100	100	100	100	100	89	4 of 5	97	100	100	4 of 5	99	9	3	9	0	12	41	0	7		-	-	120	120	-	0	0	0
15	Eurobodalla (Unfiltered)	ADWG		100	100	100	100	100	100	1 of 1	100	100	100	1 of 1	100	0	-	-	0	0	0.2	0	0	3	2	3	300	-	-	0	61	100
16	Wingecarribee	ADWG		100	100	100	100	92	100	3 of 3	100	100	100	3 of 3	100	10	5	6	31	36	64	7	3	60	46	61	240	120	-	100	100	100
17	Queanbeyan (Reticulator)	ADWG		100	100	100	100	100	100	1 of 1	100	100	100	1 of 1	100	0	0	-	39	5	9	0	13		6	5	210	240	180	100	100	100
18	Dubbo	ADWG		100	100	100	100	100	100	1 of 1	100	100	100	1 of 1	100	0	0	0.6	3	2	2	0	0	20	24	31	179	138	138	50	25	0
19	Orange	ADWG		100	100	100	100	100	100	2 of 2	100	100	100	2 of 2	100	1	2	2	81	62	77	0.2	0	116	175	-	180	180	180	100	100	100
20	Goulburn Mulwaree	ADWG		100	100	100	100	100	100	2 of 2	100	100	100	2 of 2	100	11	6	4	42	35	38	8	0		-	-	90	180	180	100	100	100
21	Bathurst Regional	ADWG		100	100	100	100	100	100	1 of 1	100	100	100	1 of 1	100	24	14	17	55	74	63	0	0	3	2	2	120	120	120	0	0	0
22	Lismore (Reticulator)	ADWG		100	100	100	100	100	100	1 of 1	100	100	100	1 of 1	100	0	2	4	58	72	4	0	1	42	49	37	208	351	271	0	0	0
23	Bega Valley (Unfiltered)	ADWG		100	100	100	100	100	100	5 of 6	100	100	100	6 of 6	100	2	2	2	4	3	3	0	0		-	-	180	180	180	0	0	22
24	Ballina (Reticulator)	ADWG		100	100	100	100	100	100	1 of 1	100	100	100	1 of 1	100	0	0.0	3	0	1	3	0	0		-	-	120	120	120	0	0	0
25	Kempsey (Groundwater)	NHMRC		100	100	100	100	100	100	7 of 7	100	100	100	7 of 7	100	0	0	1.3	0	0	0.2	1	0	69	114	23	111	100	159	0	0	0
26	Country Energy	ADWG		100	100	100	100	100	100	2 of 2	100	100	100	2 of 2	100	0	0	0.1	0	0	0.1	0	0		-	-	60	60	-	0	0	0
27	Byron (Reticulator)	ADWG		100	100	100	100	100	100	1 of 1	100	100	100	1 of 1	100	0	0	0.2	1	0	0	7.8	0	10	9	11	120	120	120	41	0	0
28A	Goldenfields (Reticulator) (NO SGE)	ADWG		100	100	100	100	100	100	1 of 1	100	100	100	1 of 1	100	7	7	7	66		49	7	0	159		117	180	191	272	98	100	100
28B	Goldenfields (Bulk Supplier) (NO SGE)	ADWG		100	100	100	100	100	100	3 of 3	100	100	100	2 of 3	99						0									0	0	0
	Medians (% of LWUs basis excl bulk suppliers) for >10,000 Properties			*100*	*100*	*100*	*100*	*100*	*100*		*100*	*100*	*100*			*2*	*2*	*3*	*5*	*5*	*5*			*36*	*24*	*23*	*179*	*158*	*180*	*20*	*25*	*29*
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	0	0	0	0	0	1	0	0		-	-		-	-	0	0	0
30	Griffith	ADWG		100	100	100	100	100	100	1 of 2	100	100	100	2 of 2	100	1	1	1.2	6	39	48	2.9	163	27	24	24	180	180	120	100	100	100
31	Lithgow			100	100	100	100	100	100	1 of 1	100	100	100	1 of 1	100		6	38		2	-	0	8		13	-		120	120		100	100
32	Mid-Western Regional			100	100	100	100	100	100	3 of 3	96	100	96	1 of 3	16	1	2	3	34	49	54	8	1	34	49	56	120	120	120	0	0	0
33	Richmond Valley			100	100	100	90	100	100	1 of 1	100	100	100	1 of 1	100	17	0	0	1	1	1	-	-	4	-	-	120	-	-	40	0	30
34	Nambucca (Groundwater)			100	100	100	100	100	100	1 of 1	100	100	100	1 of 1	100	1	1	1.3	10	10	4	-	0	8	-	-	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	1	5.3	30	6	25	0	3	320	318	219	120	120	120	95	0	0
36	Parkes			100	100	100	100	100	100	1 of 1	100	100	100	1 of 1	100	4	1	-	6	7	3	0	0				120	120	120	100	100	100
37	Inverell	ADWG		100	100	100	100	100	100	3 of 3	100	100	100	3 of 3	100	2	1	0.9	4	3	2	6	0	4	2	2	60	50	60	0	0	0
38	Moree Plains (Groundwater)	ADWG		100	100	100	100	100	100	6 of 6	100	100	100	5 of 6	93	3	10	1	95	56	78	-	-	453	739	659	65	60	180	0	8	0
39	Cowra			100	100	100	100	100	100	1 of 1	100	97	100	1 of 1	100	39	80	15	56	25	-	7	0	8	1	2	180	180	180	100	100	100
40	Central Tablelands (NO SGE)			100	100	100	100	100	100	2 of 2	100	100	100	2 of 2	100	4	2	5	21	9	2	5	0	60	49	50	240	240	240	16	0	0
41	Muswellbrook	ADWG		100	100	100	86	100	100	2 of 3	100	100	100	3 of 3	100	32	14	11	44	47	40	1	0	10	11	24	103	167	40	51	0	0

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			Customers with Restrictions or Legal Action for non-payment of Bills per 1000 props		Average Frequency of Unplanned Interruptions			Average Duration of Interruptions			Drought Water Restrictions		
				Physical			Chemical				Microbiological (E. coli)				(per 1000 properties)			(per 1000 properties)					(No./1000 properties)			(Minutes)			(% of time)		
		Basis? (69a)	External Assessmnt (69b)	(69)			(70)			No. zones compliant	(71)			No. zones compliant	% Pop'n with compliance	(73) C 9			(74) C 10			Restrictions (75a) C18	Legal Action (75b) C19	(77) C 17			(78) C 15			(78A)		
		H6	H5	1996 NHMRC/ARMCANZ Guidelines			1996 NHMRC/ARMCANZ Guidelines			(70a) H 4	1996 NHMRC/ARMCANZ Guidelines			(71a) H 2	(71b) H 3																	
				07/08	*08/09*	*09/10*	*07/08*	*08/09*	*09/10*	*09/10*	*07/08*	*08/09*	*09/10*	*09/10*	*09/10*	*07/08*	*08/09*	*09/10*	*07/08*	*08/09*	*09/10*	*09/10*	*09/10*	*07/08*	*08/09*	*09/10*	*07/08*	*08/09*	*09/10*	*07/08*	*08/09*	*09/10*
42	Corowa			100	100	100	100	100	100	3 of 4	100	100	100	3 of 4	100	4	4	5	3	2	13	0	30	30	15	46	120	120	120	100	100	100
43	Tumut	ADWG		100	100	100	100	100	100	4 of 5	100	100	100	5 of 5	100	0	5	1	6	2	3	0	1		-	3	240	120	120	75	100	87
44	Gunnedah (Groundwater)	ADWG		100	100	100	100	100	100	4 of 4	94	96	100	3 of 4	99	0	0	0.9	4	8	-	0	0	3	3	3	120	120	120	100	100	100
45	Upper Hunter			100	100	100	100	100	100	4 of 4	100	100	100	4 of 4	100	1	0	1.1	6	71	65	0	0	17	33	27	60	45	45	62	10	12
46	Narrabri (Groundwater)			100	100	100	100	100	100	6 of 6	100	100	100	6 of 6		30	19	18	30	30	34	0	0	90	23	16	120	120	120	0	23	26
47	Bellingen (Unfiltered)			100	100	100	100	100	100	2 of 2	100	100	100	2 of 2	100	1	2	1	29	23	9	0	7		-	-	120	120	120	0	0	0
48	Leeton			100	100	100	100	100	100	4 of 4	100	100	100	4 of 4	100	0	0	0		0	0	0	0	40	26	11	120	120	120	100	100	100
49	Young (Reticulator)			100	100	100	100	100	100	1 of 1	100	100	100	1 of 1	100		0	0	6	9	-	-	-	25	26	-	120	120	-	100	100	-
50	Cooma-Monaro			100	100	100	100	100	100	3 of 3	100	100	100	3 of 3	100	3	1	1	6	22	20	1	-		-	-	180	180	180	100	100	100
51	Forbes	ADWG		100	100	100	100	100	100	1 of 1	100	100	100	1 of 1	100	1	1	1.9	3	7	11	2	0	123	88	118	127	135	113	100	100	100
52	Snowy River (Unfiltered)			100	100	100	100	100	100	5 of 5	95	100	100	3 of 5	56	1	0	0	5	0	3	0	0	1		4	120		120	1	0	0
53	Berrigan (Dual Supply)			100	100	100	100	100	100	4 of 4	100	100	100	4 of 4	100	0	0	0	9	22	17	0	3	11	59	57	60	120	120	100	100	100
54	Deniliquin			100	100	100	100	100	100	1 of 1	100	100	100	1 of 1	100	4	3	-	17	33	-	-	-	2	15	-	60	60	-	100	100	100
55	Warrumbungle			100		100	100	100	100	8 of 8	100	100	95	4 of 8	46	1	1	14		0	0	0	0		-		120	120	120	100	100	100
56	Yass Valley			100	100	100	100	100	100	1 of 1	100	96	100	1 of 1	100	1	2	3	6	11	17	4	0	27	36	42	240	240	220	100	100	100
	Medians (% of LWUs basis) for 3,000 to 10,000 Properties					*100*			*100*				*100*					*1*							*26*			*120*			*100*
LWUs with 1,501 - 3,000 Properties																																
57	Wellington			100	100	100	100	100	100	2 of 2	100	100	100	2 of 2	100	0	0	0	84	18	12	7	0	29	45	39	120	120	120	33	0	0
58	Cootamundra (Reticulator)				100	100		100	100	1 of 1		100	100	1 of 1					52	65	57	0	39	9	9	9	120	120	120	100	100	100
59	Lachlan	ADWG		100	100	100	100	100	100	3 of 3	100	100	100	2 of 3	89	7	6	3	7	6	5	33	0	23	16	11	90	85	90	100	100	100
60	Glen Innes Severn			100	100	100	100	100	100	2 of 2	100	97	100	2 of 2	100	8	4	0	5	3	0	6	0	70	40	33	180	180	180	0	8	25
61	Liverpool Plains			100	100	100	100	100	100	2 of 2	100	100	100	2 of 2			0	0		42	48	-	-		28	38		85	85		100	0
62	Narromine (Groundwater)	ADWG		100	100	100	100	100	100	2 of 2	100	100	100	2 of 2		0	0	0	151	199	204	0	4	64	51	24	180	180	180	13	0	24
63	Narrandera (Groundwater)			100	100	100	100	100	100	1 of 1	100	100	97	0 of 1		0	0	-	2	1	-	-	-	75	-	-	90	90	-	0	0	0
65	Murray (Dual Supply)			100	100	100	100	100	100	2 of 2	100	100	100	2 of 2	100	0	0	0		0	0	0	4	50	28	8	130	120	90	100	100	100
67	Cobar			100	100	100	100	100	100	1 of 1	100	100	100	1 of 1	100	0	0	7	6	5	6	0	1	2	1	3	120	60	60	100	100	100
66	Cobar WB (Bulk Supplier Raw Water only)																					-	-							100	100	0
68	Tenterfield			45		100	100		100	2 of 2	97	100	98	2 of 2	100	9	0	6	14	-	3	-	-	39	-	-	130	-	120	100	100	100
70	Kyogle			100	100	100	100	100	100	3 of 3	100	100	100	3 of 3	100	3	2	3	28	19	21	0	0	3	4	7	120	120	120	100	100	100
71	Palerang			100	100	100	94	100	100	3 of 3	93	100	100	3 of 3	100	3	4	3	70	59	55	0	0	33	31	30	100	100	60	100	100	100
73	Upper Lachlan			100	100	100	100	70	70	3 of 4	100	100	100	3 of 4	91	3	5	10	3	2	3	0	0	3	3	5	120	100	120	0	0	0
74	Wentworth (Dual Supply)	ADWG	Yes	100	100	100	100	100	100	3 of 3	100	100	100	3 of 3	100	4	5	3		11	8	0	0		9	6		60	60		100	100
75	Coonamble (Groundwater)			100	100	100	100	100	100	2 of 3	100	97	100	3 of 3	100	19	0	16	100	91	73	0	5	63	60	35	60	60	60	0	0	0
76	Harden (Reticulator)				100	100		100	100	1 of 1		100	100	1 of 1	100	0	14	-	21	18	48	3	8	3	6	11	50	60	60	11	100	100
79	Walgett (Dual Supply)			100	100	100	100	100	100	2 of 2	100	100	95	1 of 2	100		0	1		-	-	-	-		-	-		-	-		-	-
80	Greater Hume			100	100	100	100	100	100	1 of 2	97	100	100	2 of 2	100	0	0	0	6	6	6	0	0	30	30	28	180	90	120	100	100	100
	Medians (% of LWUs basis) for 1,500 to 3,000 Properties					*100*			*100*				*100*					*3*							*11*			*105*			*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			Customers with Restrictions or Legal Action for non-payment of Bills per 1000 props		Average Frequency of Unplanned Interruptions			Average Duration of Interruptions			Drought Water Restrictions		
				Physical			Chemical				Microbiological (E. coli)				(per 1000 properties)			(per 1000 properties)					(No./1000 properties)			(Minutes)			(% of time)		
		Basis? (69a)	External Assessmnt (69b)	(69)			(70)			No. zones compliant	(71)			No. zones compliant (71a)	% Pop'n with compliance (71b)	(73) C 9			(74) C 10			Restrictions (75a) C18	Legal Action (75b) C19	(77) C 17			(78) C 15			(78A)		
				1996 NHMRC/ARMCANZ Guidelines			1996 NHMRC/ARMCANZ Guidelines				1996 NHMRC/ARMCANZ Guidelines																					
		H6	H5	07/08	08/09	09/10	07/08	08/09	09/10	09/10	07/08	08/09	09/10	09/10	09/10	07/08	08/09	09/10	07/08	08/09	09/10	09/10	09/10	07/08	08/09	09/10	07/08	08/09	09/10	07/08	08/09	09/10
LWUs with 200 - 1,500 Properties																																
81	Gwydir	HACCP		100	100	100	100	100	100	4 of 4	100	97	100	4 of 4	100	3	0	4		0	0	0	34	11	13	10	180	180	180	0	0	0
82	Gloucester			100	100	100	100	100	100	2 of 2	92	100	91	1 of 2	95	3		3	29		59	1	0	62		10	300	230	240	0	0	0
83	Oberon (Reticulator)			100	100	100	100	100	100	1 of 1	100	100	100	1 of 1	100	3	3	4		7	12	1	-	31	14	32	120	120	90	100	100	100
84	Gilgandra (Groundwater)	ADWG		100	100	100	100	100	100	1 of 1	100	100	100	1 of 1	100	7	7	11	26	29	37	0	0	37	36	37	100	100	100	0	0	0
85	Uralla			100	100	100	100	100	100	2 of 2	100	97	97	1 of 2	92	4	2	20	1	1	8	0	0	29	17	78	120	120	120	0	0	0
86	Hay (Dual Supply)			100	100	100	100	100	100	1 of 1	100	100	100	1 of 1	100	0	0	0	11	11	11	0	0	11	11	11	300	300	300	100	100	100
87	Bourke (Dual Supply)			100	100	100	100	100	100	1 of 1	95	100	96	0 of 1		0	4	3		29	34	1	34	823	815	844	180	120	60	0	0	13
88	Wakool (Dual Supply)			100	100	100	100	100	100	5 of 5	100	100	100	3 of 5		0	0	0		0	-	-	-			-			-	100	100	-
89	Bogan				100	100	100	100	100	1 of 1	100	92	100	1 of 1	100	1	0	-	19	48	49	0	0	19	10	71	180	180	120	100	0	0
90	Guyra			100	100	100	100	100	100	1 of 1	100	100	100	1 of 1	100		1	1.7		4	3	0	0		19	15		180	120		0	0
91	Cabonne			100	100	100	100	100	100	4 of 4	100	100	100	2 of 3	87	3	3	0	54	32	38	0	0	25	-	-	240	240	180	100	74	61
92	Carrathool (Groundwater)			100	100	100	100	100	100	4 of 5	96	94	100	3 of 3	87	2	4	2	28	36	47	0	0	394	-	221	180	180	180	100	100	100
93	Tumbarumba			100	100	100	100	100	100	2 of 2	100	91	97	1 of 2			9	2	2	3	5	0	4	13	22	35	100	120	120		100	100
94	Gundagai			100	100	100	100	100	100	1 of 1	100	100	100	1 of 1	100	5	5	6	9	5	9	0	11	28	29	34	120	60	60	100	100	100
96	Warren (Dual Supply)	HACCP		100	100	100	100	100	100	3 of 3	100	97	95	0 of 3		11	18	0	23	71	37	0	6	3	3	-	240	120	120	8	0	0
97	Bombala			100	100	100	100	100	100	2 of 2	100	100	100	2 of 2	100	1	1	0.0	1	2	7	0	0				18	20	56	53	-	100
98	Walcha			100	100	100	100	100	100	1 of 1	100	100	100	1 of 1	100	0	1	1.1	5	4	2	0	0	6	7	6	60	70	60	0	0	0
100	Balranald (Dual Supply)			100	100	100	100	100	100	2 of 2	100	100	100	2 of 2	100	1	2	1	7	6	86	0	0				60	60	60	100	100	100
101	Murrumbidgee (Groundwater)			100	100	100	100	100	100	2 of 2	100	96	100	2 of 2			0	0	24	-	-	-	-		-	-		-	-	0	-	-
103	Central Darling (Dual Supply)			100	100	100	100	100	100	2 of 2	97	100	97	1 of 2		12	13	0	44	30	-	-	-	87	29	-	150	120	-	58	55	-
104	Boorowa			100	100	100	100	100	100	1 of 1	100	100	100	1 of 1	100	0	0	0	5	3	3	5	0	44	7	3	180	120	100	100	100	100
105	Brewarrina			100	100	100	100	100	100	2 of 2	100	100	100	1 of 2	84	2	0	0	4	2	51	0	-			40		30	60	0	0	0
106	Jerilderie (Dual Supply)	ADWG		100	100	100	100	100	100	1 of 1	100	100	93	0 of 1		0	0	0		0	0	0	0	9		9	120	120	120	84	100	100
	Medians (% of LWUs) for 200 to 1,500 Properties					*100*			*100*				*100*					*1*								*33*			*120*			*37*
	Median All LWUs (% of LWUs basis)				*Physical*	*100*		*Chemical*	*100*			*Microbiological*	*100*				*Quality Complaints*	*2*		*Service*	*9*		*Interruption Frequency*	*24*		*Duration*	*120*		*Restrictions*	*87*	
	Median All LWUs (Statewide basis)					*100*			*100*				*100*					*4*		*Complaints*	*3*			*37*			*159*			*87*	
	Totals for all LWUs (including bulk suppliers)			*Physical 96 LWUs complied*			*Chemical 92 LWUs complied*				*E. coli 85 LWUs complied*									*32 LWUs applied restrictions*					*56 LWUs reported applying water restrictions*							
				(100% of 96 LWUs)			*(96% of 96 LWUs)*				*(89% of 96 LWUs)*									*for non payment of bills*					*(ie. 60% of LWUs reported water restrictions)*							
				98% of 24000 samples complied			*98% of 21400 samples complied*				*99% of 20700 samples complied*																					
				41 LWUs reported having a Water Quality Plan																												

NOTES:

1. *Where the compliance for physical or chemical water quality is equal to or greater than 95%, compliance is deemed to be 100%. Refer also to Note 6 on page 237.*
2. *Where the compliance for microbiological water quality is equal to or greater than 98%, compliance is deemed to be 100%. Refer also to Note 6 on page 237.*

Table 13: Water supply – benchmarking cost data (operation, maintenance and management)

WATER UTILITY		OPERATION & MAINTENANCE (O&M) COST[2]												MANAGEMENT COST				OMA[1]			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)		($/prop)	(c/kL)	($/prop)	($/property)		(c/kL)	($'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)	(91b)	(92)	(93)	(94)	(95)	(96)	(97)	(98)	(100)	(101)	(102)	(103)	(104)	(105)	(106)	(107)
		2009/10						2009/10						2009/10				2009/10	2009/10		2009/10					2009/10				2009/10					
LWUs with > 10,000 Properties																																			
1	Gosford	220	96	73	15	14	21	29	56	12	35	40	27	121	13	133	69	353			18	102	35	21	45	29	389	69	319	205	17	9	14
2	Wyong	208	117	71			20	17	117	4	24	21	3	184		184	60	391	98	294	8	70	44	25		38	613	252	360	70	4	18				
3	Shoalhaven	150	36	84	19	10	0	3	47	7	26	39	28	96	28	124	37	274	79	194	8	47	6	6	34	14	143	74	69	116	21	7	10		
4	Rous (Bulk Supplier) (NO SGE)	110	40	38	16	16		14	9	4	19	41	24	71	24	94	35	204	194	10	7	212	5	29	177	3	346		346	150	13	12	16		
5	MidCoast (Unfiltered)	243	99	113	23	8	0	1	89	10	30	28	85	54	18	72	29	316	126	189	12	41	2	7	33	35	259	27	232	111	15	5	8		
6	Tweed	197	82	59	31	24	1	12	45	6	41	53	40	113	45	159	47	356	128	228	12	47	4	7	36	13	201		201	158	27	2	24		
7	Port Macquarie-Hastings (Unfiltered)	184	67	91	18	5	3	17	45	8	35	25	51	87	37	124	55	308	123	185	15	53	2	23	28	20	169	103	66	111	12	8	5		
8	Riverina (Groundwater) (NO SGE)	218	74	55	69	20	0		32	7	103	37	38	67	27	94	17	312	206	106	19	80	13	13	53	6	58	8	50	67	14	4	20		
10	Coffs Harbour (Unfiltered)	166	72	71	7	18	-3	14	54	13	14	55	18	93	41	134	49	300			5	47	11	11	25	20	213	32	180	199	31	5	18		
11	Albury City	163	51	41	59	7	5		32	11	65	36	14	104	1	105	33	269	75	166	20	69	0	6	64	10	130		130	114	19	10	7		
12	Fish River WS (Unfiltered, Bulk Supplier)																																		
13	Tamworth Regional	312	147	144	6	15		27	87	9	19	147	23	47	92	139	30	451	266	185	4	25	4	13	8	19	273	78	195	321	85	47	15		
14	Clarence Valley	168	73	78	3	11	3	6	58	7	6	20	68	110	35	145	45	313	16	297	2	7	1	3	3	18	111	2	109	64	7	2	11		
15	Eurobodalla (Unfiltered)	203	52	118	32	1		5	111	13	58	1	14	133		133	60	336	91	245	26	87	27	12	48	50	230	151	79	7	0	0	1		
16	Wingecarribee	170	59	24	29	14	45	4	24	11	33	54	0	98	40	138	51	308	228	80	12	38	1	4	33	9	68		68	200	17	23	14		
17	Queanbeyan (Reticulator)	335	20	83	2		229		88	3	9		5	118		118	44	453		453	3	37	8	21	9	33	505	429	76						
18	Dubbo	292	79	140	13	60			56	5	18	161	53	136	23	159	35	451	284	167	4	33	3	7	24	12	202	11	191	352	79	21	60		
19	Orange	163	47	76	29	12		25	48		35	55		75	43	118	27	281	152	129	8	81	15		66	11	154	63	91	127	36	6	12		
20	Goulburn Mulwaree	266	101	125	19	18	3	24	116	4	19	72	27	82	35	116	54	383	31	38	9	25		1	24	54	442	196	246	333	48	6	18		
21	Bathurst Regional	258	110	89	9	51		36	68	6	12	123	13	118	51	169	41	427	243	184	3	18	0	5	13	17	270	19	251	302	53	20	51		
22	Lismore (Reticulator)	313	23	95	1		194		66	3	7		43	70	14	84	31	397		397	3	20	15	4	2	25	274	274							
23	Bega Valley (Unfiltered)	213	95	87	29	2		15	91	23	49	35		87	101	188	63	402	181	221	16	36	5	10	22	30	222	89	132	117	22	11	2		
24	Ballina (Reticulator)	311	51	52	2		205		45	4	7	5	44	93	13	106	32	417	21	396	2	25	17		8	14	185	95	90	14	5				
25	Kempsey (Groundwater)	233	113	78	33	9		6	59	23	50	93	2	72	67	139	45	372	276	97	16	31	1	10	20	19	134	3	131	303	67	17	9		
26	Country Energy	636	274	199	86	78			182	21	179	255		128	53	181	32	817	531	286	32	170	39	50	82	32	523	78	446	450	123	55	78		
27	Byron (Reticulator)	287	33	66		5	183		22	23		18	40	107	15	122	41	409	20	389						7	99	74	25	62	12	1	5		
28A	Goldenfields (Reticulator) (NO SGE)	528	165	53	31	1	278		111	18	65	1	55	83	83	165	32	694	354	340	13	30	3	12	14	22	61	16	45	3	0	1	1		
28B	Goldenfields (Bulk Supplier) (NO SGE)	189	59	29	81	18	2		18	4	112	40	13	31	31	62	13	252	249	3	24	140	6	32	102	4	109	23	86	86	15	7	18		
	Medians (% of LWUs basis excl bulk suppliers) for >10,000 Properties	*219*	*74*	*81*	*19*	*13*	*4*	*15*	*57*	*8*	*30*	*39*	*27*	*97*	*35*	*133*	*43*	*364*	*127*	*192*	*9*	*41*	*6*	*10*	*26*	*19*	*207*	*74*	*131*	*122*	*20*	*8*	*13*		
LWUs with 3,001 - 10,000 Properties																																			
29	Armidale Dumaresq	272	265		7	0		19	127	4	13	78	31	106	111	217	69	489	215	274	4	10		5	5	41	403		403	248		77	0		
30	Griffith	347	64	177	9	35	62		71	0	10	152	51	219	50	269	29	616	610	6	1	20	0	1	19	8	118	81	36	163	100	17	35		
31	Lithgow	323	176		5	5	138		86	14	7	79		174		174	94	498			4	19		6	13	46	150		150	423		74	5		
32	Mid-Western Regional	264	147	77	11	23	7		96	21	22	118		49	102	151	43	415	100	62	6	12	2	4	6	28	262		262	336	57	38	23		
33	Richmond Valley	259	50	82	14	37	76	0	50	3	15	100	16	132	101	233	51	492	276	217	3	15	0	1	14	11	185	49	136	220	53	10	37		
34	Nambucca (Groundwater)	133	65	37	31			30		7	40	13	43	74	34	108	44	242	97	145	16	126		29	97					53		13			
35	Singleton	301	88	191	8	4	10		68	10	29	147	37	58	92	150	36	451	257	194	7	21	2	13	6	16	175	112	63	354	108	36	4		
36	Parkes	520	107	161	183	25	44	7	50	5	267	85	64	68	10	78	7	598	150	449	23	196	30	32	134	4	65	52	13	74	47	12	25		
37	Inverell	401	81	191	93	38			44	11	118	105	124	88	14	102	23	503	403	101	27	90		20	70	10	93		93	238	67		38		
38	Moree Plains (Groundwater)	391	191	161	4	35		75	134	9	10	139	25	213	28	241	30	632			1	11	4	3	5	17	397		397	175	76	27	35		
39	Cowra	341	148	78	44	32	39		114	28	52	108		304	5	309	58	651			10	15	3		13	21	132		132	204	61	15	32		

Table 13: Water supply – benchmarking cost data (operation, maintenance and management (continued)

	WATER UTILITY	OPERATION & MAINTENANCE (O&M) COST[2]												MANAGEMENT COST				OMA[1]			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	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)		($/prop)	(c/kL)	($/prop)	($/property)		(c/kL)	($'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)	(91b)	(92)	(93)	(94)	(95)	(96)	(97)	(98)	(100)	(101)	(102)	(103)	(104)	(105)	(106)	(107)
		2009/10												2009/10				2009/10	2009/10		2009/10					2009/10				2009/10			
40	Central Tablelands (NO SGE)	209	117	32	31	29		7	49	6	49	86	12	147	65	211	55	421	185	236	13	8		3	5	13	47		47	223	28	29	29
41	Muswellbrook	424	262	25	44	71	21		45	10	68	214	65	87	70	157	26	581	383	197	11	46	1	15	30	7	145	6	139	351	13	130	71
42	Corowa	186	72	84	10	10	11		41	3	19	110	3	74	123	198	46	384	288	96	4	12		6	6	9	129		129	252	81	18	10
43	Tumut	291	211	39	18	23			24	11	31	179	46	48	13	61	19	352	148	204	9	11	1	4	7	7	63		63	547	35	121	23
44	Gunnedah (Groundwater)	175	122	1	52	1			86	7	79	1	2	59	46	105	21	280	70	210	16	17		6	11	17	256		256	3	1		1
45	Upper Hunter	310	199	67	38	6		21	170	3	58	38	20	87	75	163	23	473	123	350	8	23	4	4	15	24	527	53	474	55	17	15	6
46	Narrabri (Groundwater)	220	180		40				31		131		58	78	24	102	20	322	161	145	25	48		33	15	6	121		121				
47	Bellingen (Unfiltered)	144	52	53	28	11			43	3	45	47	6	112	65	177	56	321	48	273	14	30	1	10	19	14	106	58	49	147	25	11	11
48	Leeton	355	152	97	37	35	35		137	3	44	132	4	56	61	117	16	472	283	189	6	30		5	25	18	373		373	176	97		35
49	Young (Reticulator)	74	37	36	1				49	8	2		16	41	19	60	17	134			0					14	155	50	105				
50	Cooma-Monaro	251	122	114	2	14			67	29	4	102	49	103	110	213	67	464			1	2	0	1	1	21	199	23	176	321	65	23	14
51	Forbes	309	138	119	0	39	14		94	3	8	182	9	64	12	76	12	384	269	115	1	5	1	4	0	15	261	6	255	293	112	31	39
52	Snowy River (Unfiltered)	192	38	108	38	8			48	20	70	31	22	105	33	138	69	330	248	83	35	33	10	5	18	24	147	126	20	155	12	11	8
53	Berrigan (Dual Supply)	319		319					71		12	230	5	41	61	102	23	421	151	269	3	6	6			16	116	116		518	230		
54	Deniliquin	236	150	75	11				105	0	11	120		189	70	260	29	496			1	9			9	12	240		240	135	75	45	
55	Warrumbungle	390	168	163	33	25	0		127	12	52	146	52	65	23	88	36	478			21	22	5	3	14	52	283	68	215	598	83	39	25
56	Yass Valley	211	60	114	14	23		2	38	13	38	98	23	106	71	177	65	388	213	174	14	10	6	0	4	14	74		74	357	68	6	23
	Medians (% of LWUs basis) for 3,000 to 10,000 Properties	*281*	*122*	*84*	*18*	*23*	*28*	*13*	*68*	*8*	*34*	*107*	*24*	*87*	*61*	*154*	*33*	*458*	*213*	*194*	*8*	*17*	*2*	*5*	*13*	*15*	*150*	*53*	*134*	*230*	*65*	*25*	*23*
LWUs with 1,501 - 3,000 Properties																																				
57	Wellington	326	122	144	20	30	10		116	3	24	174		103	85	187	46	513	308	205	6	10		2	8	28	325	7	318	425	142	1	30
58	Cootamundra (Reticulator)	239	87	22			131		85	3			21	16	34	50	16	289	72	217						27	268		268				
59	Lachlan	409	154	179	22	37	18		60	14	46	151	119	60	82	142	28	551	309	242	9	16	1	8	8	12	76		76	295	115		37
60	Glen Innes Severn	206	135		50	22		2	40	2	61	73	28	80	62	142	60	348	139	209	26	92		17	75	17	119		119	305		51	22
61	Liverpool Plains	224		224				20	42	5	49	54	55	137		137	40	362			14	10	10			12	110	110		156	54		
62	Narromine (Groundwater)	228	122	70	36				90	16	83	14	25	76	73	149	27	378	189	189	15	58	18	15	25	16	315	17	298	26	2	12	
63	Narrandera (Groundwater)	278	83	85	100	10			89	3	152	31	2	71	71	142	25	420			27	105	36		69	16	279	24	255	55	21		10
64	Dungog (Reticulator)																																			
65	Murray (Dual Supply)	245	105	91	25	16	9		55	4	41	124	11	61	44	105	25	350	221	130	10	14	3	3	9	13	112	47	65	300	54	55	16
67	Cobar	550	190	45	4	56	255			25	89	137	44		36	36	8	586	293	293	21	34	1	32	1					323		81	56
66	Cobar WB (Bulk Supplier)																14				21	179	28	8	143	1							
68	Tenterfield	262		206	18	35	4	20	67	5	31	130	7	126	29	155	63	417	167	250	12	30	13		18	27	191	191		528	95		35
70	Kyogle	247	120	43	15	4	65		99	7	15	44	17	93	42	134	54	382	248	134	6	6			6	40	327		327	178	41		4
71	Palerang	229	60	132	28	10		8	35	12	80	62	35	58	51	108	44	337	236	101	32	53	32	3	18	14	152		152	251	45	7	10
73	Upper Lachlan	283	19	211	26	27		17	65	8	76	95	21	64	53	117	76	400	200	200	49	49	30	2	17	43	198	181	17	622	65	3	27
74	Wentworth (Dual Supply)	318	115	157	34		13		66	2	70	130	38	49	20	69	11	387			11	21	4	7	10	10	93		93	200	124	6	
75	Coonamble (Groundwater)	213	73	109	31				109	14	71		20	25	31	56	9	269	134	134	12					18	289	289					
76	Harden (Reticulator)	379	132	33	2	16	196		94	18	14	16	40	53	40	92	17	471	71	471	3	9		8	1	17	104		104	29			16
79	Walgett (Dual Supply)	436	206	158	37	34			163	14	84	171	4	78	38	115	13	551			10	23	6	7	10	19	306	63	243	198	97	40	34
80	Greater Hume	302	63	57	31	3	147		74		53	13	14	28	72	100	32	402	149	60	17	48		20	28	24	88	68	20	43		10	3
	Medians (% of LWUs basis) for 1,500 to 3,000 Properties	*270*	*117*	*109*	*27*	*22*	*42*	*17*	*74*	*7*	*61*	*84*	*21*	*64*	*44*	*116*	*27*	*394*	*194*	*203*	*13*	*30*	*11*	*8*	*13*	*17*	*191*	*65*	*136*	*226*	*60*	*11*	*22*

Table 13: Water supply – benchmarking cost data (operation, maintenance and management) (continued)

WATER UTILITY		OPERATION & MAINTENANCE (O&M) COST[2]												MANAGEMENT COST				OMA[1]			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)		($/prop)	(c/kL)	($/prop)	($/property)		(c/kL)	($'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)	(91b)	(92)	(93)	(94)	(95)	(96)	(97)	(98)	(100)	(101)	(102)	(103)	(104)	(105)	(106)	(107)
		2009/10						2009/10						2009/10				2009/10	2009/10		2009/10					2009/10				2009/10			
LWUs with 200 - 1,500 Properties																																			
81	Gwydir	282	107	105	49	18	3		105	8	122	36	7	74	16	90	20	372	93	279	27	178	90	17	71	23	175	53	122	79	3	15	18
82	Gloucester	296	180	89	10	16			75	12	35	128	45	27	50	77	32	373	205	168	15	10	3	5	3	31	207		207	530	74	38	16
83	Oberon (Reticulator)	464	83	118		19	243		34	1		186		41	50	91	22	555	327	227						8	121		121	455	118	49	19
84	Gilgandra (Groundwater)	241	116	63	51	10			89	4	71	63	13	42	33	75	12	315	126	252	12	96	17	10	69	15	237		237	104	37	16	10
85	Uralla	253	186		16	52		23	61	3	16	151		90	45	135	69	389	303	85	8	24			24	31	250		250	766		99	52
86	Hay (Dual Supply)	443	336	18	56	25	8		88	28	78	146	95	195	17	211	21	654	445	209	8	34		10	24	9	245		245	142		120	25
87	Bourke (Dual Supply)	658	647		11				115	2	48	347	146	31	107	138	4	796	119	677	1	29		22	7	3	507		507	102		347	
88	Wakool (Dual Supply)	409	84	201	32	32	61		72	8	62	187	18	36	40	76	10	485	461	24	8					9	64	21	43	242	134	22	32
89	Bogan	518	240	135	18	70	55	3	63	33	46	216	102	192		192	34	711			8	47	18	10	19	11	137		137	387	117	29	70
90	Guyra	345	96	169	3	69	8	51	96		3	187		139		139	34	484	237	247	1	4			4	23	185		185	457	118		69
91	Cabonne	320	240	49	13	18		28	29	29	55	121	58	129	86	216	60	536	300	236	15	16		12	4	8	79		79	337	24	79	18
92	Carrathool (Groundwater)	664	180	173	263	8	41		140	35	397	38	13	118	25	143	10	807	242	565	27	22	8		15	9	33		33	26	30		8
93	Tumbarumba	197	99	85	13				95	64	16	22	1	51	91	141	54	338	135	203	6	9	2		8	36	166	108	58	83		22	
94	Gundagai	348	143	109	72	25			69	2	72	206		119	96	215	26	563	253	310	9	32			32	8	167	61	106	246	83	97	25
96	Warren (Dual Supply)	281	144	74	37	10	16		79	16	111	21	39	64	48	112	15	393	157	236	15	53	8	28	18	11	143	28	115	28	6	4	10
97	Bombala	262	85	116		60		1	17	2	51	172	19	84		84	30	346	3		18	14	6	8		6	37		37	616	76	36	60
98	Walcha	360	259		78	22		29	30	15	125	161		104	70	173	73	533	400	133	52	38		14	24	13	48		48	678		139	22
100	Balranald (Dual Supply)	349	248	2	54	30	14		64	7	183	30	50	122		122	19	471	141	330	28	55		39	16	10	193	7	187	45			30
101	Murrumbidgee (Groundwater)	321	238	18	65				10	30	269	12			92	92	12	412			37					1	31	10	21	17		12	
103	Central Darling (Dual Supply)	437	302	29	56	50		8	98	48	106	127	50	4		4	1	441			22	10	2	2	5	20	108		108	258		77	50
104	Boorowa	286	34	212	40				100	10	90	87		130	66	196	43	482			20	56	31		25	22	107	81	26	191	87		
105	Brewarrina	813	307	346	63	97			245	32	162	374		182	131	313	21	1126	338	788	11	40	20	5	16	17	317		317	254	249	28	97
106	Jerilderie (Dual Supply)	511	310	11	62	38	90		122		86	203	11	56	53	109	12	620	217	403	9	40		11	29	13	131		131	221	2	162	38
Medians (% of LWUs basis) for 200 to 1,500 Properties		*348*	*180*	*97*	*49*	*25*	*28*	*23*	*79*	*12*	*75*	*146*	*39*	*87*	*52*	*135*	*21*	*484*	*237*	*241*	*13*	*33*	*8*	*11*	*18*	*11*	*143*	*40*	*121*	*242*	*76*	*38*	*25*

NOTES:

1. Operating cost is the OMA cost (operation, maintenance & administration (Col 91b)) which comprises the O & M Cost (operation & maintenance cost (Cols 79 to 82 or Cols 83 to 88)) PLUS Management Costs (Col 91a) which is made up of the Administration cost (Col 89) plus Engineering and Supervision cost (Col 90).
2. 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	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.)	(11) / [(8) x 100]	$/prop	$M	($'000)	(Employees /1000 props)	(%)	(% of Maintenance Cost)	(No.)	Total (%)	Due to Injury (No.)	Due to Injury (%)
			(1)		(2)	(3) C 8	(4)	(5)	(5a) C6	(6) C5	(7)	(8) A 5	(9) A 6	(10) A4	(11)	(12)	(13) F29	(13a) F15	(13b) F 27	(14)	(15)	(19)	(20)	(21)	(22)	(22a)
		2007/08	2008/09	2009/10	2009/10	2009/10	2009/10	2009/10	2009/10	2009/10	2009/10	2009/10	2009/10	2009/10	2009/10	2009/10	2009/10	2009/10	2009/10	2009/10	2009/10	2009/10	2009/10	2009/10	2009/10	2009/10
	Sydney Water					1,724			1,598	4,333		24,022	72	29			264	455,005	0							
	Hunter Water					213			201	501		4,667	46	18			499	106,368	0							
LWUs with > 10,000 Properties																										
1	Gosford	64800	65,100	65,370	1.05	68,545	0.95	1.05	65,610	157,200	-	1,323	52	2	184	14	243	16.7	1,061	1.4	14	18	14	4	72	0
2	Wyong	60150	60,450	60,670	0.98	59,157	0.96	0.97	56,243	146,900	170	1,201	49	6	149	12	170	10.0	1	1.6	3		4	1	178	1
3	Shoalhaven	43460	44,480	45,720	0.89	40,508	0.94	0.90	38,710	80,700	400	1,139	36	12	221	19	651	26.4	5,043	2.1	8	2	21	3	57	0
5	MidCoast	33670	33,910	34,210	0.96	32,841	0.92	0.96	30,258	76,700	110	954	34	12	206	22	293	9.6	219	1.6	19		4	4	62	0
6	Tweed	32090	32,620	32,350	0.91	29,440	0.95	0.93	28,475	68,800	130	691	43	7	182	26	363	10.7		1.9	4	6	4	4	145	1
7	Port Macquarie-Hastings	27340	28,620	27,800	0.95	26,408	0.93	0.95	24,512	71,000	130	630	42	5	154	24	647	17.1		1.3	3	2	3	0	4	0
9	Wagga Wagga	22150	22,700	24,150	1.04	25,118	0.93	1.05	23,563	57,000	110	573	44	5	36	6	454	11.4		1.1	7	10	1	3	8	0
10	Coffs Harbour	23890	24,160	24,400	0.93	22,690	0.94	0.93	21,290	64,800	120	654	35	5	116	18	583	13.2	622	1.8			5	7	25	0
11	Albury	20570	20,830	21,170	0.99	20,953	0.92	0.99	19,187	50,500	110	497	42	4	67	13				1.0	19	43	1	0	1	0
13	Tamworth Regional	18210	18,380	18,600	1.00	18,600	0.91	1.00	16,961	43,200	190	519	36	5	22	4	2,595	48.3		2.0	3		0	0	0	
15	Eurobodalla	18540	18,710	18,840	0.94	17,705	0.95	0.94	16,795	35,500	340	509	35	5	126	25	359	6.4		2.3	5	2	4	3	50	1
17	Queanbeyan	15500	15,560	15,620	1.03	16,087	0.93	1.04	15,116	39,400	100	327	49	1	15	5	63	1.0		0.4	17		0	0	0	
19	Orange	14900	15,130	15,640	1.00	15,642	0.93	1.00	14,507	38,100	100	395	40	2	24	6	57	0.9		0.8	2	5	0	9	0	
18	Dubbo	13310	13,450	13,890	1.11	15,421	0.90	1.12	14,071	32,800	110	391	39	1	11	3	137	2.1		1.0	19		2	2	22	1
16	Wingecarribee	14890	15,040	15,240	0.95	14,478	0.94	0.96	13,718	33,000	120	513	28	5	69	13	916	13.3	3,133	1.9	4	19	6	4	16	0
14	Clarence Valley	14880	15,240	15,310	0.94	14,395	0.94	0.94	13,470	28,100	140	331	43	9	89	27	1,606	23.1	2,893	1.9	5		1	0	5	0
21	Bathurst Regional	13290	13,450	13,710	1.08	14,806	0.90	1.08	13,255	33,300	180	371	40	1	16	4	116	1.7	26	0.7	10	4	0	0	0	
24	Ballina	13470	13,670	14,080	0.93	13,098	0.93	0.93	12,241	34,900	-	319	41	4	107	34	586	7.7		1.6		-	0	0	0	
22	Lismore	11650	11,710	11,810	1.05	12,395	0.91	1.06	11,348	29,200	100	347	36	3	33	10	456	5.7		1.2		25	0	0	0	
23	Bega Valley	11970	12,100	12,130	0.98	11,888	0.94	0.98	11,138	25,000	150	390	30	10	970	249	80	1.0		1.9		5	3	3	22	0
27	Byron	10410	10,260	10,560	0.96	10,133	0.89	0.96	8,996	28,800	120	239	42	5	81	34	2,775	28.1	1,789	2.2	4	2	1	4	3	0
26	Country Energy	9680	9,700	9,710	1.00	9,708	0.93	1.00	9,022	18,700	110	248	39	2	11	4	99	1.0		0.8			0	0	0	
20	Goulburn Mulwaree	9010	9,820	9,270	1.03	9,552	0.91	1.03	8,734	21,600	100	272	35	2	27	10	173	1.7		2.4	7		2	1	16	0
25	Kempsey	8570	8,630	8,680	1.04	9,022	0.92	1.04	8,259	19,100	120	268	34	7	78	29	637	5.7	35	2.1	11	10	2	3	145	3
Medians (% of LWUs basis) and totals for >10,000 Properties				*538,930*						*1,234,300*		*13,101*	*40*				*363*	*263*		*2*	*7*		*2*	*3*		
LWUs with 3,001 - 10,000 Properties																										
29	Armidale Dumaresq	7970	8,110	8,350	0.98	8,183	0.93	0.98	7,585	20,900	110	226	36	1	1	0	22	0.2		1.8	2	6	1	3	5	0
31	Lithgow	7380	7,380	7,580	0.98	7,425	0.94	0.98	6,984	19,800	85	364	20	3	32	9	1,017	7.6		0.9		-	2	4	60	4
30A	Hawkesbury	7660	7,660	7,700	0.98	7,522	0.88	0.99	6,699	24,000	100	170	44	2	24	14	1,498	11.3		2.0			2	3	92	3
30	Griffith	7790	7,920	8,900	0.85	7,565	0.90	0.84	6,754	21,800	110	227	33	3	29	13	245	1.9		3.1	7		1	0	19	0
33	Richmond Valley	6730	6,780	6,830	0.95	6,489	0.90	0.95	5,836	15,100	120	188	35	4	31	16	225	1.5	463	3.3	7		4	6	43	1
32	Mid-Western Regional	6350	6,470	6,560	1.00	6,562	0.90	1.00	5,907	13,400	150	205	32	4	12	6	102	0.7		1.5	10	1	-		-	
34	Nambucca	5860	5,740	5,630	0.95	5,347	0.90	0.95	4,803	12,500	140	156	34	4	52	33	62	0.3		1.9		-	-		-	
35	Singleton	5530	5,560	5,610	0.96	5,385	0.92	0.93	4,786	15,100	100	137	39	1	15	11	117	0.6		1.4		30	0	4	0	
37	Inverell	4740	4,750	4,770	0.97	4,629	0.96	0.97	4,443	11,400	110	126	37	4	21	17	25	0.1		1.5	14	8	0	0	0	
41	Muswellbrook	5180	5,270	5,340	0.96	5,100	0.93	0.96	4,759	16,600	-	146	35	2	12	8	373	1.9	365	1.9	18	34	0	0	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	Outsourcing	Injuries	Days Lost		
			(1)		(Ratio of Connected Properties to Assessments) (2)	Connected Properties (1) x (2) (3) C 8	(Ratio of Residential Assessments to Total Assessments) (4)	(Ratio of Residential Connections to Residential Assessments) (5)	Connected Residential Properties (1)x(4)x(5) (5a) C6	Permanent (6) C5	Peak (% of Permanent) (7)	(km) (8) A 5	(3) / (8) (9) A 6	(No.) (10) A4	(No.) (11)	(11) / [(8) x 100] (12)	$/prop (13) F29	$M (13a) F15	($'000) (13b) F 27	(Employees /1000 props) (14)	(%) (15)	(% of Maintenance Cost) (19)	(No.) (20)	Total (%) (21)	Due to Injury (No.) (22)	(%) (22a)
		2007/08	2008/09	2009/10	2009/10	2009/10	2009/10	2009/10	2009/10	2009/10	2009/10	2009/10	2009/10	2009/10	2009/10	2009/10	2009/10	2009/10	2009/10	2009/10	2009/10	2009/10	2009/10	2009/10	2009/10	2009/10
36	Parkes	5230	5,230	5,210	0.95	4,945	0.86	0.95	4,271	11,400	140	99	50	3	2	2	312	1.5	1,080	-	-	-	-		-	
42	Corowa	4690	4,870	5,130	0.95	4,869	0.91	0.95	4,436	9,600	200	145	34	3	67	46				1.2			0	2	0	
38	Moree Plains	3940	3,870	3,850	0.97	3,736	0.84	0.96	3,122	1,100	98	88	42	4	28	32	303	1.1	703	1.6	8	30	0	0	0	
44	Gunnedah	3890	3,890	3,880	1.03	3,999	0.89	1.03	3,562	10,700	110	96	42	2	2	2	195	0.8		1.5		5	0	3	0	
46	Narrabri	3740	3,740	3,810	0.98	3,730	0.95	0.98	3,531	10,700	100	97	38	3	22	23	47	0.2		1.9			4	0	0	
43	Tumut	4200	4,320	4,370	0.95	4,154	0.89	0.95	3,690	8,600	130	134	31	5	16	12	176	0.7		1.9	13		1	1	26	1
49	Young	3510	3,540	3,570	1.04	3,708	0.89	1.04	3,304	8,500	-	88	42	1	-	-	8	0.0		-	-	-	-		-	
39	Cowra	3730	3,740	3,740	0.95	3,552	0.88	0.95	3,116	8,700	120	100	36	2	9	9	1,224	4.3	962	1.1			0	0	0	
45	Upper Hunter	3750	3,950	4,500	0.92	4,136	0.91	0.92	3,758	9,200	100	115	36	4	13	11	83	0.3		0.7			0	0	0	
52	Snowy River	2430	2,520	2,520	1.43	3,606	0.91	1.43	3,272	4,100	390	75	48	4	19	25	880	3.2	1,546	1.9	14	10	0	0	0	
51	Forbes	3010	3,170	3,080	1.00	3,076	0.90	1.00	2,759	7,600	110	89	35	1	17	19	50	0.2		2.0	33	18	0	2	0	
50	Cooma-Monaro	3390	3,380	3,580	0.95	3,405	0.88	0.95	2,997	7,000	140	227	15	2	7	3	174	0.6		2.6		-	1	3	4	0
53	Berrigan	3420	3,340	3,360	0.98	3,297	0.89	0.98	2,928	6,700	110	107	31	4	47	44	20	0.1		1.7		12	0	5	0	
48	Leeton	3300	3,310	3,410	0.94	3,202	0.86	0.94	2,763	7,700	110	90	36	3	31	34	197	0.6		2.2			3	1	0	
54	Deniliquin	3280	3,290	3,290	0.96	3,158	0.88	0.95	2,749	7,500	-	70	45	1	-	-	393	1.2		-	-	-	-		-	
Medians (% of LWUs basis) and totals for 3,000 to 10,000 Properties			*116,870*							*265,700*		*3,395*	*36*				*176*	*1*		*2*	*11*		*0*	*1*		
LWUs with 1,501 - 3,000 Properties																										
47	Bellingen	3080	3,090	3,130	0.95	2,973	0.91	0.95	2,698	7,400	110	89	33	3	27	30	298	0.9		2.4		5	2	3	35	2
60	Glen Innes Severn	2730	2,970	3,070	0.91	2,791	0.86	0.91	2,407	6,200	120	98	28	2	5	5	6	0.0		1.4			0	0	0	
58	Cootamundra	2910	2,800	2,820	0.98	2,762	0.88	0.98	2,420	7,600	110	66	42	1	4	6	13	0.0		0.7			0	0	0	
57	Wellington	2420	2,430	2,720	0.98	2,665	0.87	0.98	2,324	5,900	110	78	34	2	13	17	307	0.8	827	0.8		5	1	0	0	
91	Cabonne	2560	2,570	2,590	0.92	2,384	0.87	0.92	2,080	3,700	99	56	43	3	10	18	1,041	2.5	1,304	2.1			0		0	
80	Greater Hume	2580	2,640	2,690	0.95	2,555	0.87	0.95	2,217	5,900	100	75	34	6	19	25	81	0.2		1.4		10	0	3	23	3
59	Lachlan	2180	2,090	2,100	1.03	2,160	0.87	1.03	1,889	5,000	110	75	29	3	21	28				1.9		9	0	0	0	
65	Murray	2800	3,090	2,810	0.95	2,670	0.88	0.95	2,343	6,100	200	88	30	2	41	47	94	0.3		0.6			0	0	0	
62	Narromine	2050	2,190	2,060	0.95	1,952	0.87	0.95	1,696	4,900	130	49	40	2	13	27				2.0	38		0	0	0	
56	Yass Valley	2280	2,350	2,350	0.94	2,205	0.90	0.94	1,994	5,600	120	71	31	2	10	14	761	1.7	1,074	1.4		15	0	2	0	
61	Liverpool Plains	1890	1,850	2,000	0.98	1,961	0.92	0.98	1,798	4,800	-	58	34	2	-	-	252	0.5	2	-	-	-	-		-	
55	Warrumbungle	2510	2,520	2,480	0.99	2,459	0.85	0.92	1,945	4,900	99	78	32	4	9	12	32	0.1		4.5			0	0	0	
69	Temora	2080	2,100	2,110	1.00	2,111	0.86	1.00	1,807	4,600	150	47	45	1	4	9	10	0.0		0.5			0	0	0	
71	Palerang	1900	1,970	2,020	0.95	1,917	0.92	0.95	1,758	4,600	100	48	40	3	14	29	2,923	5.6	3,320	1.6			0	0	0	
72	Bland	1920	1,920	1,940	0.95	1,843	0.85	0.95	1,575	4,000	110	48	38	3	10	21	251	0.5		1.6		10	0	0	0	
63	Narrandera	1780	1,820	1,840	0.92	1,696	0.88	0.92	1,489	4,800	-	36	47	1	-	-	2	0.0		-	-	-	-		-	
67	Cobar	1820	1,820	1,830	0.95	1,735	0.91	0.95	1,582	7,000	110	52	33	2	5	10	51	0.1		4.6			0	0	0	
74	Wentworth	1940	1,910	1,890	0.95	1,792	0.88	0.95	1,582	5,100	120	87	21	5	25	29	103	0.2		3.9			0	0	0	
75	Coonamble	1340	1,430	1,380	1.02	1,410	0.90	1.02	1,269	3,000	170	46	31	2	12	26	99	0.1		4.3	17	1	3	1	8	1
70	Kyogle	1760	1,770	1,780	0.95	1,693	0.89	0.95	1,506	3,600	120	62	27	3	9	15	44	0.1		4.1	14		2	7	90	6
77	Junee	1740	1,660	1,670	0.95	1,587	0.93	0.95	1,473	4,100	100	92	17	1	0		183	0.3		1.9		20	0	0	0	
78	Blayney	1710	1,750	1,850	1.03	1,903	0.85	1.03	1,616	3,700	100	76	25	1	7	9				1.1			0	0	0	
79	Walgett	1790	1,790	1,890	0.85	1,605	0.89	0.85	1,428	6,300	200	48	33	3	9	19	9	0.0		-	-	-	-		-	
68	Tenterfield	1500	1,740	1,720	0.95	1,630	0.88	0.95	1,433	3,400	-	65	25	2	3	5	771	1.3	269	4.3	-	5	0		0	
Medians (% of LWUs basis) and totals for 1,500 to 3,000 Properties				*52,740*						*122,200*		*1,588*	*33*				*99*	*15*		*2*	*17*		*0*	*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	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.)	(11) / [(8) x 100]	$/prop	$M	($'000)	(Employees /1000 props)	(%)	(% of Maintenance Cost)	(No.)	Total (%)	Due to Injury (No.)	Due to Injury (%)	
		(1)			(2)	(3) C 8	(4)	(5)	(5a) C6	(6) C5	(7)	(8) A 5	(9) A 6	(10) A4	(11)	(12)	(13) F29	(13a) F15	(13b) F 27	(14)	(15)	(19)	(20)	(21)	(22)	(22a)	
		2007/08	2008/09	2009/10	2009/10	2009/10	2009/10	2009/10	2009/10	2009/10	2009/10	2009/10	2009/10	2009/10	2009/10	2009/10	2009/10	2009/10	2009/10	2009/10	2009/10	2009/10	2009/10	2009/10	2009/10	2009/10
LWUs with 200 - 1,500 Properties																										
84	Gilgandra	1380	1,390	1,400	0.98	1,367	0.89	0.98	1,220	2,900	110	36	38	1	13	36	314	0.4		0.7			0	13	0	
73	Upper Lachlan	1410	1,420	1,420	1.00	1,417	0.87	1.00	1,227	2,800	110	42	34	2	7	17	2,514	3.6		3.5	10	2	0	0	0	
82	Gloucester	1630	1,640	1,680	0.95	1,598	0.83	0.95	1,333	2,800	130	53	30	1	6	11	645	1.0		0.6		75	0	0	0	
87	Bourke	1070	1,070	1,250	1.00	1,248	0.86	1.00	1,078	2,000	100	34	37	1	8	24	80	0.1		2.4			0	0	0	
86	Hay	1300	1,300	1,300	0.98	1,274	0.87	0.98	1,114	2,900	100	37	34	1	8	22	117	0.1		1.6		30	0	0	0	
83	Oberon	1330	1,340	1,340	1.02	1,368	0.82	1.02	1,116	3,100	130	38	36	1	3	8	23	0.0		0.7		10	0	0	0	
81	Gwydir	1210	1,210	1,210	0.95	1,147	0.90	0.95	1,030	2,600	140	41	28	2	8	20				2.6		10	0	0	0	
85	Uralla	1020	1,020	1,080	1.00	1,084	0.90	1.01	984	2,300	99	30	36	1	6	20	36	0.0		0.9		10	0	0	0	
95	Weddin	1090	1,090	1,090	0.94	1,026	0.87	0.93	887	2,000	120	31	33	1	0					1.4			0	0	0	
89	Bogan	1030	1,040	1,020	1.01	1,026	0.88	1.01	907	2,500	140	20	51	1	4	20	96	0.1		1.0	-		0	0	0	
76	Harden	1050	980	990	0.95	937	0.92	0.94	850	2,100	110	38	25	1	0					1.1	50		0	1	2	1
88	Wakool	1120	1,120	1,130	0.95	1,074	0.78	0.95	836	2,100	-	47	23	4	-	-	37	0.0		-	-	-	-		-	
93	Tumbarumba	1040	1,030	1,030	0.95	976	0.86	0.95	844	2,000	170	47	21	2	3	6	22	0.0		5.1	20		0	0	0	
94	Gundagai	880	890	890	0.85	757	0.90	0.84	677	2,400	130	73	10	1	5	7	74	0.1		2.6			0	0	0	
92	Carrathool	920	920	890	0.95	847	0.87	0.95	734	1,900	120	22	39	3	12	55	178	0.2		2.7	7	-	0	0	0	
96	Warren	900	860	880	0.92	812	0.90	0.92	732	1,800	-	17	48	2	8	47	137	0.1		3.1			-		-	
99	Coolamon	1020	1,040	1,040	0.95	990	0.87	0.95	858	2,400	100	44	22	2	8	18	131	0.1		1.0			0	0	0	
102	Lockhart	880	870	870	0.95	825	0.87	0.95	721	1,800	100	42	20	3	6		10	0.0		1.2			0	0	0	
98	Walcha	790	790	860	1.01	866	0.82	1.01	714	1,700	120	30	29	1	1	3	121	0.1		1.2			0	0	0	
100	Balranald	830	830	890	0.95	847	0.86	0.95	729	2,000	110	38	22	2	10	26				2.4			0	0	0	
97	Bombala	800	800	800	0.95	758	0.86	0.95	652	1,800	110	35	22	2	5	14				2.6			0	0	0	
101	Murrumbidgee	710	720	730	1.03	747	0.94	1.05	712	1,700	-	21	36	2	-	-	154	0.1		-	-	-	-		-	
90	Guyra	1010	1,010	1,050	0.95	998	0.77	0.95	768	3,600	110	56	18	2	2	4	94	0.1		2.0		5	0	1	0	
104	Boorowa	640	640	590	0.94	558	0.98	0.94	545	690	220	30	19	1	2	7				5.4			0	0	0	
105	Brewarrina	560	560	580	0.86	495	0.89	0.85	434	1,500	110	16	31	3	8	50	12	0.0		1.0			0	0	0	
106	Jerilderie	450	450	450	0.95	424	0.77	0.95	327	900	100	12	35	1	5	42				4.7			0	0	0	
103	Central Darling	190	190	210	1.00	205	0.89	1.00	183	710	-	13	16	1	-	-				-	-	-	-		-	
107	Urana	330	330	330	0.95	316	0.87	0.95	276	720	210	15	21	2	-	-				3.2			0	7	0	
Medians (% of LWUs basis and totals for 200 to 1,500 Properties				*27,000*		*25,988*			*22,486*	*57,720*		*958*	*30*				*96*	*6*		*2*	*15*		*0*	*0*		
Median All LWUs (% of LWUs basis)										*Properties served per km of main*			*35*			*Capital Expenditure*		*$160 per property*		*1.8 employees per 1000 properties*						
Median All LWUs (Statewide basis)													*40*						*$252 per property*		*1.6 employees per 1000 properties*					
Totals for all LWUs				*Connected properties*		*718,000*			*Total Sge populaton 1.68M*			*19,040*	*km of mains*		*Total Capital Expenditure*		*$314M*				*Total Days Lost Due to Injury*		*1,145*		
				Total no. of Assessments		*736,000*			*Reported No. of Sewage Treatment Works*			*294*			*Pumping Stations*		*3887*				*Reported No. of Sge Employees*		*1,148*		

Table 15: Sewerage – asset management and resource management

ASSET MANAGEMENT

	WATER UTILITY	Infiltration (ML per 100km of Main) (23)			Breaks & Chokes (No. per 100 km of Main) (24) A14			Overflows see also Col (31a) (No. per 100 km of Main) (25)			Rehabilitations (% of Total Length) (27)	Rehabilitations (Service Connections %) (28)	Renewals ($'000 per 100 km of Main) (29)	Renewals (% of CRC) (30)	Mains Maintenance Cost ($'000 per 100 km of Main) (31)	Overflows Reported to Regulator (No. per 100km of main) (31a) E13	
		07/08	08/09	09/10	07/08	08/09	09/10	07/08	08/09	09/10	09/10	09/10	09/10	09/10	09/10	08/09	09/10
	Sydney Water				64	51	56	64								0.1	0.2
	Hunter Water				50	88	58	43								1.5	0.1
	LWUs with > 10,000 Properties																
1	Gosford	197	47		55	44	40	35	28	37	0.2	0.0	630	1.7	98	1.4	3.2
2	Wyong				50	54	48	28	28	31	0.1	-	0	0.0	134	0.5	0.5
3	Shoalhaven				47	47	15	15	13	39	0.3	0.2	153	0.3	12	0.0	2.6
5	MidCoast	81	100	65		1	7	2	1	5	0.1	0.0	0	0.0	79	0.5	0.7
6	Tweed	133	241	159	13	9	5	8	6	3	0.4	0.0	336	0.4	160	0.4	0.1
7	Port Macquarie-Hastings		283	197		26	20	1	4	16	0.0	0.1	167	0.3	80	0.8	0.5
9	Wagga Wagga			28	367	317	96	37	35	30	3.1	0.3	0	0.0	77	0.0	0.0
10	Coffs Harbour	195			117	103	37	3	27	4	0.2	0.2	394	0.7	69	0.0	1.4
11	Albury				196	204	185	3	1	3	0.6	0.7	0	0.0	148	0.0	0.0
13	Tamworth Regional				77	80	72	23	14	11	0.2	0.3	0	0.0	209	0.0	0.0
15	Eurobodalla	37	9	49	44	39	21	7	7	34	0.2	0.0	140	0.3	47	5.1	19.1
17	Queanbeyan	115	113	99	103	48	14	2	6	2	1.7	0.0	234	0.4	129	0.3	0.0
19	Orange		73	205	123	159	85	13	66	82	0.7	0.1	153	0.3	45	2.5	9.9
18	Dubbo	81	31	86	109	97	38	5	4	2	0.0	0.0	0	0.0	100	1.9	0.0
16	Wingecarribee	292	66	100	110	68	50	33	23	55	331.4	0.5	195	0.4	158	2.9	3.5
14	Clarence Valley	83	95	89	56	41	40	21	21	20	0.0	0.0	518	1.1	159	0.6	0.0
21	Bathurst Regional	20	19	19	30	83	93	40	29	6	0.5	0.2	255	0.7	185	-	0.0
24	Ballina				37	24	16	5	5	2	0.0	0.0	0	0.0	258	2.6	1.9
22	Lismore			598	196	82	104	6	1	4	0.5	0.3	1,403	1.5	195	1.4	4.0
23	Bega Valley				7	25	30	21	23	30	0.0	0.1	37	0.1	137	0.5	0.0
27	Byron	363	316	293	41	59	27	13	14	7	0.0	0.1	0	0.0	84	14.3	5.4
26	Country Energy				337	314	137	7	11	6	0.0	0.0	194		269	0.0	0.0
20	Goulburn Mulwaree	17	32			161	143	0	8	0	0.7	0.3	609	1.2	226	1.3	0.0
25	Kempsey	157	572	376	16	11	3	30	60	26	0.0	0.0	1,099	1.5	153	1.5	0.4
	Medians (% of LWUs basis) for >10,000 Properties			*100*			*39*			*9*	*0*	*0*	*160*	*0*	*135*		
	LWUs with 3,001 - 10,000 Properties																
29	Armidale Dumaresq	129	193	373	232	251	142	55	45	66	0.2	0.1	4	0.0	292	0.0	0.9
31	Lithgow					5	-		22	-	-	-	0	0.0	115	0.8	-
30A	Hawkesbury				142	86	40	23	12	25	0.5	0.0	6,626	8.0	124	11.8	24.7
30	Griffith				122	92	70	3	0	1	0.4	0.5	126	0.2	39	0.0	0.0
33	Richmond Valley				24	32	9	4	6	14	0.0	1.2	441	0.7	22	1.1	1.1
32	Mid-Western Regional			143	125	119	108	37	60	-	0.4	0.1	0	0.0	220	-	0.0
34	Nambucca	286	334	161	22	13	25	12	35	17	0.0	0.0	103	0.2	64	0.6	0.0
35	Singleton		-	-	35	41	15	10	10	11	0.1	0.7	255	0.6	363	0.0	0.0
37	Inverell	49	2	41	358	279	159	4	3	2	0.0	0.0	25	0.1	167	0.0	0.0
41	Muswellbrook				60	57	1	12	2	16	0.0	0.3	499	1.1	174	0.0	1.4

RESOURCE MANAGEMENT

	WATER UTILITY	Total Vol of Sewage Collected (Res, NonRes + Trade Waste) (ML) (32) W18			Volume of Trade Waste (ML) (32a) W17	% Sewage Treated (%) (33)	% Sge Treated that was compliant (33a) E 4	STWs compliant at all times (33b) E 5	Percentage of Total Sewage Collected: Infiltration /inflow (34)	Res (35)	Non-Res (36)	Trade Waste (37)	Other (38)	Level of Treatment (%): Primary Level (39a) E 1	Secondary Level (39b) E 2	Tertiary Level (39c) E 3	Vol of Sewage Collected per Property (kL/property) (39) W 19			Biosolids Reused (%) (40) E 8			Effluent Recycled: Total Volume Recycled (ML) (41a) W 26	Volume Recycled for Urban Water (ML) (41b)	% of Total Effluent that is Recycled (41c) W 27		
		07/08	08/09	09/10	09/10	09/10	09/10	09/10	09/10	09/10	09/10	09/10	09/10	09/10	09/10	09/10	07/08	08/09	09/10	07/08	08/09	09/10	09/10	09/10	07/08	08/09	09/10
	Sydney Water	546,381	475,692	464,237	23,986		97							76	3	21	324	279	269	100	100	100	33,683		4	5	7
	Hunter Water	74,383	64,815	55,481	3,102		95	14 of 18						0	59	41	356	307	260	100	88	104	5,348		6	8	10
	LWUs with > 10,000 Properties																										
1	Gosford	14,768	13,212	12,835	969	100	100	2 of 2		82	11	8			97.3	3	217	193	187	100	100	100	362	14	2	2	3
2	Wyong	14,195	15,141	13,980	-	100	100	6 of 6		75	25	-			93	7	243	258	236	100	100	100	1,024	940	8	9	7
3	Shoalhaven	7,223	6,507	6,943	119	100	83	10 of 12		82	15	2	1		42	58	188	165	171	100	100	100	2,429	144	20	29	35
5	MidCoast	8,018	7,510	6,434	122	100	99	11 of 12	10	72	17	2			12	88	248	231	196	100	100	100	729		1	2	11
6	Tweed	7,892	8,957	8,821	187	100	93	1 of 7	12	79	6	2	1.0		0	100	270	302	300	57	61	100	822	778	4	8	9
7	Port Macquarie-Hastings	8,229	9,082	7,857	-	100	58	2 of 5	16	77	7	-			0	100	317	334	298	93	100	100	369	109	3	3	5
9	Wagga Wagga	5,443	5,374	5,174	827	100	70	3 of 5	3	81		16			3	97	236	228	206	100	100	96	453	226	11	11	9
10	Coffs Harbour	6,703	6,794	6,436		100	100	5 of 5		100						100	302	302	284	100	100	100	1,029	346	12	23	16
11	Albury	4,291	3,787	4,530	311	100	92	3 of 4		93		7			0	100	211	184	216				4,358		98	96	100
13	Tamworth Regional	4,305	4,741	4,834	1,000	100	99	4 of 5		56	24	21			100		236	258	260	97	99	100	1,850		35	35	38
15	Eurobodalla	3,187	2,875	3,627		100	100	5 of 5	7	88	5				5	95	183	163	205	5		29	370	281	8	8	10
17	Queanbeyan	3,990	3,991	3,661	300	96	100	1 of 1	9	73	10	8				100	250	249	228		100	100	47		1	1	1
19	Orange	3,697	4,008	3,421	103	99	100	2 of 2	24	57	16	3				100	248	265	219	100	100		3,033	3,033	95	87	90
18	Dubbo	2,956	2,715	2,906	715	100	92	0 of 1	12	51	13	25				100	200	182	188	100	100	100	2,281		99	97	78
16	Wingecarribee	4,106	3,118	3,144	112	100	97	4 of 5	16	64	15	4	1			100	290	218	217	100			73	73	2	2	2
14	Clarence Valley	2,995	3,262	3,024	58	100	70	1 of 8	10	81	11	2			69	31	214	228	210	35			165	165	4	4	5
21	Bathurst Regional	3,607	2,949	4,062	564	73	100	1 of 1	2	67	18	14				100	251	203	274	95	96	95	3,636		24	100	100
24	Ballina	2,249	4,579	4,006	7	100	96	3 of 4		100						100	180	360	306	100	100	100	768	717	5	3	19
22	Lismore	3,263	4,189	5,383	-	100	100	3 of 3	39	53	8	-		3	4	92	267	341	434	82			30		1	0	1
23	Bega Valley	1,869	1,764	2,010	-	100	95	8 of 10		65	35	-			70	30	161	149	169				827	613	33	46	41
27	Byron	3,250	3,302	3,286		100	98	4 of 5	21	58	21			0	0	100	325	335	324	100	100	100	477	218	22	13	15
26	Country Energy	1,316	1,240	1,357		100	100	2 of 2		61	39				100		136	128	140	100			622	622	49	41	46
20	Goulburn Mulwaree	1,680	1,660	1,576	-	100	100	2 of 2		100		-				100	181	164	165	100	100		1,261		85	100	80
25	Kempsey	2,614	2,986	2,398	100	100	76	5 of 7	42	39	15	4			27	73	293	333	266			49	55	40	2	1	2
	Medians (% of LWUs basis) for >10,000 Properties																		*218*			*Total Vol*	*27,070*				*13*
	LWUs with 3,001 - 10,000 Properties																										
29	Armidale Dumaresq	1,926	1,819	2,134	107	100	100	1 of 1	40	47	9	5				100	247	229	261	100	-	100	853		39	33	40
31	Lithgow	1,620	2,187	*2,187*		-	75	0 of 3	-	-	-	-	-			100	224	302	*295*			-				0	0
30A	Hawkesbury	2,390	2,398	*2,398*		99	100	2 of 2					100			100	319	320	*319*				176		8	13	7
30	Griffith	2,042	2,064	2,139	220	100	39	1 of 3		80	10	10			7	93	308	306	283				188		18	11	9
33	Richmond Valley	2,106	2,141	1,842		100	100	4 of 4		100						100	330	332	284				344		13	13	19
32	Mid-Western Regional	2,048	1,251	1,437		100	43	3 of 4	20	55	24		1			100	323	193	219				166		3	7	12
34	Nambucca	1,703	1,848	1,565	4	100	45	0 of 4	16	76	8				74	26	306	339	293	100	100	100	131		9	7	8
35	Singleton	1,278	1,353	1,178	-	100	100	1 of 1	-	100	-	-				100	241	254	219				393		33	33	33
37	Inverell	795	795	765	20	100	92	1 of 4	7	84	7	3			100		173	172	165							0	0
41	Muswellbrook	1,142	1,279	1,206	8	100	38	0 of 2		99		1				100	231	254	236				912	912	84	75	76

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

	WATER UTILITY	ASSET MANAGEMENT															RESOURCE MANAGEMENT																									
		Infiltration			Breaks & Chokes			Overflows see also Col (31a)			Rehabilitations		Renewals		Mains Maintenance Cost	Overflows Reported to Regulator		Total Vol of Sewage Collected			Volume of Trade Waste	% Sewage Treated	% Sge Treated that was compliant	STWs compliant at all times	Percentage of Total Sewage Collected					Level of Treatment (%)			Vol of Sewage Collected per Property			Biosolids Reused			Effluent Recycled					
		(ML per 100km of Main)			(No. per 100 km of Main)			(No. per 100 km of Main)			(% of Total Length)	(Service Connections %)	($'000 per 100 km of Main)	(% of CRC)	($'000 per 100 km of Main)	(No. per 100km of main)		(Res, NonRes + Trade Waste) (ML)			(ML)	(%)			Infiltration /inflow	Res	Non-Res	Trade Waste	Other	Primary Level	Secondary Level	Tertiary Level	(kL/property)			(%)			Total Volume Recycled (ML)	Volume Recycled for Urban Water (ML)	% of Total Effluent that is Recycled		
		(23)			(24) A14			(25)			(27)	(28)	(29)	(30)	(31)	(31a) E13		(32) W18			(32a) W17	(33)	(33a) E 4	(33b) E 5	(34)	(35)	(36)	(37)	(38)	(39a) E 1	(39b) E 2	(39c) E 3	(39) W 19			(40) E 8			(41a) W 26	(41b)	(41c) W 27			
		07/08	08/09	09/10	07/08	08/09	09/10	07/08	08/09	09/10	09/10	09/10	09/10	09/10	09/10	08/09	09/10	07/08	08/09	09/10	09/10	09/10	09/10	09/10	09/10	09/10	09/10	09/10	09/10	09/10	09/10	09/10	07/08	08/09	09/10	09/10	09/10	07/08	08/09	09/10
36	Parkes	10	12	12	48	36	-	24	12	-	1.5	0.0	0	0.0	245	0.0	-	851	874	874	9	57	47	2 of 3	1	71	26	1	1		1	99	171	176	177				178	98	19	54	36
42	Corowa	26	26	24	60	51	57	21	14	10	0.5	0.2	0	0.0	132	1.4	1.4	718	706	759	10	97	100	3 of 3	5	87	7	1			63	37	161	153	156				334		49	49	45
38	Moree Plains				152	158	52	28	26	3	1.1	0.5	0	0.0	292	0.0	0.0	1,468	1,118	1,154		100	100	3 of 4		100				4	5	91	384	298	309			-	746	271	63	76	65
44	Gunnedah	52	52	52	106	131	70	28	72	81	2.1	0.3	0	0.0	146	1.0	0.0	550	655	598		100	60	1 of 2	8	70	22			50	50		137	163	150				605		83	42	75
46	Narrabri				162	-	0	2	-	2	2.1	0.0	133	0.1	237	-	2.1	903	866	838		100	100	3 of 3		100					21	79	247	237	225	57	57	57	37		57	4	4
43	Tumut				157	100	99	32	43	37	1.3	0.1	0	0.0	125	-	-	761	761	815		100	100	5 of 5		100					12	88	191	0	196	100	96		153	106	4	4	19
49	Young	57	57	-	301	189	-	110	80	-	-	-	0	0.0	88	0.0	-	685	695	*695*	-	-	-	0 of 1	-	-	-	-	-				188	189	*187*	50		-	*506*		19	73	*73*
39	Cowra				27	100	138	67	100	75	0.1	0.3	0	0.0	151	0.0	0.0	714	672	698		100		1 of 2		100						100	201	189	197				698			100	100
45	Upper Hunter	607	607	628	129	63	16		-	0	1.0	0.0	146	0.3	281	-	0.0	937	937	950		100	100	4 of 4	76	24					60	40	272	258	230				165	135	18	11	10
52	Snowy River				104	71	44	3	-	3	2.1	1.4	0	0.0	101	-	2.7	474	474	*474*		-	92	3 of 4	-	-	-	-	-		631	100	136	131	*131*		-				0	0	0
51	Forbes	107		9	632	231	102	1	4	7	0.0	0.0	0	0.0	107	0.0	0.0	644	636	642	59	100	83	0 of 1	1	82	7	9	1			100	214	201	209				528		1.1	1	82
50	Cooma-Monaro					113	60	40	39	62	0.3	0.4	114	0.6	93	0.0	0.4	479	665	*665*		100	85	1 of 2		2			98		1	99	149	207	*195*	100	2		167		9	3	25
53	Berrigan				108	186	86	0	0	0	0.0	0.2	63	0.2		0.0	0.0	334	466	432	-	100		4 of 4		100		-					100	143	131				145	145	28	20	34
48	Leeton	56	44	41	111	98	50	8	6	6	0.4	1.6	0	0.0	202	0.0	0.0	1,200	2,820	889	130	100	98	2 of 3	4	75	7	15		33	33	33	387	305	278	100	100	100	20		6	1	1
54	Deniliquin	64	64	-	94	79	-	0	0	-	-	-	1,203	2.0	266	-	-	595	555	*555*	-	-	-	0 of 1	-	-	-	-	-				189	176	*176*			-	*410*		69	74	*74*
Medians (% of LWUs basis) for 1,500 to 3,000 Properties				*47*			*58*			*10*	*0*	*0*	*2*	*0*	*151*																		*214*			*Total Vol*		*7,679*				*29*
LWUs with 1,501 - 3,000 Properties																																										
47	Bellingen	66	156	103	34	44	18	18	40	9	0.6	0.2	0	0.0	126	4.5	4.5	834	975	705		100	91	1 of 3	13	87					0	100	285	332	237						0	0	0
60	Glen Innes Severn	27	326	204	67	-	71	0	-	106	0.0	0.0	18	0.1	47	-	0.0	510	800	613	-	100	100	2 of 2	33	59	7	-	1		2	98	205	296	220	100	100		73	59	2	100	12
58	Cootamundra	594	-	30	83	145	127	2	2	3	0.0	0.5	0	0.0	170	0.0	0.0	392	387	412		100	75	0 of 1	5	80	15					100	138	141	149				204	204	51	52	50
57	Wellington	2	3	5	15	64	26	0	0	0	0.0	0.0	41	0.1	90	0.0	0.0	472	449	583	2	100	100	2 of 2	1	91	8				100		199	189	219						0	0	0
91	Cabonne				64	38	63	25	7	13	0.0	0.0	0	0.0	54	0.0	0.0	238	270	282		100	100	3 of 3		95	5				100		101	114	118				142	140	45	46	50
80	Greater Hume	7	8	20	82	53	9	0	0	0	0.0	0.2	0	0.0		0.0	0.0	382	366	386		100	100	6 of 6	4	83	13					100	156	146	151	27	100		59	59	20	25	15
59	Lachlan	13	15	15	111	112	35	0	0	0	1.1	0.6	0	0.0	61	0.0	0.0	536	523	480	35	100	20	0 of 3	2	74	16	7	1			100	239	242	222				138	119	26	24	26
65	Murray	26	27	33	28	36	7	0	0	0	0.6	0.4	286	0.9	94	0.0	0.0	505	528	585	103	100	100	2 of 2	5	64	13	18			93	7	189	180	219				128		32	26	21
62	Narromine					31	39	0	0	0	0.0	0.0	0	0.0	20	0.0	0.0	570	570	*570*		100	100	2 of 2		100					100		292	274	*292*				*29*		0	5	*5*
56	Yass Valley	13	14	21	94	103	55	0	0	1	0.0	0.4	0	0.0		0.0	0.0	351	352	419	17	100	100	2 of 2	4	82	10	4			100		164	160	190	100	100	100	53		36	33	13
61	Liverpool Plains					66	-		5	-	-	-	852	1.8		3.4	-	368	365	*365*		-		0 of 2	-	-	-	-	-				198	202	*186*			-			0	0
55	Warrumbungle				288	153	77	0	0	0	0.0	0.0	23	0.1	133	0.0	0.0	453	475	445		100	92	3 of 4		70	30				100		183	190	181				113		15	10	25
69	Temora	14	6	6	818	426	0	9	4	0	0.0	0.4	0	0.0		4.3	0.0	345	113	125		96	80	0 of 1	2	90	8					100	166	54	59				80	80	28	100	100
71	Palerang	2	4	4	117	152	129	13	17	15	0.0	0.2	11,333	14.9	115	0.0	0.0	367	308	297		100	84	2 of 3	1	96	3					100	203	165	155						1	2	*2*
72	Bland	21	21	21		125	135		0	0	1.3	0.0	0	0.0		0.0	0.0	295	234	265		100	100	3 of 3	4	93	2		1		100		161	128	144				*118*		45	45	*45*
63	Narrandera		-		150	150	-	6	0	-	-	-	0	0.0	347	0.0	-	335	630	*630*		-	100	1 of 1	-	-	-	-	-		100		205	377	*371*		-	-			0	0	0
67	Cobar				1	2	0	0	0	0	0.0	0.0	0	0.0		0.0	0.0	365	318	265		100	100	2 of 2		100					100		211	184	153			-	100	100	30	35	38
74	Wentworth					38	23	0	0	0	0.0	0.0	0	0.0	21	0.0	0.0	2,129	2,129	*2,129*		25	100	5 of 5		100				21	21	58	1,154	1,174	*1,188*						0	0	0
75	Coonamble	48	37	48	117	-	11	2	0	2	2.2	0.4	0	0.0	213	0.0	0.0	284	247	318		100	85	1 of 2	7	82	11				12	88	207	169	226				76	34	16	32	24
70	Kyogle	244	376	185	66	47	26	0	0	48	0.0	0.4	19	0.0	74	4.8	0.0	478	533	388	17	100	86	1 of 3	30	50	16	4		10	83	7	286	317	229	100	100	100	349	26	5	100	91
77	Junee		-		108	74	32	0	0	0	1.4	2.3	259	1.2	74	0.0	0.0	251	294	273		100	75	0 of 1		85	15					100	152	186	172				164	164	54	65	60
78	Blayney	13	13	13	67	43	36	0	0	3	0.1	0.2	0	0.0		0.0	0.0	284	270	274	15	100	70	0 of 1	4	85	5	5	1		100		162	150	144				212	212	70	76	77
79	Walgett					-	17		-	0	1.3	0.1	29	0.1	235	-	0.0	622	622	*622*		100	100	3 of 3					100		48		410	410	*388*		-	-	*517*		83	83	*83*
68	Tenterfield				142	-	86	0	-	0	-	-	57	0.1		-	0.0	323	323	*323*		-	100	1 of 2	-	-	-	-	-			80	226	195	*198*		-		65	50	39	39	25
Medians (% of LWUs basis) for 1,500 to 3,000 Properties				*21*			*33*			*0*	*0.0*	*0.2*	*0*	*0*	*92*																		*194*			*Total Vol*		*2,620*				*24*

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

No.	WATER UTILITY	ASSET MANAGEMENT																		RESOURCE MANAGEMENT																							
		Infiltration (ML per 100km of Main) (23) 07/08	08/09	09/10	Breaks & Chokes (No. per 100 km of Main) (24) A14 07/08	08/09	09/10	Overflows see also Col (31a) (No. per 100 km of Main) (25) 07/08	08/09	09/10	Rehabilitations (% of Total Length) (27) 09/10	Rehabilitations (Service Connections %) (28) 09/10	Renewals ($'000 per 100 km of Main) (29) 09/10	Renewals (% of CRC) (30) 09/10	Mains Maintenance Cost ($'000 per 100 km of Main) (31) 09/10	Overflows Reported to Regulator (No. per 100km of main) (31a) E13 08/09	09/10	Total Vol of Sewage Collected (Res, NonRes + Trade Waste) (ML) (32) W18 07/08	08/09	09/10	Volume of Trade Waste (ML) (32a) W17 09/10	% Sewage Treated (%) (33) 09/10	% Sge Treated that was compliant (33a) E 4 09/10	STWs compliant at all times (33b) E 5 09/10	Percentage of Total Sewage Collected: Infiltration /inflow (34) 09/10	Res (35) 09/10	Non-Res (36) 09/10	Trade Waste (37) 09/10	Other (38) 09/10	Level of Treatment (%): Primary Level (39a) E 1 09/10	Secondary Level (39b) E 2 09/10	Tertiary Level (39c) E 3 09/10	Vol of Sewage Collected per Property (kL/property) (39) W 19 07/08	08/09	09/10	Biosolids Reused (%) (40) E 8 07/08	08/09	09/10	Effluent Recycled: Total Volume Recycled (ML) (41a) W 26 09/10	Volume Recycled for Urban Water (ML) (41b) 09/10	% of Total Effluent that is Recycled (41c) W 27 07/08	08/09	09/10
	LWUs with 200 - 1,500 Properties																																										
84	Gilgandra	114	111	111	166	197	156	6	8	17	0.6	0.4	31	0.1	150	8.3	5.6	280	285	285	30	100	75	0 of 1	14	61	14	11				100	207	210	208				290		89	100	100
73	Upper Lachlan	95	95	95		107	83		0	0	2.4	0.4	105	0.2	14	0.0	0.0	240	240	*240*	5	96	100	2 of 2	17	71	10	2				100	170	169	*169*						0	0	0
82	Gloucester	60	38	45	94	64	13	43	34	8	0.0	0.2	428	1.3	196	0.0	0.0	385	468	251		100	83	0 of 1	10	75	15					100	249	301	157		100	100			0	0	0
87	Bourke					189	135	0	0	0	0.0	0.6	294	0.9	185	0.0	0.0	175	189	195		100	29	0 of 1		100					100		164	177	156						0	0	0
86	Hay	54	54	54	151	149	81	0	0	0	1.4	0.6	0	0.0		0.0	0.0	277	287	*287*	5	97	100	1 of 1	7	88	3	2			100		218	225	*225*						0	0	0
83	Oberon		53	39	32	29	29	3	0	21	0.3	0.7	0	0.0	89	0.0	0.0	384	254	235	43	100	83	0 of 1	6	71	4	18	1			100	283	187	172			-	240		0	0	100
81	Gwydir	51	76	85	115	141	124	49	51	49	2.4	3.4	0	0.0	51	2.4	0.0	214	242	319		100	100	2 of 2	11	78	11					100	187	211	278	14	14	12	55	43	12	16	17
85	Uralla	50	40	43	77	27	7	17	7	0	0.3	0.4	0	0.0	123	0.0	0.0	164	137	140	1	100	83	0 of 1	9	87	3	1				100	161	135	129						0	0	0
95	Weddin	3	3	74	129	97	239	0	0	3	5.2	0.2	0	0.0		0.0	3.2	160	153	169		100	100	1 of 1	14	79	7				100		156	149	165				36	36	18	25	21
89	Bogan	50	100	-	10	20	10	0	0	0	0.0	0.0	0	0.0	80	0.0	0.0	622	622	*622*	-	100	100	1 of 1	-	-	-	-	-				596	594	*606*						0	0	
76	Harden		-	211	42	79	34	0	0	3	0.0	0.2	0	0.0	89	0.0	2.6	566	352	510		100	45	0 of 1	16	84					100		565	377	544		100	80	350	275	15	70	69
88	Wakool					0	-	0	0	-	-	-	0	0.0	21	0.0	-	296	331	*331*		-	100	4 of 4	-	-	-	-	-				277	311	*308*			-			0	0	0
93	Tumbarumba					43	21		2	2	0.2	0.7	45	0.2		2.1	2.1	278	293	*293*		100	100	2 of 2					100		27	73	282	301	*300*			-				0	0
94	Gundagai	3	3	3	18	22	14	1	3	3	0.0	0.3	0	0.0	33	0.0	0.0	111	117	*117*		100	100	1 of 1	2	73	26				100		125	130	*154*				117	117	100	100	100
92	Carrathool					282	0	0	27	0	0.6	0.0	686	1.5	150	-	0.0	167	105	111		100	100	3 of 3		100					100		191	120	131		-				0	1	*1*
96	Warren				153	176	-	6	0	0	0.0	0.0	653	1.0	224	0.0	0.0	173	172	181		100	100	2 of 2		100					100		208	217	223				2		6	3	1
99	Coolamon	5	7	5		16	7		0	2	0.0	0.0	0	0.0	139	0.0	0.0	95	98	*98*		100	100	2 of 2	2	94	4				31	69	98	99	*99*				73	50	89	90	100
102	Lockhart			-		0		0	0			0.0		0.0		0.0		171	158	180		97	100	3 of 3		100					53	47	206	192	218				27	27	40	1	15
98	Walcha	93	50	50	23	23	27	17	17	10	0.3	0.0	0	0.0		0.0	0.0	196	166	178	1	100	58	0 of 1	8	74	17	1			100		246	207	206						0	0	0
100	Balranald	8	8	11	24	21	11	0	0	0	0.0	0.0	0	0.0	21	0.0	0.0	223	196	203		98	100	2 of 2	2	98					100		282	248	240				*147*		0	73	*73*
97	Bombala			3	31	123	74	0	34	74	0.0	0.1	0	0.0	40	0.0	0.0	173	173	*173*		96	100	2 of 2	1	2	1		96		100		228	228	*228*				35	35	20	100	21
101	Murrumbidgee	14		-	95	-	-	0	-	-	-	-		0.0		-	-	86	86	*86*		-		0 of 2	-	-	-	-	-				117	115	*115*		-	-	*15*		17	17	*17*
90	Guyra	94	27	14	39	21	9	6	7	2	0.0	0.1	168	0.6		0.0	1.8	284	168	108		100	100	2 of 2	7	88	5			0	100		296	175	108	100	100	100			0	0	0
104	Boorowa		6	7		39	0		3	0	2.0	0.4	0	0.0	63	0.0	0.0	88	88	88		100	65	0 of 1	2	98					100		147	147	158				2	1		5	2
105	Brewarrina			69	131	156	138	0	0	0	0.0	0.6	0	0.0	213	0.0	0.0	210	210	190	-	100		2 of 3	6	94		-			83		438	436	384				212		81	81	100
106	Jerilderie	708	83	83	25	0	0	0	0	0	0.0	0.0	0	0.0	150	0.0	0.0	85	77	68		100	25	0 of 1	15	85					100		200	181	160				10	10	6	26	15
103	Central Darling			-	231	123	-	31	54	-	-	-	0	0.0	500	-	-	100	100	*100*	-	-	100	1 of 1	-	-	-	-	-				515	515	*488*			-			0	0	0
107	Urana					0	0	0	0	0	-	-	0	0.0	33	0.0	0.0	90	90	*90*		100	100	2 of 2		100					100		286	285	*284*						0	0	0
	Medians (% of LWUs basis) for 200 to 1,500 Properties			*48*			*21*			*1*	*0*	*0*	*0*	*0*	*89*																				*207*		*Total Vol*		*1,611*				*2*
	Median All LWUs (% of LWUs basis)					*Breaks & Chokes*	*37*		*Overflows*	*3*			*Renewals 0% of CRC*									*Median % sge treated that was compliant was 100%*																	*Median % of Effluent Recycled*				*17*
	Median All LWUs (Statewide basis)						*39*			*15*			*Renewals 0.3 % of CRC*																														*11*

Totals for all LWUs

Total volume of sewage collected = 165,000 ML

No. of LWUs Reporting Biosolids Reuse 26 (ie. 26% of LWUs)

No. of LWUs Reporting Recycling for Urban use 43 (ie. 43% of LWUs)

No. of LWUs Reporting Effluent Recycling 80 (ie. 80% of LWUs)

Total volume of effluent recycled = 39,000 ML

Effluent Recycled % of total volume collected = 24%

NOTE: 1. For those councils that did not report the current year's volume of sewage collected (column (32)), either the previous year's value or the current year's volume of sewage treated has been adopted, whichever is the larger. These adopted values are shown in bold italics in columns (32) and (39).

2 The number of LWUs reporting effluent recycling = 80 (ie. 80% of LWUs providing sewerage services)
The number of LWUs reporting effluent recycling for Urban Water Supply (ie. not for irrigation, environmental use or agriculture) = 43 (ie. 43% of LWUs providing sewerage services)

3 For those councils that did not report the current year's volume of effluent recycled (column (41)), the previous year's value has been adopted.
For such councils, the adopted value is shown in bold italics in column (41).

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) ($'000)		Revenue per property	Residential Revenue Vs Vol Collected		Current Replacement Cost (CRC) of System Assets			Net Debt to Equity			Return on Assets			ERRR			Cross Subsidies		Operating Result		Externalities (Annual Fees to EPA)	Loan Payment			Operating Cost (OMA)				Management Cost			
					Res Revenue (% of rates and charges)	Res Vol collectd (% total excl infiltration)	Written Down Cost ($'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		(42a) F6	(43)	(44)	(45)	(46) F10	(47)	(48) F 22			(48a)			(48b) F 18			(49a)	(49b)	(50)		(51)	(51a)			(52) F12				(54)			
		08/09	09/10		09/10	09/10	09/10	09/10	09/10	07/08	08/09	09/10	07/08	08/09	09/10	07/08	08/09	09/10	09/10	09/10	07/08	09/10	09/10	07/08	08/09	09/10	06/07	07/08	08/09	09/10	06/07	07/08	08/09	09/10
	Sydney Water	995,675	1,070,000	623				22,278		62	103	120				1.2	0.9	1.7									190	261	240	245				
	Hunter Water	111,359		572				2,715		30	32	39				2.3	2.0	1.8									228	259	271	305				
LWUs with > 10,000 Properties																																	
1	Gosford	30,200	36,700	535	82	82	413	497	7,607	-7	-5	-5	1.1	1.4	2.1	1.3	1.1	2.1			64	126	3.9	6	6	6	266	261	282	313	109	105	133	128
2	Wyong	25,500	29,000	490	87	75	396	567	9,344	-1	-1	-1	-1.2	-1.6	-1.0	-1.2	-1.6	-1.0			-107	-67		67	111	25	284	300	319	327	90	84	112	127
3	Shoalhaven	30,400	32,700	807	86	82	471	637	13,926	8	8	8	1.1	0.8	1.1	1.6	1.3	1.6			75	120	1.8	122	135	162	369	397	424	427	132	143	153	150
5	MidCoast	26,600	31,600	962	86	80	437	634	18,545	23	26	27	-1.9	-1.8	-1.1	-0.1	-0.2	0.3			-259	-149	2.6		330	345	416	404	415	416	56	70	80	83
6	Tweed	27,500	26,300	893	87	90	458	592	18,287	-2	-3	-4	0.9	-0.2	0.7	1.0	-0.2	-0.3			-69	88	4.9	27	43	63	333	372	413	451	125	132	141	163
7	Port Macquarie-Hastings	19,200	19,600	742	87	*90*	221	339	12,210	-8	3	5	0.5	-0.7	1.8	0.3	2.1	1.4		214	-178	86	0.0	31	60	80	344	376	349	367	95	107	108	98
9	Wagga Wagga	13,600	14,500	577	68	84	219	297	12,302	-9	4	-3	1.2	0.9	1.9	1.0	1.0	1.3			74	17	0.0	8	18	18	211	253	270	251	46	50	54	44
10	Coffs Harbour	20,500	24,600	1,084	79	*90*	310	391	16,012	13	25	23	0.9	-0.7	1.6	2.8	2.1	2.6		21580	-113	201	1.8	420	685	690	388	415	429	485	117	126	130	164
11	Albury City	12,100	14,900	711	74	*90*	162	288	13,603	9	11	9	0.8	1.2	1.7	1.3	2.1	2.1		30	83	129	2.4	96	104	115	330	319	254	386	112	133	31	142
13	Tamworth Regional	18,500	21,200	1,140	79	56	105	200	10,778	-17	-10	8	7.5	8.8	7.4	6.9	7.8	6.5			671	743	1.0	47	158	56	322	269	277	333	132	91	105	95
15	Eurobodalla	13,500	14,900	842		*90*	168	269	14,278	5	2	1	0.4	1.3	3.1	0.7	1.6	1.8			80	286	1.2	84	151	215	394	441	403	445	103	106	157	165
17	Queanbeyan	5,800	6,200	385	88	80	112	211	13,483	-21	-20	-21	1.3	-0.5	-0.6	0.1	-1.0	-2.3			-41	-62	0.0	1	0	0	227	274	249	366	96	138	104	107
19	Orange	13,600	7,300	467	76	75	107	178	11,349	-17	0	-16	3.1	6.8	0.3	3.3	5.8	-0.4		810	403	-49	1.5	0	0	0	261	318	296	300	103	136	123	136
18	Dubbo	9,700	10,200	661	70	58	157	187	13,427	-5	-5	-6	1.7	1.2	2.2	1.7	1.4	1.7			89	216	5.0	20	20	19	324	335	370	346	145	137	151	157
16	Wingecarribee	9,700	10,800	746	87	76	206	269	17,675	3	4	8	2.0	0.7	0.5	2.2	1.0	0.9			43	-20		127	130	163	325	324	323	367	128	140	142	143
14	Clarence Valley	10,400	11,700	813	81	*90*	117	159	10,357	-26	4	14	1.9	-0.1	0.6	3.6	1.2	1.7			-56	63	0.2	162	370	366	344	356	357	360	151	141	124	149
21	Bathurst Regional	7,800	7,900	534	64	68	72	139	10,122	-15	-15	-17	1.8	2.7	1.5	1.2	2.2	1.1			123	63	6.2	13	13	1	324	317	342	348	142	136	134	154
24	Ballina	8,600	10,600	809	81	*90*	98	195	13,839	-14	-11	-9	0.8	-1.2	3.4	-0.7	-2.3	-0.3			-126	250	0.4	2	2	2	383	456	537	573	133	137	179	194
22	Lismore	7,900	8,500	686	78	87	181	333	28,242	-5	-5	-6	-1.2	-1.8	0.5	-0.9	-1.3	-1.3			-275	55	0.1	5	15	21	331	386	366	392	77	107	110	101
23	Bega Valley	12,200	13,700	1,152	84	65	116	188	15,522	19	19	15	1.3	0.4	0.8	2.1	1.5	1.9			35	80	2.1	201	197	196	511	574	596	660	184	208	213	228
27	Byron	11,000	12,100	1,194	76	73	184	256	24,251	12	16	33	0.6	0.4	0.0	1.3	1.4	1.5			-77	-138	0.4	206	242	417	516	529	571	584	138	148	163	158
26	Country Energy	4,600	4,900	505	81	61		*35*	*3,600*		0										31	150	4.2	0	0	0	234	268	337	253	107	87	83	69
20	Goulburn Mulwaree	8,300	8,300	869	73	*90*	86	133	14,327	14	12	8	0.4	1.8	3.3	4.2	3.6	3.6			134	325	1.6	234	190	199	290	350	352	382	124	107	110	112
25	Kempsey	6,400	6,800	754	75	67	119	200	23,035	-2	4	7	0.2	0.0	-0.2	0.5	0.4	0.6			-57	-65	5.5	82	120	203	346	365	381	433	126	127	128	143
Medians (% of LWUs basis) for >10,000 Properties									*13,721*			*5*			*1*			*1*				*83*			*71*				*375*			*142*
LWUs with 3,001 - 10,000 Properties																																	
29	Armidale Dumaresq	4,000	5,100	623	62	78	63	67	8,031	-5	0	-6	1.5	1.3	4.0	0.9	1.3	3.7			-146	297	4.4	0	0	0	342	369	357	290	135	171	186	135
31	Lithgow	3,400	4,000	539	90	-	28	68	8,986	-6	-2	-26	0.5	-1.4	5.1	-0.3	-1.6	-0.7			30	192	0.4	144	7	38	630	390	379	419	178	35	42	72
30A	Hawkesbury	5,200	16,400	2,180	75	0	77	140	18,189	-4	0	-4	-1.6	0.1	14.4	-1.6	0.0	14.1			27	1477	0.1	1	1	0	443	415	429	435				
30	Griffith	4,800	6,200	820	74	80	107	131	14,738	-2	0	-2	-0.1	0.1	1.7	0.2	0.3	1.3			8	226	0.0	68	63	82	424	442	464	446	126	141	145	151
33	Richmond Valley	6,100	6,900	1,063	88	*90*	64	118	17,316	3	6	-14	2.4	1.1	3.1	2.6	2.2	3.5			-77	286	3.3	181	197	117	375	417	482	455	175	187	198	223
32	Mid-Western Regional	3,100	3,100	472	90	69	31	74	11,312	-18	-17	-20	1.7	0.1	-0.1	0.6	-1.0	-1.2		14560	2	-17	6.7	17	17	16	298	315	337	341	98	105	133	126
34	Nambucca	3,300	4,300	804	60	*90*	66	92	16,386	-8	-7	-24	0.1	0.5	7.0	0.4	0.9	2.0			56	863	2.1	63	77	137	280	312	352	391	90	97	115	125
35	Singleton	2,500	2,900	539	79	*90*	29	57	10,094	-25	0	-1	3.6	2.3	2.2	2.0	0.5	0.8			106	95	23.6	0	0	0	200	247	275	316	70	80	85	106
37	Inverell	1,800	1,700	367		*90*	34	48	10,151	-7	0	-3	-2.4	-1.0	0.9	-0.5	0.7	0.2	1		-114	23	4.8	1	0	0	242	316	250	269	92	90	97	112
41	Muswellbrook	3,300	3,800	745	80	*90*	40	67	12,628	-14	-15	-10	4.4	1.9	2.5	3.3	1.4	1.7			145	116	16.8	24	23	23	311	313	394	448	81	99	135	146

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) ($'000)		Revenue per property ($)	Residential Revenue Vs Vol Collected		Current Replacement Cost (CRC) of System Assets			Net Debt to Equity (%)			Return on Assets			ERRR see also Table 7 Col (11)			Cross Subsidies		Operating Result ($/property)		Externalities (Annual Fees to EPA) ($/property)	Loan Payment ($/property)			Operating Cost (OMA) ($/property)				Management Cost ($/property)			
					Res Revenue (% of rates and charges)	Res Vol collectd (% total excl infiltration)	Written Down Cost ($'M)	Current Replacement Cost ($'M)	Current Replacement Cost per Assessmnt ($)										Annual Fees & Charges ($/assessment)	Developer Charge ($/assessment)														
		(42) F 2		(42a) F6	(43)	(44)	(45)	(46) F10	(47)	(48) F 22			(48a)			(48b) F 18			(49a)	(49b)	(50)		(51)	(51a)			(52) F12				(54)			
		08/09	09/10		09/10	09/10	09/10	09/10	09/10	07/08	08/09	09/10	07/08	08/09	09/10	07/08	08/09	09/10	09/10	09/10	07/08	09/10	09/10	07/08	08/09	09/10	06/07	07/08	08/09	09/10	06/07	07/08	08/09	09/10
36	Parkes	2,000	2,500	506	75	72	25	43	8,242	-16	0	-16	-3.1	-0.2	6.0	1.5	0.4	4.3			-122	93	8.9	0	0	10	218	168	210	208	35	32	34	36
42	Corowa	2,600	3,300	678	84	90	29	41	8,009	3	4	-9	1.8	0.5	2.8	1.9	1.4	2.7			-55	127	3.6	31	55	45	269	335	367	375	102	160	155	171
38	Moree Plains	3,000	3,100	830	77	90	27	49	12,696	17	13	-1	-0.6	1.8	2.4	1.7	2.3	2.2			25	75	4.0	205	98	98	396	432	423	449	62	90	93	56
44	Gunnedah	1,400	1,300	325	89	76	22	53	13,750	-15	0	-1	-0.4	-0.2	0.9	-0.2	-0.3	-0.8			-28	43	3.0	0	0	0	140	133	181	177	37	37	66	76
46	Narrabri	1,700	1,800	483		90	18	90	23,736	-2	-3	-7	0.0	-1.0	2.2	1.5	-0.6	1.4			-85	95	4.3	37	48	64	282	239	272	320	98	56	48	26
43	Tumut	2,600	2,800	674	79	90	24	42	9,638	-5	0	-4	3.9	1.1	1.4	3.3	0.9	1.0			38	68	2.8	3	0	0	326	407	364	381	47	99	69	75
49	Young	1,500	1,600	432	65	-	8	28	7,856	-29	-30	-15	10.1	5.8	6.9	7.6	5.4	6.6			135	71		11	11	11	107	112	146	145	20	20	59	67
39	Cowra	2,600	2,700	760	80	90	24	39	10,559	-12	-11	-16	5.3	4.0	4.3	5.6	4.2	4.7			251	296	11.7	41	40	52	242	298	393	361	137	161	221	241
45	Upper Hunter	1,800	1,900	459	82	90	27	54	11,940	-15	0	-17	0.6	-1.2	-1.7	-0.7	-2.6	-2.7			-81	-113	11.7	0	0	0	345	422	416	412	150	173	163	151
52	Snowy River	2,200	3,000	832		-	23	40	15,948	-14	0	-9	-0.3	1.8	3.3	-1.7	0.9	2.7			104	215	1.3	0	0	0	290	460	377	455	78	153	139	126
51	Forbes	1,900	2,100	683	74	83	27	39	12,629	4	1	-11	1.2	1.4	0.1	1.6	1.6	0.3			122	10	3.3	305	338	116	257	297	310	342	37	37	33	57
50	Cooma-Monaro	2,400	2,500	734	83	2	27	42	11,841	-3	-3	-3	-0.8	0.4	-0.7	-0.4	0.3	-0.7			20	-63	3.3	82	45	42	355	470	474	502	111	152	163	168
53	Berrigan	1,400	1,300	394	81	90	16	39	11,736	-8	0	-15	2.5	-1.9	-1.8	1.2	-3.1	-3.0			-127	-123	3.1	0	0	0	216	215	368	307	87	85	90	92
48	Leeton	2,200	2,200	687	53	78	20	46	13,588	-24	-25	-19	2.4	1.4	1.6	1.2	0.7	0.7			122	69	0.0	15	115	6	365	358	420	439	140	156	113	120
54	Deniliquin	1,700	1,900	602		-	14	42	12,788	-20	-16	-3	3.8	2.0	3.8	1.8	0.8	-0.2			-28	83	7.2	18	21	21	412	385	391	477	131	171	196	259
Medians (% of LWUs basis) for 3,000 to 10,000 Properties									*11,890*			*-10*			*2*			*1*			*88*				*18*				*378*			*122*
LWUs with 1,501 - 3,000 Properties																																	
47	Bellingen	1,700	1,700	572		90	25	42	13,581	-27	-22	-21	0.8	0.3	-0.6	-0.7	-1.7	-1.8			-3	-79	2.2	1	1	1		402	451	506		181	184	175
60	Glen Innes Severn	1,200	1,100	394		88	21	28	9,183	3	3	-11	0.3	-0.1	1.1	1.1	1.2	0.6			-11	71	0.5	98	91	87	236	246	229	238	118	115	125	116
58	Cootamundra	952	978	354	75	84	17	29	10,297	-1	-3	-5	-0.4	0.3	-0.1	-0.3	0.4	0.1			15	-56	0.0	31	38	47	192	185	201	227	50	51	58	60
57	Wellington	1,400	1,600	600	77	90	20	31	11,248	12	17	-4	0.8	-1.1	0.3	1.8	0.0	1.2			-104	2		168	168	149	296	312	421	332	134	159	154	157
91	Cabonne	1,400	1,500	629	82	90	26	35	13,653	-13	-7	-5	1.5	1.2	-0.1	0.7	0.9	-0.3			82	-81	1.4	65	64	54	204	214	240	360	50	48	69	184
80	Greater Hume	830	861	337	77	86	20	32	11,978	-7	-8	-8	-0.5	-0.6	-0.9	-1.1	-1.2	-1.4			-49	-73	0.6	23	24	25	255	282	282	303	78	79	81	101
59	Lachlan	732	748	346		76	13	29	13,739	-24	0	-21	1.1	-0.4	-1.4	-0.6	-1.0	-3.1			-75	-83	9.3	0	0	0		224	284	287		54	78	83
65	Murray	1,400	1,400	524	74	67	20	27	9,720	-1	-4	-7	0.9	1.7	1.9	1.0	1.7	1.7			109	136	3.3	45	36	40	237	294	241	269	98	145	96	108
62	Narromine	1,000	1,100	563	85	90	6	18	8,796	-31	0	-38	3.3	1.0	4.8	2.2	0.8	3.6			140	152	5.3	0	0	0	280	308	280	297	152	139	149	197
56	Yass Valley	1,500	1,500	680		85	15	25	10,808	-35	0	-9	5.6	2.7	1.8	5.5	2.6	1.4			142	104		0	0	0		340	371	407		150	156	230
61	Liverpool Plains	694	733	374		-	11	28	13,931	-18	0	-17	-1.3	0.0	-0.2	-2.3	-0.1	-0.9			7	-11	4.2	0	0	0	232	230	205	249	94	86	76	143
55	Warrumbungle	1,100	*1,300*	529	73	70	16	29	11,668		-19	-21		0.4	2.1		0.6	1.6			24	131			11	11	301	301	285	294	70	70	73	55
69	Temora	534	562	266	90	90	9	15	6,994	-6	0	-9	0.8	1.5	0.2	0.4	1.0	-0.3			62	9	0.0	0	0	0	155	159	155	219	37	33	32	48
71	Palerang	2,300	2,200	1,148		90	23	36	18,072	-17	-17	-30	6.7	6.6	4.0	6.0	6.0	3.6			583	469	1.5	149	110	143		395	386	396		175	162	*145*
72	Bland	897	*946*	513		90	10	20	10,518		0	-19		0.1	2.0		0.5	1.0			4	136	0.0		22	0	324	324	312	292	141	141	64	49
63	Narrandera	961	945	557	79	-	6	11	5,883	-25	0	-30	-1.2	0.8	2.1	-1.2	0.9	0.0			-13	53	6.8	0	8	0	409	406	355	373	145	169	134	136
67	Cobar	520	508	293		90	9	16	8,946	-3	0	-1	0.6	1.2	0.4	0.3	1.1	0.3			67	24	7.8	0	0	0	142	165	137	129	20	55	20	*20*
74	Wentworth	986	1,200	670		90	24	29	15,417	2	3	-1	-1.0	-0.9	0.5	-0.7	-0.5	0.7			-133	47		110	120	112	279	260	276	251	56	54	57	56
75	Coonamble	471	488	346	86	88	4	18	13,182	-45	-28	-33	-2.2	-2.5	-3.9	-6.9	-7.5	-8.1			-65	-119	4.9	7	7	7	215	296	275	300	23	85	44	53
70	Kyogle	1,000	1,000	591	80	71	17	28	15,631	1	3	-6	0.9	0.9	0.2	1.1	1.1	0.6			83	8	2.1	27	54	50	298	319	332	375	101	88	103	105
77	Junee	587	628	396	86	85	12	20	12,107	-9	0	-8	0.4	0.7	0.0	-0.1	0.1	-0.4			47	1	0.0	0	0	0	230	221	238	275	54	57	53	57
78	Blayney	933	1,100	578		89	15	22	11,986	-10	-11	-16	-2.0	-0.4	0.2	0.3	-0.2	0.4			-29	16	0.0	41	64	61	301	341	335	335	129	150	153	151
79	Walgett	628	640	399		0	10	16	8,442	-13	-15	-16	1.9	0.5	0.6	1.8	0.5	0.5			76	36		13	5	5	248	194	221	280	124	73	32	77
68	Tenterfield	1,200	1,500	920	81	-	21	30	17,657	-9	10	2	-2.0	-2.4	0.1	1.3	-1.2	0.2			-308	5	1.3	11	139	110	410	421	569	510	214	221	260	153
Medians (% of LWUs basis) for 1,500 to 3,000 Properties									*11,823*			*-10*			*0*			*0*			*12*				*9*				*295*			*106*

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) ($'000)		Revenue per property ($)	Residential Revenue Vs Vol Collected		Current Replacement Cost (CRC) of System Assets			Net Debt to Equity (%)			Return on Assets			ERRR see also Table 7 Col (11)			Cross Subsidies		Operating Result ($/property)		Externalities (Annual Fees to EPA) ($/property)	Loan Payment ($/property)			Operating Cost (OMA) ($/property)				Management Cost ($/property)			
					Res Revenue (% of rates and charges)	Res Vol collectd (% total excl infiltration)	Written Down Cost ($'M)	Current Replacement Cost ($'M)	Current Replacement Cost per Assessmnt ($)										Annual Fees & Charges ($/assessment)	Developer Charge ($/assessment)													
		(42) F 2		(42a) F6	(43)	(44)	(45)	(46) F10	(47)	(48) F 22			(48a)			(48b) F 18			(49a)	(49b)	(50)		(51)	(51a)			(52) F12				(54)			
		08/09	09/10		09/10	09/10	09/10	09/10	09/10	07/08	08/09	09/10	07/08	08/09	09/10	07/08	08/09	09/10	09/10	09/10	07/08	09/10	09/10	07/08	08/09	09/10	06/07	07/08	08/09	09/10	06/07	07/08	08/09	09/10
LWUs with 200 - 1,500 Properties																																	
84	Gilgandra	523	571	418	78	71	8	15	10,804	-12	-8	-7	1.8	1.3	0.5	1.0	0.7	0.3			21	-16	8.1	0	0	53	170	180	186	249	23	23	34	44
73	Upper Lachlan	1,800	952	672	85	86	13	20	13,890	-3	1	-16	0.2	-0.3	2.4	1.4	1.3	1.9			699	2882	1.9	159	159	159	290	319	318	318	91	107	109	104
82	Gloucester	726	981	614	73	83	11	17	10,309	-20	0	-10	0.1	0.3	3.6	0.1	-0.2	3.0			-17	186	2.0	0	0	0	421	392	360	287	78	74	85	57
87	Bourke	638	665	533	88	*90*	6	11	8,964	-16	-17	-20	0.5	0.2	2.9	-0.8	-0.4	1.8			22	149	0.9	63	64	54	472	374	477	286	58	67	162	51
86	Hay	663	773	607	82	*90*	5	18	14,200	-22	-24	-24	-1.1	2.1	-0.6	-2.7	0.9	-1.5			64	-21	7.7	0	0	0	246	255	300	466	69	77	94	179
83	Oberon	598	628	459	57	76	4	6	4,337	-8	0	-4	1.9	0.7	1.9	0.2	-0.3	0.6		10208	-8	69	0.0	0	0	0	375	368	399	383	87	105	112	127
81	Gwydir	663	704	614	71	88	5	14	11,224	-15	-17	-21	-3.3	2.0	3.4	-4.2	0.9	2.3	13118		62	99	5.7	10	7	3		581	336	315		358	100	72
85	Uralla	470	462	426		*90*	7	8	7,383	-9	-9	-9	1.6	1.3	0.2	0.7	1.4	1.8			59	-1	1.1	0	2	11	261	400	350	294	82	165	125	101
95	Weddin	213	233	227		*90*	3	11	10,092	-15	0	-11	0.7	-1.6	-0.6	-0.1	-1.9	-1.0			-151	-27		0	0	0	124	133	185	127	27	25	25	25
89	Bogan	473	455	443		-	7	10	9,935	-14	-14	-14	-0.3	2.0	0.2	-1.0	1.2	-0.4			133	14	22.1	19	20	19	275	281	293	316	186	187	178	181
76	Harden	558	561	599	80	*90*	3	12	12,004	-3	-11	-21	-1.9	2.3	4.2	-2.0	2.2	3.9			78	125	0.1	116	137	139	271	320	285	239	72	75	79	96
88	Wakool	567	597	556	77	-	15	28	24,316	-5	-6	-8	-1.0	-0.9	-1.2	-1.1	-1.0	-1.3			-123	-183	9.2	118	55	55	231	257	266	296	60	67	68	69
93	Tumbarumba	460	466	478	77	0	6	13	13,111	-21	0	-26	2.7	1.7	3.8	0.7	1.4	1.3			79	215	5.6	0	112	0	221	237	217	255	78	75	77	82
94	Gundagai	364	371	490	62	74	6	13	14,545	-1	0	-1	-1.7	-1.1	-1.4	-1.8	-1.2	-1.5			-71	-107	6.0	0	0	0	266	309	317	403	56	69	77	98
92	Carrathool	151	156	184		*90*	6	10	11,217	0		11	-2.0		-3.9	-2.1		-3.9				-291	14.3	0		0	194	147	147	269	26	24	24	27
96	Warren	458	462	569	78	*90*	3	12	13,112	-33	0	-37	1.8	1.1	0.8	-1.3	-1.8	-2.0			10	-5		25	26	0	290	378	414	412	86	93	100	134
99	Coolamon	576	421	425	80	*90*	8	11	10,283	-10	0	-10	1.6	3.0	0.6	1.0	2.4	0.1			269	18	0.0	0	0	0	147	189	197	271	57	65	62	67
102	Lockhart	336	335	406		*90*	6	11	12,759	-17	0	-21	-0.5	0.2	-0.2	-1.5	-0.8	-1.0			5	-11	0.0		0	0	330	274	266	281	30	34	63	24
98	Walcha	344	348	402		80	7	8	9,681	-4	-6	-7	1.3	1.0	1.8	1.1	1.1	1.4			62	149		6	6	6	254	284	254	211	51	75	60	62
100	Balranald	227	233	275	85	*90*	10	14	15,550	-8	0	-10	0.5	0.1	0.3	-0.1	-0.3	-0.2			15	38	8.1	0	0	0	172	159	152	120	50	44	43	40
97	Bombala	340	352	464	82	2	8	13	15,732	-10	-11	-13	1.4	-0.1	0.5	0.5	-0.4	-0.3			-41	16	2.4	8	16	11	168	173	287	297	61	62	120	41
101	Murrumbidgee	217	222	297		-	2	5	6,706	-41	0	-41	4.6	3.0	4.6	0.2	-0.9	1.3			67	106	6.9	0	0	0	155	136	188	137	54	59	54	54
90	Guyra	516	540	541		*90*	15	15	14,642	3	3	-3	1.3	0.6	0.9	1.5	1.1	1.1			63	99	3.0	492	116	102	334	300	362	350	189	107	108	108
104	Boorowa	316	341	611		*90*	2	9	15,370	-14	-20	-30	-0.4	1.4	2.2	-1.1	0.7	0.7			32	29	0.9	37	37	41	163	170	200	245	21	23	23	106
105	Brewarrina	313	335	677	81	*90*	7	11	19,127	-5	-5	-6	-1.1	-1.1	-1.1	-1.1	-1.2	-1.1	80		-154	-204	1.3	6	6	6	444	508	523	548	48	108	139	168
106	Jerilderie	248	247	583	69	*90*	3	6	14,289	-27	0	-27	3.5	3.4	2.4	0.9	1.0	0.2			233	151	4.1	12	0	0	311	334	313	363	120	85	80	94
103	Central Darling	97	96	468		-	2	2	10,146	-9	0	-9	-0.3	-0.5	0.6	-0.6	-0.7	0.4			-62	10	15.6	0	0	0	528	392	428	346				
107	Urana	153	158	499		*90*	6	7	20,336	-6	-7	-12	0.5	0.0	-0.5	0.1	-0.2	-0.6			-22	-85		219	216	215	309	280	320	405	116	111	111	114
Medians (% of LWUs basis) for 200 to 1,500 Properties									*12,382*			*-11*			*0.6*			*0.3*			*17*			*2*				*295*				*82*
Median All LWUs (% of LWUs basis)		*Revenue/prop*		*$570*			*CRC $/Assessment*		*$12260*	*Net D/E*		*-9*			*0.9*	*ERRR*		*0.6*			*Loan Payment per property*			*$20*			*OMA $ per property*			*$340*	*Mngmnt $/prop*			*$110*
Median All LWUs (Statewide basis)				*$680*					*$12,600*			*-2*			*1.6*			*1.3*						*$38*					*$360*			*$128*
Totals for all LWUs		*Total Sge Revenue $500 M*					*Total CRC $9,600 M*																										

NOTE: 1. If the reported management cost is <$20/property or not reported, the previous year's management cost has been adopted and is shown in ***italics bold***. 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***.

Table 17: Sewerage – environmental and levels of service

	WATER UTILITY	ENVIRONMENTAL																LEVELS OF SERVICE								
		DEC DISCHARGE LICENCE COMPLIANCE												Sewage Treated that was Compliant			STWs Compliant at all times	Compliance with Environmental Regulator	Odour Complaints			Service Complaints			Average Sewerage Interruption		
		BOD				SS				N	P	Oil & Grease	Faecal Coli-form														
		Compliance			90 %-ile Limit	Compliance			90 %-ile Limit					(%)					(per 1000 properties)			(per 1000 properties)			(minutes)		
		(%) (55)			(mg/L) (56)	(%) (57)			(mg/L) (58)	(%) (59a)	(%) (59b)	(%) (59c)	(%) (59d)	(59e) E4			(59f) E5	(60) E 7	(61)			(62) C 11			(65) C 16		
		07/08	08/09	09/10	09/10	07/08	08/09	09/10	09/10	09/10	09/10	09/10	09/10	07/08	08/09	09/10	09/10	09/10	07/08	08/09	09/10	07/08	08/09	09/10	07/08	08/09	09/10
	Sydney Water													96	96	97		Yes				1	0.4	0.4	143	240	238
	Hunter Water													87	91	95	14 of 18	No				27	2	2	144	0	0
LWUs with > 10,000 Properties																											
1	Gosford	100	100	100	30	100	100	100	50	100	100	100	100	100	100	100	2 of 2	Yes	1	2	2	1	-	2	134	116	161
2	Wyong	100	100	100	NL	100	100	100	NL	100	100	100	100	100	100	100	6 of 6	Yes	1	1	1	11	12	12	165	156	150
3	Shoalhaven	100	100	100	40	88	88	83	40	100	100	100	100	86	70	83	10 of 12	No	0	1	0	23	7	7	120	-	96
5	MidCoast	100	100	100	30	100	100	100	30	99	100	100	100	98	100	99	11 of 12	No	2	1	1	12	2	1	330	-	-
6	Tweed	100	100	100	15	100	99	97	20	97	98	100	98	89	85	93	1 of 7	No	1	0	0	8	4	4	180	180	174
7	Port Macquarie-Hastings	89	91	90	10	100	99	82	15	100	69	100	100	89	56	58	2 of 5	No	0	0	0	3	6	5	60	60	60
9	Wagga Wagga	100	100	100	20	88	99	99	30	100	71	100	100	88	95	70	3 of 5	No	0	0	0	89	76	68	90	83	47
10	Coffs Harbour	100	100	100	50	100	100	100	50	100	100	100	100	100	100	100	5 of 5	Yes	0	0	2	34	27	4	120	120	120
11	Albury City	100	100	100	12	100	100	100	15	100	100	100	92	87	86	92	3 of 4	No	0	0	0	47	49	44	133	120	118
13	Tamworth Regional	100	99	99	30	100	100	99	25	100	100	100	100	100	99	99	4 of 5	No	0	0	1	25	25	21		-	-
15	Eurobodalla	100	100	100	20	100	100	100	30	100	100	100	100	100	100	100	5 of 5	Yes	1	1	1	1	1	1		-	-
17	Queanbeyan	100	100	100	NL	100	100	100	NL	100	100	100	100	100	100	100	1 of 1	Yes	0	0	0	27	17	19	60	240	60
19	Orange	100	100	100	20	100	100	100	25	100	100	100	100	100	45	100	2 of 2	Yes	1	1	2	21	25	23		-	-
18	Dubbo	100	100	100	20	100	100	100	25	100	100	100	100	70	75	92	0 of 1	No	0	0	1	11	13	10	91	93	89
16	Wingecarribee	100	100	100	10	100	100	100	15	97	100	100	100	100	100	97	4 of 5	No	1	1	3	40	22	31	120	120	120
14	Clarence Valley	100	90	98	20	89	87	84	30	100	85	100	93	94	83	70	1 of 8	No	2	1	2	15	10	30	120	120	-
21	Bathurst Regional	100	100	100	20	88	100	100	25	100	100	100	100	88	100	100	1 of 1	Yes	0	0	0	29	27	30	120	120	120
24	Ballina		100	98	20		100	96	30	100	100	100	94	89	93	96	3 of 4	No	0	1	0	10	11	6	120	120	120
22	Lismore	100	100	100	15	100	100	100	20	100	100	100	100	100	100	100	3 of 3	Yes	0	1	1	33	26	4	60	60	60
23	Bega Valley	100	100	97	20	100	100	95	30	100	100	100	100	100	97	95	8 of 10	No	2	0	0	4	8	11	120	120	120
27	Byron	100	97	99	NL	100	100	100	NL	100	100	100	97	90	88	98	4 of 5	No	2	1	2	2	2	2	60	60	60
26	Country Energy		100	100	50		100	100	50	100	100	100	100		100	100	2 of 2	Yes	0	1	1	0	1	1	60	60	-
20	Goulburn Mulwaree		83	100	20		58	100	30	100	100	100	100	100	58	100	2 of 2	Yes	0	0	1	89	38	41	90	90	90
25	Kempsey	100	100	100	15	74	82	76	20	100	100	100	90	74	82	76	5 of 7	No	2	0	1	2	1	1	175	146	83
Medians (% of LWUs basis) for >10,000 Properties				*98*				*84*								*99*					*1*			*11*			*10,155*
LWUs with 3,001 - 10,000 Properties																											
29	Armidale Dumaresq	100	100	100	20	100	100	100	30	100	100	100	100	100	100	100	1 of 1	Yes	0	0	0	1	0	0	136	105	95
31	Lithgow		95	100	15		100	100	25	100	100	100	75		18	75	0 of 3	No		1	-	0	9	162		60	-
30A	Hawkesbury	100	100	100	10	100	96	100	15	100	100	100	100	91	84	100	2 of 2	Yes	0	0	0	20	19	20		60	60
30	Griffith	100	100	100	30	61	76	39	30	100	100	100	100	61	76	39	1 of 3	No	2	0	0	53	23	21	120	120	60
33	Richmond Valley	100	100	100	20	86	100	100	30	100	100	100	100	86	95	100	4 of 4	Yes	1	0	1	4	0	1	120	120	120
32	Mid-Western Regional	100	100	81	20	100	100	100	50	74	43	100	100	53	22	43	3 of 4	No	0	0	0	24	17	51	120	120	120
34	Nambucca	100	99	87	20	100	99	69	30	76	100	100	100	96	99	45	0 of 4	No	0	0	1	8	13	8	45	45	60
35	Singleton	100	100	100	30	100	100	100	30	100	100	100	100	100	100	100	1 of 1	Yes	0	0	1	9	13	17	180	180	180
37	Inverell	100	100	96	20	100	100	92	30	96	96	96	96	99	100	92	1 of 4	No	0	-	0	65	43	43	60	50	45
41	Muswellbrook	65	74	84	20	78	55	38	30	100	100	100	100	62	55	38	0 of 2	No	4	7	4	67	53	64	91	101	107
36	Parkes	100	100	85	30	56	57	47	50	100	100	100	100	56	57	47	2 of 3	No	1	0	0	17	14	14	50	50	50
42	Corowa		100	100	NL		100	100	NL	100	100	100	100	23	93	100	3 of 3	Yes	4	1	1	31	23	32	120	120	120

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

	WATER UTILITY	ENVIRONMENTAL																LEVELS OF SERVICE								
		DEC DISCHARGE LICENCE COMPLIANCE																								
		BOD				SS				N	P	Oil & Grease	Faecal Coli-form	Sewage Treated that was Compliant			STWs Compliant at all times	Compliance with Environmental Regulator	Odour Complaints			Service Complaints			Average Sewerage Interruption		
		Compliance			90 %-ile Limit	Compliance			90 %-ile Limit					(%)					(per 1000 properties)			(per 1000 properties)			(minutes)		
		(%) (55)			(mg/L) (56)	(%) (57)			(mg/L) (58)	(%) (59a)	(%) (59b)	(%) (59c)	(%) (59d)	(59e) E4			(59f) E5	(60) E 7	(61)			(62) C 11			(65) C 16		
		07/08	08/09	09/10	09/10	07/08	08/09	09/10	09/10	09/10	09/10	09/10	09/10	07/08	08/09	09/10	09/10	09/10	07/08	08/09	09/10	07/08	08/09	09/10	07/08	08/09	09/10
38	Moree Plains		100	97	20		100	97	30	97	97	97	97	5	100	100	3 of 4	No	7	0	0	51	38	34	130	250	310
44	Gunnedah	100	100	100	20	60	75	60	30	100	100	100	100	60	75	60	1 of 2	No	0	0	-	25	32	29	60	60	60
46	Narrabri	55	76	100	20	35	37	100	NL	100	100	100	100	35	37	100	3 of 3	Yes	1	0	0	37	33	33	120	19	60
43	Tumut	100	100	100	10	100	100	100	15	100	100	100	100	98	100	100	5 of 5	Yes	0	0	0	47	41	32	112	90	90
49	Young		100	-	20		100	-	25	100	100	-	100		100	-	0 of 1	No	0	1	-	29	21	-	120	100	-
39	Cowra	100	100	-	20	75	75	-	30	-	-			40	45		1 of 2	No	0	0	-	25	0	39	240	240	240
45	Upper Hunter	100	100	100	20	100	60	100	30	100	100	96	100	100	60	100	4 of 4	No	0	0	0	22	10	9	120	131	120
52	Snowy River	100	54	92	10	100	66	92	15	100	100	100	100	80	54	92	3 of 4	No	0	-	0	20	14	20	120	-	60
51	Forbes		100	100	10		100	100	50	83	100	100	100		100	83	0 of 1	No	0	0	0	8	18	14	105	103	96
50	Cooma-Monaro	100	100	100	10	100	100	100	15	100	100	100	85	100	100	85	1 of 2	No	0	1	1	59	82	42	120	120	120
53	Berrigan	100	100	100	NL	100	100	100	NL	100	100	100	100	100			4 of 4	Yes	0	0	0	35	57	39	120	120	120
48	Leeton	100	100	100	70	84	100	100	70	100	100	100	98	82	98	98	2 of 3	No	0	0	0	0	2	3	120	120	120
54	Deniliquin	100	100	-	20	83	100	-	30	-	-	-	-	83	100	-	0 of 1	No	2	3	-	42	54	-	120	120	-
Medians (% of LWUs basis) for 3,000 to 10,000 Properties				*100*				*100*								*92*					*0*			*30*			*107*
LWUs with 1,501 - 3,000 Properties																											
47	Bellingen	89	100	97	10	82	100	95	15	100	100	100	100	78	100	91	1 of 3	No	2	1	1	10	15	7	60	60	60
60	Glen Innes Severn	100	100	100	10	100	100	100	15	100	100	100	100	100	100	100	2 of 2	Yes	0	0	0	34	11	37	120	40	40
58	Cootamundra	100	100	100	30	85	100	75	40	100	100	100	100	85	100	75	0 of 1	No	0	0	0	55	71	67	120	120	120
57	Wellington	100	100	100	15	100	100	100	30	100	100	100	100	100	100	100	2 of 2	Yes	2	1	0	5	13	8	30	50	55
91	Cabonne	100	100	100	30	100	93	100	30	100	100	100	100	82	93	100	3 of 3	Yes	0	0	0	10	7	14	480	360	300
80	Greater Hume	100	100	100	20	68	70	100	30	100	100	100	100	68	66	100	6 of 6	Yes	0	0	0	24	16	0	180	100	100
59	Lachlan	59	60	61	20	35	35	20	30	61	61	61	61	35	35	20	0 of 3	No		0	1	24	32	25	55	50	55
65	Murray	100	100	100	NL	100	100	100	NL	100	100	100	100	100	100	100	2 of 2	Yes	1	0	0	2	0	2	80	60	50
62	Narromine	100	100	100	NL	100	100	100	NL	100	100	100	100	100	100	100	2 of 2	Yes	0	0	0	17	7	10	120	90	90
56	Yass Valley	100	100	100	20	100	100	100	30	100	100	100	100	100	100	100	2 of 2	Yes	0	0	0	30	32	34	180	180	150
61	Liverpool Plains		92	-	20		22	-	30	-	-				22		0 of 2	No		0	-	0	21	-		60	-
55	Warrumbungle		94	96	20		94	96	25	92	100	100	100		84	92	3 of 4	No	0	0	0	89	48	30	120	120	120
69	Temora	100	100	100	30	100	100	100	40	100	100	80	100	100	75	80	0 of 1	No	0	0	0	58	48	40	60	60	60
71	Palerang	100	100	84	10	87	100	100	15	100	100	100	100	87	100	84	2 of 3	No	0	0	1	23	34	34	60	60	60
72	Bland	100	100	100	20	100	100	100	30	100	100	100	100	100	100	100	3 of 3	Yes		0	0	0	66	54		-	-
63	Narrandera	100	100	100	20	100	100	100	30	100	100	100	100	80	80	100	1 of 1	Yes	0	0	0	73	103	0	90	90	-
67	Cobar	100	100	100	19	100	100	100	86	100	100	100	100	100	100	100	2 of 2	Yes	0	0	0	0	3	3	120	120	120
74	Wentworth	100	100	100	30	100	100	100	45	100	100	100	100	100	38	100	5 of 5	Yes	12	7	5	12	24	16	0	60	60
75	Coonamble	100	100	100	20	87	86	85	50	100	100	100	88	91	78	85	1 of 2	No	0	0	0	23	0	16	60	60	60
70	Kyogle	100	86	100	20	100	98	86	30	100	100	100	100	98	84	86	1 of 3	No	1	1	2	19	17	22	60	60	60
77	Junee	100	100	100	30	100	100	75	30	100	100	100	100	100	100	75	0 of 1	No	0	0	0	0	0	0	45	30	30
78	Blayney	100	100	100	20	100	100	100	25	100	70	100	100	100	100	70	0 of 1	No	0	0	0	23	13	14	60	60	60
79	Walgett		-	100	NL		-	100	NL	100	100	100	100		-	100	3 of 3	Yes		-	-	0	-	4		-	2
68	Tenterfield		-	100	40		-	100	45	100	100	100	100		-	100	1 of 2	Yes	0	-	1	64	-	34	90	-	120
Medians (% of LWUs basis) for 1,500 to 3,000 Properties				*84*				*75*								*100*					*0*			*22*			*1,670*

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

	WATER UTILITY	ENVIRONMENTAL																	LEVELS OF SERVICE								
		DEC DISCHARGE LICENCE COMPLIANCE																									
		BOD				SS				N	P	Oil & Grease	Faecal Coli-form	Sewage Treated that was Compliant			STWs Compliant at all times	Compliance with Environmental Regulator	Odour Complaints			Service Complaints			Average Sewerage Interruption		
		Compliance			90 %-ile Limit	Compliance			90 %-ile Limit					(%)					(per 1000 properties)			(per 1000 properties)			(minutes)		
		(%) (55)			(mg/L) (56)	(%) (57)			(mg/L) (58)	(%) (59a)	(%) (59b)	(%) (59c)	(%) (59d)	(59e) E4			(59f) E5	(60) E 7	(61)			(62) C 11			(65) C 16		
		07/08	08/09	09/10	09/10	07/08	08/09	09/10	09/10	09/10	09/10	09/10	09/10	07/08	08/09	09/10	09/10	09/10	07/08	08/09	09/10	07/08	08/09	09/10	07/08	08/09	09/10
LWUs with 200 - 1,500 Properties																											
84	Gilgandra	100	100	75	20	100	100	75	50	75	75	75	100	100	100	75	0 of 1	No	3	2	2	47	50	61	60	60	60
73	Upper Lachlan	100	100	100	20	100	100	100	30	100	100	100	100	100	100	100	2 of 2	Yes	0	0	0	28	28	28	60	40	40
82	Gloucester	100	100	100	30	100	100	83	40	100	100	100	100	100	100	83	0 of 1	No	0	0	0	16	12	7	120	120	120
87	Bourke	25	25	33	15	33	25	29	20	80	80	80	100	25	25	29	0 of 1	No	5	3	2	134	148	102	120	120	120
86	Hay	100	100	100	30	100	100	100	40	100	100	100	100	100	100	100	1 of 1	Yes	0	0	0	39	39	39	0	-	300
83	Oberon		100	100	20		50	100	25	83	100	100	100		42	83	0 of 1	No	0	0	0	6	7	0	120	120	-
81	Gwydir	100	100	100	20	46	100	100	30	100	100	100	100	46	100	100	2 of 2	Yes	0	0	0	0	0	0		-	-
85	Uralla	100	-	100	15	100	-	100	20	100	100	100	100	100	-	83	0 of 1	No	0	0	2	23	13	18	120	120	180
95	Weddin	100	100	100	20	100	100	100	30	100	100	100	100	100	100	100	1 of 1	Yes	0	0	0	29	20	72	120	120	120
89	Bogan	100	100	100	NL	100	100	100	NL	100	100	100	100	100	100	100	1 of 1	Yes	3	8	4	27	27	40	180	180	180
76	Harden		66	100	20		100	45	30	100	100	100	100		66	45	0 of 1	No	0	0	0	26	30	18	50	60	60
88	Wakool	100	100	100	NL	100	100	100	NL	100	100	100	100	100	100	100	4 of 4	Yes	1	0	-	1	0	-	0	-	-
93	Tumbarumba		100	100	NL		100	100	NL	100	100	100	100		100	100	2 of 2	Yes	0	0	1	0	16	3		60	60
94	Gundagai	100	100	100	NL	100	100	100	NL	100	100	100	100	100	100	100	1 of 1	Yes	0	1	1	6	11	13	30	30	30
92	Carrathool	100	100	100	NL	100	100	100	NL	100	100	100	100	100	100	100	3 of 3	Yes	0	0	0	55	54	45	120	120	120
96	Warren	100	100	100	45	69	100	100	65	100	100	100	100	75	100	100	2 of 2	Yes	0	0	0	30	34	31	120	120	90
99	Coolamon	100	100	100	30	100	100	100	20	100	100	100	100	90	100	100	2 of 2	Yes		0	0	0	8	5		-	120
102	Lockhart	100	100	100	20	100	100	100	30	100	100	100	100	100	100	100	3 of 3	Yes	0	2	0	24	10	28		35	90
98	Walcha	100	100	58	20	75	100	100	30	100	100	100	100	75	100	58	0 of 1	No	0	0	0	10	6	10	70	70	70
100	Balranald	100	100	100	NL	100	100	100	NL	100	100	100	100	100	100	100	2 of 2	Yes	0	0	0	11	13	8	60	60	60
97	Bombala	100	100	100	20	100	100	100	30	100	100	100	100	100	100	100	2 of 2	Yes	5	8	0	20	65	45	120	95	120
101	Murrumbidgee	25	-	-	10	25	-	-	15	-	-			25	-		0 of 2	No	0	-	-	18	-	-	120	-	-
90	Guyra	100	100	100	15	100	100	100	20	100	100	100	100	100	100	100	2 of 2	Yes	0	0	0	13	10	11	120	120	120
104	Boorowa	100	100	100	20	55	65	65	30	100	100	100	100	55	65	65	0 of 1	No	3	3	4	3	7	5	60	60	60
105	Brewarrina		-	-	20		-	-	30	-	-						2 of 3	No	0	0	0	21	10	44	60	60	60
106	Jerilderie	25	100	50	20	25	100	25	30	100	100	75	100	25	100	25	0 of 1	No	0	12	0	5	19	0	300	300	300
103	Central Darling	100	100	100	NL	100	100	100	NL	100	100	100	100	100	100	100	1 of 1	Yes	15	0	-	196	227	-	110	60	-
107	Urana	39	100	100	NL	100	100	100	NL	100	100	100	100	100	100	100	2 of 2	Yes	6	6	0	19	19	0	60	60	-
Medians (% of LWUs basis) for 200 to 1,500 Properties				*100*				*100*								*100*					*0*			*18*			*105*
Median All LWUs (% of LWUs basis)			*BOD*	*100.0*	*%*		*SS*	*100.0*	*%*											*Odour*	*0.0*		*Service*	*16.4*		*Duration*	*93*
Median All LWUs (Statewide basis)				*100*	*%*			*100*	*%*												*0.6*			*10*			*118*

Totals for all LWUs

84 LWUs complied with BOD licence (84% of LWUs complied) 98% of sample days complied (4020 sample days)

74 LWUs complied with SS licence (74% of LWUs complied) 94% of sample days complied with SS licence (4020 sample days)

47 LWUs fully complied with regulator
293 STWs were reported to be in use by LWUs
208 of these STWs were compliant at all times
16 LWUs had no discharge licence and 6 LWUs did not report BOD or SS

Notes:

1. Where there is no limit (NL) for BOD or SS licences, compliance is deemed to be 100%.
2. Where an LWU has 100 percentile licence limits rather than 90 percentile licence limits, the 100 percentile limits are shown.
3. An LWU is deemed to comply with its BOD or SS licence if it achieves >=90% compliance with the 90 percentile limit.

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)				($/prop)	($/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)
	2009/10						2009/10				2009/10				2009/10	2009/10		2009/10					2009/10				2009/10			
LWUs with > 10,000 Properties																														
1 Gosford	185	78	85	21	1		40	59	72	14	123	5	128	68	313	72	99	31	22	2	16	4	21	207	109	98	379	45	16	1
2 Wyong	200	96	104				35	69	93	4	127		127	54	327	93	104	29	27	13	15		15	173	39	134	393	61	31	
3 Shoalhaven	277	52	182	24	3	16	52	80	110	36	118	32	150	88	427	110	131	46	15	8	4	2	30	184	172	12	639	60	18	3
5 MidCoast	333	86	158	40	8	41	27	54	144	108	65	19	83	43	416	144	81	28	9	2	4	2	14	93	14	79	734	45	25	8
6 Tweed	289	112	96	43	12	27	38	81	153	17	115	47	163	54	451	153	119	27	13	4	6	3	13	160	0	160	511	58	31	12
7 Port Macquarie-Hastings	269	117	66	44	3	39	24	78	131	36	65	33	98	33	367	131	102	26	13	2	9	3	8	101	20	80	440	14	46	3
9 Wagga Wagga (NO WS)	207	21	173	7		5	37	24	110	35	44		44	21	251	110	61	12	17	10	2	4	18	162	85	77	535	104		
10 Coffs Harbour	320	87	118	52	13	50	35	99	175	12	109	56	164	58	485	175	134	35	19	9	7	3	12	120	51	69	607	47	29	13
11 Albury City	244	82	86	38	6	31	35	40	115	54	134	8	142	66	386	115	75	18	12	1	8	4	16	148		148	531	30	21	6
13 Tamworth Regional	238	98	92	16	13	19	83	26	129		9	87	95	37	333	129	109	10	22	5	14	3	32	298	89	209	497	61	23	13
15 Eurobodalla	280	52	183	35	11		59	98	120	4	165		165	80	445	120	156	48	14	8	3	2	29	204	157	47	585	77	14	11
17 Queanbeyan	259	41	138	26	43	11	104	30	118	7	107		107	47	366	118	134	13	33	16	8	9	46	512	383	129	536	41	4	43
19 Orange	164	20	98	26	19	1	20	24	121		79	56	136	62	300	121	44	11	15	11	3	2	9	78	33	45	558	74	4	19
18 Dubbo	189	49	100	30	10		30	29	91	39	116	42	157	84	346	91	59	15	41	15	13	13	16	118	18	100	482	47	13	10
16 Wingecarribee	224	87	83	29	17	9	56	46	122		129	14	143	66	367	122	102	21	10	6	2	2	26	158		158	562	56	19	17
14 Clarence Valley	212	70	90	27	13	11	39	46	115	12	99	49	149	71	360	115	85	22	7	2	3	2	19	169	10	159	548	63	16	13
21 Bathurst Regional	194	86	70	27	0	11	46	15	133		98	57	154	56	348	133	61	5	14	3	9	2	17	185		185	669	67	31	0
24 Ballina	379	181	142	49		7	63	169	131	17	128	65	194	63	573	131	232	55	21	6	12	3	21	258		258	428	83	14	
22 Lismore	291	144	82	9	36	19	61	49	175	6	62	39	101	23	392	175	109	11	18	1	13	3	14	216	21	195	404	73	48	36
23 Bega Valley	432	106	301	12		13	88	83	261		143	85	228	135	660	261	171	49	1	0	0	0	52	268	131	137	1544	227	22	
27 Byron	426	119	186	56	36	29	33	97	252	45	138	20	158	49	584	252	130	30	12	4	5	3	10	139	55	84	776	103	54	36
26 Country Energy	184	139	29	8	3	5	69	24	91		51	18	69	49	253	91	93	17	22		18	4	49	269		269	653	29	50	3
20 Goulburn Mulwaree	270	64	106	33		67	72	24	173		93	19	112	68	382	173	97	15	9	7		2	44	254	27	226	1055	78		
25 Kempsey	290	128	78	41	14	28	45	69	173	3	55	89	143	54	433	173	114	26	8		6	2	17	153		153	651	77	33	14
Medians (% of LWUs basis)		*86*	*99*	*29*	*12*	*17*	*43*	*51*	*126*	*17*	*108*	*40*	*142*	*57*	*375*	*126*	*103*	*24*	*14*	*5*	*7*	*3*	*18*	*171*	*45*	*135*	*553*	*61*	*23*	*12*
LWUs with 3,001 - 10,000 Properties																														
29 Armidale Dumaresq	155	128		10		17	81	2	62	11	66	69	135	52	290	62	83	1	16		11	5	31	292		292	239		36	
31 Lithgow	347	283		33		31	56	97	194		72		72		419	194	153		22		16	6		115		115	809		156	
30A Hawkesbury (NO WS)	243	72	138			32	43	42	158	1	106	86		60	243	158	84	13	13		13		13	188	65	124	500	123	3	
30 Griffith	295	41	208	22	13	11	77	103	99	15	105	46	151	53	446	99	181	37	27	22	2	3	27	258	219	39	351	44	20	13
33 Richmond Valley	232	68	107	27	7	23	32	59	130	10	139	84	223	79	455	130	91	21	12	4	6	2	11	112	89	22	458	62	22	7
32 Mid-Western Regional	215	136	70	9	0		69	28	118		102	25	126	58	341	118	97	13	16	4	9	2	31	220		220	537	62	50	
34 Nambucca (Groundwater)	266	149	66	44		7	19	67	115	66	99	25	125	43	391	115	85	23	7		5	2	6	64		64	392		86	
35 Singleton	210	116	73	20	1		125	18	66	1	35	71	106	48	316	66	143	8	6		6	0	57	492	129	363	302	39	6	1
37 Inverell	157	45	90	22			45	27	85		61	51	112	68	269	85	73	17	6	5		1	27	167		167	512	69		
41 Muswellbrook	302	217	67	18			55	67	168	11	72	75	146	62	448	168	123	29	29	2	22	4	23	194	20	174	711	48	112	

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)				($/prop)	($/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)			
	2009/10						2009/10				2009/10				2009/10	2009/10		2009/10					2009/10	2009/10			2009/10		2009/10			
36 Parkes	172	51	113	1	3	3	66		106		31	6	36	20	208	106	66						37	327	82	245	1058	97	2	3			
42 Corowa	203	117	41	27	2	16	39	52	111	1	42	129	171	110	375	111	91	33	4		3	1	25	132		132	732	41	39	2			
38 Moree Plains	393	150	184	57		2	69	76	96	152	49	7	56	18	449	96	145	25	10	3	5	2	22	292		292	311	9	44			
44 Gunnedah	102	88		13	1		35	17	49	1	15	61	76	50	177	49	52	11	34		16	18	23	146		146	244		45	1			
46 Narrabri	294	102	168	24			100	61	133		8	18	26	12	320	133	161	27	10	5	3	3	44	384	146	237	574	103	25			
43 Tumut	306	215	11	37	40	3	40	34	215	16	50	25	75	38	381	215	75	18	9	1	6	3	21	125		125	1098	8	138	40			
49 Young	78	28	41	6		4	21	4	37	16	52	16	67		145	37	24							88		88	197	25	4				
39 Cowra	120	75	32	12			43	22	56		220	21	241	123	361	56	64	11	9	0	6	2	22	151		151	284	32	17				
45 Upper Hunter	261	131	97	22	2	9	84	51	117	9	73	78	151	66	412	117	135	22	16	5	6	5	37	303	23	281	305	65	34	2			
52 Snowy River	329	72	207	38	11		41	100	119	68	108	19	126		455	119	141		19	9	6	4		199	97	101	26875	72	18	11			
51 Forbes	284	69	149	39	27		35	46	157	46	43	15	57	27	342	157	81	22	8	1	4	3	17	122	16	107	751	91	16	27			
50 Cooma-Monaro	334	110	143	37	14	30	89	48	197	1	98	70	168	86	502	197	136	24	23	8	13	2	45	133	41	93	1006	100	21	14			
53 Berrigan	215		215				34	72	106	3	37	55	92	70	307	106	106	55	5	5			26	104	104		810	106					
48 Leeton	320	107	148	46	18						57	62	120	43	439	184	120				5	2				202		137		18			
54 Deniliquin	218	191		27			59	35	122	2	234	25	259		477	122	94							266		266	693		109				
Medians (% of LWUs basis) for 3,000 to 10,000 Properties		*110*	*102*	*24*	*7*	*10*	*55*	*49*	*115*	*11*	*63*	*46*	*122*	*53*	*378*	*116*	*96*	*22*	*11*	*5*	*6*	*2*	*26*	*167*	*89*	*151*	*537*	*62*	*34*	*7*			
LWUs with 1,501 - 3,000 Properties																																	
47 Bellingen	331	116	116	40	30	28	49	71	206	5	114	61	175	74	506	206	119	30	8	3	3	2	21	163	37	126	871	78	46	30			
60 Glen Innes Severn	121	26	69	27			16	6	94	5	65	51	116	53	238	94	22	3	3		2	1	8	47		47	429	69					
58 Cootamundra	168	90	8	25	5	39	41	16	108	4	17	43	60	40	227	108	56	10	11	1	8	3	27	170		170	721	8	34	5			
57 Wellington	175	56	67	36	17		26	38	111		75	82	157	72	332	111	64	17	8		6	2	12	90		90	508	67	2	17			
91 Cabonne	176	53	102	21			14	56	105		73	110	184	155	360	105	70	48	13	10	1	2	12	61	7	54	890	57	36				
80 Greater Hume	202	157	15	23	7		15	35	140	13	29	72	101	67	303	140	50	23	5		4	1	10	51	51		925		116	7			
59 Lachlan	204	38	141	25			21	48	99	35	42	41	83	37	287	99	69	22	5	4	1	1	10	61		61	431	71	8				
65 Murray	161	98	44	19			33	101	27		54	54	108	49	269	27	134	46	7	2	3	1	15	101	7	94	116	6	19				
62 Narromine	100	5	95				9	36	55		102	95	197	68	297	55	45	12	5	5			3	37	16	20	188	55					
56 Yass Valley	177	6	130	24	2	15	10	42	112	13	137	93	230	121	407	112	52	22	9	7	1	2	5	32	32		592	76	3	2			
61 Liverpool Plains	106		106				12	14	78	1	143		143		249	78	27							41	41		419	78					
55 Warrumbungle	239	81	133	19	5	1	52	40	141	5	40	15	55	30	294	141	93	22	11	4	3	4	29	165	32	133	778	104	26	5			
69 Temora (NO WS)	171	26	55	15		76	55	4	112		48		48	82	219	112	59	6	2		2		93	247	247		1975		22				
71 Palerang	251	58	160	24	9		29	50	143	29	87	58	145	94	396	143	78	32	7	3	2	1	19	115		115	926	106	12	9			
72 Bland (NO WS)	243	3	205	35			40	30	173		49		49	34	292	173	71	21	6	5		0	28	154	154		1074	137	3				
63 Narrandera	237	120	96	21			74	45	116	2	136		136		373	116	119							347		347	311	96					
67 Cobar	114	45	20	14		34		59	55		7	7	15	10	129	55	59	38	20		16	5					358	20					
74 Wentworth	194	49	62	27		56	46	61	66	21	41	15	56	5	251	66	107	5	4	1	2	2	4	94	74	21	220		8				
75 Coonamble	247	162	62	23			70	72	105		27	26	53	24	300	105	142	32	9	2	5	1	31	213		213	465	43	51				
70 Kyogle	270	29	187	25	29		27	43	200		67	37	105	46	375	200	70	19	8	5	0	2	12	74		74	874	158		29			
77 Junee (NO WS)	217	164		29		24	43		174		46	11	57	33	275	174	43						25	74		74	1015		122				
78 Blayney (NO WS)	184		159	21		4	15	24	143	2	151		151	105	335	143	39	17	7	5		1	10	37	37		993	123					
79 Walgett	203	118	85				70	47	70	15	63	14	77	20	280	70	118	12	8	4	5		18	235		235	180	50	20				
68 Tenterfield	358		266	47	23	23	61	23	273		129	23	153		510	273	85		13	12		1		154	154		1378	183		23			
Medians (% of LWUs basis) for 1,500 to 3,000 Properties		*56*	*96*	*24*	*9*	*26*	*33*	*42*	*112*	*5*	*64*	*43*	*106*	*49*	*295*	*112*	*70*	*21*	*8*	*4*	*3*	*2*	*14*	*94*	*37*	*92*	*657*	*74*	*21*	*9*			

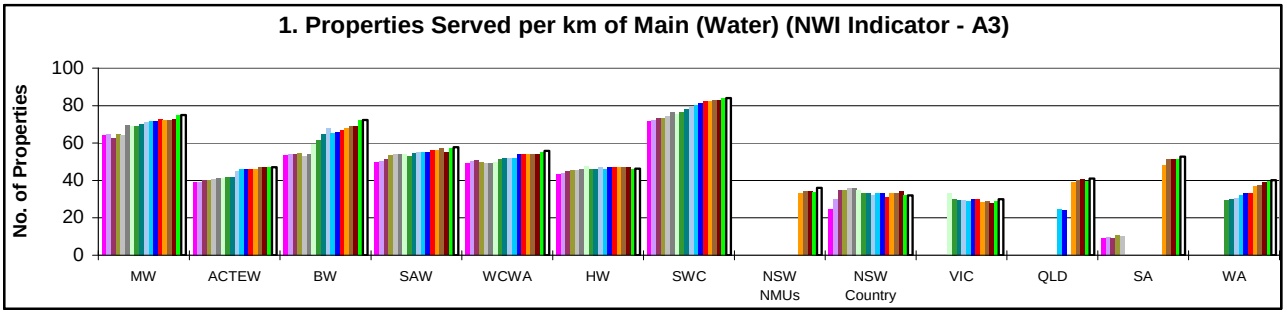
Table 18: Sewerage – benchmarking cost data (operation, maintenance and management) (continued)

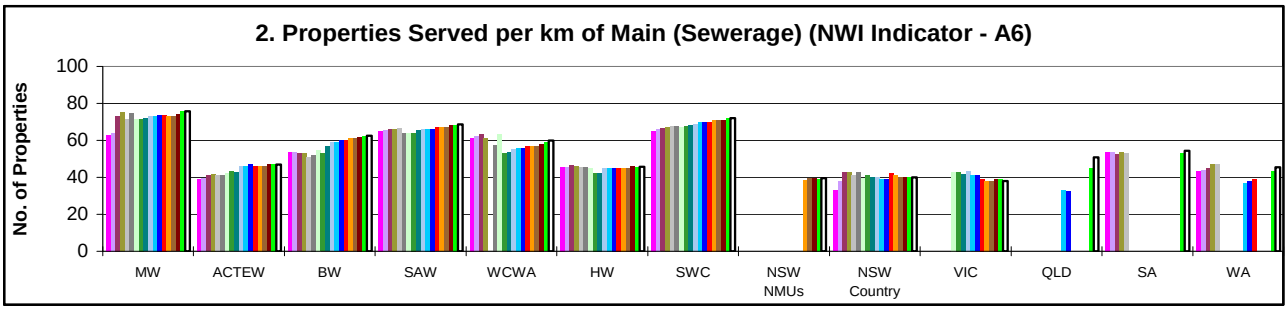
WATER UTILITY	OPERATION & MAINTENANCE (O&M) COST*										MANAGEMENT COST (A)*				OMA*	O&M COST COMPONENTS for TYPE of ASSET															
		Components (1) - Process					Components (2) - Type of Asset				Components					Components		Pumping					Sewer Main				Treatment				
	Total O&M Cost	Maintenance	Operation	Energy	Chemicals	Effluent & Biosolids	Mains	Pumping Stations	Sewage Treatment	Other	Admin	Engineering & Supervision	Total Management Cost		Total OMA 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)				($/prop)	($/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)
	2009/10						2009/10				2009/10				2009/10	2009/10		2009/10					2009/10				2009/10	2009/10		
LWUs with 200 - 1,500 Properties																														
84 Gilgandra	206	116	76	13			45	63	73	25	39	4	44	21	249	73	108	30	7	1	4	1	21	169	19	150	345	57	16	
73 Upper Lachlan	215	37	132	22	11	12	19	41	152	3	56	48	104	61	318	152	60	24	8	5	1	3	11	64	50	14	935	90	30	11
82 Gloucester	230	118	78	24		10	65	44	121		34	23	57	36	287	121	109	28	12	4	6	2	41	196		196	769	64	31	
87 Bourke	235	103	101	30		1	50	135	49		23	28	51	33	286	49	186	87	21	8	8	5	32	185		185	313	47	1	
86 Hay	287	4	256	27			115	49	122	1	167	12	179	79	466	122	164	22	8	6		2	51	397	397		563	102	4	
83 Oberon	256	53	168	25	10		25	26	205		26	101	127	74	383	205	51	15	12	8	1	3	14	89		89	1167	150	27	10
81 Gwydir	243	57	155	24	3	4	24	41	176	3	69	3	72	26	315	176	65	15	6	3	2	1	8	66	15	51	633	128	22	3
85 Uralla	193	77		38		77	34	18	141		44	57	101	79	294	141	52	14	3		2	1	26	123		123	1093		31	
95 Weddin (NO WS)	101	5	91	6			23		78		8	18	25	15	127	78	23						14	77	77		473	67	5	
89 Bogan	134	41	79	15			16	80	27	12	181		181	30	316	27	96	13	21	14	4	3	3	80		80	45	14	10	
76 Harden	143	38	82	14		9	36		107		52	43	96	18	239	107	36						7	89		89	196	82	2	
88 Wakool	227	45	136	47			16	77	115	19	34	35	69		296	115	93							36	15	21	375	72	13	
93 Tumbarumba	173	115	53	5			50	3	120		31	51	82	27	255	120	53	1	1		1		17	104	104		375	3	112	
94 Gundagai	305	115	131	24	12	24	32	90	181	3	98		98	63	403	181	121	58	14	2	10	1	21	33		33	1171	115	16	12
92 Carrathool	242	192	11	39			39	94	89	20	22	5	27	21	269	89	133	72	7		5	2	30	150		150	676		71	
96 Warren	278	165	95	18			70	106	102		70	64	134	60	412	102	176	48	11	1	8	2	31	335	112	224	458	65	36	
99 Coolamon (NO WS)	204	88	79	23		14	62	35	107		27	39	67	67	271	107	97	36	4		3	1	62	139		139	1082	79		
102 Lockhart (NO WS)	257	199		35		23	33	41	183		24		24	11	281	183	74	19	6		6		15				863		125	
98 Walcha	149	14	127	7	1		21	21	107		39	23	62	30	211	107	42	10	18		12	6	10	60	60		522	106		1
100 Balranald	80	42	19	15	4		28	48	4		40		40	17	120	4	77	20	4		3	1	12	63	42	21	15			4
97 Bombala	256	165	91				18	45	193		41		41	18	297	193	63	20	7	3	4		8	40		40	880	70	123	
101 Murrumbidgee	83	50		21	12		9	35	39			54	54		137	39	44										337		19	12
90 Guyra	241		106	45	36	54	29	8	204		40	68	108	100	350	204	37	7	4			4	27	52	52		1885	77		36
104 Boorowa	140	52	75	13			34	21	84		100	5	106	67	245	84	56	14	6		5	1	22	63		63	534	75		
105 Brewarrina	380	125	212	34	8		69	135	176		91	77	168	44	548	176	204	35	8	4	2	2	18	213		213	458	146	20	8
106 Jerilderie	269	231	5	33			42	61	160	5	59	35	94	59	363	160	104	38	5		4	1	26	150		150	1000		139	
103 Central Darling	346	322		24			317	24	5						346	5	341							500		500	10		5	
107 Urana (NO WS)	291	253	25	13			16	202	73		25	89	114	40	405	73	218	71					6	33		33	256	6	66	
Medians (% of LWUs basis) for 200 to 1,500 Properties		*88*	*91*	*24*	*10*	*13*	*33*	*44*	*111*	*5*	*40*	*37*	*82*	*36*	*295*	*111*	*85*	*22*	*7*	*4*	*4*	*2*	*18*	*89*	*52*	*89*	*528*	*75*	*22*	*10*

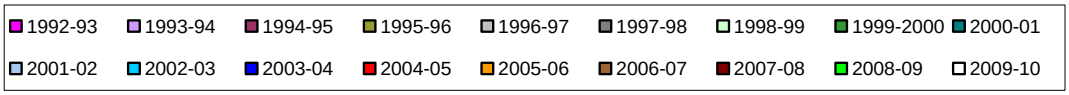
* Operating cost is the OMA cost (operation, maintenance & administration (Col 76b)) which comprises the O & M Cost (operation & maintenance cost (Cols 66 to 69a or Cols 70 to 73)) PLUS Management Costs (Col 76a) which is made up of the Administration cost (Col 74) plus Engineering and Supervision cost (Col 75).

Appendix A: National performance comparisons 1992-93 to 2009-10

Performance comparisons – utility characteristics







Metropolitan Water Utilities

MW	Melbourne Water Consolidated (see note 1)
ACTEW	ACT Electricity and Water
BW	Brisbane Water
SAW	SA Water Corporation (Adelaide)
WCWA	WA Water Corporation (Perth)
HW	Hunter Water Corporation
SWC	Sydney Water Corporation

Country Water Utilities

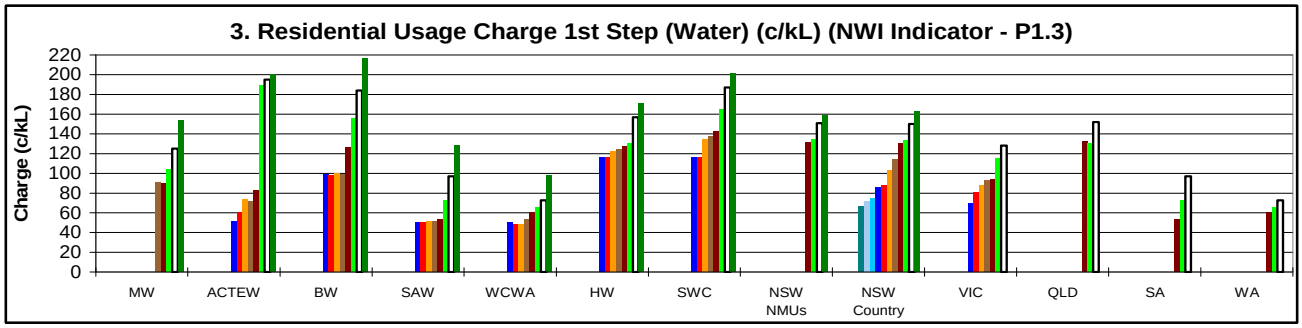
NSW NMUs	Median of NSW non-metropolitan LWUs with > 10,000 connected properties
NSW Country	Statewide median for all NSW non-metropolitan LWUs
VIC	VIC Country (see note 3)
QLD	QLD Country (see note 5)
SA	SA Country (see note 4)
WA	WA Country (see note 6)

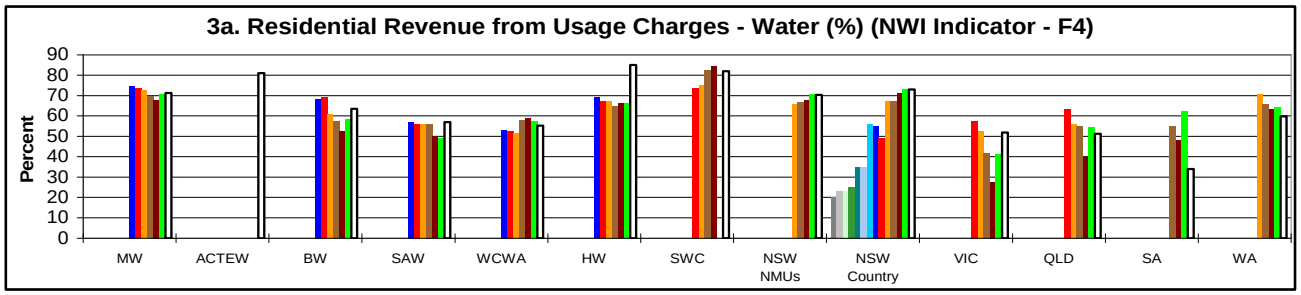
NOTES:

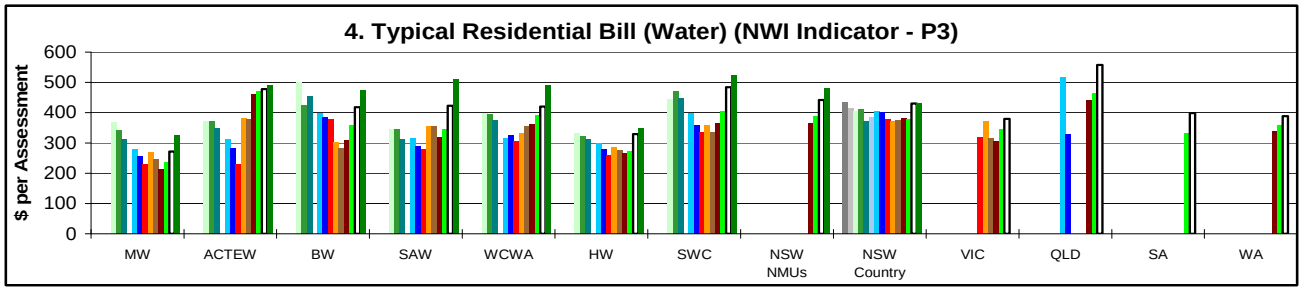
1. Melbourne Water was disaggregated into 4 constituent utilities in 1994. Melbourne Water Consolidated results for 1994-95 to 2009-10 are either aggregated results of the constituent utilities or consolidated results reported in the *National Performance Report 2009/10*, *WSAA Facts* (note 2) or reported in *Urban Water Review* (note 3).
2. Metropolitan Utilities - *National Performance Report 2009-10* used to obtain results from 2001-02 to 2009-10. *WSAA Facts 2005* and *WSAA Facts 1999* (published by the Water Services Association of Australia) used to obtain results from 1994-95 to 1999-00.
3. Victorian Country - *Urban Water Review 1998* and *2004-2005*, (published by the Victorian Water Industry Association). used to obtain results for Victoria Country from 1996-97 to 2004-05. Results from 2005-06 to 2009-10 obtained from median of Victorian utilities (excluding Melbourne Water and its constituents) published in the *2009-10 National Performance Report*.
4. SA Country - *Government Trading Enterprises Performance Indicators 1992-93 to 1996-97 and 1990-91 to 1994-95,* (published by Steering Committee on National Performance Monitoring of Government Trading Enterprises), used to obtain results for 1990-91 to 1996-97. Results from 2005-06 to 2009-10 obtained from median of SA NMUs (Whyalla and Mt Gambier) published in the *National Performance Report 2009-10*. **The results shown from 2005-06 do not report the overall performance of SA country utilities.**
5. QLD Country - *Urban Water Service Providers Queensland Report 2003-2004,* (published by Queensland Department of Natural Resources and Mines), used to obtain results from 2002-03 and 2003-04. These results are for 18 large and medium utilities and exclude Brisbane City Council. Results from 2005-06 to 2009-10 obtained from median of QLD NMUs (Cairns, Logan, Ipswich, Mackay, Townsville) published in the *National Performance Report 2009-10*. **The results shown from 2002-03 report a maximum of 5 of the 72 Queensland country utilities**
6. WA Country - *Government Trading Enterprises Performance Indicators 1992-93 to 1996-97 and 1990-91 to 1994-95,* (published by Steering Committee on National Performance Monitoring of Government Trading Enterprises), used to obtain results for 1990-91 to 1996-97. Results from 1999-2005 obtained from *Water Performance Information on 32 Major WA Towns 1999-2003* and *2001-2005* prepared by the Western Australia Economic Regulation Authority. The results are for regional towns and do not include Perth. Results from 2005-06 to 2009-10 obtained from median of WA NMUs (Albany, Bunbury, Busselton, Geraldton, Kalgoorlie-Boulder, Mandurah) published in the *National Performance Report 2009-10*. **The results shown from 1999 do not report the overall performance of WA country utilities.**

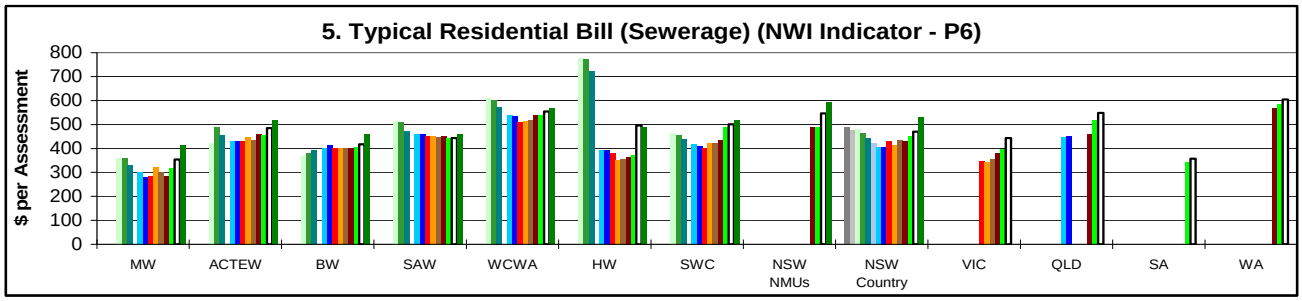
7 Except for Graphs 3 to 6 which are in 2010-11 dollars, financial data is presented in 2009-10 dollars.

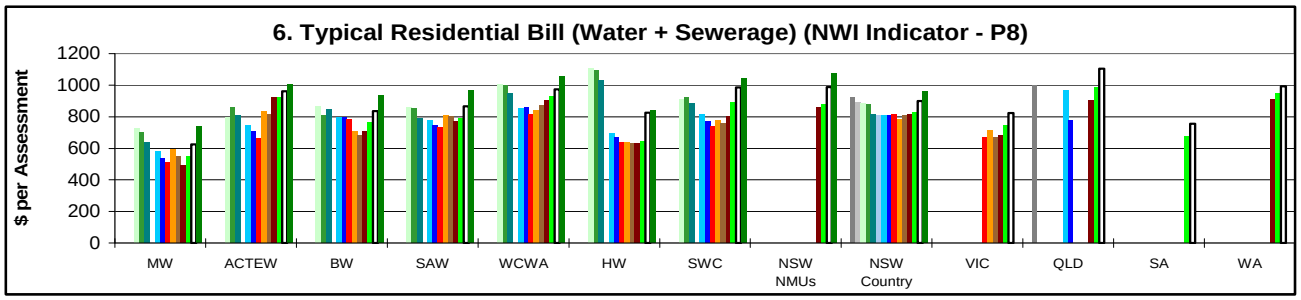
Performance comparisons – social (bills)

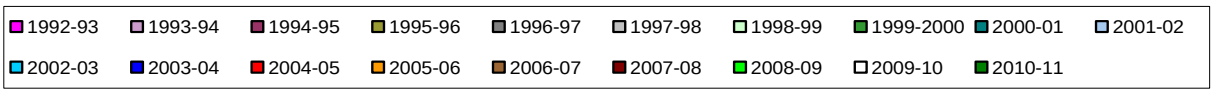








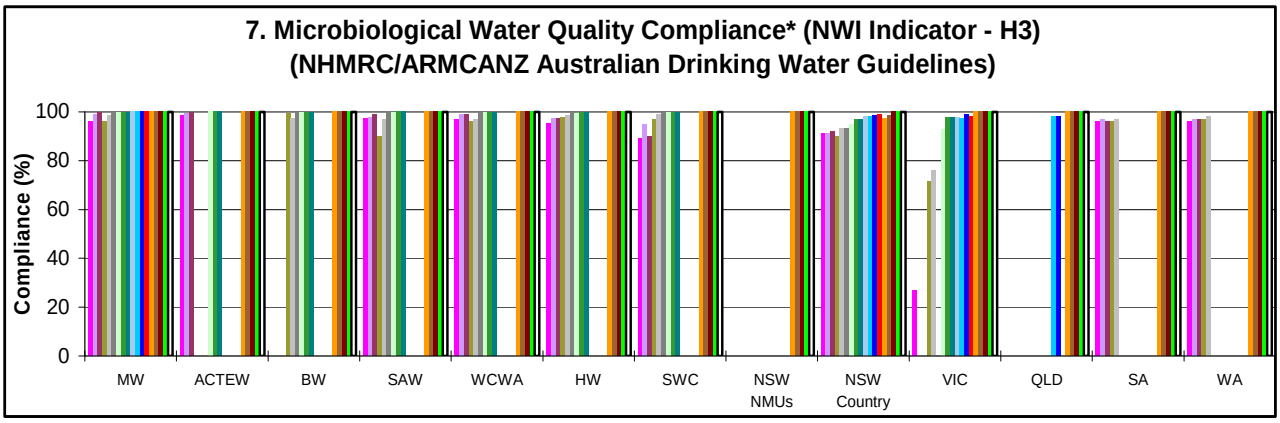


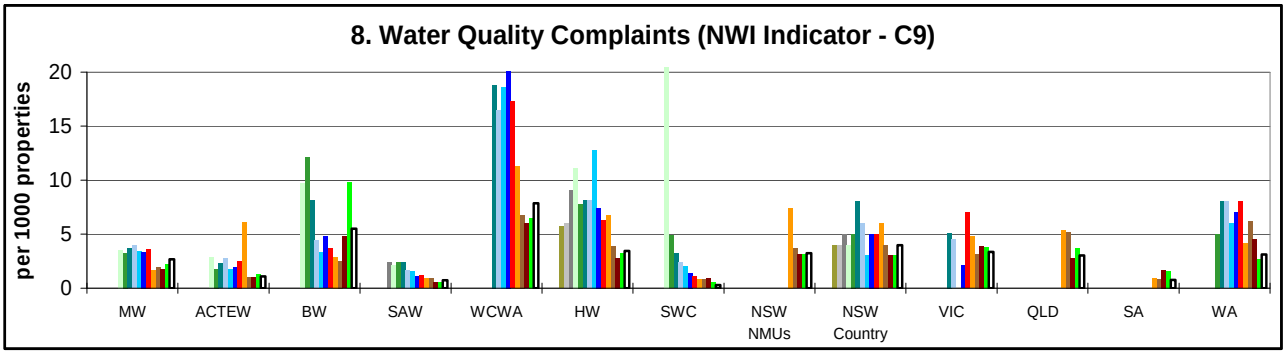


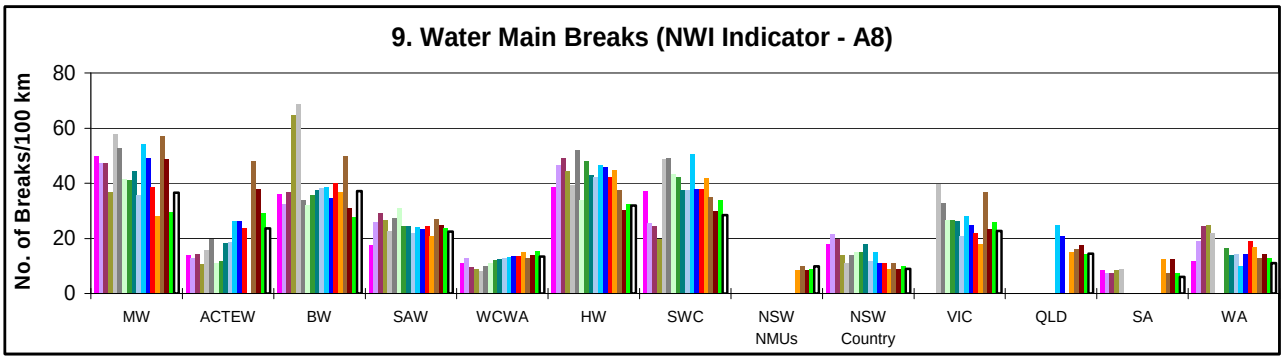
NOTES

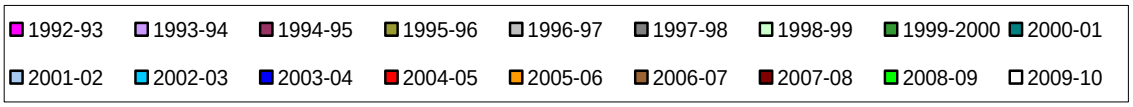
1. The Typical Residential Bill (TRB) is the annual bill paid by a residential customer using the utility's average annual residential water supplied.
2. The TRB is the principal indicator of the overall cost of a water supply or sewerage system.
3. The 2010-11 Usage Charge and TRB (graphs 3 to 6) for the capital city utilities have been determined from data published on each utility's website.
4. As the 2009-10 value for Indicator F4 was not reported by ACTEW and Hunter Water, it has been conservatively estimated in graph 3a from the utility's reported TRB and fixed charge for 2008-09: (TRB - Fixed Charge)/TRB x 100.

Performance comparisons – social (water)









*** Microbiological Water Quality Compliance**

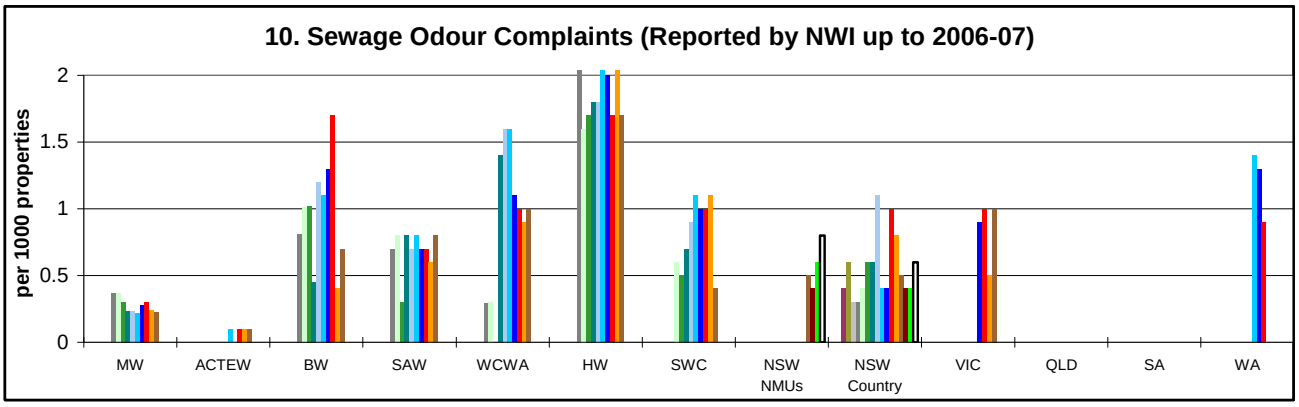
1991 to 1998 results are generally on the basis of the *1987 NHMRC/AWRC Drinking Water Quality Guidelines*.

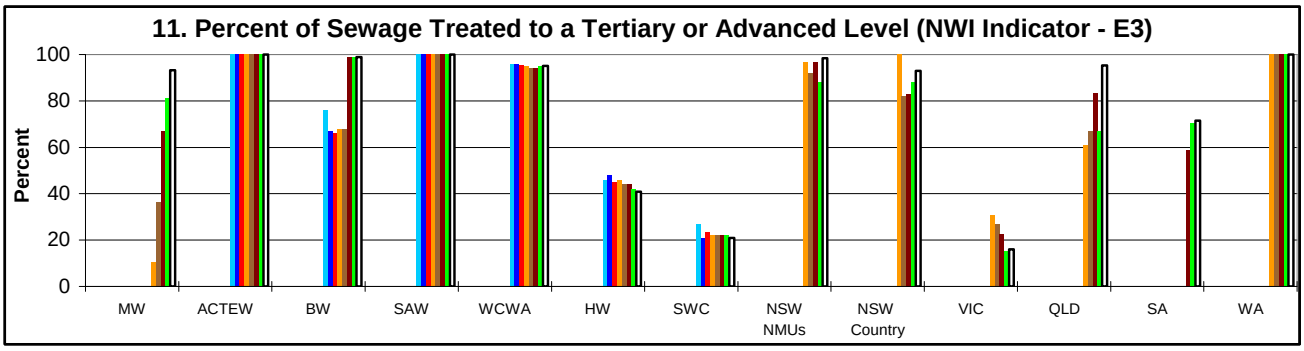
1998-99 and subsequent results are generally on the basis of E. coli in the more stringent 1996 and 2004 *NHMRC/ARMCANZ Australian Drinking Water Guidelines* (ADWG).

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.

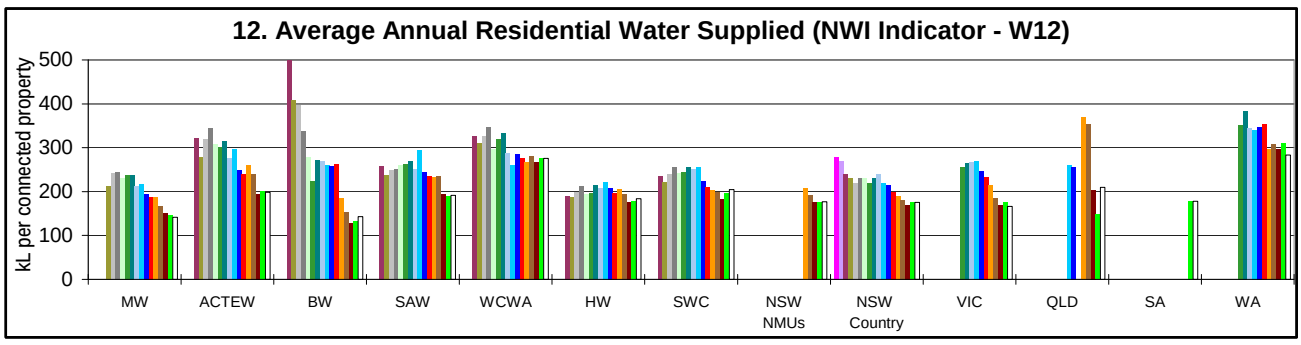
For 2005-06 to 2009-10, the results shown are for "% of population where microbiological compliance was achieved", in accordance with NWI Indicator H3.

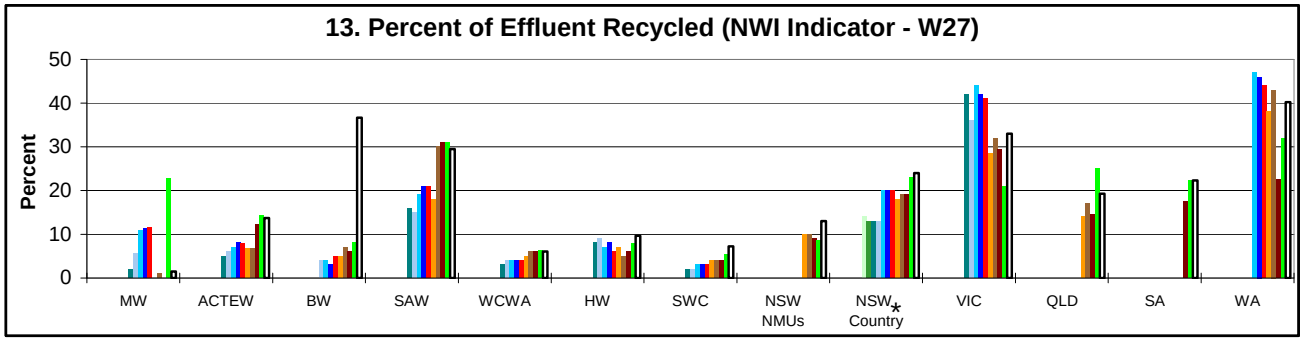
Performance comparisons – social (sewerage)

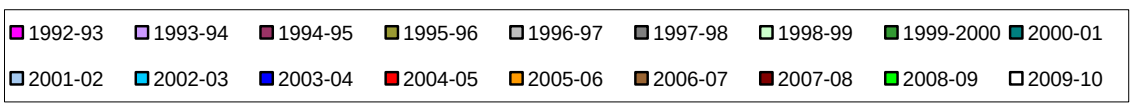




Performance comparisons – environmental (water)





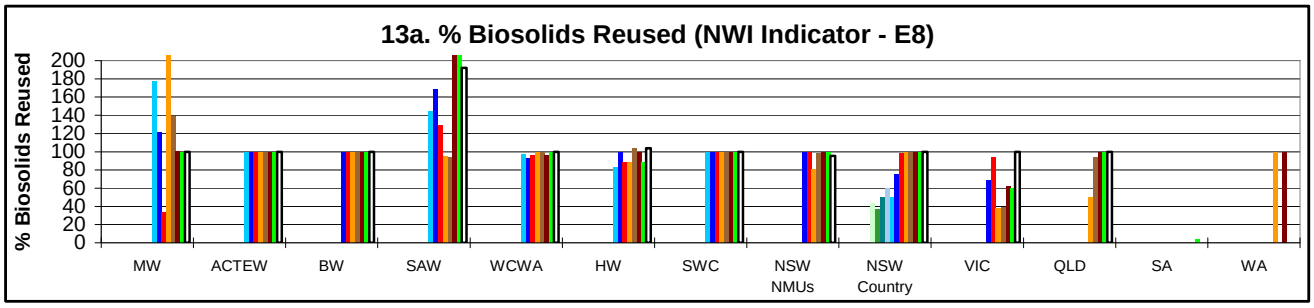


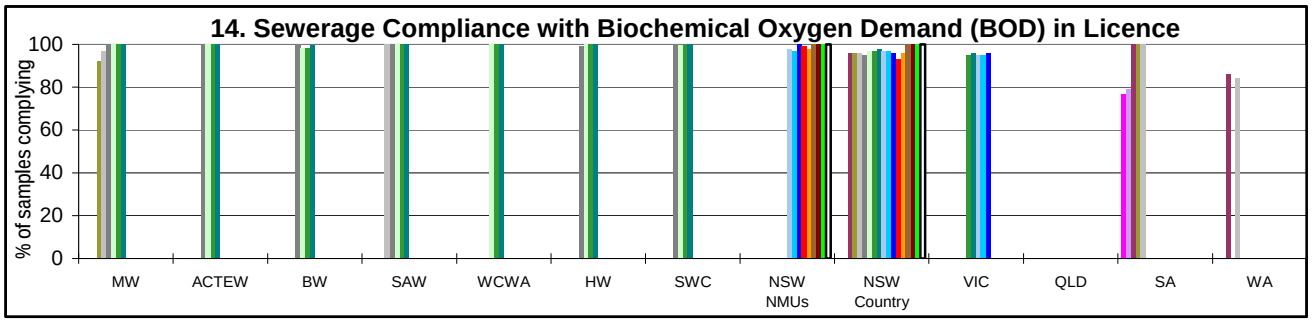
*** NSW Effluent Result**

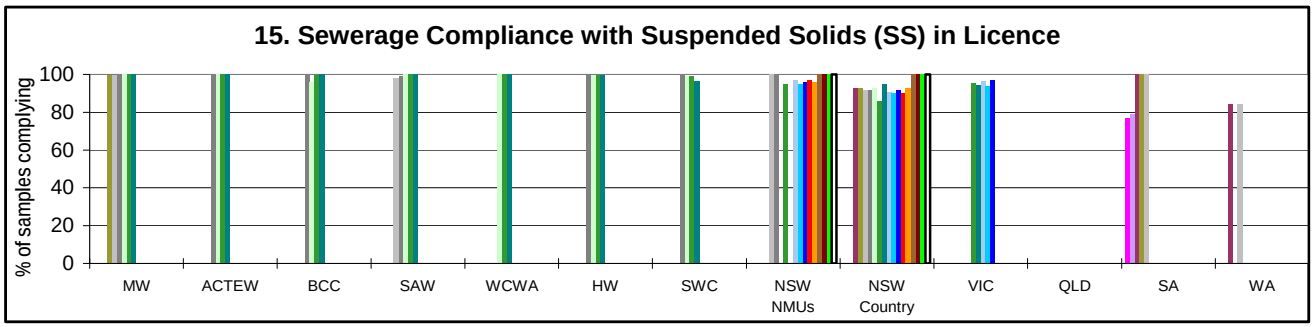
The values shown for country NSW are the percentages of total volume of sewage collected in non-metropolitan NSW that was recycled.

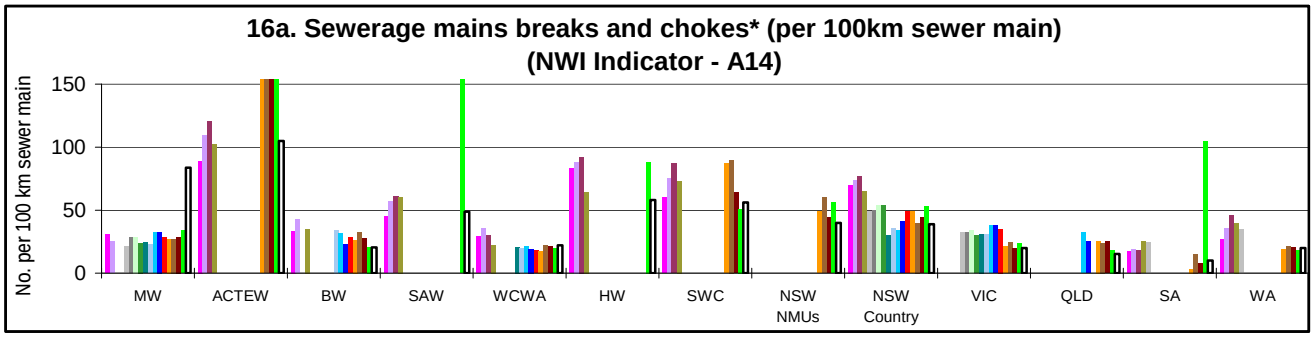
For country NSW, 39,000 ML of wastewater was recycled in 2009-10, which is 24 per cent of the total volume of sewage collected and was carried out by 80 per cent of the utilities, mostly for agriculture.

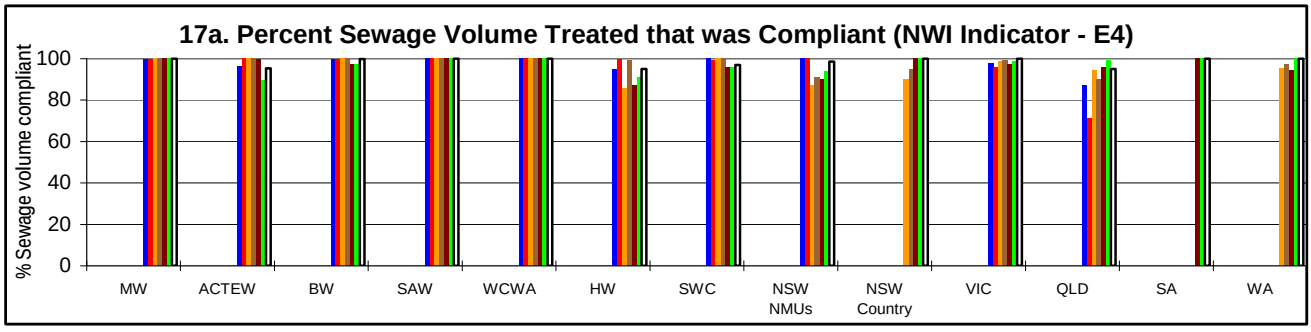
Performance comparisons – environmental (sewerage)

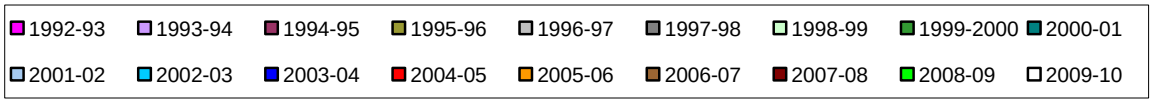




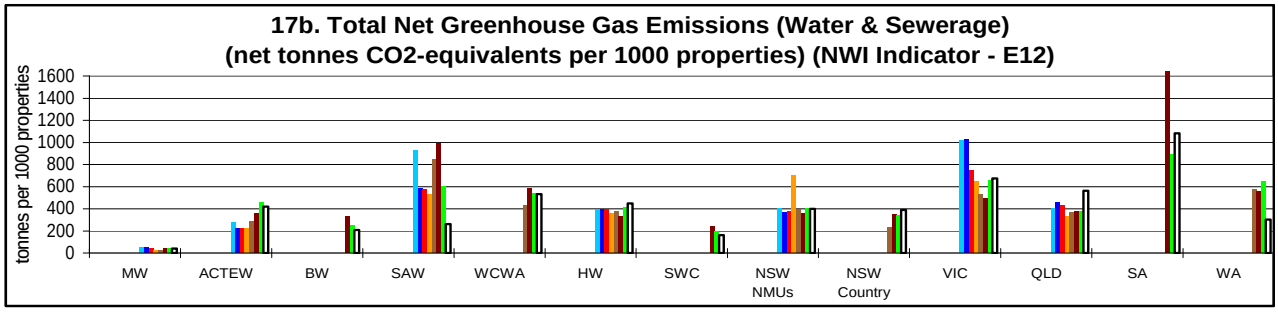


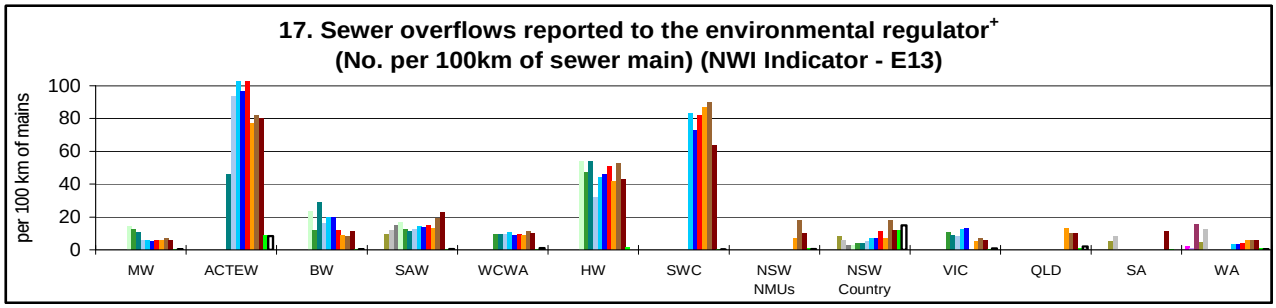




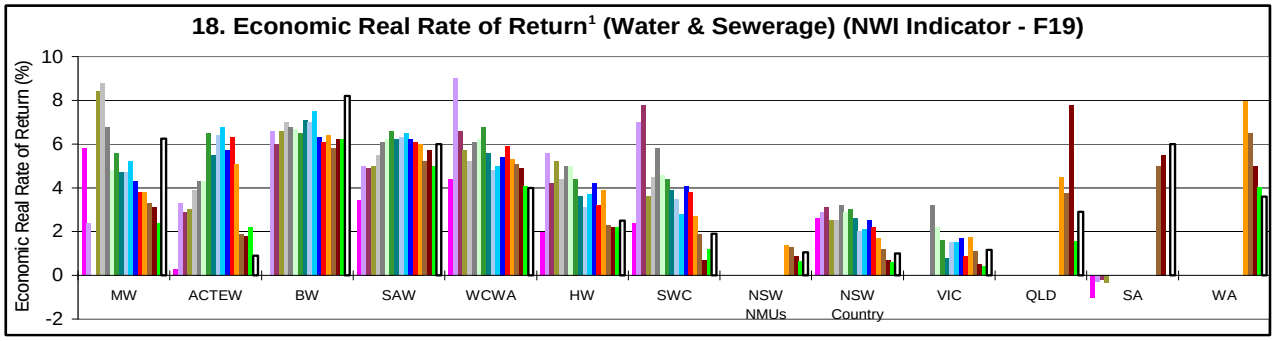


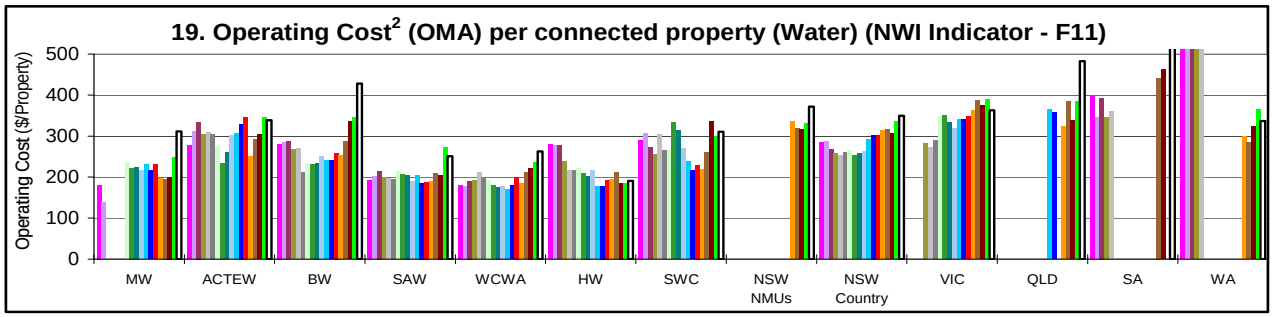
* The values shown prior to 2009-10 are the reported values for sewerage breaks and chokes for indicator A12 in the National Performance Framework 2008-09 Urban Water Performance Indicators and Definitions Handbook.

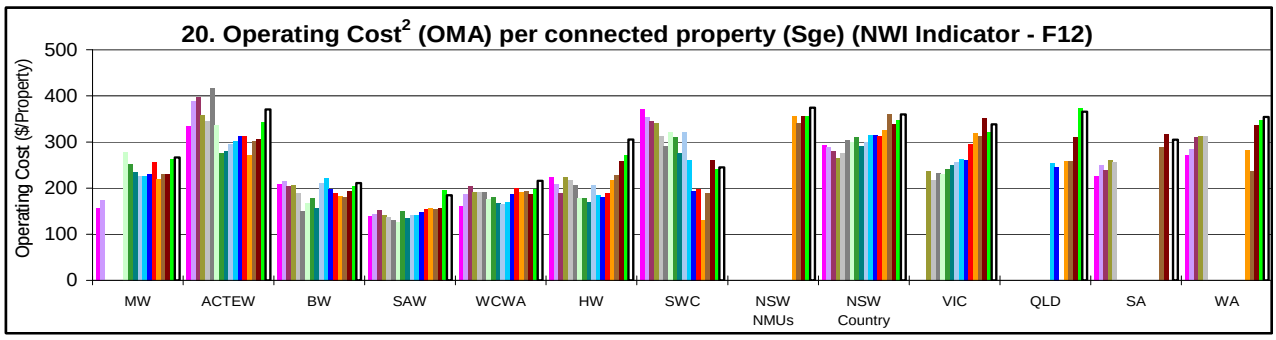


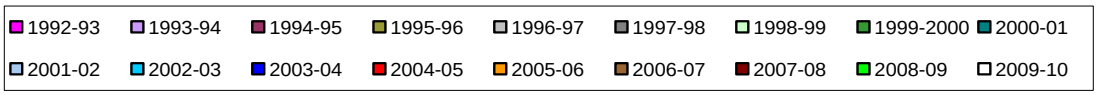


Performance comparisons – economic





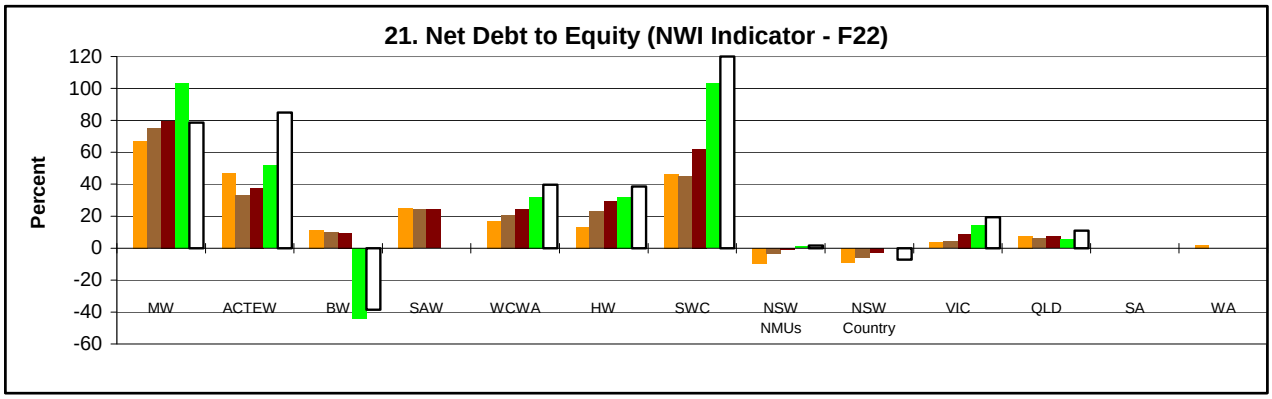


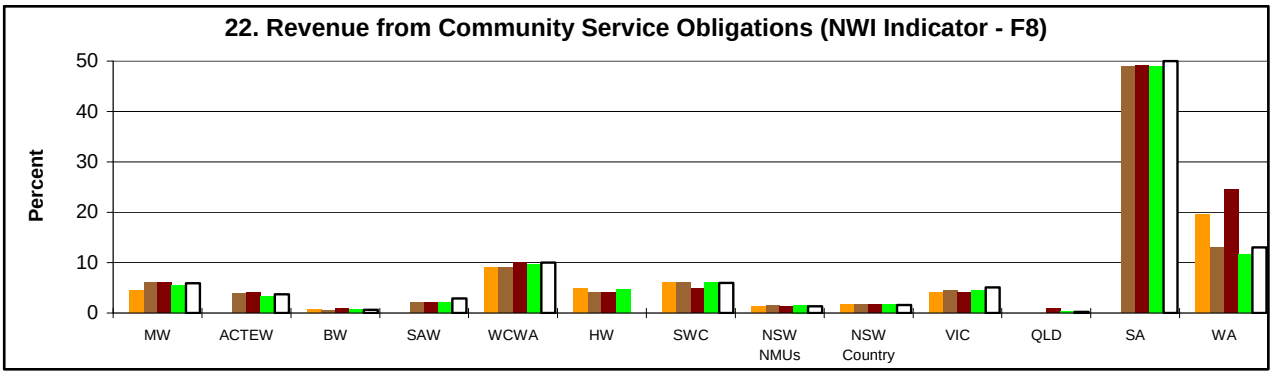


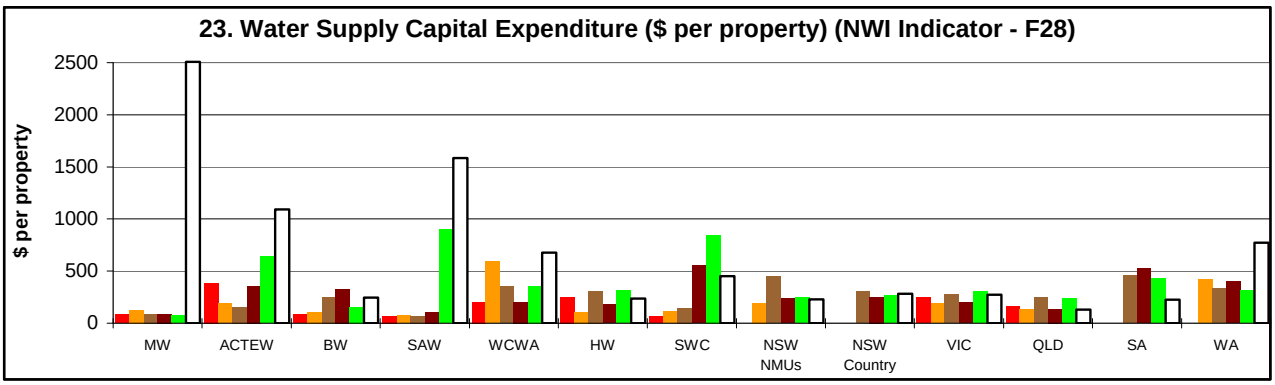
NOTES:
1. As the economic real rate of return (ERRR) was not reported by utilities other than NSW NMUs and Country NSW in 2001/02 to 2004/05, the reported values for "return on assets" has been shown in graph 16 for all the other utilities for these years.
2. Operating Cost (OMA) is the Operation, Maintenance and Administration Cost in 2009/10$.

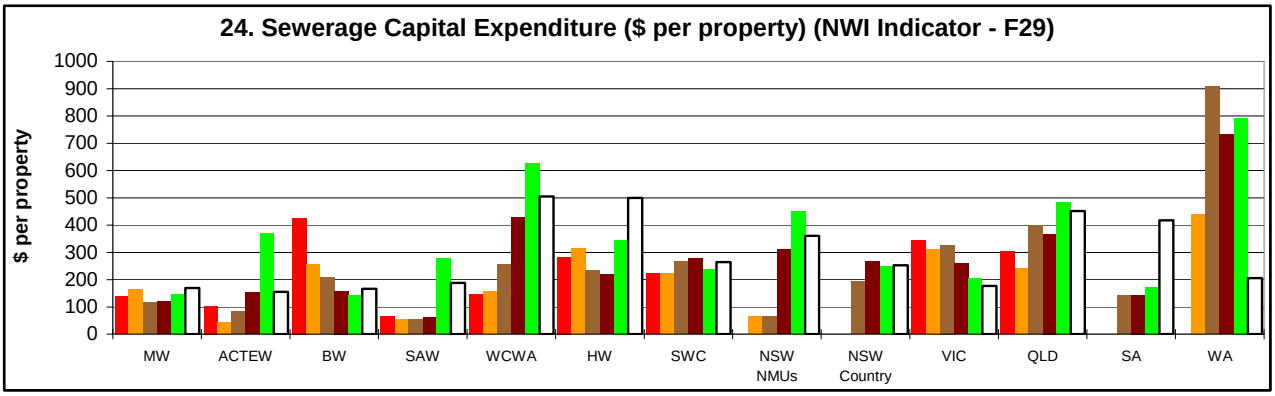
\+ The values shown prior to 2008-09 are all reported sewer overflows in accordance with definition for indicator E13 in the National Performance Framework 2007-08 Urban Water Performance Indicators and Definitions Handbook.

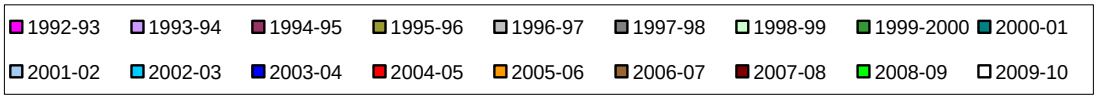
Performance comparisons – economic (continued)











NOTES:
1. The Water Supply Capital Expenditure per property shown for Melbourne Water for 2009-10 includes the full $3.5B capital expenditure by a private consortium for the Victorian Desalination Plant project.
2. The Water Supply Capital Expenditure per property shown for Brisbane Water for 2009-10 includes the $230M capital expenditure by SEQ Water and LinkWater.

Appendix B: NSW performance monitoring database

Water business data

NSW No.	NWI No.	Indicator Group	Reported Indicator	2009/10	Acc/ Rel	Unit	Indicator Definition	Instruction
1	C1	Population served	Permanent			n	Population supplied with water in June this reporting year	Exclude population in non-serviced areas
2		Population served	Peak			n	Maximum population supplied anytime this reporting year	Permanent population plus temporary influx (tourists, seasonal workers). Exclude population in non-serviced areas
7		Dams	Number			n	Dams owned by the utility for seasonal water storage as distinct from daily balancing storages for distribution systems	Include on-stream 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 - potable and nonpotable	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 - potable and nonpotable	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 flouridation plants.
18		Treatment works	Capacity			ML/d		
20a		Water mains - potable and nonpotable	Headworks transfer length			km	Trunk mains which are part of the headworks system (eg. dam, river) for delivery of water either from scheme to scheme or to treatment works. Bulk suppliers should inlcude trunk mains to other urban centres or schemes. Exclude disused pipe even if maintained for future use.	Include potable and non-potable mains
20	[A2]	Water mains - potable and nonpotable	Trunk main length			km	A transfer main delivering water from a treatment works or service reservoir to a distribution area.	Include potable and non-potable gravity and rising (pressure) mains. Exclude disused pipe even if maintained for future use.
21	[A2]	Water mains - potable and nonpotable	Reticulation length			km	A reticulation main is relatively small pipework distributing supply to a network of customers.	Include potable and non-potable reticulation. Exclude non-potable reticulation to non-urban areas (eg. for agriculture). Exclude disused pipe even if maintained for future use. Exclude pipework associated with property water services (mains to property meter or service connections). Exclude private mains.
22	A2	Water mains - potable and nonpotable	Total length			km	Sum of (20) and (21). Excludes (20a)	
23		Renewals - potable and nonpotable	Mains renewed			km	Existing water 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 - potable and nonpotable	Property service connections			n	Existing service connections renewed or replaced in the reporting period	
25		Renewals - potable and nonpotable	Customer water meters			n	Existing customer water meters renewed or replaced in the reporting period	
30		Service connections	Service connections			n	A service connection is not the same as a connected property. The number of service connections is the number of metered accounts minus the total of any submeters (after master meters eg. to shops or flats) plus the estimated service connections (eg fire connections). The number of service connections includes residential and non-residential and is only used to calculate the Infrastructure Leakage Index and real losses (L / connection / d)	The number of metered units and their configuration are not material for determining the number of service connections. Examples: a block of 30 units with a single shared connection is one service connection; a block of 30 units with sub-meters and separate bills for each unit but with a single shared connection to the water main is also one service connection; retirement villages, where there is a single shared connection to the water main that services the whole of the retirement village are also counted as one service connection
31		New residential connections	New residences connected			n	Number of new residences connected this reporting year	Include each individual house, flat, villa, unit, townhouse etc whether separately metered or not
32	[C2]	Assessments	Residential assessments			n	Residential assessments for water supply services	Include vacant lots
33	[C3]	Assessments	Non-residential assessments			n	Non-residential assessments for water supply services	Include vacant lots
36	[C4]	Assessments	Total assessments			n	Sum of (32) and (33)	
37		Connected Property-Assessment ratios	Connected properties / total assessments			n	See notes for (38)	
37a		Connected Property-Assessment ratios	Residential assessments / total assessments			n	See notes for (38)	

Water business data (continued)

NSW No.	NWI No.	Indicator Group	Reported Indicator	2009/10	Acc/ Rel	Unit	Indicator Definition	Instruction
38		Connected Property-Assessment ratios	Connected residential properties / residential assessments			n	These ratios do not vary significantly from year to year for water supply systems. NOW has worked with LWUs to establish these ratios and will continue to use the existing ratio shown. If you consider that another ratio is more appropriate, you will need to provide detailed evidence to NOW to support such a change. Evidence that would be required includes the number of residential (single and multi) and non-residential assessments and connected properties from your financial, water and sewerage reports over the last 3 years together with details of vacant lots and new properties connected. Note that ratios are stored as floating decimals but are displayed on this page to two decimal places only	Connected properties are not the same as assessments. Connected properties rather than assessments are used for consistency with the National Performance Framework 2009-10. A connected property is one which is connected to the water supply system but which may or may not have a separate assessment
39		Unserved properties and population	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 scheme	Only applies to properties in urban zoned land. Information on the unserved urban properties and population of each village is available in your LWU's water supply strategic business plan. Exclude vacant land and rural properties. Exclude premises in land zoned rural residential
40		Unserved properties and population	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.	Measured at the point of abstraction. Include volumes pumped from open channels supplied by these dams.
42	[W1]	Water sources	On-stream dams			ML	Volume of water abstracted from on-stream dams.	Measured at the point of abstraction. Include volumes pumped from open channels fed by these dams. 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.	Measured at the point of abstraction. Exclude volumes pumped to an off-stream dam or 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.	
45	W2	Water sources	Groundwater extraction			ML	Volume abstracted from groundwater.	Measured at the point of abstraction, not delivery. Exclude desalinated groundwater. Exclude volumes from artificial recharge by sources counted elsewhere eg. river abstraction and greywater/stormwater collection systems (Recycled water, W47).
46	W3	Water sources	Desalinated water			ML	Volume of water sourced from desalination.	
47	W4	Water sources	Recycled water			ML	Volume of non-potable water for urban supply sourced from recycling. Include treated sewage effluent and water sourced from greywater and stormwater systems.	Include recycled water supplied for residential, industrial/commercial and municipal/institutional uses; Exclude: recycled water supplied for agriculture. This volume will not necessarily equal the volume of recycled treated sewage (entered as sewage treatment works indicator T25) if greywater and stormwater are also sourced.
48		Water sources	Total water from utility's sources			ML	Sum of (41) to (47)	
49	[W5]	Water sources	Bulk purchase: potable			ML	Volume of potable water purchased from a bulk supplier outside your utility's geographic area of responsibility.	
50	[W5]	Water sources	Bulk purchase: non-potable			ML	Volume of non-potable water purchased from a bulk supplier outside your utility's geographic area of responsibility.	
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 Monitoring, NOW.
52		Water sources	Purchase price potable bulk water			c/kL		
53	W7	Water sources	Total water from all sources			ML	Sum of (48), (49) and (50)	
54	[W8]	Authorised potable supply	Residential			ML	Total metered and estimated non-metered potable water supplied to residential properties.	Internal use includes bathroom, kitchen & laundry use. External use includes garden watering. Include metered and estimated unmetered water supplied
55	[W9]	Authorised potable supply	Commercial			ML	Total metered and estimated non-metered potable water supplied to commercial customers.	Include offices, shops, clubs, hotels, motels, caravan parks etc. Include metered and estimated unmetered water supplied
56	[W9]	Authorised potable supply	Industrial			ML	Total metered and estimated non-metered potable water supplied to manufacturing and industrial customers.	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	[W9]	Authorised potable supply	Rural			ML	Total metered and estimated non-metered potable water supplied to farms and hobby farms outside urban zoned land.	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	[W9]	Authorised potable supply	Institutional			ML	Total metered and estimated non-metered potable water supplied to institutional customers.	Include hospitals, schools, nursing homes, colleges, universities, gaols etc. Include metered and estimated unmetered water supplied

Water business data (continued)

NSW No.	NWI No.	Indicator Group	Reported Indicator	2009/10	Acc/ Rel	Unit	Indicator Definition	Instruction
59	W14	Authorised potable supply	Bulk sales			ML	Total volume of potable water sold to other utilities or entities outside your utility's geographic area of responsibility. Include water sourced from another geographic area.	
60	[W9]	Authorised potable supply	Public parks			ML	Total metered and estimated non-metered potable water supplied for watering public parks and gardens.	Include watering of public parks, gardens and ovals etc. Include metered and estimated unmetered water supplied
61	[W10]	Authorised potable supply	Unbilled			ML	Metered and estimated unmetered authorised supply for which a bill is not issued to the consumer.	Include firefighting and mains flushing as this is authorised supply and is not a water loss. The National Performance Framework 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	[W11]	Authorised potable supply	Total authorised potable supply			ML	Sum of (54) to (58), (60) and (61)	
63	[W8]	Authorised non-potable supply	Residential			ML	Non-potable water reticulated to residential customers.	Include metered and estimated unmetered supply. Exclude recycled water
64	[W9]	Authorised non-potable supply	Non-residential			ML	Non-potable water for town water supply reticulated to non-residential customers.	Include metered and estimated unmetered supply. Exclude recycled water
64b	[W8]	Authorised non-potable supply	Recycled residential			ML	Recycled water for non-potable town water supply reticulated to residential customers.	Include metered and estimated unmetered recycled water supplied
64c	[W9]	Authorised non-potable supply	Recycled non-residential			ML	Recycled water for non-potable town water supply reticulated to non-residential customers.	Include metered and estimated unmetered recycled water supplied. Include recycled water used for watering of parks and gardens or supply to industry.
64d	[W11]	Authorised non-potable supply	Total authorised 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 supply			ML	Include theft and illegal use (illegal connections, illegal use of unmetered fire connections).	Exclude firefighting and mains flushing - this is included in unbilled authorised potable supply (indicator 61). The National Performance Framework 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.	Your utility should have in place a meter testing program and appropriate statistical analysis to determine metering error. Retail meter error defaults are: 2.0% of BACMR (billed authorised consumption, metered residential) or 2.0% 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	[A10]	Real potable losses	Leakage			ML	Leakage from mains, reservoirs and connections including property service connections to customer meters.	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. Losses of less than 6% should be supported by evidence (eg. waste metering, reservoir drop test or night flow analysis). Real losses represent a wasted resource and reduce the effective capacity of the supply system resulting in unneccessary capital and operating expenditures.
69		Total potable losses	Total potable losses			ML	Sum of real plus apparent losses	
77		Leakage factors	Average system pressure			m	Estimated average operating pressure in the distribution system.	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 property service			m	Estimated average length of property service from the reticulation main to the customer meter.	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 property 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 final 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. Losses of less than 6% should be supported by evidence (eg. waste metering, reservoir drop test or night flow analysis)	
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

Water business data (continued)

NSW No.	NWI No.	Indicator Group	Reported Indicator	2009/10	Acc/ Rel	Unit	Indicator 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		Drought restrictions	Days water restrictions due to drought			days	Include all days of water restriction regardless of the level of restriction.	
96	[C10]	Complaints	Service complaints			n	Complaints relating to service quality and reliability, including leaks. Exclude water quality complaints and billing complaints. Exclude queries about service quality and reliability.	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 planned service interruptions unless the customer expresses dissatisfaction about the interruption. Australian Standard AS ISO 10002-2006 refers. Examples: Include complaints about pressure when found to be caused by a leaking mains or when a customer expresses dissatisfaction with the normal pressure.
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	[C12]	Complaints	Billing complaints			n	Complaints concerning account payment, financial loss or overcharging and billing errors. Exclude queries.	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	[C10]	Complaints	Other complaints			n	Complaints other than water quality, service or billing. Exclude queries.	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
101a	C9	Complaints	Water quality complaints (bulk supplies)			n	Customer complaints concerning the quality of reticulated bulk potable supplies. Exclude queries.	Water quality complaints for areas where your utility did not carry out water treatment (where the supply is obtained from a bulk supplier).
101b	[C9]	Complaints	Water quality complaints (treated supplies)			n	Complaints relating to water treated by your utility's treatment plants. Exclude queries.	Sum of water quality complaints for your treatment works (entered under Water Treatment/Service Levels NSW Reference T37)
102	[C13]	Complaints	Total complaints			n	Sum of (96), (97), (99), (100), (101a) and (101b)	

Water business data (continued)

NSW No.	NWI No.	Indicator Group	Reported Indicator	2009/10	Acc/ Rel	Unit	Indicator Definition	Instruction
103	C14	Telephone connect time	Percent of calls answered by an operator within 30 seconds			%	Percentage of calls answered by an operator within 30 seconds. If a percentage is provided for Sewerage indicator 41, do not provide a percentage here	If your utility does not record the "time to connect to telephone" leave this indicator blank. Exclude calls resolved by automated systems, hang-ups or where the customer has selected an incorrect dialing option. Examples: if a customer elects to speak with an operator via automatic dialling, the connect time is from the time when the customer was connected by the system until it is answered by an operator. The connect time starts when the call gets connected 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
104	[A8]	Unplanned supply interruptions	Water main breaks			n	Total number of water main breaks, bursts and leaks in all diameter water distribution and reticulation mains. Includes potable and non-potable water mains.	Exclude: Breaks in the property service connection; weeps and seepages in above-ground mains that can be fixed without shutting down the main.
105		Unplanned supply 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		Unplanned supply 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	[C15]	Unplanned supply interruptions	Average duration			min	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.	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.
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 page 2-1 of the Australian Drinking Water Quality Guidelines 2004. Any other more rigorous plans are also satisfactory	
113a		Water quality management	Specify planning framework				State the basis for your Drinking Water Quality Management Plan	Examples: Framework for Management of Drinking Water Quality, HACCP, ISO 9001, WSAA (National Water Quality Framework Continuous Improvement Tool)
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 alert.
116		Public health incidents	Category 2 incidents			n	Incidents with a limited public health impact	Examples: non-compliance with health parameters (E. coli) of ADWG, 2004 for 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)

Water business data (continued)

NSW No.	NWI No.	Indicator Group	Reported Indicator	2009/10	Acc/ Rel	Unit	Indicator Definition	Instruction
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. Exclude renewals. (Enter $111,500 as 111.5, $3,999,000 as 3999 etc)
120		Workforce 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.	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		Workforce and training	Female workforce			FTE		
122		Workforce 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 that employee trained in the reporting year
123		Days lost	Total days lost			FTE	Total FTE days lost for water supply business	Include days lost due to workplace injury, disease and industrial action. Exclude recreation leave, long-service leave, public holidays, rostered days off or flexi-leave, maternity leave, jury duty, leave for Army Reserve training, 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			FTE	Total FTE days lost due to injury	Include days lost for injuries for equivalent contractor employees. Exclude days lost for injuries for employees engaged in design or construction
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			%		Outsourcing is subcontracting part of the operation and/or management of a utility's business to a third party, where the subcontractor undertakes work that would normally be done by the utility's workforce. Include legal work, electrical maintenance, operation of a treatment works etc.
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	Utiilities 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 towards implementing the National Guidelines for Residential Customers' Water Accounts			%	Estimate your utility's percent progress toward implementing the National Guidelines for Residential Customers' Water Accounts, 2006 (available at www.mincos.gov.au)	
132a	C18	Community	Restrictions for non-payment of water bill			n	Restrictions and disconnections applied for non-payment of water bills in the reporting period	Include: all cases where restriction devices are fitted to reduce water flows to a customer (residential and non-residential). Multiple restrictions for one customer are to be counted as separate restrctions. Exclude: customers who choose to disconnect from the water supply; disconnections carried out due to unsafe infrastructure connected to the water utility's system; instances where your utility elects not to restrict supply due to non-payment.
132b	C19	Community	Legal action for non-payment of water bill			n	Legal actions for non-payment of water bills in the reporting period.	Legal action commences from issue of summons. Include action taken against both residential and non-residential customers. Multiple actions against one customer are to be counted as separate actions. Exclude cases where your utiltiy threatens to take legal action but does not proceed
133		Operation and Maintenance 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"	

Water business data (continued)

NSW No.	NWI No.	Indicator Group	Reported Indicator	2009/10	Acc/ Rel	Unit	Indicator Definition	Instruction
134		Operation and Maintenance 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.	
136		Developer charges	Typical developer charge for next reporting year			$		
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 etc).
144a	W13	Environmental flows supplied	Environmental flows (new indicator 2008/09)			ML	Wholesale flow allocations to the environment, generally upstream of the master meter, as specified in the environmental flow management regime as required by the environmental regulator. Exclude unplanned releases unless these can be incorporated into the environmental flow regime.	
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	Sum of (145) and (146)	
148	E9	Greenhouse gas emissions - water supply	Operating emissions			t CO2 eq	Greenhouse gas emissions for all operations relating to water supply	The Greenhouse Gas calculator provided to you by the NSW Office of Water will simplify this task (copy available in Appendix G of the 2009-10 NSW Water Supply and Sewerage Benchmarking Report).
148b	E11	Greenhouse gas emissions - water supply	Net administrative emissions			t CO2 eq	Net greenhouse gas emissions for other water supply activities (transport, office buildings and sequestration)	The Greenhouse Gas calculator provided to you by the NSW Office of Water will simplify this task (copy available in Appendix G of the 2009-10 NSW Water Supply and Sewerage Benchmarking Report).

Water treatment data

NSW No.	NWI No.	Indicator Group	Reported Indicator	2009/10	Acc/ Rel	Unit	Indicator Definition	Instruction
T1		Works parameters	Year commissioned / augmented			year	Year of commissioning or latest major augmentation	
T2		Works parameters	Design capacity			ML/d		
T3		Works parameters	Type of works				For multiplie processes, hold the Control key and select the processes used	
T5		Works parameters	Percentage of population served			%	Estimated percent of your utility's permanent population supplied by this treatment works	
T4		Works parameters	Comments					
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.	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 ADWG 2004. 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. Water quality compliance data for each treatment works will be used to determine NWI indicators H2, H3 and H4	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 utilities to monitor regularly for contaminants such as disinfection by-products whereas a wide range of other non-key characteristics will only be monitored irregularly.
T16		Physical	Number of system performance 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 ADWG 2004. 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
T17		Physical	Percent complying			%	Number of samples taken for system compliance monitoring divided by the total number of such samples.	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 utilities to monitor regularly for contaminants such as disinfection by-products whereas a wide range of other non-key characteristics will only be monitored irregularly.
T18		Chemical	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 ADWG 2004. 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

Water treatment data (continued)

NSW No.	NWI No.	Indicator Group	Reported Indicator	2009/10	Acc/ Rel	Unit	Indicator Definition	Instruction
T19	H4	Chemical	Percent complying			%	Number of samples taken for system compliance monitoring divided by the total number of such samples. Water quality compliance data for each treatment works will be used to determine NWI indicators H2, H3 and H4	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 utilities to monitor regularly for contaminants such as disinfection by-products whereas a wide range of other non-key characteristics will only be monitored irregularly.
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 ADWG 2004. 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	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 utilities to monitor regularly for contaminants such as disinfection by-products whereas a wide range of other non-key characteristics will only be monitored irregularly.
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	
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			days	For this treatment works only	
T37	[C9]	Water quality complaints	Number of complaints			n	Include only water quality complaints from customers supplied by this treatment works. Exclude complaints about adequacy and interruptions to supply, water pressure etc.	Include complaints about discolouration, taste, odour, stained washing, illness or cloudy water. Example: complaints about milky water caused by mains flushing.
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 No.	NWI No.	Indicator Group	Reported Indicator	2009/10	Acc/ Rel	Unit	Indicator Definition	Instruction
1	C5	Population served	Permanent			n	Population served with sewerage service in June this reporting year	Exclude population in non-serviced areas
2		Population served	Peak			n	Maximum population served anytime this reporting year	Permanent population plus temporary influx (toursts, seasonal workers). Exclude population in non-serviced areas
3	A4	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	A5	Sewage mains	Gravity / reticulation length			km	Length of mains, including trunk and reticulation mains, aqueducts etc. of all diameters.	Exclude pressure (rising) mains. Exclude property or house connections and conduits carrying treated effluent
8	A5	Sewage mains	Pressure / Rising length			km	Length of pressure (rising) mains.	
9	A5	Sewage mains	Total length			km		
10		Renewals	Mains renewed / replaced in reporting year			km	Include 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			n	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	[C6]	Assessments	Residential			n	Residential assessments for sewerage services. Include vacant lots	
14	[C7]	Assessments	Non-residential			n	Non-residential assessments for sewerage services. Include vacant lots	
17	[C8]	Assessments	Total assessments			n	Sum of (13) and (14)	
18	[C8]	Connected Property-Assessment ratios	Connected properties / total assessments			n	See notes for (19)	
18a	[C6]	Connected Property-Assessment ratios	Residential assessments / total assessments			n	See notes for (19)	
19	[C6]	Connected Property-Assessment ratios	Connected residential properties / residential assessments			n	These ratios do not vary significantly from year to year for sewerage systems. NOW has worked with LWUs to establish these ratios and will continue to use the existing ratio shown. If you consider that another ratio is more appropriate, you will need to provide detailed evidence to NOW to support such a change. Evidence that would be required includes the number of residential (single and multi) and non-residential assessments and connected properties from your financial, water and sewerage reports over the last 3 years together with details of vacant lots and new properties connected. Note that ratios are stored as floating decimals but are displayed on this page to two decimal places only	Connected properties are not the same as assessments. Connected properties rather than assessments are used for consistency with the National Performance Framework 2009-10. A connected property is one which is connected to the sewerage system but which may or may not have a separate assessment
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. Information on the unserved urban properties and population of each village is available in your LWU's sewerage strategic business plan.
21		Unserved in reporting year	Unserved urban population			n	Estimated permanent population in unserved urban properties	
34	[C13]	Complaints	Sewage chokes			n	Complaints relating to sewage chokes. Exclude odour, billing and sewerage service complaints. Exclude queries.	
38	[C11]	Complaints	Service			n	Complaints other than chokes, odour or billing. Exclude queries.	Include complaints concerning sewerage system reliability, trade waste services, behaviour of staff and all other sewerage issues. Exclude complaints about chokes, odour or billing. Australian Standard AS ISO 10002-2006 refers.
35		Complaints	Common service complaint 1				Most frequent service complaints should be entered in these two fields	
36		Complaints	Common service complaint 2					
37	[C12]	Complaints	Billing			n	Complaints concerning account payment, financial loss or overcharging and billing errors. Exclude queries.	Exclude complaints about government pricing policy, the tariff structure or queries about how the tariff is calculated
39	[C11]	Complaints	Odour			n	Sum of odour complaints for treatment works, pumping stations and pipe network in your sewerage business	See Sewage Treatment/Service Levels NSW References 68 and 69
40	[C13]	Complaints	All complaints			n	Sum of complaints	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 utility in person, by mail, by fax, phone, email or text message

Sewerage business data (continued)

NSW No.	NWI No.	Indicator Group	Reported Indicator	2009/10	Acc/ Rel	Unit	Indicator Definition	Instruction
41	C14	Telephone connect time	Percent of calls answered by an operator within 30 seconds			%	Percentage of calls answered by an operator within 30 seconds. If a percentage is provided for Water indicator 103, do not provide a percentage here.	If your utility does not record the "time to connect to telephone" leave this indicator blank. Exclude calls resolved by automated systems, hang-ups or where the customer has selected an incorrect dialing option. Examples: if a customer elects to speak with an operator via automatic dialling, the connect time is from the time when the customer was connected by the system until it is answered by an operator. The connect time starts when the call gets connected 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
43	[C16]	Unplanned interruptions	Average sewerage interruption			min	Measured from time when utility is aware that sewerage services are no longer available. This is an average based on the total minutes of all interruptions divided by the total number of interruptions.	Exclude planned interruptions, repair times relating to breaks, chokes and leaks in the property connection and 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 new treatment works. Exclude renewals. (Enter $111,500 as 111.5, $3,999,000 as 3999 etc)
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.	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 that employee trained in the reporting year
52		Days lost	Total days lost			FTE	Total FTE days lost for sewerage business	Include days lost due to workplace injury, disease and industrial action. Exclude recreation leave, long-service leave, public holidays, rostered days off or flexi-leave, maternity leave, jury duty, leave for Army Reserve training, 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			FTE	Total FTE days lost due to injury	Include days lost for injuries for equivalent contractor employees. Exclude days lost for injuries for employees engaged in design or construction
57		Workforce outsourced	Management costs outsourced			%	The percentages expended by the sewerage business on outsourcing of management, operational and maintenance costs	
58		Workforce outsourced	Operational costs outsourced			%		
59		Workforce outsourced	Maintenance costs outsourced			%		Outsourcing is subcontracting part of the operation and/or management of a utility's business to a third party, where the subcontractor undertakes work that would normally be done by the utility's workforce. Include legal work, electrical maintenance, operation of a treatment works etc.
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.	

Sewerage business data (continued)

NSW No.	NWI No.	Indicator Group	Reported Indicator	2009/10	Acc/ Rel	Unit	Indicator Definition	Instruction
62		Developer charges	Typical developer charge for next reporting year			$		
63a		Overflows and chokes	Overflows			n	Include all overflows/surcharges in utility sewers, access chambers and pumping stations in any weather	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
63b	[E13]	Overflows and chokes	Reported overflows (new indicator 2008/09)			n	Overflows/surcharges reported to the environmental regulator	Exclude overflows/surcharges not reported to the environmental regulator
64	[A14]	Overflows and chokes	Sewerage main breaks and chokes (new indicator 2009-10)			n	Confirmed partial or total blockages, or failures in a reticulation (gravity) sewer resulting in an interruption to the sewerage service	Exclude breaks and chokes in rising mains, property connections or chokes within customers house drains. Exclude pipelines carrying treated effluent.
65		Overflows and chokes	Rising / pressure main chokes and breaks			n	Confirmed chokes, breaks and leaks in sewer rising (pressure) mains resulting in a significant interruption to the sewerage service	
66		Overflows and chokes	Sewer chokes and breaks attended within 5 hours			n		
67	[A15]	Overflows and chokes	Property connection sewer breaks and chokes (new indicator 2009-10)			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)
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
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 new treatment works. Exclude renewals. (Enter $111,500 as 111.5, $3,999,000 as 3999 etc)
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	Sum of (77) and (78)	
80a	E10	Greenhouse gas emissions - sewerage service	Operating emissions			t CO2 eq	Greenhouse gas emissions for all operations relating to sewerage service	The Greenhouse Gas calculator provided to you by the NSW Office of Water will simplify this task (copy available in Appendix G of the 2009-10 NSW Water Supply and Sewerage Benchmarking Report).
80b	E11	Greenhouse gas emissions - sewerage service	Net administrative emissions			t CO2 eq	Net greenhouse gas emissions for other sewerage service activities (transport, office buildings and sequestration). If your utility cannot split this value between sewerage and water, leave this field blank and place the consolidated value under water business at NSW Reference 148b	The Greenhouse Gas calculator provided to you by the NSW Office of Water will simplify this task (copy available in Appendix G of the 2009-10 NSW Water Supply and Sewerage Benchmarking Report).

Sewage treatment data

NSW No.	NWI No.	Indicator Group	Reported Indicator	2009/10	Acc/ Rel	Unit	Indicator Definition	Instruction
T1		Works parameters	Year built / augmented			year	Year of commissioning or latest major augmentation	
T10		Works parameters	Design capacity			EP		
T2		Works parameters	Type of works				For multiplie processes, hold the Control key and select the processes 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 treatment works operates either a chemical dosing facility to precipitate phosphorus or a carefully managed biological nutrient removal (BNR) system	
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	[C11]	Odour complaints	Number of odour complaints from this treatment works			n	Exclude complaints that have been investigated and can be shown not to arise from this treatment works	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
T69	[C11]	Odour complaints	Number of odour complaints from pumping stations and the sewerage network in this treatment work's catchment			n	Exclude complaints that have been investigated and can be shown not to arise from the network or pumping stations	
T8		Compliance summary	Licence expiry date			date		
T9		Compliance summary	Volume licenced			ML/d		
T64	E7	Compliance summary	Compliance with environmental regulators			Y/N	Compliance occurs when the licence conditions prescribed for the treatment plant and all attached system components (network, treatment, recycling and disposal) have been met.	Non-compliance is where your utility did not meet licence conditions, or received a financial penalty (>$10,000) or had any successful litigation against it, by the environmental regulator. Include: penalties relating to infringements occuring in a previous reporting year.
T65		Compliance summary	Penalty or litigation for non-compliance			Y/N	Include successful litigation against your utility by an environmental regulator, a financial penalty, any other penalty imposed by an enviromental regulator	
T66		Compliance summary	Details of penalty or litigation				Provide brief details of penalties and litigation	
T49		Biochemical oxygen demand	90th percentile limit			mg/L	The limit shown is reproduced from this plant's EPA licence. 100 percentile limits are shown where 90th percentiles are not specified. Absence of a value indicates that no limit is specified.	
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	The limit shown is reproduced from this plant's EPA licence. 100 percentile limits are shown where 90th percentiles are not specified. Absence of a value indicates that no limit is specified.	
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	The limit shown is reproduced from this plant's EPA licence. 100 percentile limits are shown where 90th percentiles are not specified. Absence of a value indicates that no limit is specified.	

Sewage treatment data (continued)

NSW No.	NWI No.	Indicator Group	Reported Indicator	2009/10	Acc/ Rel	Unit	Indicator Definition	Instruction
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%	
T57		Oil and grease	90th percentile limit			mg/L	The limit shown is reproduced from this plant's EPA licence. 100 percentile limits are shown where 90th percentiles are not specified. Absence of a value indicates that no limit is specified.	
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	The limit shown is reproduced from this plant's EPA licence. 100 percentile limits are shown where 90th percentiles are not specified. Absence of a value indicates that no limit is specified.	
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/100mL	The limit shown is reproduced from this plant's EPA licence. 100 percentile limits are shown where 90th percentiles are not specified. Absence of a value indicates that no limit is specified.	
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	
T32	[W16]	Volumes collected by this works	Network residential			ML	Estimated network residential sewage	
T33	[W16]	Volumes collected by this works	Network non-residential			ML	Estimated network non-residential sewage	
T31	[W16]	Volumes collected by this works	Network infiltration / inflow			ML	Estimated groundwater infiltration and stormwater inflow	
T34	W17	Volumes collected by this works	Network trade waste			ML	Estimated non-metered and metered network trade waste	
T12	[W16]	Volumes collected by this works	Tankered septic tank effluent			kL	Enter volume in kilolitres not Megalitres	
T13	[W16]	Volumes collected by this works	Tankered septic sludge / pan			kL	Enter volume in kilolitres not Megalitres	
T14	[W16]	Volumes collected by this works	Tankered grease trap waste			kL	Enter volume in kilolitres not Megalitres	
T15	W18	Volumes collected by this works	Total sewage collected			ML	Sum of (20) to (24a)	
T16		Volumes treated by this works	No treatment			ML		
T17	E1	Volumes treated by this works	Primary treatment only			ML	Include only volume treated to remove suspended solids (primary standard). Exclude volumes treated to secondary or tertiary standard.	Primary treatment may include screening, clarification and grease removal.
T18	E2	Volumes treated by this works	Secondary treatment only			ML	Include only volume treated to primary standard with further polishing of effluent to reduce at least 85% of biochemical oxygen demand and suspended solids (secondary standard). Exclude volume treated to primary standard only or tertiary standard.	Secondary treatment may include a polishing step, activated sludge, anaerobic/aerobic processes, biological/sand filtration and lagoon sedimentation.
T19	E3	Volumes treated by this works	Tertiary treatment only			ML	Include only volume treated to secondary standard with further disinfection of effluent and filtering to remove nutrients and nitrogen using artificial wetland, ponds, chlorination, ozonation or UV treatment (tertiary standard). Exclude volume treated to primary or secondary standard only	Tertiary treatment may include biological/chemical dosing nutrient removal, reverse osmosis, advanced filtration systems, membrane bioreactors and secondary treatment with wetland nutrient removal.

Sewage treatment data (continued)

NSW No.	NWI No.	Indicator Group	Reported Indicator	2009/10	Acc/ Rel	Unit	Indicator Definition	Instruction
T20	W22	Volumes recycled by this works	Agriculture			ML	Total metered and estimated non-metered supply. Include horticulture, viticulture, forestry and pasture improvement. Exclude environmental flows.	
T21	[W21]	Volumes recycled by this works	Municipal / Institutional			ML	Total metered and estimated non-metered supply. Include supply to race-courses, parks, gardens, ovals and golf-courses.	
T22	[W21]	Volumes recycled by this works	Industrial / Commercial			ML	Total metered and estimated non-metered supply. Include supply to mine sites.	
T23	[W20]	Volumes recycled by this works	Residential			ML	Total metered and estimated non-metered supply. Include supply to all urban zone residences.	
T24a	W25	Volumes recycled by this works	Other			ML	Total metered and estimated non-metered supply. Include recycled water used for fire fighting, mains flushing and other uses. Include estimated leakage and customer meter error.	
T24	[W24]	Volumes recycled by this works	Sewage treatment works			ML	Total metered and estimated non-metered supply. Include supply for on-site reuse . Exclude volumes used to support the treatment process. Exclude evaporation loss.	On-site reuse includes landscape watering and toilet flushing. Exclude treatment process maintenance such as screen and filter cleaning etc.
T24b	[W21]	Volumes recycled by this works	Environmental (new indicator 2008/09)			ML	Include discharge to a waterway for environmental purposes. Such discharge must be approved by the environmental regulator as meeting the definition of environmental flow.	To provide a net benefit to the environment, recycled water must meet quality standards determined by the environmental regulator. Exclude volumes disposed to forest and bushland unless otherwise endorsed by the regulator.
T24c	[W21]	Volumes recycled by this works	Bulk sales (recycled)			ML	Include recycled water sold to another utility or entity outside your utility's geographic area of responsibility.	
T25	W26	Volumes recycled by this works	Total volume reused			ML		
T25a		Charges	Usage charge for recycled town water			c/kL		
T26X	[E8]	Biosolids produced by this works	Mass extracted			tonnes	Include stabilised organic solids extracted from effluent. Exclude screened inorganic material	
T27	E8	Biosolids produced by this works	Percentage of 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 produced by this works	Percent of total disposed to landfill			%	Include injection below ground level, burial and disposal to tip or treatment works site.	
T30		Biosolids produced by this works	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	Total approved trade waste BOD-5 concentration converted to EP	EP = (concentration (mg/L) x discharge volume (kL/d))/70
T39		Large trade waste dischargers	Equivalent TSS load			EP	Total approved trade waste SS concentration converted to EP	EP = (concentration (mg/L) x discharge volume (kL/d))/70
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		Summed values of dry weather flows outside peak population periods divided by number of these records
T44		Flow data	Average dry weather flow peak population			L/s		Summed values of dry weather flows during peak population periods divided by number of these records
T45		Flow data	Peak dry weather flow - permanent population			L/s	Maximum flow rate recorded during dry weather outside peak population periods	
T46		Flow data	Peak dry weather flow - peak population			L/s	Maximum flow rate recorded during dry weather during peak population periods	
T48		Flow data	Peak 1 hour wet weather flow			L/s	Maximum volume recorded in any 1 hour period follwing a wet weather event during the reporting year.	
T47		Flow data	Peak 24 hr wet weather volume			ML	Maximum volume recorded in any 24 hour period follwing a wet weather event during the reporting year.	

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. NSW local water utilities (LWUs) are required to adopt a 'best practice' approach for the supply of drinking water using the Framework for Management of Drinking Water Quality (Public Health Act 2010). 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 (refer also to pages 8 and 9 of the *2009-10 NSW Water Supply and Sewerage Benchmarking Report*). 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 page numbers below refer to the 2004 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
Aluminium, antimony, arsenic, barium, boron, cadmium, calcium, chloride, chromium, copper, fluoride, iodine, iron, lead, magnesium, manganese, mercury, molybdenum, nickel, nitrate, nitrite, selenium, silver, sodium, sulfate, zinc	Monthly in systems serving a population of 5,000 or more, otherwise biannually.

All of these chemicals are health related with the exception of:

- aluminium, calcium, chloride, iron, magnesium and zinc
- 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 guidelines values for each characteristic have been met. Guidelines values for microbiological characteristics are shown on page 10.21 and are summarised in Table 4.

Table 4 – Microbiological performance

Indicator	Guidelines value
Performance is regarded as satisfactory if, over the preceding 12 months:	
E.coli	At least 98% of scheduled samples contain no E. coli

Guidelines 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 guidelines 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 Indicator Nos 137 to 140 on page 191)

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 Indicator Nos 115 to 118 on pages 189 and 190)

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 (E. coli) 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 Indicator Nos 69 to 72 on page 196)

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 three 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 Indicator Nos 44 to 47 on page 195)

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.

NSW Council

Special Schedule No. 3
Water Supply Income Statement
(Gross including Internal Transactions)
for the year ended 2010
$'000

		2010	2009
A	**Expenses and Income**		
	Expenses		
1	Management expenses		
	a. Administration		
	b. Engineering and Supervision		
2	Operation and Maintenance		
	- Dams and Weirs		
	a. Operation expenses		
	b. Maintenance expenses		
	- Mains		
	c. Operation expenses		
	d. Maintenance expenses		
	- Reservoirs		
	e. Operation expenses		
	f. Maintenance expenses		
	- Pumping Stations		
	g. Operation expenses (excluding energy costs)		
	h. Energy costs		
	i. Maintenance expenses		
	- Treatment		
	j. Operation expenses (excluding chemical costs)		
	k. Chemical costs		
	l. Maintenance expenses		
	- Other		
	m. Operation expenses		
	n. Maintenance expenses		
	o. Purchase of water		
3.	Depreciation		
	a. System assets		
	b. Plant and equipment		
4.	Miscellaneous expenses		
	a. Interest expenses		
	b. Revaluation decrements		
	c. Other expenses		
5.	**Total expenses**		
	Income		
6.	Residential charges		
	a. Access (including rates)		
	b. Usage charges		
7.	Non-residential charges		
	a. Access (including rates)		
	b. Usage charges		
8.	Extra charges		
9.	Interest income		
10.	Other income		
11.	Grants		
	a. Grants for acquisition of assets		
	b. Grants for pensioner rebates		
	c. Other grants		

NSW Council

Special Schedule No. 3 (continued)
Water Supply Income Statement
(Gross including Internal Transactions)
for the year ended 2010
$'000

		2010	2009
A	**Expenses and Income (continued)**		
12.	Contributions		
	a. Developer charges		
	b. Developer provided assets		
	c. Other contributions		
13.	**Total income**		
14.	Gain or loss on disposal of assets		
15.	Operating result		
15a.	**Operating result** (less grants for acquisition of assets)		
B	**Capital transactions**		
	Non-operating expenditures		
16.	Acquisition of Fixed Assets		
	a. Subsidised scheme		
	b. Other new system assets		
	c. Renewals		
	d. Plant and equipment		
17.	Repayment of debt		
	a. Loans		
	b. Advances		
	c. Finance leases		
18.	Transfer to sinking fund		
19.	**Totals**		
	Non-operating funds employed		
20.	Proceeds from disposal of assets		
21.	Borrowing utilised		
	a. Loans		
	b. Advances		
	c. Finance leases		
22.	Transfer from sinking fund		
23.	**Totals**		
C	**Rates and charges**		
24.	Number of assessments		
	a. Residential (occupied)		
	b. Residential (unoccupied 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	$	

NSW Council

Special Schedule No. 3 (continued)
Water Supply – Cross-subsidies
as at 30 June 2010
$'000

		Yes	No	Amount
D	**Best practice annual charges and developer charges#**			
27.	**Annual charges**			
	a. Does Council have best-practice water supply annual charges and usage charges*?			
	If Yes, go to 28a.			
	If No, please report if council has removed **land value** from access charges (ie rates)?			
	* Such charges for both residential customers and non-residential customers comply with section 3.2 of *Water Supply, Sewerage and Trade Waste Pricing Guidelines*, NSW Office of Water, December, 2002. Such charges do not involved significant cross-subsidies.			
	b. Cross-subsidy **from** residential customers using less than allowance (page 25 of Guidelines)			
	c. Cross-subsidy **to** non-residential customers (page 24 of Guidelines)			
	d. Cross-subsidy **to** large connections in unmetered supplies (page 26 of Guidelines)			
28.	**Developer charges**			
	a. Has council completed a water supply Development Servicing** Plan?			
	b. Total cross-subsidy in water supply developer charges for 2009/10 (page 47 of Guidelines)			
	** In accordance with page 9 of *Developer Charges Guidelines for Water Supply, Sewerage and Stormwater*, NSW Office of Water, December, 2002.			
29.	**Disclosure of cross-subsidies**			
	Total of cross-subsidies (27b +27c + 27d + 28b)			

Councils which have not yet implemented best practice water supply pricing should disclose cross-subsidies in items 27b, 27c and 27d above.

However, disclosure of cross-subsidies is **not** required where a Council has implemented best practice pricing and is phasing in such pricing over a period of three years.

NSW Council

Special Schedule No. 4
Water Supply – Balance sheet
(Gross including Internal Transactions)
as at 30 June 2010
$'000

		Current	Non current	Total
	ASSETS			
30.	Cash and investments			
	a. Developer charges			
	b. Special purpose grants			
	c. Accrued leave			
	d. Unexpended loans			
	e. Sinking fund			
	f. Other			
31.	Receivables			
	a. Specific purpose grants			
	b. Rates and charges			
	c. Other			
32.	Inventories			
33.	Property, plant and equipment			
	a. System assets			
	b. Plant and equipment			
34.	Other assets			
35.	**Total assets**			
	LIABILITIES			
36.	Bank overdraft			
37.	Creditors			
38.	Borrowings			
	a. Loans			
	b. Advances			
	c. Finance leases			
39.	Provisions			
	a. Tax equivalents			
	b. Dividend			
	c. Other			
40.	**Total liabilities**			
41.	**Net assets committed**			
	EQUITY			
42.	Accumulated surplus			
43.	Asset revaluation reserve			
44.	**Total equity**			
	Note to system assets:			
45.	Current replacement cost of system assets			
46.	Accumulated current cost depreciation of system assets			
47.	Written down current cost of system assets			

NSW Council

Special Schedule No. 5
Sewerage Income Statement
(Gross including Internal Transactions)
as at 30 June 2010
$'000

		2010	2009
A	**Expenses and Income**		
	Expenses		
1.	Management expenses		
	a. Administration		
	b. Engineering and Supervision		
2.	Operations and Maintenance Expenses		
	- Mains		
	a. Operation expenses		
	b. Maintenance expenses		
	- Pumping Stations		
	c. Operation expenses (excluding energy costs)		
	d. Energy costs		
	e. Maintenance expenses		
	- Treatment		
	f. Operation expenses (excluding chemical, energy, effluent and biosolids management costs)		
	g. Chemical costs		
	h. Energy costs		
	i. Effluent management		
	j. Biosolids management		
	k. Maintenance expenses		
	- Other		
	l. Operation expenses		
	m. Maintenance expenses		
3.	Depreciation		
	a. System assets		
	b. Plant and equipment		
4.	Miscellaneous		
	a. Interest expenses		
	b. Revaluation decrements		
	c. Other expenses		
5.	**Total expenses**		
	Income		
6.	Residential charges (including rates)		
7.	Non-residential charges		
	a. Access (including rates)		
	b. Usage charges		
8.	Trade Waste Charges		
	a. Annual fees		
	b. Usage fees		
	c. Excess mass charges		
	d. Re-inspection fees		
9.	Extra charges		
10.	Interest income		
11.	Other income		
12.	Grants		
	a. Grants for acquisition of assets		
	b. Grants for pensioner rebates		
	c. Other grants		

NSW Council

Special Schedule No. 5 (continued)
Sewerage Income Statement
(Gross including Internal Transactions)
as at 30 June 2010
$'000

		2010	2009
A	**Expenses and Income (continued)**		
13.	Contributions		
	a. Developer charges		
	b. Developer provided assets		
	c. Other contributions		
14.	**Total income**		
15.	Gain or loss on disposal of assets		
16.	Operating result		
16a.	**Operating result** (less grants for acquisition of assets)		
B	**Capital transactions**		
	Non-operating expenditures		
17.	Acquisition of Fixed Assets		
	a. Subsidised scheme		
	b. Other new system assets		
	c. Renewals		
	d. Plant and equipment		
18.	Repayment of debt		
	a. Loans		
	b. Advances		
	c. Finance leases		
19.	Transfer to sinking fund		
20.	**Totals**		
	Non-operating funds employed		
21.	Proceeds from disposal of assets		
22.	Borrowing utilised		
	a. Loans		
	b. Advances		
	c. Finance leases		
23.	Transfer from sinking fund		
24.	**Totals**		
C	**Rates and charges**		
25.	Number of assessments		
	a. Residential (occupied)		
	b. Residential (unoccupied 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	$	

NSW Council

Special Schedule No. 5 (continued)
Sewerage – Cross-subsidies
as at 30 June 2010
$'000

		Yes	No	Amount
D	**Best practice annual charges and developer charges#**			
28.	**Annual charges**			
	a. Does Council have best-practice sewerage annual charges, usage charges and trade waste fees and charges*?			
	If Yes, go to 29a.			
	If No, please report if council has removed **land value** from access charges (ie rates)?			
	* Such charges for both residential customers and non-residential customers comply with sections 4.2 and 4.3 of *Water Supply, Sewerage and Trade Waste Pricing Guidelines*, NSW Office of Water, December, 2002. Such charges do not involved significant cross-subsidies.			
	b. Cross-subsidy **to** non-residential customers (page 45 of Guidelines)			
	c. Cross-subsidy **to** trade waste discharges (page 46 of Guidelines)			
29.	**Developer charges**			
	a. Has council completed a sewerage Development Servicing** Plan?			
	b. Total cross-subsidy in sewerage developer charges for 2009/10 (page 47 of Guidelines)			
	** In accordance with page 9 of *Developer Charges Guidelines for Water Supply, Sewerage and Stormwater*, NSW Office of Water, December, 2002.			
30.	**Disclosure of cross-subsidies**			
	Total of cross-subsidies (28b +28c + 29b)			

Councils which have not yet implemented best practice sewerage pricing and liquid trade waste pricing should disclose cross-subsidies in items 28b and 28c above.

However, disclosure of cross-subsidies is **not** required where a Council has implemented best practice sewerage and liquid trade waste pricing and is phasing in such pricing over a period of three years.

NSW Council

Special Schedule No. 6
Sewerage service – Balance sheet
(Gross including Internal Transactions)
as at 30 June 2010
$'000

		Current	Non current	Total
	Assets			
31.	Cash and investments			
	a. Developer charges			
	b. Special purpose grants			
	c. Accrued leave			
	d. Unexpended loans			
	e. Sinking fund			
	f. Other			
32.	Receivables			
	a. Specific purpose grants			
	b. Rates and charges			
	c. Other			
33.	Inventories			
34.	Property, plant and equipment			
	a. System assets			
	b. Plant and equipment			
35.	Other assets			
36.	**Total assets**			
	Liabilities			
37.	Bank overdraft			
38.	Creditors			
39.	Borrowings			
	a. Loans			
	b. Advances			
	c. Finance leases			
40.	Provisions			
	a. Tax equivalents			
	b. Dividend			
	c. Other			
41.	**Total liabilities**			
42.	**Net assets committed**			
	Equity			
43.	Accumulated surplus			
44.	Asset revaluation reserve			
45.	**Total equity**			
	Note to system assets:			
46.	Current replacement cost of system assets			
47.	Accumulated current cost depreciation of system assets			
48.	Written down current cost of system assets			

Notes to Special Schedules 3 and 5

Administration[1] (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[1] (item 1b of Special Schedules 3 and 5) comprises the following:

- Engineering staff:
  - Salaries and allowance
  - Travelling expenses
  - Accrual of leave entitlements
  - Employment overheads.
- Other technical and supervision staff:
  - Salaries and allowance
  - Travelling expenses
  - Accrual of leave entitlements
  - Employment overheads.

Operation expenses (item 2 of Special Schedules 3 and 5) comprise the day to day operational expenses excluding maintenance expenses.

Maintenance expenses (item 2 of Special Schedules 3 and 5) comprise the day to day repair and maintenance expenses. (Refer to Section 5 of the Local Government Asset Accounting Manual regarding capitalisation principles and the distinction between capital and maintenance expenditure).

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

Revaluation decrements (item 4b of Special Schedules 3 and 5) is to be used when infrastructure assets have decreased in fair value.

Residential charges[2] (items 6a, 6b and item 6 of Special Schedules 3 and 5 respectively) include all income from residential charges. Item 6 of Schedule 3 should be separated into 6a Access Charges (including rates if applicable) and 6b User Charges. Exclude non-residential charges.

Non-residential charges[2] (items 7a, 7b of Special Schedules 3 and 5) include all income from non-residential charges separated into 7a Access Charges (including rates if applicable) and 7b User Charges. Exclude residential charges.

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

Other income (items 10 and 11 of Special Schedules 3 and 5 respectively) include all income 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.

Notes:

(1) 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).

(2) To enable accurate reporting of **residential revenue from usage charges**, it is essential for councils to accurately separate their residential (item 6) and non-residential (item 7) charges.

(3) Particular attention should be paid to the underlined items above, which have been incorrectly reported by a number of councils.

Note 2 Water Supply Business best practice management disclosure requirements

			2010
1. Calculation and Payment of Tax-Equivalents			
(i)	Calculated Tax Equivalents	$	
(ii)	No of assessments multiplied by $3/assessment	$	
(iii)	Amounts payable for Tax Equivalents *(lesser of (i) and (ii))*	$	0
(iv)	Tax Equivalents paid	$	
2. Dividend from Surplus			
(i)	50% of Surplus before Dividends *(Calculated in accordance with Best Practice Management for Water Supply and Sewerage guidelines.)*	$	
(ii)	No of assessments multiplied by $30/assessment, less tax equivalent charges/assessment	$	
(iii)	Cumulative Surplus before Dividends for 3 years to 30 June 2010, less cumulative dividends paid for 2 years to 30 June 2009	$	
(iv)	Maximum Dividend from Surplus *(least of (i), (ii) and (iii))*	$	0
(v)	Dividend paid from Surplus	$	
3. Required Outcomes for 6 Criteria			
(i)	Complete current Strategic Business Plan (including Financial Plan)	Yes/No	
(ii)	Full cost-recovery, without significant cross subsidies *(Item 2(a) in Table 1 on page 22 of Best Practice Management Guidelines)*	Yes/No	
	Complying charges *(Item 2(b) in Table 1)*	Yes/No	
	DSP with Commercial Developer Charges *(Item 2(e) in Table 1)*	Yes/No	
	If Dual Water Supplies, Complying Charges *(Item 2(g) in Table 1)*	Yes/No	
(iii)	Sound Water Conservation & Demand Management implemented	Yes/No	
(iv)	Sound Drought Management implemented	Yes/No	
(v)	Complete Performance Reporting *(by 15 September each year)*	Yes/No	
(vi)	a. Complete Integrated Water Cycle Management Evaluation	Yes/No	
	b. Complete and implement Integrated Water Cycle Management Strategy	Yes/No	
National Water Initiative (NWI) Financial Performance Indicators			
NWI F1	Total Revenue (Water) *= Total income (w13))* *- Grants for acquisition of assets (w11a) - Interest income (w9)*	$ ('000)	
NWI F4	Revenue from Residential Usage Charges (Water) *= Income from residential usage charges (w6b) x 100* */* *(Income from residential usage charges (w6a)* *+ Income from residential access charges (w6b))*	%	
NWI F9	Written Down Replacement Cost of Fixed Assets (Water) *= Written down current cost of system assets (w47)*	$ ('000)	
NWI F11	Operating Cost (OMA) (Water) *= Management expenses (w1) + Operation and maintenance expenses (w2)*	$ ('000)	
NWI F14	Capital Expenditure (Water) *= Acquisition of fixed assets (w16)*	$ ('000)	
NWI F17	Economic Real Rate of Return (Water) *= (Total income (w13) - Interest income (w9) - Grants for acquisition of assets (w11a)* *– Operating cost (NWI F11) – Current cost depreciation (w3)) x 100* */* *(Written down current cost of system assets (w47) + Plant and equipment (w33b)).*	%	
NWI F26	Capital Works Grants (Water) *= Grants for acquisition of assets (w11a)*	$ ('000)	

Notes:

1. References to w (eg. w12) refer to item numbers in Special Schedules Nos. 3 and 4 of each Council's Annual Financial Statements.
2. The NWI performance indicators are based on the National Performance Framework handbook for Urban Performance Reporting Indicators and Definitions.
   The NWI indicators are to be calculated using the formulae shown above.

Note 3 Sewerage Business best practice management disclosure requirements

			2010
1. Calculation and Payment of Tax-Equivalents			
(i)	Calculated Tax Equivalents	$	
(ii)	No of assessments multiplied by $3/assessment	$	
(iii)	Amounts payable for Tax Equivalents *(lesser of (i) and (ii))*	$	0
(iv)	Tax Equivalents paid	$	
2. Dividend from Surplus			
(i)	50% of Surplus before Dividends *(Calculated in accordance with Best Practice Management for Water Supply and Sewerage guidelines.)*	$	
(ii)	No of assessments multiplied by $30/assessment, less tax equivalent charges/ assessment	$	
(iii)	Cumulative Surplus before Dividends for 3 years to 30 June 2010, less cumulative dividends paid for 2 years to 30 June 2009	$	
(iv)	Maximum Dividend from Surplus *(least of (i), (ii) and (iii))*	$	0
(v)	Dividend paid from Surplus	$	
3. Required Outcomes for 4 Criteria			
(i)	Complete current Strategic Business Plan (including Financial Plan)	Yes/No	
(ii)	Pricing with full cost-recovery, without significant cross subsidies *(Item 2(a) in Table 1 on page 22 of Best Practice guidelines)*	Yes/No	
	Complying charges (a) Residential *(Item 2(c) in Table 1)*	Yes/No	
	(b) Non-Residential *(Item 2(c) in Table 1)*	Yes/No	
	(c) Trade Waste *(Item 2(d) in Table 1)*	Yes/No	
	DSP with Commercial Developer Charges *(Item 2(e) in Table 1)*	Yes/No	
	Liquid Trade Waste Approvals & Policy *(Item 2(f) in Table 1)*	Yes/No	
(iii)	Complete Performance Reporting Form *(by 15 September each year)*	Yes/No	
(iv)	a. Complete Integrated Water Cycle Management Evaluation	Yes/No	
	b. Complete and implement Integrated Water Cycle Management Strategy	Yes/No	
National Water Initiative (NWI) Financial Performance Indicators			
NWI F2	Total Revenue (Sewerage) *= Total income (s14)* *- Grants for acquisition of assets (s12a) - Interest income (s10)*	$ ('000)	
NWI F10	Written Down Replacement Cost of Fixed Assets (Sewerage) *= Written down current cost of system assets (s48)*	$ ('000)	
NWI F12	Operating cost (Sewerage) *= Management expenses (s1) + Operation and maintenance expenses (s2)*	$ ('000)	
NWI F15	Capital Expenditure (Sewerage) *= Acquisition of fixed assets (s17)*	$ ('000)	
NWI F18	Economic Real Rate of Return (Sewerage) *=((Total income (s14) - Interest income (s10) - Grants for acquisition of assets (s12a)* *- Operating cost (NWI F12) – Current cost depreciation (s3)) x 100* */* *(Written down current cost (WDCC) of system assets (s48) + Plant and equipment (s34b))*	%	
NWI F27	Capital Works Grants (Sewerage) *= Grants for acquisition of assets (s12a)*	$ ('000)	
NWI F3	Total Income (Water and Sewerage) *= Total income (w13+s14) + Gain/loss on disposal of assets (w14+s15)* *- Grants for acquisition of assets (w11a+s12a) - Interest income (w9+s10)*	$ ('000)	
NWI F8	Revenue from Community Service Obligations (Water and Sewerage) *= Community service obligations (NWI F25) x 100* */* *Total income (NWI F3)*	%	
NWI F16	Capital Expenditure (Water and Sewerage) *= Acquisition of fixed assets (w16 + s17)*	$ ('000)	
NWI F19	Economic Real Rate of Return (Water and Sewerage) *= (Total income (w13 + s14) - Interest income (w9 + s10)* *- Grants for acquisition of assets (w11a + s12a) – Operating cost (NWI F11 + NWI F12)* *- Current cost depreciation (w3 + s3)) x 100* */* *(Written down replacement cost of fixed assets (NWIF9 + NWIF10)* *+ Plant and equipment (w33b + s34b))*	%	
NWI F20	Dividend (Water and Sewerage) *= Dividend paid from surplus (2(v) of Note 2 + 2(v) of Note 3)*	$ ('000)	
NWIF21	Dividend Payout Ratio (Water and Sewerage) *= Dividend (NWI F20) x 100* */* *Net profit after tax (NWI F24)*	%	
NWI F22	Net Debt to Equity (Water and Sewerage) *= (Overdraft (w36 + S37) + Borrowings (w38 + s39) - Cash and investments (w30 + s31)) x 100* */* *(Total assets (w35 + s36) - Total liabilities (w40 + s41))*	%	
NWI F23	Interest Cover (Water and Sewerage) *= EBIT / NI* ***Earnings before Interest and Tax (EBIT)** = Operating result (w15a+s16a) + Interest expense (w4a + s4a)* *– Interest income (w9 + s10) – Gain/loss on disposal of assets (w14 + s15) + Miscellaneous expenses (w4b + w4c + s4b + s4c)* ***Net Interest (NI)** = Interest expense (w4a+s4a) – Interest income (w9+s10)* ***Note:** If EBIT >0 AND Net Interest <=0 THEN Interest Cover is to be reported as ">100"* *If EBIT <0 THEN Interest Cover = 0*		
NWI F24	Net Profit After Tax (Water and Sewerage) *=(Surplus before dividends (w15a + s16a) - Tax paid (1(iv) of Note 2 + 1(iv) of Note 3))*	$ ('000)	
NWI F25	Community Service Obligations (Water and Sewerage) *= Grants for pensioner rebates (w11b + s12b)*	$ ('000)	

Notes:

1. References to s (eg s12) refer to item numbers in Special Schedules Nos. 5 and 6 of each Council's Annual Financial Statements.
2. The NWI performance indicators are based on the National Performance Framework handbook for Urban Performance Reporting Indicators and Definitions.
   The NWI indicators are to be calculated using the formulae shown above.

Formulae for calculation of performance indicators in tables 5 to 18

Formulae for calculation of performance indicators in table 5

5. 2009/10 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 Excl. Bulk Supply) (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 + Nonpotable) (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 ÷ 1000
(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 ($M)	Total Revenue including gain/loss on disposal of assets, less grants for acquisition of assets, less interest income [Residential Charges + Non-residential Charges + Extra Charges + Grants (excluding grants for Acquisition of Assets) + Contributions (Developer Charges + Developer Provided Assets + Other Contributions)] + Gain/loss on disposal of assets.	From Col (57) Table 11
(7)	Water Quality Compliance - Chemical (%)	Chemical water quality compliance	From Col (70) Table 12
(7a)	Zones Compliant		From Col (70a) Table 12
(8)	Water Quality Compliance - Microbiological - E. coli (%)	Number of samples tested that meet the water quality requirements divided by the total number of samples tested. Note that this is the number of samples not tests, one sample may have a number of tests performed.	From Col (71) Table 12
(8a)	Zones Compliant		From Col (71a) Table 12
(8b)	% Population with Microbiological Compliance		From Col (71b) Table 12
(8c)	Water Quality Complaints (per 1000 properties)		From Col (73) Table 12
	Sewerage		
(9)	Revenue ($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 (per 100km of main)	All overflows, whether reported to environmental regulator or not.	From Col (25) Table 15
(11)	Sewage Odour Complaints (per 1000 properties)	Sum of odour complaints from all sewage treatment works.	From Col (61) Table 17
(12)	Recycled Water (%)	Percent of Effluent Recycled	From Col (41c) Table 15
(12a)	Recycled Water (ML)	Total Effluent Recycled	From Col (41a) Table 15
	Water Supply and Sewerage		
(13a)	Net Profit After Tax ($M)		Col (32) Table 5A ÷ 1000
(13b)	Typical Residential Bill ($/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 (68) 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 ($/property)		Col (24B) Table 5A
(19c)	Capital Expenditure ($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 tables 5A and 5B

5A. 2009/10 NSW Water Utility Performance Summary

Column No.	Performance Indicator	Background to Formula	Formula
	Water Supply & Sewerage		
(23)	Operating Cost (OMA) ($/property)	Total water supply and sewerage operation, maintenance and administration (OMA) costs (excluding cost of purchasing water) divided by number of connected properties. OMA includes engineering and supervision costs.	Col (67) Table 11 + Col (52) Table 16
(24)	Income per Property ($/property)	Total income divided by total connected properties (water or sewerage)	(24a) ÷ Col (15) Table 6
(24a)	Total Income ($M)	Total income plus gain/loss on disposal of assets less grants for acquisition of assets less interest income.	$[(W_{13} + W_{14} - W_{11a} - W_9) + (S_{14} + S_{15} - S_{12a} - S_{10})]$
(24b)	Capital Expenditure ($/property)	Assets, Renewals, Plant/Equipment.	Col (24B) Table 5A
(24c)	Return on Assets (%)		
(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.	$[(W_{15} - W_9 - W_{11a} - W_{14} + W_{4a} + W_{4b} + W_{4c}) + (S_{16} + S_{4a} + S_{4b} + S_{4c} - S_{10} - S_{12a} - S_{15})]$ x 100 ÷ $(S_{34}+W_{33})$
(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.	$[(W_{36} + W_{38} - W_{30}) + (S_{37} + S_{39} - S_{31})]$ x 100 ÷ $(W_{44}+ S_{45})$
(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.	$[(W_{15} - W_9 - W_{11a} + W_{4a}) + (S_{16} - S_{10} - S_{12a} + S_{4a})]$ ÷ $(W_{4a} - W_9 + S_{4a} - S_{10})$
(29)	Dividend Payable		From SPFR Notes 2 & 3
(30)	CSOs ($'000)	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 $60.	
(31)	% Revenue from CSOs	Revenue from CSOs divided by the total revenue (including CSOs).	
(32)	Net Profit After Tax (NPAT) ($'000)	Surplus before dividends less tax paid.	$(W_{15a} + S_{16a})$ - Tax paid
(32a)	NPAT Ratio	Net profit after tax divided by Total Income.	(32) ÷ [(24a) x 1000] x 100

5B. 2009/10 NSW Water Utility Performance Summary

Column No.	Performance Indicator	Background to Formula	Formula
	Water Supply & Sewerage		
(33)	Billing Complaints (per 1000 properties)	Billing complaints for both water supply and sewerage businesses.	$(Q_{99\ Water} + Q_{37\ sewerage})$ ÷ Col (20) Table 9
(34)	% of calls answered by Operator within 30 seconds	Proportion of calls that, where the customer has selected a relevant operator option, are answered by an operator within 30 seconds.	W_{103}
(35a)	Greenhouse Gas Emissions - Water (tonnes CO2 per 1000 properties)		W_{148}
(35b)	Greenhouse Gas Emissions - Sewerage (tonnes CO2 per 1000 properties)		S_{80a}
(35c)	Greenhouse Gas Emissions - Other (tonnes CO2 per 1000 properties)		$W_{148b} + S_{80b}$
(35d)	Greenhouse Gas Emissions - Total (tonnes CO2 per 1000 properties)		$W_{148} + S_{80a} + W_{148b} + S_{80b}$

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. $Q_{99\ Water}$) 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 - 2009/10 Charges, 2010/11 Bills

Column No.	Performance Indicator	Background to Formula	Formula
(2)	Fixed Charge (or Minimum) ($)	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 2010/11 ($/Equivalent Tenement (ET))	Upfront infrastructure contribution for new developments.	Q_{136} (see notes C & D)
(8)	Typical Residential Bill 2010/11 ($/assessment) (see note D)	Calculated using the average residential water supplied for 2009/10 multiplied by the usage charges for 2010/11 plus the access charge for 2010/11.	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).	$W_{6b} \times 100 \div [W_{6a} + W_{6b}]$
(14a)	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]
(14b)	Average Annual Residential Water Supplied (potable + non potable) (kL/property)	Average annual residential water supplied (potable and non potable).	[Col(1) + Col(11) + Col(12a) Table 8] ÷ [Cols(18) x (21) x (22) Table 9]
(14c)	Average Annual Residential Water Supplied (potable + non potable) (L/c/d)	Average annual residential water supplied per capita per day.	[Col(1) + Col(11) + Col(12a) Table 8] ÷ [Col(23) Table 9]
(14d)	Full Cost Recovery? (N / Y* / Y)		
(15)	Total 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 - 2009/10 Charges, 2010/11 Bills

Column No.	Performance Indicator	Background to Formula	Formula
(1)	Fixed Charge (or Minimum) ($)	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)	Access Charge 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
(3b)	Trade Waste Usage Charge (c/kL)		From Council's Schedule of Fees and Charges
(4)	Complying 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 2010/11 ($/Equivalent Tenement(ET))	Upfront infrastructure contribution for new developments.	Q_{62} (see notes C & D)
(8)	Typical Residential Bill 2010/11 ($/assessment) (see note D)	Calculated using the access charge for 2010/11 plus, if council has residential sewer usage charges, the average residential water consumption for 2009/10 multiplied by the usage charges and usage factor for 2010/11.	(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.	$[(S_{16} + S_{4a} + S_{4b} + S_{4c} - S_{10} - S_{12a} - S_{15})] \times 100 \div (S_{48})$
(11a)	Full Cost Recovery? (N / Y* / Y)		
(11b)	Recycled Water Usage Charge in place? (c/kL)		
(12)	Connected Properties (No.)	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 tables 8 and 9

8. 2009/10 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)	Real Loss (Leakage) (see note C)	Leakage. Real loss is included in water losses.	Q_{68}
(8a)	Apparent Loss	Illegal use plus meter inaccuracies	Q_{67}
(8b)	Unbilled Authorised Consumption (see note C)	Includes fire fighting and flushing.	Q_{61}
(9)	Total Non-revenue Water	Sum unbilled authorised consumption plus water losses	(8b) + (8a) + (8) or (7) / 0.9 - (7)
(10)	Total Potable Urban Water Supplied	Sum of Total Revenue water plus Total Non-revenue water.	(7) + (9)
(11)	Recycled Water for Non-Potable Urban Residential Water Supply	The volume of recycled water should be consistent with the volume shown in Q22 and Q23 of the Sewerage Treatment Report.	$Q_{22} + Q_{22}$ (sewerage treatment)
(11a)	Recycled Water for Urban Non-Residential	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)
(11b)	Recycled Water - Non-Urban		Col(11b) Table 8
(11c)	Recycled Water - Total		Col(11) + Col(11a) + Col(11b) Table 8
(12a)	Non-Potable Urban Residential Water Supplied		Col(11) + Col(12a) Table 8
(12b)	Non-Potable Urban Non-Residential Water Supplied		Col(11a) + Col(12b) Table 8
(12c)	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}
(15)	Surface Water	Surface water plus ground water plus bulk purchases should equal total annual water consumption.	Q_{41} to Q_{44}
(16)	Groundwater		Q_{45}
(16b)	Recycled Water		
(17)	Bulk Purchase	Potable plus non-potable	$Q_{48} + Q_{49}$
(17b)	Total Sourced Water	Excluding non-urban recycled.	Col(15) + Col(16) + Col(16b) + Col(17) Table 8

9. Water Supply - 2009/10 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	
(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	
(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	
(22a)	Connected Residential Properties (No.)		Col(18) x Col(21) x Col(22) Table 9
(22b)	New Residential Dwellings Connected (%)		Q_{31} ÷ Col(22a) Table 9
(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 (% of permanent)		Q_{2}
(25)	Transfer Mains (km)		Q_{20a}
(25a)	Trunk and Reticulation Mains (km)	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 providing full treatment.	Q_{17}
(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 Expenditure ($/property)		Col(31a) x 1,000,000 ÷ Col(20) Table 9
(31a)	Capital Expenditure (Total $M)		Col(31a) Table 9
(31b)	Capital Works Grants ($'000)		Col(31b) Table 9
(32)	Total Workforce (water supply) (Employees/1000 properties)	Equivalent full time employees involved with water supply.	Q_{120}
(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}
(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}
(40a)	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 - 2009/10 Asset Management

Column No.	Performance Indicator	Background to Formula	Formula
(41)	Real Losses (Leakage) (L/d/c)	Real loss or leakage L per day per connection.	Q_{68} ÷ 365 ÷ column (18a) Table 9
(41a)	Real Losses (Leakage) (kL/km/d)		
(41b)	Infrastructure Leakage Index (ILI)	Ratio of Current Annual Real Loss to Unavoidable Annual Real Loss	
(41c) (41d) (41e)	Reservoir Drop Test (Type) (Year) (Result %)	Whether Drop Test undertaken, the year and the result of the test.	
(42)	Main Breaks (per 100km of main)	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} ÷ (Q_{22} ÷ 100)
(43)	Unplanned Interruptions to Supply (per 1000 properties)	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 (km/100km)	Length of mains rehabilitated per 100km of main.	Q_{23} ÷ (Q_{22} ÷ 100)
(45)	Rehabilitation of service connections (%)	Number of service connections rehabilitated as % of total.	Q_{24} x 100 ÷ Col(20) Table 9
(45a)	Rehabilitation of water meters (%)	Number of water meters rehabilitated as % of total.	
(46)	Renewals ($'000 per 100km of main)	Expenditure on renewals of mains per 100km of main.	W_{16c} ÷ (Q_{22} ÷ 100)
(47)	Renewals (% of CRC)	Expenditure on renewals of mains as percentage of Current Replacement Cost (CRC) of systems assets.	W_{16c} x 100 ÷ (Col(61) Table 11 x 1000)
(48)	Mains Maintenance Cost ($'000/100km of main)	Expenditure on maintenance of mains per 100km of main.	W_{2d} ÷ (Q_{22} ÷ 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} ÷ [Col(49) ÷ 365]
(56)	Average Annual Residential Water Supplied (Potable + Non Potable) (kL/property)	Average annual residential consumption (potable + non potable).	[Col(1) + Col(11) + Col(12a) Table 8] ÷ [Cols(18) x (21) x (22) Table 9]
(56a)	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 - 2009/10 Financial, Efficiency

Column No.	Performance Indicator	Background to Formula	Formula
(57)	Total Revenue (excl Capital Works Grants) ($'000)	Total Revenue excluding grants for acquisition of assets, interest income and gain/loss from disposal of assets [Residential Charges + Non-residential Charges + Extra Charges + Other Revenues + Grants (excluding for Acquisition of Assets) + Contributions (Developer Charges + Developer Provided Assets + Other Contributions)].	(W_{13} - W_9- W_{11a}) ÷ 1000
(57a)	Revenue per property ($)		
(58)	Residential Revenue (% of rates and charges total)	Where an LWU has not reported a breakdown of revenue from rates and charges and sales into residential and non-residential, the percentage revenue for such LWUs has been estimated from the reported percentages of similar LWUs.	(W_{6a} + W_{6b}) x 100 ÷ (W_6 + W_7)
(58a)	Residential Revenue (% of usage charges)		
(59)	Residential Water Supplied (% of potable water supplied excluding water losses)	% of potable water excluding water losses.	(Q_{54} ÷ (Q_{62})) x 100
(60)	Written Down Replacement Cost ($M)	Written down replacement cost of system assets.	W_{47} ÷ 1,000
(61)	Current Replacement Cost (CRC) of System Assets ($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} ÷ 1,000
(62)	Current Replacement Cost per Assessment ($)	The value of the infrastructure assets divided by the number of assessments.	W_{45} ÷ Col(18) Table 9
(63)	Net Debt to Equity (%)	All overdrafts, repayable borrowings, interest bearing non-repayable borrowings, advances and leases less cash and investments divided by total equity.	(W_{36} + W_{38} - W_{30}) x 100 ÷ W_{44}
(63a)	Economic Real Rate of Return (%)	From column (12) Table 6.	
(63b)	Return on Assets (%)	From column (11) Table 6.	
(64a)	Cross Subsidies (Annual Charges & Fees) ($/assessment)	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}) ÷ Col(18) Table 9
(64b)	Cross Subsidies (Developer Charges) ($/assessment)	Cross subsidies in water supply developer charges.	(W_{28b}) ÷ Col(18) Table 9
(65)	Operating Result ($/property)	Total revenue less total expenses less grants for acquisition of assets divided by total number of connected properties.	(W_{15a}) ÷ Col(20) Table 9
(66)	Externalities ($/property)	Water fees paid by LWUs to DEUS.	From DEUS records
(66a)	Loan Payment ($/property)		
(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 + $W_{2(a\ to\ n)}$] ÷ Col(20) Table 9 plus bulk suppliers OMA
(68)	Management Cost ($/property)	Total management costs divided by total number of connected properties.	W_1 ÷ 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 - 2009/10 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
(69a)	Risk Based Drinking Water Quality Plan - Basis (e.g. ADWG, HACCP)		
(69b)	Risk Based Drinking Water Quality Plan - External Assessment? (Y/N)		
(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 microbiological 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
(71b)	% of Population with Microbiological Compliance	From population served and compliance achieved by each zone.	
(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
(75a)	Customers with Restrictions for Non-payment of Bills (per 1000 properties)		Q_{132} x 1000 ÷ Col(20) Table 9
(75b)	Customers with Legal Action for Non-payment of Bills (per 1000 properties)		
(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 (minutes)	Average duration of unplanned interruptions.	Q_{107}
(78a)	Drought Water Restrictions (% of time)	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 - 2009/10 Benchmarking Cost Data

Column No.	Performance Indicator	Background to Formula	Formula
(79)	Operating Cost Components - Maintenance ($/property)	Maintenance cost of all water system assets.	$[W_{2b} + W_{2d} + W_{2f} + W_{2i} + W_{2l} + W_{2n}]$ ÷ Col (20) Table 9
(79a)	Total O&M Cost ($/property)		Col(79) + Col(80) + Col(81) + Col(82) + Col(82a) Table 13
(80)	Operating Cost Components - Operation ($/property)	Operation cost of all water system assets.	$[W_{2a} + W_{2c} + W_{2e} + W_{2g} + W_{2j} + W_{2m}]$ ÷ Col (20) Table 9
(81)	Operating Cost Components - Energy ($/property)	Energy cost of water pumping and treatment.	$[W_{2h}]$ ÷ Col(20) Table 9
(82)	Operating Cost Components - Chemicals ($/property)	The chemicals cost for water treatment.	$[W_{2k}]$ ÷ Col(20) Table 9
(82a)	Operating Cost Components - Bulk Purchase ($/property)		
(83)	Operating Cost Components - Dams & Weirs ($/property)	Operation and Maintenance cost of dams and weirs.	$[W_{2a} + W_{2b}]$ ÷ Col(20) Table 9
(84)	Operating Cost Components - Mains ($/property)	Operation and Maintenance cost of water mains.	$[W_{2c} + W_{2d}]$ ÷ Col(20) Table 9
(85)	Operating Cost Components - Reservoirs ($/property)	Operation and Maintenance cost of reservoirs.	$[W_{2e} + W_{2f}]$ ÷ Col(20) Table 9
(86)	Operating Cost Components - Pumping Stations ($/property)	Operation and Maintenance cost of water pumping stations.	$[W_{2g} + W_{2h} + W_{2i}]$ ÷ Col(20) Table 9
(87)	Operating Cost Components - Water Treatment ($/property)	Operation and Maintenance cost of water treatment works.	$[W_{2j} + W_{2k} + W_{2l}]$ ÷ Col(20) Table 9
(88)	Operating Cost Components - Other ($/property)	Operation and Maintenance cost of other water system assets.	$[W_{2m} + W_{2n} + W_{2o}]$ ÷ Col(20) Table 9
(89)	Management Cost Components - Administration ($/property)	From special schedule No. 3.	$[W_{1a}]$ ÷ Col(20) Table 9
(90)	Management Cost Components - Engineering & Supervision ($/property)	From special schedule No. 3.	$[W_{1b}]$ ÷ Col(20) Table 9
(91)	Management Cost Components - Total (c/kL)	From special schedule No. 3.	$[W_{1a} + W_{1b}]$ x 100 ÷ Col(49) Table 10
(91a)	Management Cost Components - Total ($/property)		
(91b)	Total OMA Cost ($/property)		Col(92) + Col(93) Table 13
(92)	Headworks Component ($/property)	From the headworks component estimated in the reporting forms.	$[W_1 + W_2]$ x Q_{18a} ÷ Col(20) Table 9
(93)	Distribution Component ($/property)	From the distribution component estimated in the reporting forms.	$[W_1 + W_2]$ x Q_{18b} ÷ Col(20) Table 9
(94)	Pumping Cost Components - Total Water Pumping Cost (c/kL)	From special schedule No. 3.	$[W_{2g} + W_{2h} + W_{2i}]$ x 100 ÷ Col(49) Table 10
(95)	Pumping Cost Components - Total Water Pumping Cost ($'000/pumping station)	From special schedule No. 3.	$[W_{2g} + W_{2h} + W_{2i}]$ ÷ 1000 ÷ Col(30) Table 9
(96)	Pumping Cost Components - Operation ($'000/pumping station)	From special schedule No. 3.	$[W_{2g}]$ ÷ 1000 ÷ Col(30) Table 9
(97)	Pumping Cost Components - Maintenance ($'000/pumping station)	From special schedule No. 3.	$[W_{2i}]$ ÷ 1000 ÷ Col(30) Table 9
(98)	Pumping Cost Components - Energy ($'000/pumping station)	From special schedule No. 3.	$[W_{2h}]$ ÷ 1000 ÷ Col(30) Table 9
(100)	Water Main Cost Components - Total Water Main Cost (c/kL)	From special schedule No. 3.	$[W_{2c} + W_{2d}]$ x 100 ÷ Col(49) Table 10
(101)	Water Main Cost Components - Total Water Main Cost ($'000/100km)	From special schedule No. 3.	$[W_{2c} + W_{2d}]$ x 100 ÷ Col(25) Table 9
(102)	Water Main Cost Components - Operation ($'000/100km)	From special schedule No. 3.	$[W_{2c}]$ x 100 ÷ Col(25) Table 9
(103)	Water Main Cost Components - Maintenance ($'000/100km)	From special schedule No. 3.	$[W_{2d}]$ x 100 ÷ Col(25) Table 9
(104)	Treatment Cost Components - Total Water Treatment Cost ($/ML)	From special schedule No. 3.	$[W_{2j} + W_{2k} + W_{2l}]$ x 1000 ÷ Col (49) Table 10
(105)	Treatment Cost Components - Operation ($/property)	From special schedule No. 3.	$[W_{2j}]$ ÷ Col(20) Table 9
(106)	Treatment Cost Components - Maintenance ($/property)	From special schedule No. 3.	$[W_{2l}]$ ÷ Col(20) Table 9
(107)	Treatment Cost Components - Chemical ($/property)	From special schedule No. 3.	

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.	
(5a)	Connected Residential Properties		Col(1) x Col(4) x Col(5) Table 14
(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 (% of permanent)		Q_2
(8)	Mains (km)	Total length of sewer mains including reticulation, gravity and rising mains.	Q_9
(9)	Properties Served per km of main	Total number of connected properties divided by length of mains.	Col(3) ÷ Col(8)
(10)	Sewage Treatment Works (No.)	Number of treatment works.	Q_3
(11)	Pumping Stations	Number of sewage pumping stations.	Q_5
(12)	Pumping Stations per 100km of main	Number of pumping stations divided by length of main.	Col(11) ÷ Col(8) ÷ 100
(13)	Capital Expenditure ($/property)	Assets, renewals, plant/equipment.	
(13a)	Capital Expenditure ($M)	Assets, renewals, plant/equipment.	
(13b)	Capital Works Grants ($'000)		
(14)	Total Workforce (water supply) (Employees/1000 properties)	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}
(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}
(22a)	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 table 15 and 16

15. Sewerage - 2009/10 Asset Management

Column No.	Performance Indicator	Background to Formula	Formula
(23)	Infiltration (ML per 100km of main)	Estimated groundwater infiltration and stormwater inflow into the system per 100km of main.	$Q_{22} \div (Q_9 \div 100)$
(24)	Breaks and Chokes (No. per 100km of main)	Breaks and chokes 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 (No. per 100km of main)	Recorded overflows in sewers, access chambers and pumping stations. Overflows in risers and sidelines are excluded.	$Q_{63a} \div (Q_9 \div 100)$
(27)	Rehabilitation of mains (% of total length)	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 ($'000 per 100km of main)	Expenditure on renewals of mains per 100km of main.	$S_{17c} \div (Q_9 \div 100)$
(30)	Renewals (% 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 ($'000 per 100km of main)	Expenditure on maintenance of mains per 100km of main.	$S_{2b} \div (Q_9 \div 100)$
(31a)	Overflows Reported to Regulator (No. per 100km of main)		$Q_{63b} \div (Q_9 \div 100)$
(32)	Total Volume of Sewage Collected (ML)	Total volume transported through sewerage network.	Q_{26}
(32a)	Volume of Trade Waste (ML)		Q_{34}
(33)	Percentage of Sewage Treated (%)	% of total sewage collected.	$(Q_{18} + Q_{19})$ x 100 ÷ Q_{26}
(33a)	% Sewage Treated that was Compliant		
(33b)	STWs Compliant at all times		
(34)	Percentage of Total Sewage Collected - Infiltration	% of total sewage collected.	Q_{31} x 100 ÷ Q_{26}
(35)	Percentage of Total Sewage Collected - Residential	% of total sewage collected.	Q_{32} x 100 ÷ Q_{26}
(36)	Percentage of Total Sewage Collected - Non-residential	% of total sewage collected.	Q_{33} x 100 ÷ Q_{26}
(37)	Percentage of Total Sewage Collected - Trade Waste	% of total sewage collected.	Q_{34} x 100 ÷ Q_{26}
(38)	Percentage of Total Sewage Collected - Other	Remainder not reported under columns (34), (35), (36) or (37). % of total sewage collected.	100 - (34) - (35) - (36) - (37)
(39)	Volume of Sewage Collected per property (kL/property)		$(Q_{18} + Q_{19})$ x 100 ÷ Col(3) Table 14
(39a)	Level of Treatment - Primary Level (%)		
(39b)	Level of Treatment - Secondary Level (%)		
(39c)	Level of Treatment - Tertiary Level (%)		
(40)	Biosolids Reused (%)	% of biosolids (sludge) to farmland, landfill etc.	Q_{27}
(41a)	Effluent Recycled - Total (ML)		Q_{25}
(41b)	Effluent Recycled - Urban Water (ML)		$Q_{21} + Q_{22} + Q_{23} + Q_{24} + Q_{24a}$
(41c)	% of Effluent Recycled		100 x Q_{25} ÷ Col(32)

16. Sewerage - 2009/10 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, interest income and gain/loss on disposal of assets [Residential Charges + Non-residential Charges + Trade Waste Charges + Extra Charges + Other Revenues + Grants (excluding receipts from government for Acquisition of Assets) + Contributions (Developer Charges +	$(S_{14} - S_{10} - S_{12a}) \div 1000$
(42a)	Revenue per property ($)		[Col(42) Table 16] ÷ [Col(3) Table 14]
(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 ÷ $(S_6 + S_7 + S_8)$
(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 per 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)	Return on Assets (%)	From column 9 Table 7.	
(48b)	Economic Real Rate of Return (%)	From column 11 Table 7.	
(49a)	Cross Subsidies (Annual Charges & Fees) ($/assessment)	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) ($/assessment)	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 ($/property)	Sewage treatment works licence fees paid by LWU.	From DEC records
(51a)	Loan Payment ($/property)		
(52)	Operating Cost OMA ($/property)	Total operation, maintenance and administration costs divided by total number of connected properties.	$[S_1 + S_{2(a\ to\ m)}] \div$ Col(3) Table 14
(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 - 2009/10 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 (mg/L)	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 (mg/L)	Some councils only have 100 percentile licence limits for their treatment works. In this case the 100 percentile limits should be reported.	see note D
(59)	Sewer Main Chokes and Collapses	See Column (24) on Table 15.	$Q_{64} \div (Q_9 \div 100)$
(59a)	DEC Licence Compliance N (%)		see note C
(59b)	DEC Licence Compliance P (%)		see note C
(59c)	DEC Licence Compliance Oil & Grease (%)		see note C
(59d)	DEC Licence Compliance Faecal Coliform (%)		see note C
(59e)	Sewage Treated that was Compliant (%)	Percent of sewage volume treated that was compliant.	
(59f)	STWs Compliant at all times		
(60)	Compliance with Environmental Regulator (Y/N)		see note D
(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
(65)	Average Sewerage Interruption (minutes)	Sum of total minutes of interruption divided by the total number of interruptions.	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 - 2009/10 Benchmarking Cost Data

Column No.	Performance Indicator	Background to Formula	Formula
(66a)	Total O&M Cost ($/property)		
(66)	Operating Cost Components - Maintenance ($/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
(69a)	Operating Cost Components - Effluent & Biosolids ($/property)		
(70)	Operating Cost Components - Mains ($/property)	Operation and Maintenance cost of sewage mains.	$[S_{2a} + S_{2b}] \div$ Col(3) Table 14
(71)	Operating Cost Components - Pumping Stations ($/property)	Operation and Maintenance cost of sewage pumping stations.	$[S_{2c} + S_{2d} + S_{2e}] \div$ Col(3) Table 14
(72)	Operating Cost Components - Sewage Treatment ($/property)	Operation and maintenance cost of sewage treatment.	$[S_{2f} + S_{2g} + S_{2h} + S_{2i} + S_{2j} + S_{2k}] \div$ Col(3) Table 14
(73)	Operating Cost Components - Other ($/property)	Operation and maintenance cost of other sewerage system assets.	$[S_{2l} + S_{2m}] \div$ Col(3) Table 14
(74)	Management Cost Components - Administration ($/property)	From special schedule No. 5.	$[S_{1a}] \div$ Col(3) Table 14
(75)	Management Cost Components - Engineering & Supervision ($/property)	From special schedule No. 5.	$[S_{1b}] \div$ Col(3) Table 14
(76)	Management Cost Components - Total (c/kL)	From special schedule No. 5.	$[S_{1a} + S_{1b}] \times 100 \div$ Col(32) Table 15
(76a)	Management Cost Components - Total ($/property)		
(76b)	Total OMA Cost ($/property)		
(77)	Wholesale Component ($/property)	The cost of sewage treatment.	[S2f + S2g + S2h + S2i + S2j + S2k] ÷ Col(3) Table 14
(78)	Retail Component ($/property)	The cost of transportation and reticulation.	[S2a + S2b + S2c + S2d + S2e] ÷ Col(3) Table 14
(79)	Pumping Cost Components - Total Sewage Pumping Cost (c/kL)	From special schedule No. 5.	$[S_{2c} + S_{2d} + S_{2e}] \times 100 \div$ Col(32) Table 15
(80)	Pumping Cost Components - Total Sewage Pumping Cost ($'000/pumping station)	From special schedule No. 5.	$[S_{2c} + S_{2d} + S_{2e}] \div 1000 \div$ Col(11) Table 14
(81)	Pumping Cost Components - Operation ($'000/pumping station)	From special schedule No. 5.	$[S_{2c}] \div 1000 \div$ Col(11) Table 14
(82)	Pumping Cost Components - Maintenance ($'000/pumping station)	From special schedule No. 5.	$[S_{2e}] \div 1000 \div$ Col(11) Table 14
(83)	Pumping Cost Components - Energy ($'000/pumping station)	From special schedule No. 5.	$[S_{2d}] \div 1000 \div$ Col(11) Table 14
(85)	Sewer Main Cost Components - Total Sewer Main Cost (c/kL)	From special schedule No. 5.	$[S_{2a} + S_{2b}] \times 100 \div$ Col(32) Table 15
(86)	Sewer Main Cost Components - Total Sewer Main Cost ($'000/100km)	From special schedule No. 5.	$[S_{2a} + S_{2b}] \times 100 \div$ Col(8) Table 14
(87)	Sewer Main Cost Components - Operation ($'000/100km)	From special schedule No. 5.	$[S_{2a}] \times 100 \div$ Col(8) Table 14
(88)	Sewer Main Cost Components - Maintenance ($'000/100km)	From special schedule No. 5.	$[S_{2b}] \times 100 \div$ Col(8) Table 14
(89)	Treatment Cost Components - Total Sewage Treatment Cost ($/ML)	From special schedule No. 5.	$[S_{2f} + S_{2g} + S_{2h} + S_{2i} + S_{2j} + S_{2k}] \div$ Col(32) Table 15
(90)	Treatment Cost Components - Operation ($/property)	From special schedule No. 5.	$[S_{2f}] \div$ Col(3) Table 14
(91)	Treatment Cost Components - Maintenance ($/property)	From special schedule No. 5.	$[S_{2k}] \div$ Col(3) Table 14
(92)	Treatment Cost Components - Chemical ($/property)	From special schedule No. 5.	$[S_{2g}] \div$ Col(3) Table 14

Notes:

A. References to Q (eg. $Q_{99Water}$) 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: 2009-10 Local water utility TBL performance reports

Shoalhaven City Council water supply – page 1

Shoalhaven City Council | **TBL Water Supply Performance** | **2009-10**

WATER SUPPLY SYSTEM - Shoalhaven City Council serves a population of 90,700 (45,860 connected properties). Water is drawn from the Porters Creek and Shoalhaven River to supply Nowra, Bomaderry, St. Georges Basin, Shoalhaven Heads and Sussex Inlet. Bamarang, Cambewarra, Danjera and Porters Creek Dams have a total storage capacity of 13,360 ML. The Shoalhaven City Council system comprises 2 conventional water treatment works (103 ML/d), 1 microfiltration works at Kangaroo Valley (1.3 ML/d) and 1 direct filtration (10.5 ML/d), 44 service reservoirs (201 ML) 25 pumping stations, 114.8 ML/d delivery capacity into the distribution system, 519 km of transfer and trunk mains and 1042 km of reticulation. 70% of the supply is fully treated (Northern areas) and 30% is unfiltered (chlorinated - Southern areas).

PERFORMANCE - Shoalhaven City Council achieved 100% compliance with Best Practice requirements. The typical residential bill was $286 which was much less than the statewide median of $430 (Indicator 14). The economic real rate of return was 0.4% which was less than the statewide median (Indicator 43). The operating cost (OMA) per property was $274 which was less than the statewide median of $350 (Indicator 49). Water quality complaints were less than the statewide median of 4 (Indicator 25). Compliance with microbiological water quality was 100% with 4 of 4 zones compliant (Indicator 20), physical compliance was 100% (Indicator 19) and chemical compliance was 100% with 4 of 4 zones compliant (Indicator 19b). Current replacement cost of system assets was $472M ($9,500 per assessment), cash and investments were $14.9M, debt was $2M and revenue was $19.7M (excluding capital works grants).

COMPLIANCE WITH BEST- PRACTICE MANAGEMENT GUIDELINES REQUIREMENTS

(1) Complete Current Strategic Business Plan & Financial Plan	**YES**	**(3) Sound water conservation implemented**	**YES**
(2) (2a) Pricing - Full Cost Recovery, without significant cross subsidies	Yes	**(4) Sound drought management implemented**	**YES**
(2b) & (2c) Pricing - Complying Residential Charges	Yes	**(5) Complete performance reporting (by 15 September)**	**YES**
(2c) Pricing - Complying non-Residential Charges	Yes	**(6) Integrated water cycle management strategy**	**YES**
(2d) Pricing - DSP with Commercial Developer Charges	Yes	**COMPLIANCE WITH ALL REQUIREMENTS**	**100%**

TRIPLE BOTTOM LINE (TBL) PERFORMANCE INDICATORS

	NWI	No.			LWU RESULT		RANKING >10,000 properties	RANKING All LWUs	STATEWIDE MEDIAN
							Note 1	Note 2	Note 3
							Col 1	Col 2	Col 3	Col 4
UTILITY – CHARACTERISTICS	C1	1	**Population served: 90700**						
	C4	2	**Number of connected properties: 45860**	Number of assessments: 49850					
	C2	3	**Residential connected properties** (% of total)		92	%			91
		4	**New residences connected to water supply** (%)		1.0	%	3	2	1.0
	A3	5	**Properties served per kilometre of water main**	*Prop/km*	30				32
		6	**Rainfall** (% of average annual rainfall)		69	%	5	5	104
	W11	7	**Total urban water supplied at master meters** (ML)		15,200	*ML*			6,800
		8	**Peak week to average consumption** (%)		126	%	2	1	145
		9	**Renewals expenditure** (% of current replacement cost of system assets)		0.2	%	5	4	0.3
		10	**Employees per 1000 properties**	*per 1,000 prop*	1.3		2	2	1.4
SOCIAL – CHARGES & BILLS - 2009-10	P1		**Residential tariff structure:**	inclining block; independent of land value					
		12	**Residential water usage charge (c/kL) for usage <450 c/kL (Note 5)**		145	*c/kL*	3	2	163
		13	**Residential access charge per assessment** ($)	*$*	75		1	1	130
	P3	14	**Typical residential bill per assessment** ($)	*$*	286		1	1	430
		15	**Typical developer charge per equivalent tenement** ($)	*$*	6,200		2	2	4,700
SOCIAL – HEALTH		18	**Urban population without reticulated water supply** (%)		1.0	%	4	2	0.8
	H6	18a	**Risk based drinking water quality plan?**		Yes				
		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**		4 of 4				
		20	**Microbiological (E. coli) water quality compliance** (%)		100	%	1	1	100
	H3	20a	**% population with microbiological compliance**		100	%	1	1	100
SOCIAL – SERVICE LEVELS	C9	25	**Water quality complaints per 1000 properties**	*per 1,000 prop*	1		2	2	4
	C10	26	**Water service complaints per 1000 properties**	*per 1,000 prop*	0		1	1	3
	C17	27	**Average frequency of unplanned interruptions per 1000 properties**	*per 1,000 prop*	39		3	4	37
	C15	28	**Average duration of interruption** (min)	*min*	112		1	2	159
	A8	30	**Number of water main breaks per 100 km of water main**	*per 100km*	9		3	2	10
		31	**Drought water restrictions** (% of time)		35	%	3	3	87
		32	**Total days lost** (%)		2.4	%	4	4	2.4
ENVIRONMENTAL – NATURAL RESOURCE MANAGEMENT	W12	33	**Average annual residential water supplied per property** (kL)		145	*kL*	1	1	175
		33a	**Average annual residential water supplied - COASTAL** (kL/property)		145	*kL*	2	1	150
		33b	**Average annual residential water supplied - INLAND** (kL/property)			*kL*			252
	A10	34	**Real losses** (leakage) (L/service connection/day)	*L/connectn/d*	70		4	2	70
		35	**Energy consumption per Megalitre** (kiloWatt hours)	*kWh*	683		3	4	670
		36	**Renewable energy consumption** (% of total energy consumption)			%			0
	E12	36a	**Net greenhouse gas emissions - WS & Sge** (net tonnes CO2 - equivalents per 1000 properties)		380		3	3	390
ECONOMIC – FINANCE	F5	40	**Revenue per property** - water ($)	*$*	430		1	1	647
	F4	41	**Residential revenue from usage charges** (% of residential bills)		73	%	3	2	73
	F17	43	**Economic real rate of return** - Water (%)		0.4	%	3	3	0.7
		44	**Return on assets** - Water (%)		0.9	%	2	3	0.9
	F22	45	**Net Debt to equity** - Water (%)		-4	%	4	2	-1.0
	F23	46	**Interest cover** - Water		>100		1	1	4.5
		47	**Loan payment per property** - Water ($)	*$*	14		3	3	55
	F24	47b	**Net profit after tax** - WS & Sge ($'000)	*$'000*	7,320		1	1	0
ECONOMIC – EFFICIENCY		48	**Operating cost (OMA) per 100km of main** ($'000)	*$'000*	827		2	2	1,140
	F11	49	**Operating cost (OMA) per property** ($) (Note 6)	*$/prop*	274		1	1	350
		50	**Operating cost (OMA) per kilolitre** (cents)	*c/kL*	82		1	2	116
		51	**Management cost per property** ($)	*$/prop*	124		3	3	134
		52	**Treatment cost per property** ($)	*$/prop*	39		4	2	39
		53	**Pumping cost per property** ($)	*$/prop*	26		3	2	31
		54	**Energy cost per property** ($)	*$/prop*	19		3	2	18
		55	**Water main cost per property** ($)	*$/prop*	47		3	2	56
	F14	56	**Capital Expenditure per property** ($)	*$/prop*	348		2	2	282

NOTES :

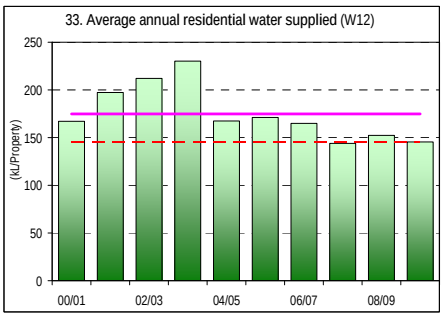
1. The ranking compared with LWUs with >10,000 properties connected properties (Col 2) is on a % of LWUs basis - relevant for comparing performance with similar sized LWUs - see attachment.
2. The ranking compared with all LWUs (Col 3) is on a % of LWUs basis - relevant for comparing performance with 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 4 years.
5. Non-residential Tariff: Access Charge based on Service Connection Size(40mm:$300), Inclining Block ; For usage up to 450 kL = 145 c/kL; for usage >450 kL = 195 c/kL.
   Water supplied to non-residential customers was 46% of potable water supplied excluding non-revenue water.
   Non-residential customers provided 37% of the revenue from annual charges and usage charges.
6. The operating cost (OMA)/property was $274. Components were: management ($124), operation ($84), maintenance ($36), energy ($19) & chemical ($10).

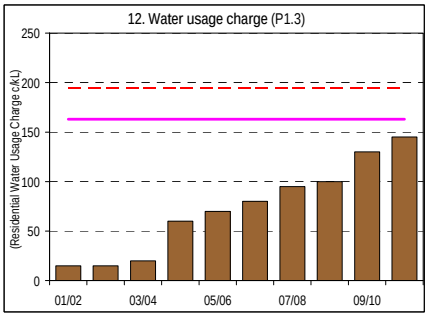
Shoalhaven City Council water supply – page 2

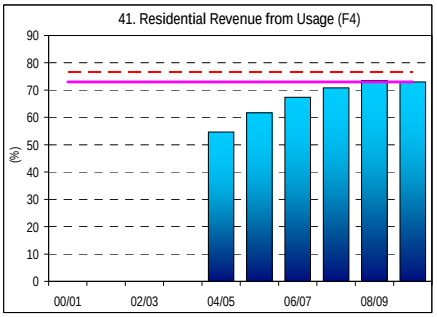
Shoalhaven City Council | **TBL Water Supply Performance (page 2)** | **2009-10**

(Results shown for 10 years together with 2009-10 Statewide Median and Top 20%)

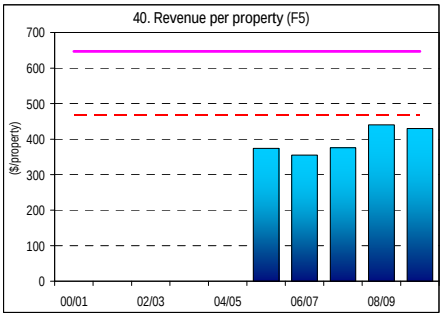
RESIDENTIAL USE/REVENUE FROM USAGE

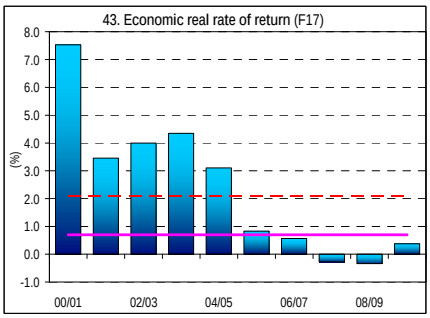


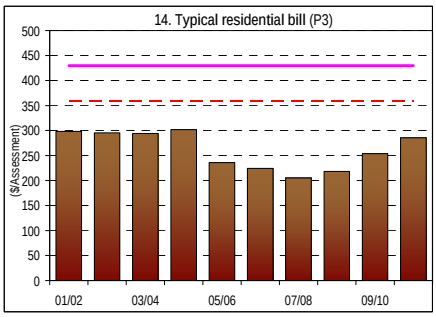




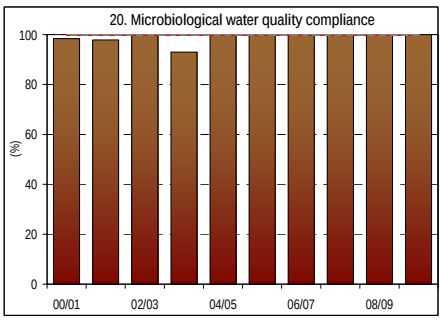
COST RECOVERY

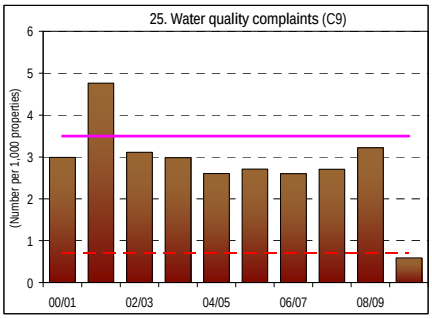


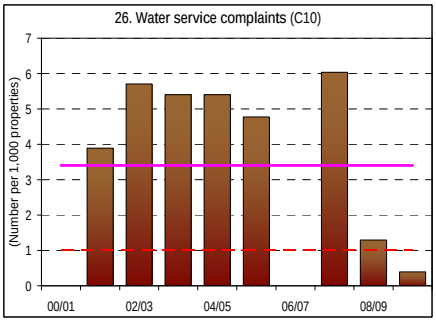




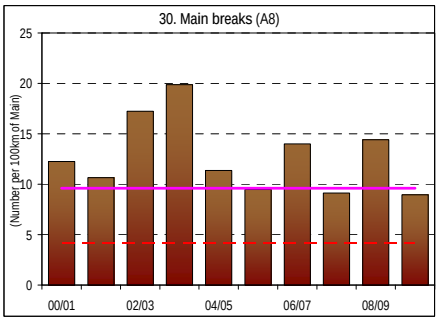
WATER QUALITY/CUSTOMER SERVICE

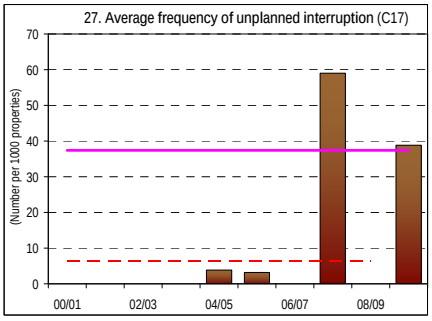


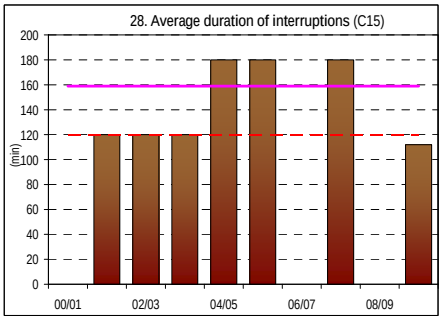




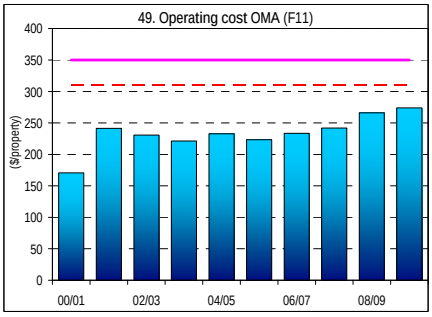
RELIABILITY

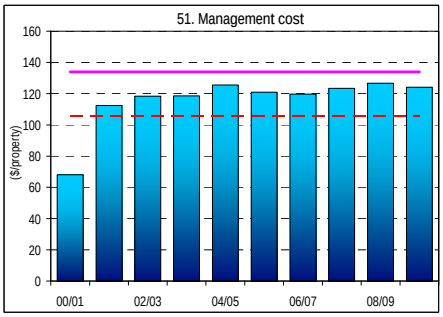






EFFICIENCY





NOTES:

1. Costs are in Jan 2010$.
2. Microbiological water quality compliance 1999-00 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

2009-10 State Median

2009-10 Top 20%

Shoalhaven City Council sewerage – page 1

Shoalhaven City Council | **TBL Sewerage Performance** | **2009-10**

SEWERAGE SYSTEM - Shoalhaven Council has 12 sewage treatment works providing advanced secondary and tertiary treatment. The system comprises 133,800 EP treatment capacity (Intermittent Extended Aeration (Activated Sludge) and Trickling Filter), 221 pumping stations (785 ML/d), 168 km of rising mains and 949 km of gravity trunk mains and reticulation. Treated effluent is recycled by Council's Regional Effluent Management Scheme (REMS). Excess is discharged to ocean and river.

PERFORMANCE - Residential growth for 2009-10 was 1.9% which is higher than the statewide median. Shoalhaven City Council achieved 100% compliance with Best Practice requirements. The typical residential bill was $615 which was above the statewide median of $530 (Indicator 12). The economic real rate of return was similar to the statewide median (indicator 46). The operating cost per property (OMA) was $427 which was above the statewide median of $360 (Indicator 50). Sewage odour complaints were less than the statewide median of 0.6 (Indicator 21). Council did not comply with the SS requirements of the environmental regulator for effluent discharge. The current replacement cost of system assets was $637M ($13,900 per assessment), cash and investments were $11M, debt was $48M and revenue was $32.7M (excluding capital works grants). Council paid a dividend of $0.9M.

COMPLIANCE WITH BEST-PRACTICE MANAGEMENT GUIDELINES REQUIREMENTS

(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		
(2b) Pricing - Complying Residential Charges	Yes	**(3) Complete performance reporting** (by 15 September)	YES		
(2c) Pricing - Complying Non-Residential Charges	Yes	**(4) Integrated water cycle management strategy**	YES		
(2d) Pricing - Complying Trade Waste Fees and Charges	Yes	**COMPLIANCE WITH ALL REQUIREMENTS**	100%		

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	C5	1	**Population served: 80,700**	Number of assessments: 45,720					
		C8	2	**Number of connected properties:**	40,510					
		C6	3	**Number of residential connected properties:**	38,710					
			4	**New residences connected to sewerage** (%)		1.9	%	1	1	0.9
		A6	5	**Properties served per kilometre of main**	*Prop/km*	36				40
		W18	6	**Volume of sewage collected** (ML)		6,950	*ML*			4,900
			7	**Renewals expenditure** (% of current replacement cost of system assets)		0.3	%	3	2	0.3
			8	**Employees per 1000 properties**	*per 1,000 prop*	2.1		5	4	1.6
SOCIAL	CHARGES & BILLS - 2010-11	P4		**Description of residential tariff structure:**	access charge/prop; independent of land value (Note 5)					
		P4.1	11	**Residential access charge / assessment** ($)	*$*	615		3	5	525
		P6	12	**Typical residential bill / assessment** ($)	*$*	615		3	5	530
			13	**Typical developer charge / equivalent tenement** ($)	*$*	7,860		2	1	4,200
			14	**Non-residential sewer usage charge** (c/kL)	*c/kL*	95		4	4	105
	HEALTH		16	**Urban properties without reticulated sewerage service** (%)		2.2	%	3	2	3.9
		E3	17	**Percent of sewage treated to a tertiary level** (%)		58	%	4	3	93
		E4	18	**Percent of sewage volume treated that complied** (%)		83	%	5	4	99
		E5	19	**Sewage treatment works compliant at all times**		10 of 12				
	SERVICE LEVELS		21	**Odour complaints per 1000 properties**	*per 1,000 prop*	0.3		2	4	0.6
		C11	22	**Service complaints per 1000 properties**	*per 1,000 prop*	7		3	2	10
		C16	23a	**Average sewerage interruption** (minutes)		96	*min*	2	3	118
			25	**Total days lost** (%)		3.2	%	3	5	2.5
ENVIRONMENTAL	NATURAL RESOURCE MANAGEMENT	W19	26	**Volume of sewage collected per property** (kL)		171	*kL*	1	1	220
		W26	26a	**Total recycled water supplied** (ML)		2,430	*ML*	1	1	620
		W27	27	**Recycled water** (% of effluent recycled)		35	%	2	2	11
		E8	28	**Biosolids reuse** (%)		100	%	1	1	100
			30	**Energy consumption per Megalitre** (kiloWatt hours)		1,032	*kwh*	5	5	910
			31	**Renewable energy consumption** (% of total energy consumption)		0	%	1	1	0
		E12	32	**Net greenhouse gas emissions - WS & Sge** (net tonnes CO2 equivalents per 1000 properties)		380		4	4	350
	ENVIRONMENTAL PERFORMANCE		33	**90 Percentile licence limits for effluent discharge:** BOD 40 mg/L; SS 40 mg/L						
			34	**Compliance with BOD in licence** (%)		100	%	1	1	100
			35	**Compliance with SS in licence** (%)		83	%	5	5	100
		A12	36	**Sewer main breaks and chokes per 100 km of main**	*per 100km main*	15		1	2	39
		E13	37	**Sewer overflows per 100 km of main**	*per 100km main*	39		5	5	15
			39	**Non res & trade waste % of total sge volume**		17	%	3	3	18
ECONOMIC	FINANCE	F6	42	**Revenue per property** - Sge ($)		810	*$*			680
			43	**Revenue from non-residential plus trade waste charges** (% of total revenue)		14	%	4	4	18
			44	**Revenue from trade waste charges** (% of total revenue)		0.7	%	4	3	2.3
		F18	46	**Economic real rate of return** - Sge (%)		1.6	%	2	2	1.3
			46a	**Return on assets** - Sge (%)		1.1	%	3	3	1.6
		F22	47	**Net Debt to equity** - Sge (%)		8	%	2	1	-2
		F23	48	**Interest cover** - Sge		3		4	4	3
			48a	**Loan payment per property** - Sge ($)		162	*$*	2	1	38
		F24	47b	**Net profit after tax** - WS & Sge ($'000)		7,320	*$'000*			303
	EFFICIENCY		49	**Operating cost (OMA) per 100 km of main** ($'000)		1,520	*$'000*	3	4	1,490
		F12	50	**Operating cost (OMA) per property** ($) Note 8		427	*$*	4	5	360
			51	**Operating cost (OMA) per kilolitre** (cents)		249	*c/kL*	5	5	164
			52	**Management cost per property** ($)		150	*$*	3	5	128
			53	**Treatment cost per property** ($)		110	*$*	1	2	115
			54	**Pumping cost per property** ($)		80	*$*	5	5	55
			55	**Energy cost per property** ($)		24	*$*	2	3	26
			56	**Sewer main cost per property** ($)		52	*$*	4	4	40
		F15	57	**Capital Expenditure per property** ($)		650	*$*	2	1	252

NOTES :

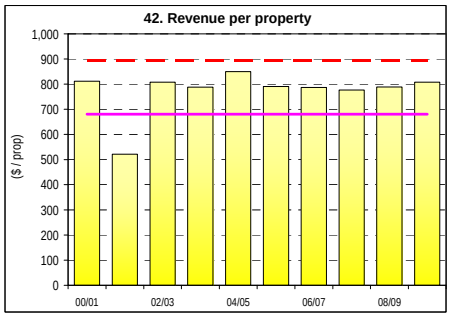
1. Council's ranking in Col 2 is based on a comparison of its result in Col 1 with the percentiles for LWUs with >10,000 properties. This is on a % of LWUs basis - see also Note 2.
2. Council's ranking in Col 3 is based on a comparison of its result in Col 1 with the percentiles for all LWUs. This is also on a % of LWUs basis as this is relevant for comparing the performance of an LWU 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.
4. Annual review of the key projections & actions in your LWU's Strategic Business Plan (SBP) are required, together with annual updating of your LWU's Financial Plan. The SBP should be updated after 4 years.
5. Non-residential: Access Charge based on square of meter size, sewer usage charge - 95c/kL.
6. Non-residential & trade waste volume was 17% of total sewage collected; these customers provided 14% 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 $427. Components were: management ($150), operation ($182), maintenance ($52), energy ($24), chemical ($3) and effluent/biosolids ($16).

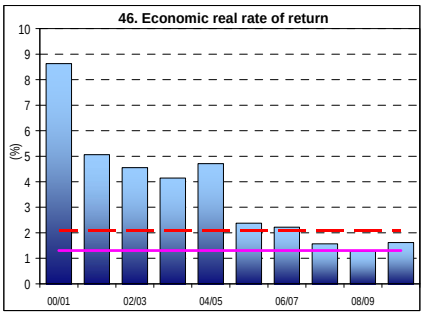
Shoalhaven City Council sewerage – page 2

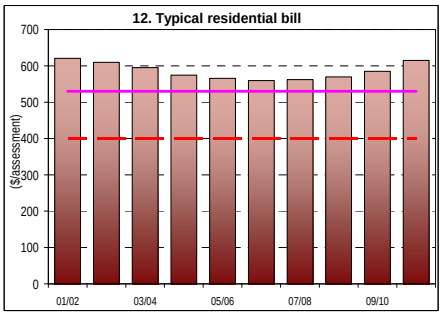
Shoalhaven City Council | **TBL Sewerage Performance** | **(page 2)** | **2009-10**

(Results shown for 10 years together with 2009/10 Statewide Median and Top 20%)

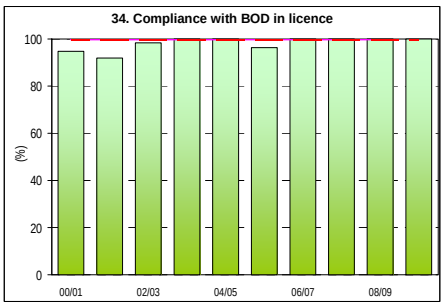
COST RECOVERY

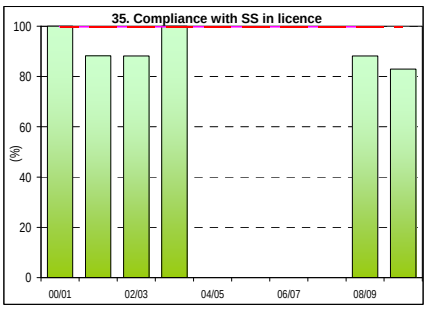


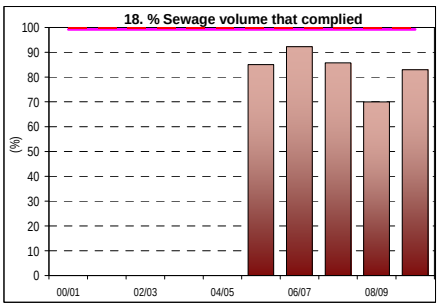




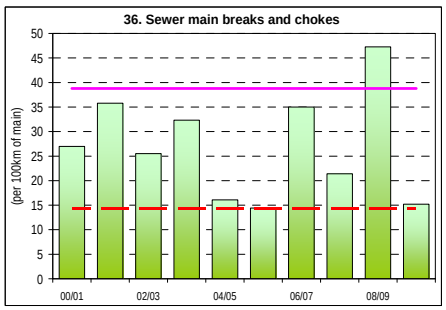
COMPLIANCE

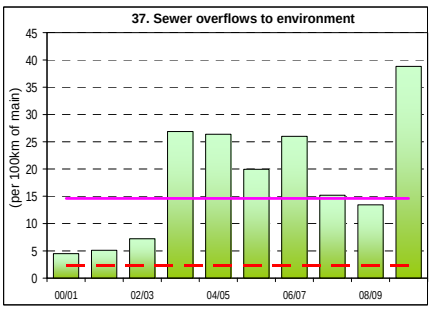


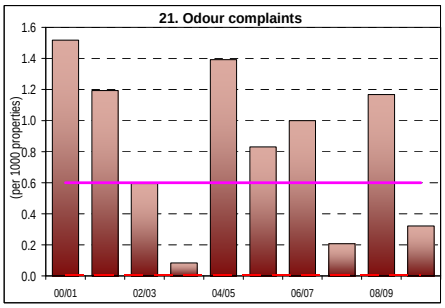




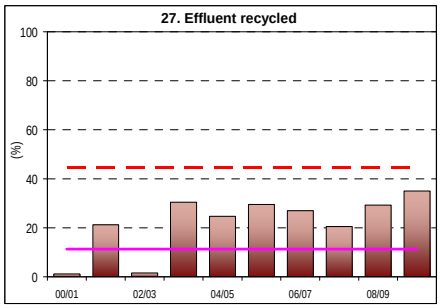
CUSTOMER SERVICE/RELIABILITY

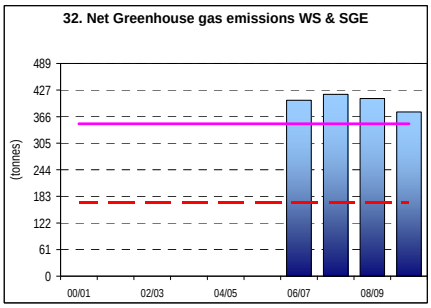


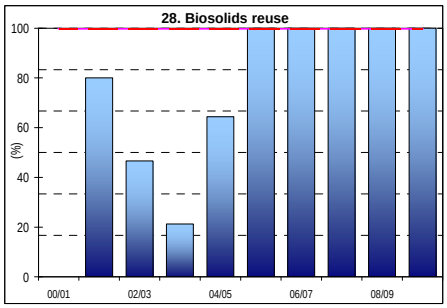




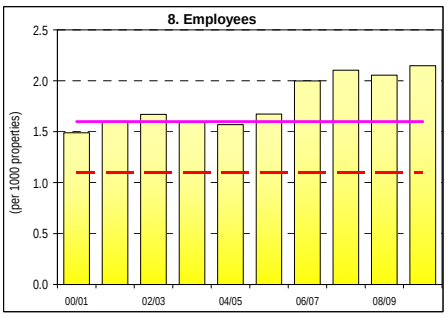
ENVIRONMENT

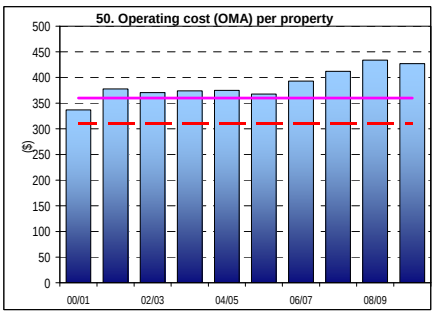


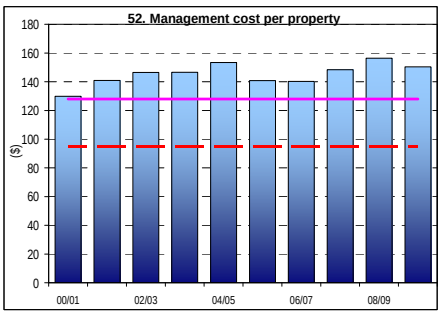




EFFICIENCY







NOTES:

1. Costs are in Jan 2010$.

LEGEND

2009-10 State Median

2009-10 Top 20%

Water performance percentiles (% of LWUs basis) 2009-10

		NSW Non-metropolitan Utilities Percentiles					National Reporting Medians[3]		
		20%	40%	50%	60%	80%		>100,000	< 100,000
	UTILITY CHARACTERISTICS			Median			Indicator	properties	properties
3	**Residential Assessments (% of total)**	91	89	**88**	87	85			
4	**New Residential Dwellings Connected to Water Supply (%)**	1.5	1.0	**0.9**	0.7	0.3			
5	**Properties Served per km of Main**	35	30	**28**	25	17	A3	69	32
6	**Rainfall (% of average annual rainfall)**	127	104	**101**	93	82			
7	**Total Urban Water Supplied (at Master Meters - ML)**	4810	2340	**1590**	1200	670	W11	103,370	8,348
8	**Peak Week to Average Consumption (%)**	140	150	**170**	180	220			
9	**Renewals Expenditure (% of current replacement cost of system assets)**	1.2	0.5	**0.4**	0.3	0.2			
10	**Employees (employees per 1000 properties)**	1.2	1.5	**1.8**	2.1	2.8			
	SOCIAL - Charges/Bills (2010/11)								
12	**Residential Water Usage Charge (c/kL)**	180	145	**135**	120	90	P1.3	157	128
13	**Residential Access Charge ($/assessment)**	130	180	**205**	235	280	P1.2	124	142
14	**Typical Residential Bill ($/assessment)**	410	495	**535**	565	650	P3	418	434
15	**Typical Developer Charge ($/equivalent tenement)**	6400	4500	**4000**	3400	1800			
	SOCIAL - Health								
18	**Urban Population without Reticulated Water Supply (%)**	0.0	1.8	**2.4**	4.1	8.1			
19	**Physical Water Quality Compliance (%)**	100	100	**100**	100	100			
19a	**Chemical Water Quality Compliance (%)**	100	100	**100**	100	100			
20	**Microbiological (E. coli) Water Quality Compliance (%)**	100	100	**100**	100	100			
20a	**Percent Population with Microbiological Compliance**	100	100	**100**	100	100	H3	100	100
	SOCIAL - Levels of Service								
25	**Water Quality Complaints (per 1000 properties)**	0.0	1.1	**1.7**	3.0	5.8	C9	2.2	3.0
26	**Water Service Complaints (per 1000 properties)**	2.3	4.9	**9.1**	16.7	48.0	C10	0.5	3.3
27	**Customer Interruption Frequency (per 1000 properties)**	6	14	**24**	34	51	C17	145	68
28	**Average Duration of Interruption (minutes)**	90	120	**120**	120	180	C15	119	81
30	**Number of Main Breaks (per 100 km of main)**	6	10	**12**	14	23	A8	24	12
31	**Drought Water Restrictions (% of time)**	0	15	**87**	100	100			
32	**Total Days Lost (%)**	0	0	**1**	2	3			
	ENVIRONMENTAL								
33	**Average Annual Residential Supplied (kL/property)**	170	200	**225**	280	435	W12	182	188
33a	**Average Annual Residential Supplied COASTAL (kL/property)**	150	170	**170**	180	195			
33b	**Average Annual Residential Supplied INLAND (kL/property)**	205	255	**305**	340	485			
34	**Real Loss (leakage) (L/service connection/day)**	50	70	**70**	90	120	A10	63	71
35	**Energy Consumption (kWh/ML)**	230	470	**500**	570	830			
36	**Renewable Energy Consumption (% of Total Energy)**	0	0	**0**	0	0			
36a	**Net Greenhouse Gas Emissions - WS & Sge (net tonnes CO2 - equivalents/1000props)**	220	300	**340**	400	470	E12	262	431
	ECONOMIC - Financial								
40	**Revenue per property - Water ($)**	550	640	**670**	730	820	F5	605	641
41	**Residential Revenue from Usage Charges (% of total rates and charges)**	75	70	**60**	60	50	F4	66	64
42	**Current Replacement Cost per Assessment ($)**	16420	14190	**12880**	11700	10110			
43	**Economic Real Rate of Return (%)**	2.2	1.1	**0.6**	0.2	-1.0	F17	3.2	1.9
44	**Return on Assets (%)**	2.7	1.3	**0.6**	0.0	-0.8			
45	**Net Debt to Equity (%)**	-1	-5	**-7**	-8	-16	F22	49	9
46	**Interest Cover**	>100	>100	**8**	1	0	F23	3	3
47	**Loan Payment ($/property)**	85	23	**9**	2	0			
47a	**Net Profit After Tax Ratio - WS & Sge (%)**	23	12	**6**	2	-7	F30	15	14
47b	**Net Profit After Tax - WS & Sge ($)**	215	90	**70**	50	30	F24	65,696	2,775
	ECONOMIC - Efficiency								
48	**Operating Cost (OMA) per 100 km of Main ($'000)**	710	925	**1060**	1185	1510			
49	**Operating Cost (OMA) per property ($/property)**	340	390	**415**	455	535	F11	311	372
50	**Operating Cost (OMA) per kL (c/kL)**	70	100	**107**	120	145			
51	**Management Cost ($/property)**	95	120	**135**	145	180			
52	**Treatment Cost ($/property)**	35	65	**95**	125	160			
53	**Pumping Cost ($/property)**	16	36	**47**	54	83			
54	**Energy Cost ($/property)**	9	19	**28**	31	50			
55	**Water Main Cost ($/property)**	45	62	**68**	86	105			
56	**Capital Expenditure - Water Supply ($/property)**	428	231	**183**	136	51	F28	268	231

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 and in Table 1 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).

3. From the *National Performance Report* 2009-10 which shows performance indicators for 79 Australian urban water utilities with >10,000 properties [Note 19 on page 33].

Sewerage performance percentiles (% of LWUs basis) 2009-10

		NSW Non-metropolitan Utilities Percentiles					National Reporting Medians[3]		
		20%	40%	50%	60%	80%		>100,000	< 100,000
	UTILITY CHARACTERISTICS			Median			Indicator	properties	properties
3	**Residential Assessments (% of Total)**	87	89	**90**	90	93			
4	**New Residential Dwellings Connected to Sewerage (%)**	1.2	0.8	**0.6**	0.5	0.3			
5	**Properties Served per km of Main**	42	36	**35**	34	29	A6	69	40
6	**Volume of Sewage Collected (ML)**	3150	880	**630**	450	240	W18	85,106	4,701
7	**Renewals Expenditure (% of current replacement cost of system assets)**	0.6	0.1	**0.0**	0.0	0.0			
8	**Employees (per 1000 properties)**	1.0	1.5	**1.8**	1.9	2.6			
	SOCIAL - Charges/Bills (2010/11)								
11	**Residential Access Charge ($/assessment)**	360	440	**480**	515	610	P4.1	410	476
12	**Typical Residential Bill ($/assessment)**	360	440	**470**	515	610	P6	444	489
13	**Typical Developer Charge ($/equivalent tenement)**	5340	4120	**3360**	2500	1320			
14	**Non-residential sewer usage charge (c/kL)**	172	135	**112**	103	83			
	SOCIAL - Health								
16	**Urban Properties without Reticulated Sewerage Service (%)**	1	4	**6**	7	12			
17	**Percent of sewage treated to a tertiary level (%)**	100	97	**73**	30	0	E3	95	89
18	**Percent of sewage volume treated that was compliant (%)**	100	100	**100**	93	75	E4	100	98
	SOCIAL - Levels of Service								
21	**Odour Complaints (per 1000 properties)**	0.0	0.0	**0.0**	0.3	1.2			
22	**Service Complaints (per 1000 properties)**	4	11	**16**	23	39	C11	1	4
23a	**Average Duration of Interruptions (min)**	60	60	**90**	120	120	C16	171	98
25	**Total Days Lost**	0	0	**0**	1	3			
	ENVIRONMENTAL								
26	**Volume of Sewage Collected per property (kL)**	3145	875	**625**	450	240	W19	207	214
26a	**Total recycled water supplied (ML)**	729	349	**188**	147	65	W26	5,348	827
27	**Effluent Reclaimed for Recycling (% of total effluent)**	73	25	**17**	11	1	W27	16	18
28	**Biosolids Reuse (%)**	100	0	**0**	0	0	E8	100	100
30	**Energy Consumption (kWh/ML)**	379	635	**734**	864	1030			
31	**Renewable Energy Consumption (% of total energy consumption)**	0	0	**0**	0	0			
32	**Net greenhouse gas emissions - WS & Sge (net tonnes CO2 equivalents per 100**	220	300	**340**	400	460	E12	262	431
	90 Percentile Licence Limits for Effluent Discharge: BOD 35 mg/L; SS 40 mg/L; Total N 25 mg/L; Total P 5 mg/L								
34	**Compliance with BOD in Licence (%)**	100	100	**100**	100	99			
35	**Compliance with SS in Licence (%)**	100	100	**100**	100	86			
36	**Sewerage Main Breaks and Chokes (per 100 km of main)**	10	26	**38**	50	96	A14	43	20
37	**Sewer Overflows to the Environment (per 100 km of main)**	0	2	**3**	6	21	E13	0.4	1.4
	ECONOMIC - Financial								
42	**Revenue per property - Sge ($)**	760	610	**570**	530	420	F6	623	714
43	**Revenue from Non-residential and Trade Waste Charges (% of total rates & c**	26	21	**19**	17	11			
44	**Revenue from Trade Waste Charges (% of total rates & charges)**	3	1	**0**	0	0			
45	**Current Replacement Cost per asssessment ($)**	15600	13500	**12400**	11700	10000			
46	**Economic Real Rate of Return (%)**	2.0	1.2	**0.6**	0.3	-0.7	F18	4.9	2.1
46a	**Return on Assets (%)**	3.1	1.8	**0.9**	0.5	-0.1			
47	**Net Debt to Equity (%)**	-6	-15	**-17**	-22	-41	F22	49	9
48	**Interest Cover**	>100	>100	**4**	2	0	F23	3	3
48a	**Loan Payment ($/property)**	112	42	**19**	6	0			
48b	**Net Profit After Tax Ratio WS & Sge (%)**	23	11	**4**	2	-7	F30	15	14
48c	**Net Profit After Tax WS & Sge ($)**	2134	579	**146**	30	-175	F24	89,400	7,189
	ECONOMIC - Efficiency								
49	**Operating Cost (OMA) per 100 km of Main ($'000)**	820	1040	**1185**	1280	1575			
50	**Operating Cost (OMA) per property ($/property)**	270	310	**340**	360	420	F12	268	366
51	**Operating Cost (OMA) per kL (c/kL)**	120	145	**160**	170	210			
52	**Management Cost ($/property)**	60	98	**108**	126	150			
53	**Treatment Cost ($/property)**	70	110	**120**	120	170			
54	**Pumping Cost ($/property)**	25	35	**40**	50	65			
55	**Energy Cost ($/property)**	15	23	**24**	30	35			
56	**Sewer Main Cost ($/property)**	25	40	**45**	50	70			
57	**Capital Expenditure ($/property)**	590	240	**170**	100	50	F29	214	330

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 other LWUs (throughout the rest of the report and in Table 2 the ***percentage of connected properties*** is used as this is the most judging Statewide performance by giving due weight to larger LWUs and reducing the effect of smaller LWUs).
3. From the *National Performance Report 2009-10* which shows performance indicators for 79 Australian urban water utilities with >10,000 properties [Note 19 on page 33].

Appendix D1: 2009-10 water treatment performance

Water Utility	Source/type (Bulk Supplier)	Water Treatment Works	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		E. coli Zones	E. coli % Pop Compliance			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	Compliant 42m	42n	No. 43	/ 1,000 Props	% 44a	% 44b	days 45	days 46
Albury City Council		Albury	1992	140	DF	7371	49	7	7	1	44	8	1	0.4	16	100	17	94	265	100	330	100	16	81	263	100	1 of 1	100	25	0.5	100	100	0	0
Armidale Dumaresq Council		Armidale	2009	29	C	2704	62	22	1	0	8	1	0	0	365	100	365	100	365	100	365	100	365	100	728	100	1 of 1	100			100	100	0	0
Ballina Shire Council	*bulk purchase (Rous W*	Marom Creek	1977	3	DF	130					11	4	1	0	-	-	94	100	100	100	49	100	49	100	191	100	1 of 1	100	43		100	100	0	0
	dual supply	Euston	1998	0.4	MF	40	350	90	4		50	19	3		52	95	52	99	52	100	52	100	52	100	52	100					100	100		
		Balranald	1988	1	C	139	800	110	5		300	30	2	1	365	98	365	98	52	100	52	100	52	100	46	100			1		100	88		
Balranald Council		Total/Weighted Average (Note 1)		2		179	800	106	5		300	28	3	0.8	417	98	417	98	104	100	104	100	104	100	98	100	2 of 2	100	1	2.3			0	0
Bathurst Regional Council		Bathurst	1989	60	C	6616	365	11	3	1	169	11	1	0	11	100	11	100	11	100	11	100	11	100	167	100	1 of 1	100	245	13.7	92	100	0	0
	unfiltered	Yellow Pinch	1988	25	CH	873			8	3			3	1.2	14	100	14	100	14	100	70	100	364	100	138	100			9		100	99		
	unfiltered	Bega	1987	16	CH	1091			1	1			1	0	12	100	12	100	12	100	60	100	312	100	112	100			20		100	98		
	unfiltered	Brogo	1984	6	CH	381			14	13			5	2	5	100	5	80	5	100	25	100	130	94	91	100			1		100	100		
	unfiltered	Kiah	1972	6	CH	1001			2	2			2	1	2	100	2	100	2	100	10	100	52	100	56	100			1		100	100		
	unfiltered	Bemboka	1988	1	CH	41			5	5			1	1	1	100	1	100	1	100	5	100	26	100	25	100					100	96		
	unfiltered	Tilba	1985	1	CH										-	-	-	-							36	100								
Bega Valley Shire Council		Total/Weighted Average (Note 1)		55		3387			14	3			5	1.1	34	100	34	97	34	100	170	100	884	100	458	100	6 of 6	100	31	2.5			0	0
	groundwater	Bellingen / Seaboard	1993	12	CH	1049			1	1			3	0.7	10	100	10	100	10	100	10	100	10	100	87	100			3		83	95		
		Dorrigo	1993	3	LS	163		30		3		2		0.1	365	-	365	100	368	100	1	100	1	100	87	100					50	100		
Bellingen Shire Council		Total/Weighted Average (Note 1)		15		1212		4	1	1		0	3	0.6	375	3	375	100	378	100	11	100	11	100	174	100	2 of 2	100	3	1.7			0	0
		Tocumwal	1984	7	DAF	417	70	52	5	5	52	20	0.9	0.34	2	100	2	100	2	100	365	100	2	100	49	100					100	94		
		Finley	1977	2	C	291	90	46	5	5	201	99	20	1.3	2	100	2	100	2	100	365	100	12	100	51	100					100	98		
		Berrigan	1990	1	C	219	60	40	5	5	262	54	31	0.5	365	99	365	100	2	100	365	100	12	100	51	100					100	98		
		Barooga	2000	1	DAF	124	150	60	5	5	51	19	2	0.3	2	100	2	100	2	100	365	100	2	100	51	100					100	98		
Berrigan Shire Council	*dual supply*	Total/Weighted Average (Note 1)		11		1051	150	49	5	5	262	49	31	0.6	371	99	371	100	8	100	1,460	100	28	100	202	100	4 of 4	100					2	0
Bogan Shire Council	*river abstraction (State V*	Nyngan	1984	9	C	-			5	5	64	15	2	0	365	98	365	98	365	98	52	100	6	100	54	100	1 of 1	100	-		100	100	0	0
		Bombala	1983	3	C	21					1		1		-	-	1	100	52	100	52	100	52	100	49	100					100	94		
		Delegate		1	CH	170									-	-	-	-	52	100	52	100	52	100	52	100					100	100		
Bombala Council		Total/Weighted Average (Note 1)		5		191					1		1				1	100	104	100	104	100	104	100	101	100	2 of 2	100		1.2			0	0
Boorowa Council		Boorowa	1993	3	C	241	144	35	5	5	50		1	0	5	100	2	100	52	100	52	100	52	100	50	100	1 of 1	100			100	96	0	0
Bourke Shire Council	*dual supply*	Bourke	1988	3	C	547			3	4	1,500	350	4	0.7	12	100	365	90	365	100	13	100	365	100	52	96	0 of 1		4	4.2	100	100	0	0
		Brewarrina	1990	1	C	203			4	1			1	0.5	2	100	2	100	2	100	2	100	2	100	41	100					100	79		
	dual supply	Goodooga	1996	1	CH	40			2	2			0	0.2	2	100	2	100	2		2	100	2	100	26	96					100	100		
Brewarrina Shire Council		Total/Weighted Average (Note 1)		2		243			4	1			1	0	4	100	4	100	4	50	4	100	4	100	67	100	1 of 2	84					0	0
Byron Shire Council	*bulk purchase (Rous W*	Mullumbimby	1970	3	C	392	67	24	23	1	38	7	3	0	46	100	325	100	52	96	52	100	52	100	52	100	1 of 1	100	2	0.4	100	100	0	0
		Molong	1986	2	C	194			1	1	5	2	1	1	2	100	53	100	53	100	2	100	2	100	51	100					100	98		
	non-potable	Cumnock	1971	1	CH	22			3	3			4	3	1	100	3	100	12	100	1	100	1	100	11	91					50	92		
	non-potable groundwater	Yeoval	1964	1	CH	35			1	1			4	3	1	100	3	100	11	100	1	100	1	100	11	100					50	92		
	non-potable groundwater	Delgany	1977	0.3	CH	3			1	1			2	1	1	100	14	100	14	100	1	100	1	100	14	93					50	100		
Cabonne Council		Total/Weighted Average (Note 1)		4		254			1	1	5	2	1	1	5	100	73	100	90	100	5	100	5	100	87	100	2 of 3	87		3.5			5	0
		Hillston	2002	10	CH	434			1	1			1	0.4	2	100	2	100	51	98	2	100	2	100	51	100			2		100	98		
	non-potable	Rankins Springs	1980	3	U	102	9	9			11	11			1	100	1		1	100	1	100	1	100							50			
	groundwater	Goolgowi/Merriwagga	1995	2	CH	187			1	1			0	0	1	100	1	100	23	100	1	100	1	94	24	100					50	92		
		Carrathool	1989	1	CH	38			1	1			6	4.3	2	100	2	50	13	100	2	100	2	100	14	100					100	100		
	groundwater	Melbergen		2	CH										-	-	-	-		-														
Carrathool Shire Council	*bulk purchase (Murrumb*	Total/Weighted Average (Note 1)		18		761	9	1	1	1	11	2	6	0	6	100	6	67	88	99	6	100	6	100	89	100	3 of 3	87	2	3.9			1	0
		Ivanhoe	-		-	-									-	-	-	-	-	-	1	100	1	100	20	100			-		50	77		
		Wilcannia	-		-	-									-	-	-	-	-	-	2	100	2	100	45	96			-		100	87		
Central Darling Shire Cour	*river abstraction (State V*	Total/Weighted Average (Note 1)																			3	100	3	100	65	97	1 of 2			13.1			0	0
		Carcoar	2002	9	DAF	1238	100	12	2	1	12	5	2.0	0.3	365	100	365	100	365	100	13	100	13	100	202	100			20		100	100		
		Blayney	1966	6	C	506	100	15	2	1	12	5	2	0.5	365	100	365	100	365	100	12	100	12	100	64	100			5		100	100		
Central Tablelands Water		Total/Weighted Average (Note 1)		15		1744	100	13	2	1	12	5	2	0.4	730	100	730	100	730	100	25	100	25	100	266	100	2 of 2	100	25	2.5			0	0
		Rushforth Road (North Coast Water)	1988	70	CH	6217			7	4			19	1.7	23	100	42	98	48	100	23	100	23	86	338	100			168		100	100		
		Wooli		2	CH	93			4	4			1	0.9	2	100	2	100	2	50	2	100	2	100	27	100			4		100	52		
		Coutts Crossing		1	CH	46			18	10			4	2.5	2	50	2	100	2	100	2	100	2	100	31	94			5		100	60		
		Glenreagh (North Coast Water)	2006	1	CH	51			7	7			1	0.7	2	100	2	100	2	100	2	100	2	100	14	100			2		100	54		
		Minnie Water		1	CH	96			9	8			1	1.0	2	100	2	100	2	100	2	100	1	100	9	100			2		50	35		
Clarence Valley Council		Total/Weighted Average (Note 1)		75		6503			18				19		31	97	50	98	56	98	31	100	30	89	419	100	4 of 5	99	181	3.1			4	0
		Cobar	1983	7	CH	1057	391	75	16	2	42	5	1	1	365	100	365	100	365	100	52	100	365	100	52	100			15		100	100		
Cobar Shire Council		Total/Weighted Average (Note 1)		7	CH	1057	391	75	16	2	42	5	1	0.5	365	100	365	100	365	100	52	100	365	100	52	100	1 of 1	100	15				0	0
	unfiltered	Karangi	2009	42	DAF	6049	48	25	1	1	4	2	0	0.1	14	100	14	100	14	100	15	100	15	100	484	100			85		100	100		
	unfiltered	Nana Glen	1996	1	C	18	45	30	1	1	4	3	1	0.4	2	100	2	100	2	50	2	100	2	100	26	100					100	100		
	unfiltered	Coramba	1960	1	CH	29	48	25	5	2	4	2	1	1	2	100	2	100	2	100	2	100	2	100	26	100					100	100		
Coffs Harbour City Council		Total/Weighted Average (Note 1)		43		6096	48	25	5	1	4	2	1	0	18	100	18	100	18	94	19	100	19	100	536	100	3 of 3	100	85	7.8			0	0

Water Utility	Source/type (Bulk Supplier)	Water Treatment Works	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		E. coli Zones	E. coli % Pop Compliance			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*	Compliant *42m*	*42n*	*No. 43*	*/ 1,000 Props*	*% 44a*	*% 44b*	*days 45*	*days 46*
		Cooma	1985	15	C	1221	70	31	8	1	223	9	1.5	0.9	11	100	11	100	11	87	11	100	11	100	63	100					92	98		
		Nimmitabel	2004	1	CH	22			41	0			2	1.0	2	70	2	100	2	100	2	100	2	100	27	100			4		100	100		
		Bredbo	2006	1	CH	29	4	3					2.5	2.2	1	100	1	100	2	100	2	100	2	100	26	100					100	100		
Cooma-Monaro Council		Total/Weighted Average (Note 1)		17		1272	70	30	41	1	223	9	3	0.9	14	96	14	100	15	90	15	100	15	100	116	100	3 of 3	100	4	1.3			0	0
		Coonamble	1993	8	CH	-									-	-	-	-	-	-	2	100	2	100	43	100			25		100	83		
		Gulargambone		2	CH	-									-	-	-	-	-	-	2	100	2	100	43	100					100	83		
		Quambone		2	CH	-									-	-	-	-	-	-	2	100	2	94	43	100			2		100	100		
Coonamble Shire Council		Total/Weighted Average (Note 1)		11																	6	100	6	100	129	100	3 of 3	100	27				0	0
Cootamundra Shire Council	*purchase (Goldenfields)*																				12	100	12	100	73	100	1 of 1			-				
		Corowa	2002	15	DAF	1025	110	42	9	3	62	20	1	0.4	180	100	161	100	365	100	365	100	12	100	50	100			14		100	96		
		Mulwala	1944	13	C	923					39	16	1	0.2	-	-	365	100	365	100	365	100	12	100	50	100			9		100	96		
		Howlong	1989	5	LS	242	324	115			71	19	2	0.7	365	100	365	100	365	100	365	100	12	100	48	100			2		100	92		
		Balldale			U	-									-	-	-	-	-	-	2	100	2	94	14	79			-		100	100		
Corowa Shire Council		Total/Weighted Average (Note 1)		33		2190	324	32	9	2	71	18	2	0	545	100	891	100	1,095	100	1,097	100	38	100	162	100	3 of 4	100	25	3.8			0	0
		Broken Hill (Mica St)	2002	36	C	4406	35	16	2		251	161	2	0	365	100	365	100	12	100	12	100	12	100	120	100			1		100	100		
		Menindee	1997	1	C	91					1000	225	3.62	0.95	-	-	365	100	365	100	12	100	12	100	48	100					100	92		
Country Energy		Total/Weighted Average (Note 1)		37		4497	35	15.7	2		1000	162	3.62	0.17	365	100	730	100	377	100	24	100	24	100	168	100	2 of 2	100	1	0.1			0.1	0.1
Cowra Shire Council	*Menindee Lakes (State*	Cowra	1985	29	C	2345			2	1	460	7.4	0.4	0.2	11	100	11	100	11	100	11	100	11	100	97	100	1 of 1	100	79	80	92	67	-	-
Deniliquin Council		Deniliquin	1968	26	C	-									-	-	-	-	-	-	12	100	12	100	72	100	1 of 1	100	-	3.0	100	100	-	-
Dubbo City Council		John Gilbert	2007	80	C	8342	520	31	12	1	288	10	1	0	365	100	365	100	132	81							1 of 1	100	10	0.4			0	0
Eurobodalla Shire Council	*unfiltered*	Eurobodalla	-		CH	3825					13	2			-	-	361	99	365	84	13	100	13	100	352	100	1 of 1	100	-	-	100	89	-	-
Fish River Water Supply		Duckmaloi	2003	11	MF	664	45	29	5	5					6	-	-	-	6	100	13	100	13	100	207	100	1 of 1	100		0.5	100	100	0	0
Forbes Shire Council		Forbes	1966	26	C	2010	120	19	10	3	62	12	1	0.6	365	100	365	100	8	100	24	100	208	100	59	100	1 of 1	100	7	1.4	100	92	0	0
Gilgandra Shire Council	*groundwater*	Gilgandra	1984	6	C	731	3	2	1	0	40	10	2	0.6	2	100	2	100	2	100	3	100	3	100	52	100	1 of 1	100	15	7.3	100	100	2	0
		Martins Lookout	1982	12	C	654	1,290	61	15	1	57	4	1	1	365	100	365	100	36	100	36	100	12	100	49	100					100	94		
		Deepwater	2006	2	CH	13									-	-	-	-	12		3	100	3	100	24	100					100	92		
Glen Innes Severn Shire Council		Total/Weighted Average (Note 1)		14		667	1,290	60	15	1	57	4	1	0	365	100	365	100	48	75	39	100	15	100	73	100	2 of 2	100		4.2			0	0
		Gloucester	1981	5	C	416	250	33	1	1	83	8	0	0	2	100	2	100	2	100	2	100	2	100	48	100					100	92		
		Barrington	1981	1	CH	30	250	8	250	8	83	2	83	1.9	2	100	2	100	2	100	2	100	2	100	49	82			6		100	94		
Gloucester Shire Council		Total/Weighted Average (Note 1)		5		446	250	31	250	1	83	7	83	0	4	100	4	100	4	100	4	100	4	100	97	91	1 of 2	95	6	1.2			5	0
	groundwater	Oura	1975	26	A	4006									12	100	-	-	320	90	682	100	1,628	100	270	100			15		100	100		
		Jugiong	1991	40	C	3159	300	50	10	5	1,000	18	0	0	365	100	365	100	365	99	1,478	100	895	100	84	100			5		100	100		
	groundwater	Mount Arthur		4	CH	473									1	100	1	100	1	100	1	100	1	100	64	100			13		50	100		
	groundwater	Mount Daylight	-		-	184									2	100	2	100	2	100	2	100	2	100	26	96			-		100	100		
Goldenfields Water County Council		Total/Weighted Average (Note 1)		44		3816	300	41	10	4	1,000	15	0	0	368	100	368	100	368	99	1,481	100	898	100	174	100	2 of 3	99	18				0	0
		Somersby	1986	140	C	11489	710	134	3	1	80	12	2	0	14	100	14	100	14	100	14	100	14	100	398	100			2,735		100	100		
		Woy Woy	2007	5	C										-	-	-	-	-	-	20	100	20	100	57	100			-		100	89		
Gosford City Council		Total/Weighted Average (Note 1)		145		11489	710	134	3	1	80	12	2	0	14	100	14	100	14	100	34	100	34	100	455	100	2 of 2	100	2,735	25.3			0	0
		Goulburn	1975	35	C	2359	1,100	125	10	3	61	4	2	0	365	100	364	100	365	100	193	100	1,099	100	123	100			35		100	100		
		Marulan	1997	2	MF	84			16	8	4	1	2.2	0.7	12	83	325	100	308	100	90	100	301	100	94	100			2		100	100		
Goulburn Mulwaree Council		Total/Weighted Average (Note 1)		37		2443	1,100	121	16	3	61	4	2	0	377	99	689	100	673	100	283	100	1,400	100	217	100	2 of 2	100	37	5.8			0	0
		Villages	2005	5	CH	314									-	-	-	-			52	100	2	100	52	100								
		Culcairn	2007	3	CH	169	1	1	1	1	3	1	3	1	3	100	3	100	52	100	365	100	2	92	51	100					100	98		
Greater Hume Shire Council	*bulk purchase (Albury C*	Total/Weighted Average (Note 1)		7		483	1	1	1	1	3	1	3	1	3	100	3	100	52	100	417	100	4	100	103	100	2 of 2	100					0	0
		Griffith	1987	60	DAF	7300	52	52	3	3	83	22	12	0.6	2	100	13	93	13	100	19	100	19	100	77	100			8		100	100		
		Yenda	2001	2	MF	99	55	43	5	5	52	25	0	0	21	100	146	100	8	100	8	100	8	88	51	100			2		100	98		
Griffith City Council	*bulk purchase (Murrumb*	Total/Weighted Average (Note 1)		62		7399	55	51	5	3	83	22	12	0.6	23	100	159	99	21	100	27	100	27	100	128	100	2 of 2	100	10	0.6			0	0
Gundagai Shire Council		Gundagai	1988	5	C		500	107	145	12	272	15	12.0	0.3	365	100	365	100	45	100	43	100	2	100	51	100	1 of 1	100	5	4.8	100	98	0	0
	groundwater	Gunnedah	2009	20	U	2196									-	-	-	-	-	-	11	100	11	100	60	100			4		92	94		
	good quality untreated groundwater	Curlewis	2004	1	CH	105									-	-	-	-	1	100	1	100	1	100	48	100					50	92		
	good quality untreated groundwater	Tambar Springs	2006	1	CH	16									-	-	-	-	-	-	1	100	1	100	12	100			-		50	100		
	good quality untreated groundwater	Mullaley	2006	1	CH	19									-	-	-	-	-	-	1	100	1	100	13	92			-		50	100		
Gunnedah Shire Council		Total/Weighted Average (Note 1)		22		2336													1	100	14	100	14	100	133	100	3 of 4	99	4	0.2			32	0
Guyra Shire Council		Guyra	1983	6	C	400	109	46	16	7	12	4	2	0	260	100	260	99	4	100	4	100	10	100	62	100	1 of 1	100	2	0.9	100	100	0	0
		Bingara	1940	4	CH	364	12	10			12	4			12	100	12	75	12	100	12	100	12	100	52	100			6		100	100		
		Warialda	2003	3	CH	345			1	1			0	0	1	100	1	100	1	100	1	100	1	100	55	100					50	100		
	non-potable groundwater	Gravesend	2003	1	CH	45	2	2			0	0			1	100	1	100	1	100	1	100	1	100	28	100					50	100		
	good quality untreated groundwater	North Star	2007	0.2	MF	27									-	-	-	-	1	100	1	100			10	100						83		
Gwydir Shire Council		Total/Weighted Average (Note 1)		8		781	2	0	1	0	0	0	0	0	14	100	14	79	15	100	15	100	14	100	145	100	4 of 4	100	6				0	0
Harden Shire Council	*bulk purchase (Goldenfi*	Harden			Z	554									-	-	-	-	-	-					71	100	1 of 1	100	-	14.3		96	-	-
		Hastings	2005	151	CH	5410	5	5	4	3	2	1	6	1	3	100	764	100	1,088	59	1,054	100	9	100	414	100			238		75	100		
		Wauchope	2006	6	MF	823			4	4	34	11	2	0	2	100	232	100	234	96	235	100	7	100	418	100					58	80		
		Telegraph Point	2005	1	MF	50	96	22	11	4	28	6	4	1	29	100	189	100	163	96	163	100	4	100	67	100					100	100		
		Comboyne	2004	1	MF	23	48	22	11	3	12	6	1	0.3	31	100	128	100	105	93	105	100	2	100	62	100					100	100		
		Long Flat	2005	0.3	MF	10	69	18	8	2	28	6	1	0	28	100	88	100	54	100	55	100	2	100	52	100					100	100		
Port Macquarie-Hastings Council		Total/Weighted Average (Note 1)		159		6316	96	5	11	3	34	2	6	1.1	93	100	1,401	100	1,644	72	1,612	100	24	100	1,013	100	5 of 5	100	238	9.1			0	0
Hay Shire Council	*dual supply*	Hay	1988	2	CH	1303	70	20	3	2	82	20	0	0		100		100		100	1	100	1	100	54	100	1 of 1	100			8	100	0	0
		Copeton	1982	18	C	2140	482	70	3	3	33	4	1	0.2	360	100	360	100	360	100	360	100	14	100	25	100			5		100	28		
		Ashford	1984	3	C	145	250	50			27	4	2	0	360	100	360	100	360	100	360	100	14	100	20	100					100	38		
	groundwater	Yetman	1980	1	CH	36									-	-	-	-			2	100	2	100	11	100					100	42		
Inverell Shire Council	*river abstraction (State*	Total/Weighted Average (Note 1)		22		2321	482	68	3	2	33	4	2	0	720	100	720	100	720	100	722	100	30	100	56	100	3 of 3	100	5	0.9			0	0
Jerilderie Shire Council	*dual supply*	Jerilderie	1980	1	CH	128	250	200	3		168	58	1	0	365	100	365	100	365	100	2	100	2	100	59	93	0 of 1				100	100	0	0

Water Utility	Source/type (Bulk Supplier)	Water Treatment Works	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		E. coli Zones	E. coli % Pop Compliance			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	Compliant 42m	42n	No. 43	/ 1,000 Props	% 44a	% 44b	days 45	days 46
	groundwater	Sherwood	2000	38	CH	2767			7	2			5	1.0	14	100	14	100	241	98	28	100	829	100	238	100			6		100	96		
	groundwater	South West Rocks	2006	6	MF	587			1	1			0	0.2	4	100	4	100	55	100	8	100	214	100	52	100			10		100	100		
		Belgrave Falls	1938	6	CH	-									-	-	-	-	-	-									-					
	groundwater	Stuarts Point	1999	3	DF	172			1	1			1	0	11	100	11	100	61	98	22	100	388	100	52	100					100	100		
	groundwater	Crescent Head	1988	3	CH	157			7	6			2.4	2.4	2	100	2	100	53	94	4	100	155	100	52	100					100	100		
	groundwater	Hat Head	2000	1	CH	36			2	2			1	1	1	100	1	100	25	92	2	100	75	100	25	100					100	96		
	groundwater	Willawarrin	1972	0.2	CH	9			2	1			10	1.2	12	100	12	92	38	89	24	100	364	100	26	100					100	100		
	groundwater	Bellbrook	2007	0.2	CH	9			7	2			4	1.0	12	100	12	100	37	97	24	100	363	100	26	100					100	100		
Kempsey Shire Council		Total/Weighted Average (Note 1)		51		3737			7	2			10	0.9	56	100	56	98	510	97	112	100	2,388	100	471	100	7 of 7	100	16	0.5			0	0
		Kyogle	1988	3	C	325	450	50	1	1	250	35	5	1.5	2	100	2	100	2	100	3	100	3	100	103	100			5		100	100		
	non-potable supply from Tenterfield	Woodenbong	-		-	-									-	-	-	-	-	-									-					
	non-potable	Bonalbo	2010	0.3	DAF	39	34	17	6	6	10	4	1	1	2	100	2	100	2	100	3	100	3	100	53	100					100	100		
Kyogle Council		Total/Weighted Average (Note 1)		3		364	450	46	6	1	250	32	5	1.5	4	100	4	100	4	100	6	100	6	100	156	100	3 of 3	100	5	2.2			1	0
		Condobolin	1941	8	C	662	89	20	4	2	487	31	1	0.3	3	100	4	100	4	100	3	100	3	100	47	100			2		25	90		
		Lake Cargelligo	2004	5	DAF	446			4	2	619	103	2	0.1	2	100	2	100	2	100	2	100	2	100	45	100			7		100	87		
		Tottenham	1994	1	C	28					27	14	2	1	-	-	1	100	1	100	1	100	1	100	37	97					50	97		
Lachlan Shire Council		Total/Weighted Average (Note 1)		13		1136	89	12	4	2	619	59	2	0.2	5	100	7	100	7	100	6	100	6	100	129	100	2 of 3	89	9	5.7			3	0
		Leeton	1993	25	C	2008	126	45	0	0	73	22	1	0.1	300	100	300	100	365	100	365	100	12	100	61	100					100	95		
		Whitton	2003	1	C	87	182	84	1	0	122	55	1	0.2	300	100	300	100	365	100	365	100	3	100	25	100					100	96		
		Murrami	1993	0.3	LS	19	229	88	3	0	160	54	6	2	300	100	300	100	365	100	365	100	4	100	24	100					100	92		
		Yanco	-		-	-									-	-	-	-	-	-									-					
Leeton Shire Council		Total/Weighted Average (Note 1)		26		2114	229	47	3	0	160	24	6	0	900	100	900	100	1,095	100	1,095	100	19	100	110	100	4 of 4	100					0	0
Lismore City Council	bulk purchase (Rous Wa	Nimbin		0	CH	173	40	22			50	10	4	3	12	100	52	50	52	100	52	100	52	100	52	100	1 of 1	100	50	2.1	100	100	5	5
Lithgow City Council	bulk purchase (Fish Riv	Oakey Park	-		-	1450	359	45	20	4	11	2	5	0.2	382	99	382	100	24	96	24	100	119	100	186	100	1 of 1	100	306	5.9	100	100	-	-
	groundwater	Werris Creek	-		-	-									-	-	-	-	-	-	2	100	2	100	48	100			-		100	92		
		Willow Tree	-	1	CH	-									-	-	-	-	-	-	2	100	2	100	25	100			-		100	96		
Liverpool Plains Shire Council		Total/Weighted Average (Note 1)																			4	100	4	100	73	100	2 of 2						0	0
	unfiltered	Bootawa Dam Chlorinator	1986	70	CH	8177	14	10	8	2	8	3	4	1.6	1,036	100	1,036	99	1,036	92	3,120	100	1,652	100	1,024	100			431		100	100		
	groundwater	Tea Gardens	1986	4	CH	687	15	12	28	13	5	1	7	1	182	87	182	99	182	97	561	100	504	58	180	100			17		100	100		
		Bulahdelah	2009	2	C	140	110	64	8	1	31	11	1	0	155	100	155	100	155	95	480	100	426	100	153	100			1		100	100		
		Stroud	1997	2	C	160	76	29	2	0	40	11	1	0.5	180	100	180	100	180	99	555	100	495	100	178	100					100	100		
MidCoast County Council		Total/Weighted Average (Note 1)		78		9164	110	11	28	3	40	3	7	2	1,553	99	1,553	99	1,553	94	4,716	100	3,077	92	1,535	100	4 of 4	100	449	8.8			1	0
		Mudgee	2005	15	C	1776	30	21	2	1	948	19	1	0.4	11	100	11	100	11	91	11	100	11	100	40	95			6		92	63		
		Rylstone	1962	4	C	396	55	28	2	2	1,037	2	1	0.5	2	100	2	100	2	100	2	100	11	100	36	100			4		92	58		
		Gulgong	2005	4	C	365	35	27	1	1	83	10	1	0.4	2	100	2	100	2	50	2	100	2	100	42	93			14		100	81		
Mid-Western Regional Council		Total/Weighted Average (Note 1)		23		2537	55	23	2	1	1,037	15	1	0	15	100	15	100	15	87	15	100	24	100	118	96	1 of 3	16	24	1.7			0	0
	groundwater	Broadwater Creek	1986	18	CH	2269									-	-	-	-	4	100	4	100	4	100	52	100			-		33	81		
	groundwater	Mash	1988	5	CH	231									-	-	-	-	2	100	2	100	2	100	52	100			-					
	groundwater	Industrial Drive	1988	1	CH	334									-	-	-	-	2	100	2	100	2	100	52	100								
	dual supply	Boggabilla	1986	0.4	C	172									-	-	-	-	52	100	4	100	4	100	52	100					100	100		
		Mungindi		1	C	245									-	-	-	-	4	100	4	100	4	100	49	92			3		100	94		
	groundwater	Pallmallawa	1986	1	CH	81									-	-	-	-	2	100	2	100	2	100	24	100			-		100	92		
Moree Plains Shire Council		Total/Weighted Average (Note 1)		27		3332													66	100	18	100	18	100	281	100	5 of 6	93	3	10.2			1	0
		Moama	1991	6	DAF	592	120	51	5	5	44	19	0	0	2	100	2	100	2	100	2	100	2	100	33	100					100	63		
	dual supply	Mathoura	1989	2	C	122	180	111	5	5	55	24	2	0.4	2	100	2	100	2	100	2	100	2	100	33	100					100	63		
Murray Shire Council		Total/Weighted Average (Note 1)		8		714	180	61	5	5	55	20	2	0.1	4	100	4	100	4	100	4	100	4	100	66	100	2 of 2	100					0	0
	groundwater	Coleambally	-	5	C	-									-	-	-	-	-	-	1	100	1	100	52	100			-		50	100		
	groundwater	Darlington Point	-	5	U	-									-	-	-	-	-	-	1	100	1	100	51	100			-		50	98		
Murrumbidgee Shire Council		Total/Weighted Average (Note 1)																			2	100	2	100	103	100	2 of 2						0	0
		Muswellbrook	1988	15	C	2068	30	5	4	1	161	16	4	1.0	12	100	53	70	117	96	108	100	91	100	353	100			54		100	100		
		Denman	2008	3	MF	259	28	6	3	1	587	6	25	0.9	12	100	52	92	107	99	98	100	68	100	132	100			5		100	100		
		Sandy Hollow	2002	1	CH	26	10	3	5	1	22	11	3.7	1.6	23	100	64	46	105	98	94	100	72	94	164	100					100	100		
Muswellbrook Shire Council		Total/Weighted Average (Note 1)		18		2353	30	5	5	1	587	15	25	1	47	100	169	68	329	98	300	100	231	100	649	100	3 of 3	100	59	13.6			0	0
Nambucca Shire Council		Nambucca	1988	23	CH	1615			1	1			6	1	11	100	123	99	123	100	11	100	11	100	114	100	1 of 1	100	8	1.3	92	81	0	-
	groundwater	Narrabri	2005	18	CH		19	2	5	2	2	0	2	0.3	11	100	11	100	11	100	18	100	18	100	51	100			57		100	98		
	groundwater	Wee Waa	2006	10	CH		3	3	3	3	3	3	3	2.5	1	100	1	100	2	100	4	100	4	100	50	100			21		100	96		
	groundwater	Boggabri	2005	401	CH		1	1	1	1	1	1	1	1.2	1	100	1	100	3	100	3	100	3	100	50	100					100	96		
	groundwater	Gwabegar	2006	0.4	CH		4	3	4	3	0	0	0	0	5	100	5	100	5	100	5	100	5	100	24	100					100	92		
	groundwater	Bellata	2005	0.4	CH		1	1	1	1	1	1	1	1.2	1	100	2	100	2	50	4	100	4	100	26	100			1		100	100		
	groundwater	Pilliga	2006	1	CH		2	2	2	2	2	2	2	2	2	100	2	100	4	100	4	100	4	100	24	100			-		100	92		
Narrabri Shire Council		Total/Weighted Average (Note 1)		431			19		5		3		3		21	100	22	100	27	96	38	100	38	100	225	100	6 of 6		79	18.7			0	0
Narrandera Shire Council	groundwater	Narrandera	-		CH	-									-	-	-	-	-	-	12	100	12	100	76	97	0 of 1		-	0.5	100	100	-	-
		Tomingley	2005	0.1	DF				1	1			1	0.9	2	100	2	100	2	100	16	100	2	100	14	100					100	100		
	groundwater	Narromine	1989	8	DAF				1	1			0	0.4	2	100	2	100	2	100	53	100	2	100	53	100			1		100	100		
Narromine Shire Council		Total/Weighted Average (Note 1)		8.2					1				1		4	100	4	100	4	100	69	100	4	100	67	100	2 of 2		1				0	2
Oberon Council	bulk purchase (Fish Riv	Oberon	2002	7	MF	589	75	34			4	3	0	0	365	100	365	100	365	100	12	100	12	100	51	100	1 of 1	100	5	3.1	100	98	0	0
		Icely Road	1982	38	C	3872	10	8			11	3	0	0.2	12	100	12	100	12	100	12	100	12	100	187	100			28		100	100		
	groundwater	Spring Hill/Lucknow		1	CH	50									-	-	-	-	2	100	2	100	2	100	51	100					100	98		
Orange City Council		Total/Weighted Average (Note 1)		39		3922	10	7			11	3	0	0	12	100	12	100	14	100	14	100	14	100	238	100	2 of 2	100	28	2.3			0	0

Water Utility	Source/type (Bulk Supplier)	Water Treatment Works	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		E. coli Zones	E. coli % Pop Compliance			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*	Compliant *42m*	*42n*	*No. 43*	*/ 1,000 Props*	*% 44a*	*% 44b*	*days 45*	*days 46*
	groundwater	Braidwood	2010	1	CH	146	14	10	14	10	1	1	1	1.2	2	100	2	100	47	89	2	100	2	100	48	100			6		100	92		
		Bungendore	2005	4	CH	259	1	1	1	1	0	0	0	0.3	2	100	2	100	49	100	2	100	2	100	48	100					100	92		
		Captains Flat	2002	1	MF	51	41	28	1	1	4	3	0	0	6	100	6	100	22	100	2	100	2	100	24	100					100	92		
Palerang Council		Total/Weighted Average (Note 1)		6		456	41	7	14	4	4	1	1	0.5	10	100	10	100	118	96	6	100	6	100	120	100	3 of 3	100	6	4.2			0	0
Parkes Shire Council		Parkes	1994	9	C	-									-	-	-	-	-	-	13	100	13	100	108	100	1 of 1	100	-	0.9	100	98	-	-
Queanbeyan City Council	*bulk purchase (ACTEW)*	Weetalabah (No Wtw)	-		-	4053									-	-	-	-	-	-	12	100	12	100	52	100	1 of 1	100	-				-	-
		Casino	1985	23	C	2460	300	65	10	2	363	18	1	0.1	24	100	137	100	140	100	721	100	515	100	140	100			1		100	100		
Richmond Valley Council	*bulk purchase (Rous W*	Total/Weighted Average (Note 1)		23	C	2460	300	65	10	2	363	18	1	0.1	24	100	137	100	140	100	721	100	515	100	140	100	1 of 1	100	1				0	0
		Waterworks	1961	80	C	7060	1,400	151	3	1	150	20	2	0.5	8	100	258	100	258	98	232	100	12	100	232	100			32					
		West Wagga	1979	32	-	4345			3	2			1	0.2	4	100	158	100	158	98	143	100	12	100	143	100			19					
		North Wagga	1977	25	C	2322			1	1			0	0.1	12	100	12	100	12	100	52	100	12	100	376	100			10		100	98		
		Ralvona	1989	4	A	269			1	1			2	0.6	2	100	52	100	52	100	52	100	2	100	52	100					100	100		
		Bulgary	1983	3	A	534			1	1			1	0.5	3	100	51	100	51	94	51	100	13	100	52	100			7		100	100		
		Gardiners Crossing	1983	2	A	164			1	1			1	0.4	2	100	52	100	52	98	52	100	2	100	52	100			1					
		Urana	1964	1	A	55			1	1			1	0.5	3	100	52	100	52	98	52	100	3	100	52	100			1		25	100		
		Walbundrie	2005	1	-	35			1	1			1	0.4	2	100	26	100	26	100	26	100	2	100	26	100					100	100		
		Humula	2003	0.3	CH	13			1	1			7	0.7	2	100	26	96	26	96	26	100	2	100	26	100					100	100		
		Woomargama	1960	0.2	A	14			1	1			1	0.4	2	-	26	100	26	100	26	100	2	100	26	100			6		100	100		
		Collingullie	2006	0	A	63			1	1			1	0.4	1	100	13	100	13	100	13	100	2	100	13	100					100	100		
		Tarcutta	2009	1	A	42			1	1			7	0.7	2	100	26	96	26	96	26	100	2	100	26	100			8		100	100		
		Oura	1982	0	A	48			1	1			1	0.6	2	100	13	100	13	100	2	100	2	100	13	100			3		100	100		
		Morundah	1992	0.2	C	10			1	1			1	0.4	2	100	25	100	26	92	25	100	2	100	26	100					100	100		
Riverina Water County Council		Total/Weighted Average (Note 1)		149		14974	1,400	71	3	1	150	9	7	0.4	47	96	790	100	791	98	778	100	70	100	1,115	100	14 of 14	100	87	2.3			0	0
		Nightcap	2007	70	DF	11625	26	6	7	0	3	2	0	0.1	63	100	63	100	63	100	63	100	63	100	166	100			16		100	85		
		Emigrant Creek Dam	2008	8	MF	445	10	4	1		6	5	0	0.1	14	100	14	100	14	100	14	100	14	100	14	100			-		100	8		
Rous County Council	*bulk supplier, retailer*	Total/Weighted Average (Note 1)		78		12070	26	5	7	0	6	2	0	0.1	77	100	77	100	77	100	77	100	77	100	180	100	2 of 2	100	16	0.2			0	0
		Bamarang	1999	75	C	8240	40	25	2	1	5	1	4.7	0.9	12	100	86	100	86	100	278	100	732	100	564	100			13		100	99		
		Flatrock	1998	28	C	3840	40	25	1	1	5	1	1	0.3	10	100	66	100	45	98	176	100	470	100	66	100			8		100	100		
		Milton	2000	11	DF	735	60	45	9	2	5	3	4	0.8	12	100	61	100	62	97	206	100	594	100	147	100			4		100	97		
		Kangaroo Valley	1993	1	MF	87	125	35	1	1	10	4	1	1	1	100	13	100	13	100	40	100	263	100	50	100			2		100	96		
Shoalhaven City Council		Total/Weighted Average (Note 1)		115		12902	125	26	9	1	10	1	5	0.7	35	100	226	100	206	99	700	100	2,059	100	827	100	4 of 4	100	27	3.2			0	0
Singleton Shire Council		Obanvale	1993	30	DF	2556	5	5	5	5	3	1	1.0	0.2	600	100	600	100	600	100	669	100	754	100	129	100	1 of 1	100	34	1.0	100	100	0	0
	unfiltered	East Jindabyne	2007	9	CH	260													17	88	2	100	2	100	52	100					100	100		
	unfiltered	Jindabyne	2007	8	CH	593													83	94	13	100	13	100	80	96					100	100		
	unfiltered	Adaminaby	2005	2	CH	502													24	100	2	100	7	100	25	100					58	96		
	unfiltered	Kalkite	2007	2	CH	24													32	97	2	100	2	100	34	94					100	100		
	unfiltered	Dalgety	2004	0	CH	16													29	97	2	100	2	100	27	100					100	100		
Snowy River Shire Council		Total/Weighted Average (Note 1)		21		1395													185	95	21	100	26	100	218	100	3 of 5	56					0	0
		Calala	1991	80	C	8845	77	21	2	1	35	8	2	0.4	13	100	13	100	13	100	26	100	531	100	148	100					100	100		
		Manilla	1990	5	C	432	150	70	3	2	16	10	5	2.7	2	100	2	100	2	100	4	100	571	90	51	100					100	98		
		Barraba	1995	4	DAF	159	753	109	1	1	89	12	1	0.5	2	100	2	100	2	100	4	100	109	100	51	100					100	98		
	groundwater	Attunga	1991	3	CH	47			1	1			0	0.2	2	100	2	100	2	100	4	100	84	100	26	100					100	100		
	groundwater	Nundle	1995	1	LS	47	48	24	5	3	14	7	1	0.7	2	100	2	100	2	100	4	100	81	100	25	96					100	96		
		Bendemeer	2007	1	C	27			3	2			0	0	2	100	2	100	2	100	4	100	85	100	27	100					100	100		
	groundwater	Kootingal/Moonbi	1991		CH	355			3	2			1	0.5	2	100	2	100	2	100	4	100	109	100	52	100					100	100		
Tamworth Regional Council		Total/Weighted Average (Note 1)		93		9912	753	24	5	1	89	8	5	0.5	25	100	25	100	25	100	50	100	1,570	100	380	100	6 of 7	99					0	0
		Tenterfield	1986	6	CH		225	78	32	5	21	4	2.6	0.2	365	100	365	100	12	100	18	100	4	100	56	100			11		100	100		
		Urbenville	-	2	C										-	-	-	-	36	100	3	100	3	100	131	92			-		100	100		
Tenterfield Shire Council		Total/Weighted Average (Note 1)		7			225		32		21		3		365	100	365	100	48	100	21	100	7	100	187	98	2 of 2	100	11				3	0
		Tumbarumba		2	CH	225									-	-	-	-	25	-	1	100	1	100	51	96			2		50	98		
		Khancoban		1	CH	110									-	-	-	-	-	-	1	100	1	100	19	100					50	73		
Tumbarumba Shire Council		Total/Weighted Average (Note 1)		3		335													25		2	100	2	100	70	97	1 of 2		2	8.7			0	0
		Tumut	1978	16	C	1095	250	19	10	5	115	5	4	0.3	365	100	365	100	8	100	8	100	8	92	52	100			3		67	81		
		Adelong	1996	3	LS	128	250	127	5	1	181	10	1	0.2	365	100	365	100	1	100	1	100	1	100	41	100					50	79		
		Batlow	2001	2	MF	161	144	57	10	5	12	4	1	0.3	261	100	261	100	1	100	1	100	1	100	39	100					50	75		
		Talbingo	1995	2	DF	37	60	23	5	3	40	1	1	0.1	365	100	365	100	2	50	2	100	2	100	25	100					100	96		
		Brungle	2003	0.3	MF	14	250	32	10	3	50	9	2	0.7	95	100	95	100	2	100	2	100	2	100	10	100					100	83		
Tumut Council		Total/Weighted Average (Note 1)		23		1435	250	33	10	5	181	5	4	0.3	1,451	100	1,451	100	14	93	14	100	14	100	167	100	5 of 5	100	3	5.4			0	0
		Bray Park	2010	100	MF	9610	56	22	3	0	37	7	1	0.2	51	100	51	100	565	58	606	100	525	100	602	100			86		100	100		
		Uki	1998	1	C	43	71	31	9	1	57	8	1	0.3	51	100	51	100	102	74	105	100	106	100	104	100			5		100	100		
		Tyalgum	1969	0.3	DF	21	54	14	10	6	22	4	5	2.4	43	100	43	98	94	90	97	100	98	100	100	100					100	100		
Tweed Shire Council		Total/Weighted Average (Note 1)		101		9674	71	22	10	0	57	7	5	0.2	145	100	145	99	761	64	808	100	729	100	806	100	3 of 3	100	91	0.8			0	0

Water Utility	Source/type (Bulk Supplier)	Water Treatment Works	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		E. coli Zones	E. coli % Pop Compliance			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*	Compliant *42m*		*No. 43*	*/1,000 Props*	*% 44a*	*% 44b*	*days 45*	*days 46*
		Murrurundi	1983	2	CH										-	-	-	-	52	100	5	100	3	100	44	100					100	85		
	groundwater	Merriwa	1980	2	C	207			1	1			0	0.5	2	100	2	100	2	100	2	100	2	100	49	100					100	94		
	groundwater	Cassilis	2001	1	CH	14			1	1			1	1.0	2	100	3	100	2	100	3	100	3	100	25	100					100	96		
		Scone And Aberdeen	1982	12	CH	-									-	-	-	-	8	100	12	100	24	100	103	100			5		100	100		
Upper Hunter Shire Council		Total/Weighted Average (Note 1)		17		221			1	1			1	0.5	4	100	5	100	64	100	22	100	32	100	221	100	4 of 4	100	5	0.2			0	0
		Crookwell	1990	3	C	316	60	20	3	2	4	3	0	0.3	2	100	2	100	5	80	52	100	2	100	47	100			5		100	90		
	groundwater	Gunning	2005	2	CH	50	100	10	5	3	10	5	0.6	0.3	2	100	2	100	2	100	26	100	2	100	48	100			10		100	92		
		Dalton	1995		CH	20			1	1			1	1	3	100	3	100	3	100	3	100	3		24	100			2		100	92		
		Taralga	1985	2	UV	40			8	8			5	2	3	100	3	100	3	100	3	100	3	100	25	96			3		100	96		
Upper Lachlan Council		Total/Weighted Average (Note 1)		7		426	100	16	8	2	10	3	5	1	10	100	10	100	13	92	84	100	10	70	144	100	3 of 4	91	20	4.7			0	0
		Kentucky Creek	1985	5	C	303	56	27	12	7	5	3	0	0.3	12	100	38	100	48	98	50	100	13	100	50	100			20		100	96		
		Bundarra	1994	1	C	28	200	30	7	5	20	5	5	1.3	4	100	5	100	5	100	12	100	12	100	26	96			10		100	100		
Uralla Shire Council		Total/Weighted Average (Note 1)		6		331	200	27	12	6	20	3	5	0.4	16	100	43	100	53	98	62	100	25	100	76	97	1 of 2	92	30	1.9			0	0
	dual supply	Barham	-		-	-									-	-	-	-	-	-	1	100	1	100	48	100			-		50	92		
	unfiltered	Wakool	-		-	-									-	-	-	-	-	-	2	100	2	100	23	100			-		100	88		
		Moulamein	-		-	-									-	-	-	-	-	-	2	100	2	100	23	100			-		100	88		
	unfiltered	Koraleigh	-		-	-									-	-	-	-	-	-	2	100	2	100	15	93			-		100	83		
		Tooleybuc	-		-	-									-	-	-	-	-	-	2	100	2	100	24	96			-		100	92		
Wakool Shire Council	*bulk purchase (Murray I*	Total/Weighted Average (Note 1)																			9	100	9	100	133	100	3 of 5						0	0
Walcha Council		Walcha	1985	5	C	204	55	27	3	2	7	3	1	0.1	173	100	173	100	400	100	400	100	12	100	49	100	1 of 1	100	1	1.1	100	94	0	0
	dual supply	Walgett	1964	1	C	-									-	-	-	-	-	-	2	100	2	100	47	100			2		100	90		
	dual supply	Collarenebri	1996	1	MF	-									-	-	-	-	-	-	2	100	2	100	46	91			-		100	88		
Walgett Shire Council		Total/Weighted Average (Note 1)		2		473															4	100	4	100	93	95	1 of 2		2				0	0
	dual supply	Warren Chlorinator	2000	4	CH		1	1	1	1	0	0	0	0.1	4	100	4	100	4	100	4	100	4	100	50	96			-		100	96		
	groundwater	Nevertire	2000	0.1	CH	-	2	2	2	2	0	0	0	0.2	2	100	2	100	2	100	2	100	2	100	26	96			-		100	100		
	groundwater	Collie	2000	0.1	CH	-	1	1	1	1	2	2	2	1.3	2	100	2	100	2	100	2	100	2	100	12	92			-		100	100		
Warren Shire Council	*bulk purchase (State Wa*	Total/Weighted Average (Note 1)		4			2		2		2		2		8	100	8	100	8	100	8	100	8	100	88	95	0 of 3			17.7			0	0
		Coonabarabran	1993	8	C	372	90	49	5	1	27	12	2	0.7	365	100	365	100	365	100	365	100	365	100	54	94			2		100	100		
		Binnaway	1993	1	C	85	80	23	5	3	30	4	2	0.4	365	100	365	100	365	100	365	100	365	100	26	100					100	100		
	groundwater	Dunedoo	1984	1	CH	238									-	-	-	-	248	100	248	100	248	100	49	100					100	94		
	groundwater	Coolah	1996	1	CH	135									-	-	-	-	234	100	2	100	20	100	49	96					100	94		
	groundwater	Baradine	1999	1	C	141	10	5	4	3	10	7	1	0.4	365	100	365	100	365	100	365	100	365	100	49	100					100	94		
		Mendooran	2009	1.0	LS	38					50	22	1	0.3	-	-	180	100	180	100	180	100	180	100	32	78			43		100	100		
	groundwater	Bugaldie	1960		CH	-	5	3	5	3	1	1	1	0.7	12	100	12	100	12	100	12	100	12	100	12	92					100	100		
	groundwater	Kenebri	1950		CH	-	5	3	5	3	1	1	1	0.5	12	100	12	100	12	100	12	100	12	100	12	100					100	100		
Warrumbungle Shire Council		Total/Weighted Average (Note 1)		13		1009	90	21	5	1	50	6	2	0.4	1,119	100	1,299	100	1,781	100	1,549	100	1,567	100	283	95	4 of 8	46	45	0.9			331	0
		Wellington	1993	15	LS	1065	9	5	2	1	37	5	2	1.0	365	100	365	100	365	100	365	100	12	100	52	100					100	100		
		Geurie	1994	2	LS	119	10	5	2	1	15	5	1	0.3	255	100	255	100	365	100	365	100	12	100	49	100					100	94		
Wellington Council		Total/Weighted Average (Note 1)		16		1184	10	5	2	1	37	5	2	0.9	620	100	620	100	730	100	730	100	24	100	101	100	2 of 2	100					0	0
		Buronga/Gol-Gol/Dareton	1994	4	LS	329	89	43	1	1	15	13	0	0.2	3	100	3	100	3	100	75	100	75	100	75	100			3		100	96		
		Wentworth	1991	1	C	600	120	20	1	1	140	35	0	0.1	1	100	1	100	1	100	50	100	1	100	50	100			3		50	96		
	dual supply	Pooncarie	1994	0.2	LS	6	180	50	1	1	96	96	4	4.2	1	100	1	100	1	100	1	100	1	100	24	100					50	92		
Wentworth Shire Council		Total/Weighted Average (Note 1)		5		935	180	28	1	1	140	27	4	0.2	5	100	5	100	5	100	126	100	77	100	149	100	3 of 3	100	6	5.4			0	0
		Bundanoon	1989	40	DAF	3484	55	28	3	3	13	2	2	0.7	13	100	13	100	13	100	13	100	12	100	279	100			65		100	100		
		Medway	1988	10	DAF	458									-	-	-	-	-	-	13	100	13	100	90	100			16		100	100		
Wingecarribee Shire Coun	*bulk purchase (SCA)*	Total/Weighted Average (Note 1)		58		4818	250	27	5	2	44	2	2	0.6	13	100	25	100	26	100	39	100	38	100	648	100	3 of 3	100	115	5.0			1	5
Wyong Shire Council		Mardi	1994	160	DF	13772	65	35	25	2	20	2	2	0.6	527	100	357	100	475	99	488	100	540	100	399	100	1 of 1	100	306	5.1	100	94	0	0
Yass Valley Council		Yass	1989	13	DAF	805	300	50	10	5	180	25	6	0.8	365	100	365	99	365	100	365	100	12	100	92	100	1 of 1	100	9	2.3	100	100	0	0
Young Shire Council	*bulk purchase (Goldenfields)*					1508															12	100	12	100	73	100	1 of 1	100						

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.

However, as Tenterfield Council collected 131 E. coli samples for the small Urbenville supply, the E. coli result for Tenterfield was pro-rated on the basis of the treatment capacity at Tenterfield (5.5 ML/d) and Urbenville (1.8 ML/d).
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, U = 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:
Eurobodalla, Murrumbidgee, Queanbeyan, Tenterfield, Walgett and Young.

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 the required number of samples has been tested and 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: 2009-10 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					
											mg/L	% Samples	mg/L	% Samples	mg/L	% Samples	mg/L	% Samples	mg/L	% Samples	mg/L	% Samples	cfu /100mL	% Samples	No.	No./1000 props	days	days
			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	63	67
		Albury	1987	40,000	T	BNR	Y	Y		2,116	15	100	20	100	15	100	5	100	10	100	1	100	NL	100			13	0
		Albury (Waterview)	1999	26,500	AT	CEA	Y	Y		2,376	12	100	15	100	15	100	5	100	2	100	1	100	300	85			14	2
		Hume Weir	1980	500	T	IEA			R	20	20	100	30	100	NL	100	NL	100	10	100	NL	100	NL	100			32	0
	No licence limits	Lara Lakes	1990	200	S	A			L	18	NL	100	NL	100	NL	100	NL	100	NL	100	NL	100	NL	100			13	0
Albury City Council		Total/Weighted Average [1,6]		67,200		IEA, BNR			L R	4,530	12	100	15	100	15	100	5	100	2	100	1	100	300	92		0.0	72	2
Armidale Dumaresq Council		Armidale	1989	22,000	T	TF			L R	2,133	20	100	30	100	NL	100	NL	100	10	100	NL	100	NL	100		0.0	12	0
	100% limits	Ballina	1991	1,200	AS	TF	Y		O	1,415	20	100	15	89	NL	100	NL	100	10	100	NL	100	300	100	2		26	0
	100% limits	Lennox Head	1994	18,000	AS	IEA	Y		O	1,975	20	100	30	100	NL	100	NL	100	10	100	NL	100	200	100	1		26	0
	100% limits	Alstonville	1986	8,000	AS	IEA	Y	Y	R	452	20	100	30	100	NL	100	NL	100	10	100	1	100	200	100	1		13	0
	100% limits	Wardell	1997	1,750	AS	IEA	Y		R	164	15	100	20	100	NL	100	NL	100	10	100	NL	100	200	100			26	0
Ballina Shire Council		Total/Weighted Average [1,6]		28,950		IEA, TF			R O	4,006	20	98	30	96	NL	100	NL	100	10	100	NL	100	200	94	4	0.3	91	0
	No Discharge Licence	Balranald	1999	2,000	S	A				124	NL	100	NL	100	NL	100	NL	100	NL	100	NL	100	NL	100			2	0
	No Discharge Licence	Euston	1995	1,100	S	A				75	NL	100	NL	100	NL	100	NL	100	NL	100	NL	100	NL	100			2	0
Balranald Council		Total/Weighted Average [1,6]		3,100		A				199	NL	100	NL	100	NL	100	NL	100	NL	100	NL	100	NL	100		0	4	0
Bathurst Regional Council		Bathurst	1998	55,000	T	IEA, BNR	Y	Y	R	2,945	20	100	25	100	15	100	NL	100	10	100	1	100	200	100		0.0	53	0
		Wolumla	2007	800	T	MBR	Y	Y		19	NL	100	NL	100	NL	100	NL	100	NL	100	NL	100	NL	100				0
		Cobargo	2006	800	T	MBR	Y	Y	L R O	27	NL	100	NL	100	NL	100	NL	100	NL	100	NL	100	NL	100				0
		Candelo	2007	800	T	MBR	Y	Y		17	NL	100	NL	100	NL	100	NL	100	NL	100	NL	100	NL	100				0
		Kalaru	2008	800	T	MBR	Y	Y		12	NL	100	NL	100	NL	100	NL	100	NL	100	NL	100	NL	100				0
		Tura Beach	2006	4,500	S	CEA	Y		L	155	10	100	20	83	10	100	2	100	2	100	NL	100	NL	100	1		12	0
		Eden	1998	8,000	AS	IEA	Y		O	311	20	83	30	75	NL	100	NL	100	10	100	NL	100	NL	100	1		12	16
		Tathra	2004	6,200	T	CEA	Y	Y		156	10	100	15	100	10	100	2	100	2	100	1	100	100	100			12	0
		Bega	2008	8,000	T	IEA	Y	Y	R	422	10	100	10	100	10	100	2	100	2	100	1	100	200	100	3		12	1
		Bermagui	2008	6,000	AS	CEA	Y		O	172	20	100	30	100	NL	100	NL	100	10	100	NL	100	NL	100			12	0
		Merimbula	2008	15,500	AS	IEA	Y		L O	719	20	100	30	100	NL	100	NL	100	10	100	NL	100	NL	100			12	0
Bega Valley Shire Council		Total/Weighted Average [1,6]		51,400		IEA, CEA			L R O	2,010	20	97	30	95	NL	100	NL	100	10	100	NL	100	NL	100	5	0.4	72	17
		Urunga	1989	6,650	T	IEA	Y	Y	R	305	10	100	15	100	10	100	2	100	2	100	NL	100	200	100	2		26	0
		Bellingen	1994	5,000	T	IEA	Y	Y	R	303	10	100	15	88	10	100	NL	100	2	100	NL	100	200	100	1		26	0
		Dorrigo	1970	1,500	T	TF			R	96	20	75	30	100	NL	100	NL	100	10	100	NL	100	NL	100			12	0
Bellingen Shire Council		Total/Weighted Average [1,6]		13,150		IEA, TF			R	704	10	97	15	95	10	100	2	100	2	100	NL	100	200	100	3	1.0	64	0
	No licence limits	Tocumwal	1944	4,000	T	TF			L		NL	100	NL	100	NL	100	NL	100	NL	100	NL	100	NL	100			4	0
		Finley	1967	3,200	T	TF			L		NL	100	NL	100	NL	100	NL	100	NL	100	NL	100	NL	100	1		4	0
	No licence limits	Barooga	1989	3,000	T	A			L		NL	100	NL	100	NL	100	NL	100	NL	100	NL	100	NL	100			4	0
	No licence limits	Berrigan	1966	1,500	T	TF			L		NL	100	NL	100	NL	100	NL	100	NL	100	NL	100	NL	100			16	0
Berrigan Shire Council		Total/Weighted Average [1,6]		11,700		TF, A			L			100		100		100		100		100		100		100	1	0.3	28	0
		West Wyalong	1986	4,000	AS	AN			L O	247	20	100	30	100	NL	100	NL	100	NL	100	NL	100	NL	100			4	0
	No licence limits	Ungarie	1961	-	AS	AN			L O	28	NL	100	NL	100	NL	100	NL	100	NL	100	NL	100	NL	100				0
	No licence limits	Barmedman	1940	400	S	TF			L O	21	NL	100	NL	100	NL	100	NL	100	NL	100	NL	100	NL	100				0
Bland Shire Council		Total/Weighted Average [1,6]		4,400		IEA, TF			L O	296	20	100	30	100	NL	100	NL	100	NL	100	NL	100	NL	100		0.0	4	0
Blayney Shire Council		Blayney	1991	7,000	AS	IEA	Y	Y		274	20	100	25	100	15	100	2	100	10	100	1	70	200	100		0.0	12	0
Bogan Shire Council	*No licence limits*	Nyngan	1991	3,735	S	A			L R		NL	100	NL	100	NL	100	NL	100	NL	100	NL	100	NL	100	4	3.9	4	0
		Bombala		3,000	S	TF			L	131	20	100	30	100	NL	100	NL	100	10	100	NL	100	NL	100			8	0
	No licence limits	Delegate	1992	680	AS	AL				35	NL	100	NL	100	NL	100	NL	100	NL	100	NL	100	NL	100				0
Bombala Council		Total/Weighted Average [1,6]		3,680		IEA, TF			L	166	20	100	30	100	NL	100	NL	100	10	100	NL	100	NL	100		0.0	8	0
Boorowa Council	*No licence limits*	Boorowa		3,400	S	TF			L	88	20	100	30	65	NL	100	NL	100	10	100	NL	100	NL	100	2	3.6	11	0
Bourke Shire Council		Bourke	1982	5,000	S	A			L	195	15	33	20	29	15	80	NL	100	10	80	10	80	NL	100	2	1.6	12	0
		Brewarrina	1971	1,600	S	TF				157	20	-	30	-	15	-	NL	100	10	-	10	-		100				0
	No licence limits	Goodooga	1985	250	S	A					NL	100	NL	100	NL	100	NL	100	NL	100	NL	100	NL	100				0
	No licence limits	Barwon Four		-					L R O	-	NL	100	NL	100	NL	100	NL	100	NL	100	NL	100	NL	100	-			-
Brewarrina Shire Council		Total/Weighted Average [1,6]		1,850		TF, A			L R O	157	20		30		15		NL	100	10		10				0.0		0
		Byron Bay West	2005	29,000	T	BNR	Y	Y	R	1,751	NL	100	NL	100	NL	100	NL	100	NL	100	NL	100	NL	100	9		26	0
		Ocean Shores	1997	8,000	AS	IEA	Y	Y	R O	567	15	100	20	100	15	100	5	100	10	100	1	100	200	100	5		26	0
		Mullumbimby	1999	3,200	AS	TF		Y	R	526	15	100	20	100	NL	100	NL	100	10	100	1	100	200	100	5		26	0
		Brunswick Heads	1990	1,600	AS	TF		Y	R	300	30	88	30	100	NL	100	NL	100	10	100	NL	100	200	80	1		26	0
		Bangalow	2007	3,500	AT	MBR	Y	Y	R	142	10	100	15	100	10	100	2	100	5	100	1	100	200	100	1		26	0
Byron Shire Council		Total/Weighted Average [1,6]		45,300		IEA, TF, BNR			R O	3,286	NL	99	NL	100	NL	100	NL	100	NL	100	NL	100	NL	97	21	2.1	130	0
		Canowindra	1978	2,500	S	TF			L	142	30	100	30	100	15	100	NL	100	10	100	10	100	NL	100			12	0
		Molong	1979	2,000	AS	IEA			R	111	30	100	30	100	15	100	NL	100	10	100	10	100	600	100			11	2
	No licence limits	Eugowra	1999	550	S	A			L	29	NL	100	NL	100	NL	100	NL	100	NL	100	NL	100	NL	100				0
Cabonne Council		Total/Weighted Average [1,6]		5,050		IEA, TF			L R	282	30	100	30	100	15	100	NL	100	10	100	10	100	NL	100		0.0	23	2
	No licence limits	Hillston	1978	1,000	AS	IEA				80	NL	100	NL	100	NL	100	NL	100	NL	100	NL	100	NL	100				0
	No licence limits	Goolgowi	1973	400	S	A				22	NL	100	NL	100	NL	100	NL	100	NL	100	NL	100	NL	100				0
	No licence limits	Rankins Springs	1986	150	S	A				9	NL	100	NL	100	NL	100	NL	100	NL	100	NL	100	NL	100				0
Carrathool Shire Council		Total/Weighted Average [1,6]		1,550		IEA, A				111	NL	100	NL	100	NL	100	NL	100	NL	100	NL	100	NL	100		0.0		0
Central Darling Shire Council	*No licence limits*	Wilcannia			S	AL			L R O		NL	100	NL	100	NL	100	NL	100	NL	100	NL	100	NL	100	-	-		-
		Grafton North	1989	14,700	AS	TF			R	1,010	20	100	30	77	NL	100	NL	100	10	100	NL	100	NL	100	5		26	0
		Yamba	1999	7,500	T	IEA	Y	Y	R	880	15	100	20	100	15	100	5	66	10	100	1	50	200	75	1		12	0
		Grafton South	1989	6,400	AS	TF			R	198	20	83	30	50	NL	100	NL	100	10	100	NL	100	NL	100	12		18	0
		Clarenza	1988	5,000	AS	IEA			R	570	20	100	30	100	NL	100	NL	100	10	100	NL	100	NL	100	3		26	0
		Maclean	1976	3,000	AS	TF			R	198	20	83	30	50	NL	100	NL	100	10	100	NL	100	NL	100	12		18	0
		Coutts Crossing	1998	1,000	AS	IEA			L R	33	20	100	30	53	NL	100	NL	100	10	100	NL	100	NL	100			13	0
		Townsend	1983	500	S	A			R	41	50	100	50	33	NL	100	NL	100	10	89	NL	100	NL	100			9	0
		Ilarwil	1991	160	S	A			R	4	50	89	50	89	NL	100	NL	100	10	89	NL	100	NL	100	1		9	0
Clarence Valley Council		Total/Weighted Average [1,6]		38,260		IEA, TF			L R	3,024	20	98	30	84	NL	100	NL	90	10	100	NL	85	NL	93	34	2.4	131	0

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	% Samples 50	mg/L 51	% Samples 52	mg/L 53	% Samples 54	mg/L 55	% Samples 56	mg/L 57	% Samples 58	mg/L 59	% Samples 60	cfu /100mL 61	% Samples 62			68	69	days 63	days 67
		Cobar	1982	10,000	S	CEA				265	-	100	-	100	NL	100	NL	100	NL	100	NL	100	NL	100					12	0
	No licence limits	Murrin Bridge		-					L R O	-	NL	100	NL	100	NL	100	NL	100	NL	100	NL	100	NL	100			-			-
Cobar Shire Council		Total/Weighted Average [1,6]		10,000		CEA			L R O	265	-	100	-	100	NL	100	NL	100	NL	100	NL	100	NL	100				0.0	12	0
		Coffs Harbour	2009	70,000	AT	CEA	Y	Y	L R O	3,557	50	100	50	100	NL	100	NL	100	10	100	NL	100	NL	100	15				53	0
		Sawtell	1986	18,000	S	IEA	Y		L R O	1,656	20	100	30	100	NL	100	NL	100	10	100	NL	100	NL	100	14				53	0
		Woolgoolga	2005	18,000	AS	IEA	Y	Y	L R O	1,035	10	100	15	100	15	100	NL	100	2	100	2	100	NL	100	9				52	0
		Moonee/Emerald	1999	7,000	AT	BNR	Y	Y	O	209	10	100	15	100	15	100	NL	100	2	100	2	100	NL	100	3				52	0
		Corindi Beach	2000	1,500	T	IEA	Y	Y		82	15	100	20	100	15	100	5	100	10	100	5	100	200	100					12	0
Coffs Harbour City Council		Total/Weighted Average [1,6]		114,500		IEA, TF, BNR			L R O	6,539	50	100	50	100	NL	100	NL	100	10	100	NL	100	NL	100	41	1.8	222	0
		Coolamon	1965	1,200	T	TF			L	68	30	100	20	100	NL	100	NL	100	NL	100	NL	100	10	100					4	0
	No licence limits	Ganmain	1998	1,000	S	A			L	30	NL	100	NL	100	NL	100	NL	100	NL	100	NL	100	NL	100						0
Coolamon Council		Total/Weighted Average [1,6]		2,200		TF, A			L	98	30	100	20	100	NL	100	NL	100	NL	100	NL	100	10	100		0.0	4	0
		Cooma (The Glen)	1998	15,000	AT	IEA	Y	Y	R	658	10	100	15	100	10	100	2	100	2	100	NL	100	200	85					12	0
		Nimmitabel	2008	500	AS	IEA		Y	R	10	20	100	30	100	NL	100	NL	100	10	100	NL	100	NL	100	2				13	0
Cooma-Monaro Council		Total/Weighted Average [1,6]		15,500		IEA, TF			R	668	10	100	15	100	10	100	2	100	2	100	NL	100	200	85	2	0.6	25	0
		Coonamble	1956	4,000	T	A			L	281	20	100	50	83	20	100	NL	100	10	100	10	100	NL	100					12	0
		Gulargambone	1975	750	AS	A			R	37	20	100	25	100	15	100	NL	100	10	100	15	100	600	-					12	0
Coonamble Council		Total/Weighted Average [1,6]		4,750		IEA, TF			L R	318	20	100	50	85	20	100	NL	100	10	100	10	100	NL	88		0.0	24	0
Cootamundra Council		Cootamundra	1992	14,000	AT	AL	Y	Y	R	412	30	100	40	75	20	100	NL	100	10	100	1	100	200	100		0.0	4	0
		Corowa	1988	12,200	S	TF			L	334	NL	100	NL	100	NL	100	NL	100	NL	100	NL	100	NL	100	6				0
		Mulwala	2008	5,316	T	IEA	Y	Y	R	270	20	100	30	100	40	100	NL	100	10	100	10	100	NL	100	1		13	1
	No licence limits	Howlong	1990	2,500	S	A			L	135	NL	100	NL	100	NL	100	NL	100	NL	100	NL	100	NL	100				0
Corowa Council		Total/Weighted Average [1,6]		20,016		TF, A			L R	739	NL	100	NL	100	NL	100	NL	100	NL	100	NL	100	NL	100	7	1.4	13	1
		Broken Hill (Wills St)	1998	-	T	TF			L	1,090	50	100	50	100	NL	100	NL	100	10	100	NL	100	NL	100	6		26	0
		Broken Hill South	1968	-	T	TF			L R O	267	50	100	50	100	NL	100	NL	100	10	100	NL	100	600	100	2		26	0
Country Energy		Total/Weighted Average [1,6]				TF			L R O	1,357	50	100	50	100	NL	100	NL	100	10	100	NL	100	NL	100	8	0.8	52	0
		Cowra	1977	8,000	S	TF			L R O	698	20	-	30	-		100	NL	100	10	-		100	200	-	-				-
	No licence limits	Wyangala		-					L R O	-	NL	100	NL	100	NL	100	NL	100	NL	100	NL	100	NL	100	-				-
Cowra Council		Total/Weighted Average [1,6]		8,000		TF			L R O	698	20		30				NL	100	10				200		-	-			-
Deniliquin Council		Deniliquin	1998	11,500	S	TF	Y	Y	L R O		20	-	30	-		40	-	NL	100	10	-	10	-	200	-	-	-			-
Dubbo City Council		Dubbo (Troy Junction)	1985	40,000	AS	IEA	Y		L R	2,907	20	100	25	100	15	100	5	100	10	100	10	100	200	100	9	0.6	12	0
		Batemans Bay	1984	15,000	T	CEA			L R O	1,986	20	100	30	100	NL	100	NL	100	10	100	NL	100	NL	100	12		12	3
		Narooma	1984	12,000	T	CEA			L R O	554	20	100	30	100	NL	100	NL	100	10	100	NL	100	NL	100			32	3
		Moruya	2000	8,000	T	CEA		Y	L R O	281	20	100	30	100	15	100	NL	100	10	100	1	100	NL	100			12	0
		Tomakin	1984	8,000	T	CEA			L R O	576	20	100	30	100	NL	100	NL	100	10	100	NL	100	NL	100			32	0
		Tuross Heads		4,000	AS	AN			L R O	230	20	100	30	100	NL	100	NL	100	10	100	NL	100	NL	100			12	1
Eurobodalla Council		Total/Weighted Average [1,6]		47,000		IEA, CEA, TF			L R O	3,627	20	100	30	100	NL	100	NL	100	10	100	NL	100	NL	100	12	0.7	100	7
Forbes Council		Forbes	2005	12,000	T	IEA	Y	Y	L R	642	10	100	50	100	10	83	2	100	10	100	NL	100	200	100		0.0	12	0
Gilgandra Council		Gilgandra	2009	3,000	T	TF			L	290	20	75	50	75	20	75	NL	100	10	75	10	75	NL	100	3	2.2	5	3
	No licence limits	Deepwater	1987	500	S	A			L R O	13	NL	100	NL	100	NL	100	NL	100	NL	100	NL	100	NL	100				0
		Glen Innes	2007	8,000	T	IEA	Y	Y	R	600	10	100	15	100	10	100	2	100	2	100	NL	100	200	100			12	0
Glen Innes Severn Council		Total/Weighted Average [1,6]		8,500		C			L R O	613	10	100	15	100	10	100	2	100	2	100	NL	100	200	100		0.0	12	0
Gloucester Council		Gloucester	1985	4,600	T	TF	Y	Y	R	251	30	100	40	83	40	100	10	100	NL	100	NL	100	NL	100		0.0	13	0
		Kincumber	1983	180,000	AS	AN	Y		L R O	10,033	30	100	50	100	NL	100	NL	100	10	100	NL	100	NL	100	93		60	0
		Woy Woy	1989	50,000	AS	CEA	Y		O	2,967	NL	100	NL	100	NL	100	NL	100	NL	100	NL	100	NL	100	20		60	0
Gosford City Council		Total/Weighted Average [1,6]		230,000		CEA, C			L R O	13,000	30	100	50	100	NL	100	NL	100	10	100	NL	100	NL	100	113	1.6	120	0
		Goulburn	1989	30,000	T	TF		Y	L	1,569	20	100	30	100	NL	100	NL	100	10	100	NL	100	NL	100	13		12	3
		Marulan	1990	1,100	S	A			L		NL	100	NL	100	NL	100	NL	100	NL	100	NL	100	NL	100				0
Goulburn Mulwaree Council		Total/Weighted Average [1,6]		31,100		A,TF			L	1,569	20	100	30	100	NL	100	NL	100	10	100	NL	100	NL	100	13	1.4	12	3
		Holbrook	1969	1,600	T	TF			R	123	20	100	30	100	NL	100	NL	100	10	100	NL	100	NL	100			4	0
	No licence limits	Jindera	2005	1,200	T	A			L	62	NL	100	NL	100	NL	100	NL	100	NL	100	NL	100	NL	100				0
		Henty	1971	1,000	T	IEA	Y		L	56	20	100	30	100	20	100	NL	100	10	100	10	100	NL	100			4	0
		Culcairn	1996	1,200	T	IEA	Y		L	101	20	100	30	100	20	100	NL	100	10	100	10	100	NL	100			4	0
		Walla Walla	1981	1,000	T	IEA	Y		L	42	20	100	30	100	20	100	NL	100	10	100	10	100	NL	100			4	0
	No licence limits	Burrumbuttock	1990	100	T	A			L	2	NL	100	NL	100	NL	100	NL	100	NL	100	NL	100	NL	100				0
Greater Hume Council		Total/Weighted Average [1,6]		6,100		IEA, A			L R	386	20	100	30	100	NL	100	NL	100	10	100	NL	100	NL	100		0.0	16	0
		Griffith	1992	65,000	S	TF		Y	R	1,979	30	100	30	36	NL	100	NL	100	10	100	NL	100	200	100			11	0
		Yenda	1981	34,000	S	AL			R	133	50	100	50	67	NL	100	NL	100	NL	100	NL	100	600	100			6	0
	No licence limits	Bilbul	1990	310	S	AL				27	NL	100	NL	100	NL	100	NL	100	NL	100	NL	100	NL	100				0
Griffith City Council		Total/Weighted Average [1,6]		99,310		AL, TF			R	2,139	30	100	30	39	NL	100	NL	100	10	100	NL	100	200	100		0.0	17	0
Gundagai Council	*No licence limits*	Gundagai	1972	3,500	S	TF			L	117	NL	100	NL	100	NL	100	NL	100	NL	100	NL	100	NL	100	1	1.3	10	0
		Gunnedah	1969	11,000	S	TF			L	808	20	100	30	60	NL	100	NL	100	10	100	NL	100	NL	100	-		12	-
	No licence limits	Curlewis	1990	1,650	nil	A			L R O	-	NL	100	NL	100	NL	100	NL	100	NL	100	NL	100	NL	100	-			-
Gunnedah Council		Total/Weighted Average [1,6]		12,650		TF, A			L R O	808	20	100	30	60	NL	100	NL	100	10	100	NL	100	NL	100	-	-	12	-
		Guyra	2000	3,300	AS	CEA	Y	Y	R	108	15	100	20	100	15	100	5	100	10	100	1	100	NL	100			12	0
		Tingha	2005	963	S	A					NL	100	NL	100	NL	100	NL	100	NL	100	NL	100	NL	100				0
Guyra Council		Total/Weighted Average [1,6]		4,263		CEA, A				108	15	100	20	100	15	100	5	100	10	100	1	100	NL	100		0.0	12	0
		Bingara	1970	2,000	T	TF			L	103	NL	100	NL	100	NL	100	NL	100	NL	100	NL	100	NL	100			12	0
		Warialda	1969	1,500	T	TF			L R O	216	20	100	30	100	NL	100	NL	100	10	100	NL	100	NL	100			12	0
Gwydir Shire Council		Total/Weighted Average [1,6]		3,500		TF			L R O	319	20	100	30	100	NL	100	NL	100	10	100	NL	100	NL	100		0.0	24	0
Harden Council		Harden Murrumburrah	1978	4,000	S	TF			R	510	20	100	30	45	NL	100	NL	100	NL	100	NL	100	NL	100		0.0	12	0
		Port Macquarie	1993	52,000	AT	IEA	Y	Y	R	5,365	10	100	15	74	20	100	5	100	2	100	1	55	200	100	2		12	0
		Camden Haven (Dunbogan)	1991	9,000	AS	TF			O	892	20	10	30	100	NL	100	NL	100	10	100	NL	100	NL	100	3		12	0
		Wauchope	1991	8,000	AS	IEA	Y		R	974	30	100	30	100	NL	100	10	100	NL	100	NL	100	NL	100			12	0
		Lake Cathie\Bonny Hills	2009	9,000	AT	CEA	Y	Y	L	507	20	100	30	100	NL	100	NL	100	10	100	NL	100	NL	100	1		12	0
		Kew/Kendall	2001	3,000	AS	IEA	Y			119	20	100	30	57	NL	100	NL	100	NL	100	NL	100	500	100			12	0
Port Macquarie-Hastings Council		Total/Weighted Average [1,6]		81,000		IEA, TF, BNR			L R O	7,857	10	90	15	82	20	100	5	100	2	100	1	69	200	100	6	0.0	60	0

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	% Samples 50	mg/L 51	% Samples 52	mg/L 53	% Samples 54	mg/L 55	% Samples 56	mg/L 57	% Samples 58	mg/L 59	% Samples 60	cfu /100mL 61	% Samples 62	68	69	days 63	days 67
		McGraths Hill	1969	13,000	T		Y	Y	R	826	30	100	75	100	NL	100	NL	100	10	100	NL	100	NL	100			26	0
		South Windsor	2003	27,000	AT		Y	Y	R	1,548	10	100	15	100	10	100	2	100	NL	100	NL	100	200	100			26	0
Hawkesbury City Council		Total/Weighted Average [1,6]		40,000		unk			R	2,374	10	100	15	100	10	100	2	100	NL	100	NL	100	200	100		0.0	52	0
Hay Council		Hay			S	TF			L R	277	-	100	-	100	NL	100	NL	100	NL	100	NL	100	NL	100		0.0		0
		Inverell	1986	12,000	AS	IEA			R	680	20	100	30	100	NL	100	NL	100	10	100	NL	100	NL	100			14	0
		Ashford	1970	1,000	AS	IEA			R	30	20	100	30	25	NL	100	NL	100	10	100	NL	100	NL	100			14	0
		Delungra	1970	500	AS	IEA			R	25	20	100	30	75	NL	100	NL	100	10	100	NL	100	NL	100			14	0
	No licence limits	Gilgai	1980	500	S	A			R	30	-	-	-	-		100	NL	100		100		100		100				0
Inverell Council		Total/Weighted Average [1,6]		14,000		IEA			R	765	20	96	30	92	NL	96	NL	100	10	96	NL	96	NL	96		0.0	42	0
Jerilderie Council		Jerilderie	1966	2,000	S	A				68	20	50	30	25	NL	100	NL	100	10	75	NL	100	NL	100		0.0	4	0
Junee Council		Junee	1992	7,000	T	TF				273	30	100	30	75	NL	100	NL	100	10	100	NL	100	600	100		0.0	4	0
		Kempsey West	1991	12,000	T	TF		Y	L R	996	15	100	20	46	15	100	5	100	10	100	1	100	600	76	3		26	0
		South West Rocks	2009	6,000	S	IEA		Y	L	645	20	100	30	100	NL	100	NL	100	10	100	NL	100	NL	100	1		12	0
		Kempsey South	1987	5,400	T	TF		Y	L R	343	20	100	30	100	NL	100	NL	100	10	100	NL	100	NL	100	1		26	0
		Crescent Head	2002	4,000	T	IEA	Y	Y	L O	123	15	100	20	100	15	100	5	100	10	100	1	100	200	100			26	0
		Smithtown\Gladstone	1983	2,000	T	IEA			R	164	20	100	30	100	NL	100	NL	100	10	100	NL	100	NL	100			12	0
		Frederickton	1980	1,000	T	IEA			L R	90	20	100	30	50	NL	100	NL	100	10	100	NL	100	NL	100			12	0
		Hat Head	2003	2,500	T	IEA		Y	L	37	10	100	15	100	10	100	2	100	2	100	NL	100	200	100			26	0
Kempsey Council		Total/Weighted Average [1,6]		32,900		IEA, TF			L R O	2,398	15	100	20	76	15	100	5	100	10	100	1	100	600	90	5	0.6	140	0
		Kyogle	2009	3,200	AS	A	Y	Y	R	330	20	100	30	85	NL	100	NL	100	10	100	NL	100	NL	100	4		13	0
		Bonalbo	2002	500	AS	IEA	Y		L R	29	20	100	30	100	NL	100	NL	100	10	100	NL	100	NL	100			12	0
		Woodenbong	2007	662	AS	IEA	Y		L R	29	20	100	30	83	NL	100	NL	100	10	100	NL	100	NL	100			12	0
Kyogle Council		Total/Weighted Average [1,6]		4,362		IEA, TF			L R	388	20	100	30	86	NL	100	NL	100	10	100	NL	100	NL	100	4	2.4	37	0
		Condobolin	1982	4,000	AS	IEA			L	302	20	100	30	33	40	100	NL	100	10	100	10	100	1500	100	3		12	0
		Tottenham	1979	1,000	AS	IEA	Y		L	53	-	-	-	-		100	NL	100		100		100		100				0
		Lake Cargelligo	1981	2,000	AS	IEA	Y		L	141	-	-	-	-		100	NL	100		100		100		100				0
Lachlan Council		Total/Weighted Average [1,6]		7,000		IEA, TF			L	496	20	61	30	20	40	61	NL	100	10	61	10	61	1500	61	3	1.4	12	0
		Leeton	1999	27,000	T	IEA		Y	L	2,463	70	100	70	100	NL	100	NL	100	NL	100	NL	100	NL	100			6	0
		Yanco	1980	1,000	T	IEA				147	30	100	40	100	NL	100	NL	100	15	100	NL	100	600	67			4	0
	No licence limits	Whitton	2000	500	S	A				57	NL	100	NL	100	NL	100	NL	100	NL	100	NL	100	NL	100				0
Leeton Council		Total/Weighted Average [1,6]		28,500		IEA, TF			L	2,667	70	100	70	100	NL	100	NL	100	NL	100	NL	100	NL	98		0.0	10	0
		Lismore East	1996	30,500	AT	IEA	Y	Y	R	2,216	15	100	20	100	15	100	5	100	10	100	1	100	NL	100			52	0
		Lismore South	1996	22,000	T	TF	Y	Y	R	3,119	15	100	20	100	15	100	5	100	10	100	1	100	NL	100	10		52	0
		Nimbin	1993	600	T	IEA	Y	Y	R	45	20	100	30	100	15	100	5	100	10	100	1	100	NL	100			15	0
Lismore City Council		Total/Weighted Average [1,6]		53,100		IEA, TF, BNR			R	5,380	15	100	20	100	15	100	5	100	10	100	1	100	NL	100	10	0.8	119	0
		Lithgow	2006	23,000	T	TF		Y	L R O	1,777	15	100	25	100	15	100	NL	100	NL	100	1	100	200	75	-		12	0
		Portland		-					L R O	-	30	75	50	100	35	83	NL	100	10	100	6	100	600	100	-		12	-
		Wallerawang		-					L R O	-	30	100	50	100	35	100	NL	100	10	100	10	100	600	75	-		12	-
City of Lithgow		Total/Weighted Average [1,6]		23,000		TF			L R O	1,777	15	100	25	100	15	100	NL	100	NL	100	1	100	200	75	-	-	36	-
		Quirindi		-					L R O	-	20	-	30	-		100	NL	100	10	-		100		100	-			-
		Werris Creek		-					L R O	-	20	-	30	-		100	NL	100	10	-		100		100	-			-
Liverpool Plains Council		Total/Weighted Average [1,6]				IEA, TF			L R O																-	-		-
		Lockhart	1967	3,000	T	TF				82	20	100	30	100	NL	100	NL	100	10	100	NL	100	NL	100			4	0
		The Rock	1979	2,000	AS	AN	Y	Y		93	20	100	30	100	NL	100	NL	100	10	100	NL	100	NL	100			4	0
	No licence limits	Yerong Creek	2004	250	S	A				-	NL	100	NL	100	NL	100	NL	100	NL	100	NL	100	NL	100				0
Lockhart Council		Total/Weighted Average [1,6]		5,250		IEA, TF				175	20	100	30	100	NL	100	NL	100	10	100	NL	100	NL	100		0.0	8	0
		Dawson River	1999	30,000	T	CEA	Y		R	1,575	30	100	30	100	NL	100	5	100	NL	100	NL	100	NL	100	10		12	0
		Tea Gardens	1996	14,000	AT	IEA	Y	Y	L	470	10	100	15	100	10	88	2	100	5	100	1	100	10	100	1		26	0
		Forster	1995	32,000	AT	IEA	Y	Y	O	2,093	30	100	30	100	NL	100	NL	100	10	100	NL	100	NL	100	9		12	0
		Harrington	1994	8,000	AS	CEA	Y		L	285	20	100	30	100	NL	100	NL	100	NL	100	NL	100	NL	100	3		12	0
		Wingham	2008	7,500	AS	CEA	Y		R	417	30	100	30	100	NL	100	10	100	NL	100	NL	100	NL	100	2		12	0
		Old Bar	2004	7,000	T	CEA	Y	Y	L	319	20	100	30	100	NL	100	NL	100	10	100	NL	100	NL	100	1		12	0
		Hallidays Point	2007	25,000	T	CEA	Y	Y	L	1,006	30	100	20	100	NL	100	NL	100	10	100	NL	100	NL	100	1		4	0
		Bulahdelah	1995	3,000	AT	IEA	Y	Y	R	127	10	100	15	100	NL	100	NL	100	10	100	NL	100	200	100			17	0
		Stroud	2009	1,500	T	CEA	Y	Y		65	10	100	15	100	10	100	2	100	7	100	5	100	200	100	1		12	0
	No licence limits	Manning Point	2003	600	T	IEA	Y	Y	L	22	NL	100	NL	100	NL	100	NL	100	NL	100	NL	100	NL	100				0
		Lansdowne	2002	600	AS	IEA	Y		R	26	NL	100	NL	100	NL	100	NL	100	NL	100	NL	100	NL	100			3	0
	No licence limits	Coopernook	2002	600	AS	IEA	Y			29	NL	100	NL	100	NL	100	NL	100	NL	100	NL	100	NL	100				0
MidCoast County Council		Total/Weighted Average [1,6]		129,800		IEA, CEA, TF			L R O	6,435	30	100	30	100	NL	99	NL	100	10	100	NL	100	NL	100	28	0.9	122	0
		Mudgee	1934	10,900	T	TF			R	1,099	20	75	50	100	20	66	NL	100	10	100	6	25	NL	100			12	0
		Gulgong	1996	3,500	AS	IEA	Y			166	NL	100	NL	100	NL	100	NL	100	NL	100	NL	100	NL	100			12	0
		Kandos	1972	2,800	T	TF			R	121	NL	100	NL	100	NL	100	NL	100	NL	100	NL	100	NL	100			12	0
		Rylstone	1972	1,300	T	TF			R	52	NL	100	NL	100	NL	100	NL	100	NL	100	NL	100	NL	100			12	0
Mid-Western Regional Council		Total/Weighted Average [1,6]		18,500		IEA, TF			R	1,438	20	81	50	100	20	74	NL	100	10	100	6	43	NL	100		0.0	48	0
		Ashley	2002	400	nil	A			L	30	-	-	-	-		100	NL	100		100		100		100				0
		Boggabilla	2008	1,106	P	A			L	20	NL	100	NL	100	NL	100	NL	100	NL	100	NL	100	NL	100				0
		Moree	2001	15,000	AS	IEA			L	1,048	20	100	30	100	NL	100	NL	100	10	100	NL	100	NL	100			4	0
	No licence limits	Mungindi	1998	1,400	AS	IEA			L	56	NL	100	NL	100	NL	100	NL	100	NL	100	NL	100	NL	100				0
Moree Plains Council		Total/Weighted Average [1,6]		17,906		IEA, TF			L	1,154	20	97	30	97	NL	97	NL	100	10	97	NL	97	NL	97		0.0	4	0
	No licence limits	Moama	1997	10,000	S	A			L	537	-	100	-	100	NL	100	NL	100	NL	100	NL	100	NL	100			12	0
	No licence limits	Mathoura	1997	1,600	S	A				86	NL	100	NL	100	NL	100	NL	100	NL	100	NL	100	NL	100			2	0
Murray Council		Total/Weighted Average [1,6]		11,750		A			L	623	-	100	-	100	NL	100	NL	100	NL	100	NL	100	NL	100		0.0	14	0
		Darlington Point		-					L R O	-	10	-	15	-	10	-	NL	100		100	10	-	200	-	-			-
		Coleambally		-					L R O	-	-	-	-	-		100	NL	100		100		100		100	-			-
Murrumbidgee Council		Total/Weighted Average [1,6]				C			L R O																-	-		-
		Muswellbrook	1986	12,000	S	TF			L R O	1,029	20	85	30	40	NL	100	NL	100	10	100	NL	100	NL	100	17		20	0
		Denman		1,500	AS	IEA			L R	177	20	79	30	26	NL	100	NL	100	10	100	NL	100	NL	100	2		19	0
Muswellbrook Council		Total/Weighted Average [1,6]		13,500		IEA, TF			L R O	1,206	20	84	30	38	NL	100	NL	100	10	100	NL	100	NL	100	19	3.7	39	0

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	% Samples 50	mg/L 51	% Samples 52	mg/L 53	% Samples 54	mg/L 55	% Samples 56	mg/L 57	% Samples 58	mg/L 59	% Samples 60	cfu /100mL 61	% Samples 62			68	69	days 63	days 67
Nambucca Council		Nambucca Heads	1986	10,000	AS	IEA		Y	L R O	936	20	85	30	60	NL	100	NL	100	10	100	NL	100	NL	100			3		27	0
		Macksville	1998	5,500	T	IEA		Y	O	405	15	100	20	100	5	8	5	100	10	100	1	100	200	100			1		26	0
		Scotts Head	1985	2,000	S	IEA			L R O	94	20	100	30	77	NL	100	NL	100	10	100	NL	100	NL	100			-		13	-
		Bowraville	1985	1,200	T	TF			L	130	20	54	30	31	NL	100	NL	100	10	100	NL	100	NL	100			1		13	0
		Total/Weighted Average [1,6]		18,700		IEA, TF			L R O	1,565	20	87	30	69	NL	76	NL	100	10	100	NL	100	NL	100			5	0.9	79	0
		Narrabri	1996	8,300	S	TF			L	685	20	100	NL	100	NL	100	NL	100	10	100	NL	100	NL	100					12	0
	No licence limits	Wee Waa	1972	1,500	S	TF			L	135	NL	100	NL	100	NL	100	NL	100	NL	100	NL	100	NL	100						0
	No licence limits	Boggabri	1956	1,000	S	TF			L	44	NL	100	NL	100	NL	100	NL	100	NL	100	NL	100	NL	100						0
Narrabri Council		Total/Weighted Average [1,6]		10,800		TF			L	864	20	100	NL	100	NL	100	NL	100	10	100	NL	100	NL	100				0.0	12	0
Narrandera Council		Narrandera	2006	6,000	AS	C		Y	L R O	630	20	100	30	100	NL	100	NL	100	10	100	NL	100	200	100				0	12	0
	No licence limits	Narromine	2005	5,000	S	A				340	NL	100	NL	100	NL	100	NL	100	NL	100	NL	100	NL	100					6	0
	No licence limits	Trangie	1997	1,000	AS	A			L	230	NL	100	NL	100	NL	100	NL	100	NL	100	NL	100	NL	100					6	0
Narromine Council		Total/Weighted Average [1,6]		6,000		A			L	570	NL	100	NL	100	NL	100	NL	100	NL	100	NL	100	NL	100				0.0	12	0
Oberon Council		Oberon	1989	7,000	S	TF		Y	L R O	240	20	100	25	100	15	83	NL	100	10	100	1	100	200	100				0.0	12	0
		Orange	1988	60,000	AS	CEA	Y	Y	R	3,360	20	100	25	100	15	100	NL	100	10	100	1	100	400	100	24				22	0
		Spring Hill	1990	1,000	AS	CEA				25	20	100	50	100	NL	100	NL	100	NL	100	NL	100	NL	100					20	0
Orange City Council		Total/Weighted Average [1,6]		61,000		CEA			R	3,385	20	100	25	100	15	100	NL	100	10	100	1	100	400	100	24	1.5			42	0
		Braidwood	1966	2,000	S	TF			R	79	20	100	30	100	NL	100	NL	100	10	100	NL	100	NL	100	1				13	0
		Bungendore	1993	2,000	T	IEA	Y	Y	R	185	10	75	15	100	NL	100	NL	100	10	100	NL	100	NL	100					4	0
		Captains Flat	1984	500	T	IEA	Y		R	33	20	100	30	100	NL	100	NL	100	10	100	NL	100	NL	100					4	0
Palerang Council		Total/Weighted Average [1,6]		4,500		IEA			R	297	10	84	15	100	NL	100	NL	100	10	100	NL	100	NL	100	1	0.5			21	0
		Parkes	1994	14,500				Y	L R	377	30	80	50	30	40	100	NL	100	10	100	10	100	NL	100					12	0
		Tullamore	2009	250						7	NL	100	NL	100	NL	100	NL	100	NL	100	NL	100	NL	100						0
	No licence limits	Peak Hill	1983	2,000					L	112	NL	100	NL	100	NL	100	NL	100	NL	100	NL	100	NL	100						0
Parkes Council		Total/Weighted Average [1,6]		16,750		C			L R	496	30	85	50	47	40	100	NL	100	10	100	10	100	NL	100				0.0	12	0
Queanbeyan City Council		Queanbeyan	1986	34,500	AS	CEA, TF			L R	3,527	NL	100	NL	100	NL	100	NL	100	NL	100	NL	100	NL	100				0	365	0
		Casino	1986	13,300			Y		L R O	1,155	20	100	30	100	NL	100	NL	100	10	100	NL	100	NL	100	5				26	0
		Evans Head	2007	5,500			Y	Y	L R O	550	10	100	15	100	10	100	2	100	2	100	1	100	200	100					26	0
		Coraki	1968	1,200					L R O	131	NL	100	NL	100	NL	100	NL	100	NL	100	NL	100	NL	100					13	0
		Rileys Hill	1996	200			Y	Y	L R O	6	15	100	20	100	15	100	2	100	10	100	1	100	200	100					13	0
Richmond Valley Council		Total/Weighted Average [1,6]		20,200		IEA, TF			L R O	1,842	20	100	30	100	NL	100	NL	100	10	100	NL	100	NL	100	5	0.8			78	0
		Nowra	1989	21,000	AS	TF	Y		R	1,707	40	100	40	58	NL	100	NL	100	10	100	NL	100	NL	100	3				12	0
		St Georges Basin	1992	16,000	AS	IEA	Y	Y		913	10	100	15	100	15	100	5	100	2	100	1	100	200	100	1				12	0
		Huskisson	2002	14,000	T	IEA	Y	Y		505	10	100	15	100	NL	100	5	100	2	100	1	100	200	100					12	0
		Bomaderry	1990	12,500	AS	TF	Y		R	930	20	100	40	50	NL	100	NL	100	10	100	NL	100	NL	100	1				12	0
		Milton Ulladulla	2006	31,500	T	IEA	Y		O	1,043	15	100	20	100	NL	100	NL	100	2	100	NL	100	200	100					12	0
		Culburra	2005	10,500	T	IEA	Y			561	10	100	15	100	15	100	5	100	2	100	NL	100	200	100	1				12	0
		Sussex Inlet	2007	8,000	T	IEA			O	443	20	100	30	100	NL	100	NL	100	10	100	NL	100	NL	100	4				12	0
		Callala	2000	6,000	T	IEA	Y	Y		223	10	100	15	100	15	100	5	100	2	100	1	100	200	100	2				12	0
		Shoalhaven Heads	1983	4,000	AS	IEA	Y		L R	252	30	100	30	100	NL	100	NL	100	10	100	NL	100	NL	100					12	0
		Berry	2007	3,000	T	IEA			R	214	20	100	30	100	NL	100	NL	100	10	100	NL	100	NL	100	1				12	0
Shoalhaven City Council		Total/Weighted Average [1,6]		126,500		IEA, TF			R O	6,942	40	100	40	83	NL	100	NL	100	10	100	NL	100	NL	100	13	0.3			144	0
Singleton Council		Singleton	1988	20,000	AS	IEA	Y		R	1,178	30	100	30	100	15	100	NL	100	10	100	10	100	NL	100	4	0.7			12	0
		Jindabyne	1984	8,000	AT	IEA	Y	Y	R	245	10	100	15	100	10	100	2	100	2	100	NL	100	200	100					16	0
		Berridale	2008	2,000	AT	IEA	Y		R	53	20	100	30	100	NL	100	NL	100	10	100	NL	100	NL	100					13	0
		Adaminaby	1972	750	S	TF	Y			48	20	39	30	39	NL	100	NL	100	10	100	NL	100	NL	100					13	0
	No licence limits	Interlaken	1972	1,000	P		Y		L R O	-	NL	100	NL	100	NL	100	NL	100	NL	100	NL	100	NL	100	-				-	-
Snowy River Council		Total/Weighted Average [1,6]		11,750		IEA, CEA			L R O	346	10	92	15	92	10	100	2	100	2	100	NL	100	200	100		0.0			42	0
		Tamworth (Westdale)	1996	33,000	AS	IEA		Y	R	3,052	30	100	25	100	NL	100	NL	100	NL	100	2	100	NL	100	5				52	0
	No licence limits	Tamworth (Swan St)	1968	15,000	S	TF		Y	L	1,371	NL	100	NL	100	NL	100	NL	100	NL	100	NL	100	NL	100	7				12	0
		Manilla	1955	2,850	S	TF			L	163	20	75	30	75	NL	100	NL	100	NL	100	NL	100	NL	100	3				4	0
	No licence limits	Kootingal	1992	2,000	S	A			L	94	NL	100	NL	100	NL	100	NL	100	NL	100	NL	100	NL	100	1				4	0
		Barraba	1956	1,500	S	TF			L	153	20	100	30	100	NL	100	NL	100	NL	100	NL	100	NL	100					12	0
Tamworth Regional Council		Total/Weighted Average [1,6]		54,350		IEA, TF			L R	4,833	30	99	25	99	NL	100	NL	100	NL	100	2	100	NL	100	16	0.9			84	0
Temora Council	*No licence limits*	Temora	2005	8,000	T	A				120	30	100	40	100	NL	100	NL	100	10	80	NL	100	200	100		0.0			12	0
		Tenterfield	2009	3,700		TF	Y	Y	R	259	40	100	45	100	NL	100	NL	100	NL	100	NL	100	NL	100					24	0
		Urbenville	1988	500	T	IEA			L R O	-	20	100	30	-	NL	100	NL	100	10	100	NL	100	NL	100					12	0
Tenterfield Council		Total/Weighted Average [1,6]		4,200		IEA, TF			L R O	259	40	100	45	100	NL	100	NL	100	NL	100	NL	100	NL	100		1.2			36	0
	No licence limits	Khancoban	1998	2,500	S	TF			L	83	NL	100	NL	100	NL	100	NL	100	NL	100	NL	100	NL	100					4	0
	No licence limits	Tumbarumba		3,500	S	TF			R	229	NL	100	NL	100	NL	100	NL	100	NL	100	NL	100	NL	100	1				4	0
Tumbarumba Council		Total/Weighted Average [1,6]		6,000		TF			L R	312	NL	100	NL	100	NL	100	NL	100	NL	100	NL	100	NL	100	1	1.0			8	0
		Tumut	2007	1,200	AT	IEA	Y	Y	L R	614	10	100	15	100	10	100	2	100	2	100	1	100	200	100					12	0
		Brungle	2007	140	AT	IEA	Y	Y	R	5	15	100	20	100	15	100	NL	100	NL	100	1	100	200	100					4	0
		Batlow	1968	1,400	S	TF			L R	98	40	100	45	100	NL	100	NL	100	10	100	NL	100	NL	100					4	0
		Talbingo	1995	1,100	AT	CEA	Y	Y	L R	37	25	100	35	100	25	100	10	100	10	100	2	100	NL	100					4	0
		Adelong	1967	1,400	AS	IEA	Y	Y	L R	61	10	100	15	100	10	100	5	100	5	100	1	100	NL	100					4	0
Tumut Council		Total/Weighted Average [1,6]		5,240		IEA, CEA, TF			L R	815	10	100	15	100	10	100	2	100	2	100	1	100	200	100		0.0			28	0
		Banora Point	1995	62,500	AT	BNR	Y	Y	R	5,176	15	100	20	100	NL	100	NL	100	10	100	NL	100	10000	100	2				52	0
		Murwillumbah	2007	16,000	AT	IEA	Y	Y	R	1,456	10	100	15	80	10	88	5	100	2	100	1	100	200	100					26	0
		Kingscliff	2008	25,000	AT	BNR	Y	Y	R	1,026	10	100	15	100	5	100	2	100	5	100	NL	100	100	85					26	0
		Hastings Point	2005	16,000	T	IEA	Y	Y	L	1,095	10	100	15	100	10	88	NL	100	5	100	1	88	NL	100					26	0
		Tumbulgum	1996	700	AT	IEA	Y	Y	R	29	15	100	20	100	15	100	5	85	NL	100	1	100	200	100					26	0
		Tyalgum	1990	500	AS	IEA	Y	Y	L	20	25	100	50	85	NL	100	NL	100	10	-	NL	100	NL	100	-				12	0
		Uki	2004	600	AS	CEA	Y	Y	L	18	15	100	20	81	25	100	5	100	10	100	3	48	600	87	2				12	0
Tweed Council		Total/Weighted Average [1,6]		121,300		IEA, TF, BNR			L R	8,819	15	100	20	97	NL	97	NL	100	10	100	NL	98	10000	98	4	0.1			180	0

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	% Samples	mg/L	% Samples	mg/L	% Samples	mg/L	% Samples	mg/L	% Samples	mg/L	% Samples	cfu /100mL	% Samples					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
		Scone	1988	7,000	AS	TF			L	1,298	20	100	30	100	NL	100	NL	100	10	100	NL	100	NL	100				12	0
		Aberdeen	1983	4,000	AS	AN			R	169	20	100	30	100	NL	100	NL	100	10	100	NL	100	NL	100				12	0
		Merriwa	1970	1,600	S	TF			L R	58	20	100	30	100	NL	100	NL	100	10	-	NL	100	NL	100				4	0
	No licence limits	Murrurundi	1979	1,000	AS	IEA			R	68	NL	100	NL	100	NL	100	NL	100	NL	100	NL	100	NL	100					0
Upper Hunter Council		Total/Weighted Average [1,6]		13,600		IEA, TF			L R	1,593	20	100	30	100	NL	100	NL	100	10	96	NL	100	NL	100			0.0	28	0
		Crookwell	1996	4,200	T	IEA	Y	Y	R	180	20	100	30	100	15	100	5	100	10	100	1	100	200	100				12	0
		Gunning	1976	1,000	T	IEA			R	50	20	100	30	100	NL	100	NL	100	10	100	NL	100	NL	100				12	0
Upper Lachlan Council		Total/Weighted Average [1,6]		5,200		IEA			R	230	20	100	30	100	15	100	5	100	10	100	1	100	200	100			0.0	24	0
Uralla Council		Uralla	1994	3,960	AS	CEA	Y	Y	R	140	15	100	20	100	10	100	1	83	10	100	1	100	200	100	2	1.8		12	1
	No licence limits	Urana	1996	754	S	A	Y	Y		55	NL	100	NL	100	NL	100	NL	100	NL	100	NL	100	NL	100				51	0
	No licence limits	Oaklands	1996	520	S	A	Y	Y		35	NL	100	NL	100	NL	100	NL	100	NL	100	NL	100	NL	100				51	0
Urana Council		Total/Weighted Average [1,6]		1,274		A				90	NL	100	NL	100	NL	100	NL	100	NL	100	NL	100	NL	100			0.0	102	0
		Wagga (Narrung St)	2010	72,917	T	CEA	Y	Y	L R	3,548	20	100	30	100	NL	100	NL	100	10	100	1	58	NL	100				12	0
		Wagga (Kooringal)	2010	18,750	T	IEA	Y	Y	L R	1,266	20	100	30	100	30	100	8	100	10	100	1	100	NL	100	1			12	0
		Forest Hill	1974	6,000	T	IEA			L	227	20	100	30	75	NL	100	NL	100	10	100	NL	100	NL	100				4	0
	No licence limits	Uranquinty	1984	1,000	S	A			L	105	NL	100	NL	100	NL	100	NL	100	NL	100	NL	100	NL	100					0
	No licence limits	Tarcutta	1988	500	S	A			L	28	NL	100	NL	100	NL	100	NL	100	NL	100	NL	100	NL	100					0
Wagga Wagga City Council		Total/Weighted Average [1,6]		99,167		IEA, CEA, TF			L R	5,174	20	100	30	99	NL	100	NL	100	10	100	1	71	NL	100	1	0.0	28	0
	No licence limits	Barham		-					L R O	-	NL	100	NL	100	NL	100	NL	100	NL	100	NL	100	NL	100	-			-
	No licence limits	Moulamein		-					L R O	-	NL	100	NL	100	NL	100	NL	100	NL	100	NL	100	NL	100	-			-
	No licence limits	Murray Downs		-					L R O	-	NL	100	NL	100	NL	100	NL	100	NL	100	NL	100	NL	100	-			-
	No licence limits	Tooleybuc		-					L R O	-	NL	100	NL	100	NL	100	NL	100	NL	100	NL	100	NL	100	-			-
Wakool Council		Total/Weighted Average [1,6]				IEA, BNR			L R O			100		100		100		100		100		100		100	-	-		-
Walcha Council		Walcha	1971	2,400	S	TF			L R	178	20	58	30	100	NL	100	NL	100	10	100	NL	100	NL	100			0	12	0
		Walgett	1958	3,200	S	AN			L R O	300	NL	100	NL	100	NL	100	NL	100	NL	100	NL	100	NL	100					0
		Lightning Ridge	1979	1,000	S	A			L R O	-	NL	100	NL	100	NL	100	NL	100	NL	100	NL	100	NL	100	-				-
		Collarenebri	1970	600	S	A			L R O	-	NL	100	NL	100	NL	100	NL	100	NL	100	NL	100	NL	100	-				-
Walgett Council		Total/Weighted Average 1,3		4,800		TF			L R O	300	NL	100	NL	100	NL	100	NL	100	NL	100	NL	100	NL	100	-	-			-
		Warren	1958	2,250	S	A			L	167	45	100	65	100	30	100	NL	100	10	100	10	100	NL	100				4	0
		Nevertire	1983	200	P	A			L	14	NL	100	NL	100	NL	100	NL	100	NL	100	NL	100	NL	100					0
Warren Council		Total/Weighted Average [1,6]		2,450		TF			L	181	45	100	65	100	30	100	NL	100	10	100	10	100	NL	100			0.0	4	0
		Coonabarabran	1964	3,500	S	TF		Y	R	243	20	100	25	100	20	100	NL	100	10	100	10	100	NL	100				12	0
		Coolah	1970	1,000	S				L	68	40	75	150	75	15	50	NL	100	3	100	3	100	NL	100				2	0
	No licence limits	Baradine	1997	1,000	P	A			L	50	NL	100	NL	100	NL	100	NL	100	NL	100	NL	100	NL	100					0
		Dunedoo	1970	800	S	CEA			L R O	84	NL	100	NL	100	NL	100	NL	100	NL	100	NL	100	NL	100				2	0
Warrumbungle Shire Council		Total/Weighted Average [1,6]		6,300		CEA, TF			L R O	445	20	96	25	96	20	92	NL	100	10	100	10	100	NL	100			0.0	16	0
Weddin Council	*No licence limits*	Grenfell	1943	2,500	S	TF			L R	169	20	100	30	100	40	100	NL	100	10	100	10	100	NL	100			0.0	3	1
		Wellington	2006	8,000	S	IEA	Y	Y	R	583	15	100	30	100	15	100	2	100	10	100	1	100	600	100				12	0
	No licence limits	Nanima		-					L R O	-	NL	100	NL	100	NL	100	NL	100	NL	100	NL	100	NL	100	-				-
Wellington Council		Total/Weighted Average [1,6]		8,000		IEA			L R O	583	15	100	30	100	15	100	2	100	10	100	1	100	600	100			0.0	12	0
		Buronga Gol Gol	1994	5,000	T	A					50	100	50	100	NL	100	NL	100	10	100	NL	100	NL	100	3			4	0
		Wentworth	1984	3,500	T	TF				200	30	100	45	100	NL	100	NL	100	10	100	NL	100	200	100				4	0
		Dareton	1984	2,000	T	TF			L	174	30	100	45	100	NL	100	NL	100	10	100	NL	100	600	100	6			4	0
	No licence limits	Namatjira	1988	1,200	S	A			L	72	NL	100	NL	100	NL	100	NL	100	NL	100	NL	100	NL	100				100	0
		Wentworth (East)	1991	600	T	A			L	96	50	100	50	100	NL	100	NL	100	10	100	NL	100	200	100				4	0
Wentworth Council		Total/Weighted Average [1,6]		12,300		TF, A			L	542	30	100	45	100	NL	100	NL	100	10	100	NL	100	200	100	9	5.0	116	0
		Mittagong	2002	14,000	AT	IEA	Y	Y	L R	843	10	100	15	100	10	100	2	100	10	100	NL	100	200	100	15		26	0
		Bowral	2006	14,600	AT	IEA	Y	Y	R	1,129	10	100	15	100	10	100	2	100	5	100	1	100	200	100	13		26	0
		Moss Vale	1995	9,000	AT	IEA	Y	Y	R	792	20	100	30	100	15	89	2	100	NL	100	1	100	200	100	17		26	0
		Bundanoon	2010	5,400	AT	IEA	Y	Y	R	303	20	100	30	100	15	100	NL	100	NL	100	2	100	NL	100	2		14	0
		Berrima	1990	2,000	T	IEA	Y	Y	R	78	20	100	30	100	15	100	2	100	NL	100	1	100	NL	100	1		13	0
Wingecarribee Council		Total/Weighted Average [1,6]		45,000		IEA			L R	3,145	10	100	15	100	10	97	2	100	5	100	1	100	200	100	48	3.3	105	0
	No licence limits	Bateau Bay	1989	58,000	S	AN			O	2,577	NL	100	NL	100	NL	100	NL	100	NL	100	NL	100	NL	100	5		30	0
	No licence limits	Wyong South	1988	48,000	S	IEA			O	4,333	NL	100	NL	100	NL	100	NL	100	NL	100	NL	100	NL	100	10		30	0
	No licence limits	Charmhaven	1989	40,000	S	IEA			O	2,224	NL	100	NL	100	NL	100	NL	100	NL	100	NL	100	NL	100	10		30	0
	No licence limits	Toukley	1973	41,500	S	TF			L O	3,612	NL	100	NL	100	NL	100	NL	100	NL	100	NL	100	NL	100	10		30	0
	No licence limits	Gwandalan	1989	12,000	S	IEA			O	382	NL	100	NL	100	NL	100	NL	100	NL	100	NL	100	NL	100	1		30	0
	No licence limits	Mannering Park	1987	12,000	S	IEA			L R O	852	NL	100	NL	100	NL	100	NL	100	NL	100	NL	100	NL	100	16		30	0
Wyong Council		Total/Weighted Average [1,6]		211,500		IEA, TF			L R O	13,980	NL	100	NL	100	NL	100	NL	100	NL	100	NL	100	NL	100	52	0.9	180	0
		Yass No 2	2010	6,800	AS	IEA		Y	L R	342	NL	100	NL	100	NL	100	NL	100	NL	100	NL	100	NL	100			6	0
		Yass	1935	3,500	S	TF			L R O	75	30	100	30	100	NL	100	NL	100	NL	100	NL	100	NL	100			6	0
Yass Valley Council		Total/Weighted Average [1,6]		10,300		IEA, TF			L R O	417	NL	100	NL	100	NL	100	NL	100	NL	100	NL	100	NL	100		0.0	12	0
Young Council		Young			S	TF			L R O		20	-	25	-		100	NL	100	10	-		100		100	-	-		-

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 (49), (51), (53), (55), (57), (59) and (61).
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 *2009-10 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 NSW Office of Water (NOW) 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.

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

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[1] is recommended after 30 minutes contact time[2] and before water reaches the first consumer
- for filtered water, turbidity should be low (<1 NTU[3])
- pH should be <8.5[4]
- the reticulation system should be properly maintained. New mains and repaired mains should be super-chlorinated[5] before use.

Chlorine residual

- A minimum free chlorine residual of about 0.2mg/L[6,7] 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@water.nsw.gov.au.

[1] Part IV Information Sheet I, Disinfection of Drinking Water, *Australian Drinking Water Guidelines 2004.*
[2] This should be sufficient to ensure microbial control, given a clean distribution system and no significant recontamination.
[3] Table 10.10, *Australian Drinking Water Guidelines 2004.*
[4] 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.
[5] *Chlorine Fact Sheet under Drinking Water Treatment Chemicals, Australian Drinking Water Guidelines*, 2004.
[6] Example in Table A10 on page A-21 of *Australian Drinking Water Guidelines*, 2004.
[7] Re-chlorination may be necessary to maintain effective chlorine residual in very long water supply distribution mains.

Appendix F: NMUs – National performance report 2009-10

	WATER UTILITY	WATER RESOURCES																									
		SOURCES OF WATER																									
		Volume of water sourced from surface water				Volume of water sourced from groundwater				Volume of water sourced from desalination				Volume of water sourced from recycling (ie where potable water would normally be supplied)				Volume from bulk supplier				Volume bulk recycled purchased				Total sourced water			
		W1				W2				W3				W4				W5				W6				W7			
		(ML)				(ML)				(ML)				(ML)				(ML)				(ML)				(ML)			
		2006/07	2007/08	2008/09	2009/10	2006/07	2007/08	2008/09	2009/10	2006/07	2007/08	2008/09	2009/10	2006/07	2007/08	2008/09	2009/10	2006/07	2007/08	2008/09	2009/10	2006/07	2007/08	2008/09	2009/10	2006/07	2007/08	2008/09	2009/10
	Sydney Water Corporation	6,395	5,486	5,885	6,065	0	0	0	0	0	0	0	19,952	7,777	10,101	8,264	10,253	502,692	475,156	491,727	479,633	0	0	0	0	516,864	490,743	505,876	515,903
	Hunter Water Corporation	63,711	64,311	61,814	63,433	11,158	3,025	5,504	7,117	0	0	0	0	2,055	2,174	2,872	2,899	0	0	0	0	0	0	0	0	76,924	69,510	70,190	73,449
	Sydney Catchment Authority	503,693	478,184	490,283	582,623	450	169	0	0									3,115	1,077	208	0					507,258	479,430	490,491	582,623
1	Gosford City Council	15,406	8,190	9,209	11,476	380	145	108	96	0	0	0	0	0	0	229	362	80	3,769	3,310	2,120	0	0	0	0	15,866	12,104	12,856	14,054
2	Wyong Shire Council	4,979	15,446	15,369	13,480	511	230	286	292	0	0	0	0	1,233	1,164	1,295	1,024	8,404	769	1,603	3,595	0	0	0	0	15,127	17,609	18,553	18,391
3	Shoalhaven City Council	14,616	14,140	14,854	14,724	0	0	0	0	0	0	0	0	109	125	161	144	78	74	82	87	0	0	0	0	14,803	14,339	15,097	14,955
4	Rous County Council	10,972	10,078	10,501	12,070	0	124	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	10,972	10,202	10,501	12,070
5	MidCoast County Council	9,098	8,566	8,537	8,477	662	665	628	687	0	0	0	0	0	0	4	0	0	0	0	0	0	0	0	0	9,760	9,231	9,169	9,164
6	Tweed Shire Council	10,121	9,429	9,564	10,555	0	0	0	0	0	0	0	0	310	262	645	778	0	0	0	9	0	0	0	0	10,431	9,691	10,209	11,342
7	Port Macquarie-Hastings Council	6,509	6,237	6,117	6,283	0	0	0	0	0	0	0	0	0	88	64	94	0	0	0	0	0	0	0	0	6,509	6,325	6,181	6,377
8	Riverina Water County Council	6,315	3,972	6,055	4,463	11,102	10,844	11,287	10,517	0	0	0	0	0	0	0	0	80	24	24	22	0	0	0	0	17,497	14,840	17,366	15,002
10	Coffs Harbour City Council	5,728	5,458	5,153	5,976			0	-	0	0	0	-			0	-	0	0	0	-	0	0	0	-	5,728	5,458	5,153	5,976
11	Albury City Council	8,752	5,534	6,319	6,881	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8,752	5,534	6,319	6,881
12	Fish River Water Supply	12,101	7,404	5,999	5,124	0	0	0	-	0	0	0	-	0	0	0	-	0	0	0	-	0	0	0	-	12,101	7,404	5,999	5,124
13	Tamworth Regional Council	8,395	7,131	7,239	8,966	346	500	1,455	678	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8,741	7,631	8,694	9,644
14	Clarence Valley Council	11,025	6,949	7,987	7,057	0	0	0	0	0	0	0	0	103	79	127	165	0	0	0	0	0	0	0	0	11,128	7,028	8,114	7,222
15	Eurobodalla Shire Council			3,825	4,034			0	0			0	0			237	371			0	0			0	0			4,062	4,405
16	Wingecarribee Shire Council	1,205	672	876	1,512	0	0	0	0	0	0	0	0	0	49	64	73	4,644	4,601	4,379	3,628	0	0	0	0	5,849	5,322	5,319	5,213
17	Queanbeyan City Council	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4,082	3,416	3,658	3,747	0	0	0	0	4,082	3,416	3,658	3,747
18	Dubbo City Council	8,501	5,952	5,984	6,398	2,056	2,050	1,807	1,663	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	10,557	8,002	7,791	8,061
19	Orange City Council	5,469	4,730	4,125	3,896	63	54	67	55	0	0	0	0	2,836	3,367	3,218	3,032	0	0	0	0	0	0	0	0	8,368	8,151	7,410	6,983
21	Bathurst Regional Council	7,163	6,155	7,528	6,617	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7,163	6,155	7,528	6,617
22	Lismore City Council	148	148	115	173	0	0	0	0	0	0	0	0	0	0	0	0	3,409	3,202	3,406	3,622	0	0	0	0	3,557	3,350	3,521	3,795
23	Bega Valley Shire Council			1,634	1,450			1,855	2,017			0	0			0	0			0	0			0	0			3,489	3,467
24	Ballina Shire Council	0	123	129	130	0	0	4	0	0	0	0	0	193	107	119	717	3,753	3,299	3,316	3,900	0	0	0	0	3,946	3,529	3,568	4,747
25	Kempsey Shire Council	13	974	1,628	1,396	3,920	2,741	1,966	2,338	0	0	0	0	119	46	32	40	0	0	0	0	0	0	0	0	4,052	3,761	3,626	3,774
26	Country Energy	1,515	1,896	3,212	1,030	0	0	0	0	0	0	0	0	641	649	523	622	3,961	3,568	1,633	3,929	0	0	0	0	6,117	6,113	5,368	5,581
27	Byron Shire Council	444	368	349	392	0	0	0	0	0	0	0	0	340	315	235	218	2,366	2,189	2,286	2,617	0	0	0	0	3,150	2,872	2,870	3,227
28A	Goldenfields Water (Reticulation)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5,970	4,749	5,561	5,179	0	0	0	0	5,970	4,749	5,561	5,179
28B	Goldenfields Water (Bulk Supply)			3,957	3,817			4,779	4,509			0	0			0	0			379	390			0	0			9,115	8,716
20	Goulburn Mulwaree			2,433	2,443			0	0			0	0			0	0			0	0			0	0			2,433	2,443
9	Wagga Wagga City Council																												
	LWU Range Max	15,406	15,446	15,369	14,724	11,102	10,844	11,287	10,517	0	0	0	0	2,836	3,367	3,218	3,032	8,404	4,749	5,561	5,179	0	0	0	0	17,497	17,609	18,553	18,391
	LWU Range Min	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3,150	2,872	2,433	2,443
	Median of NMU Indicators shown in Table	6,412	5,743	5,569	4,794	0	0	0	0	0	0	0	0	0	0	2	20	0	0	0	5	0	0	0	0	8,555	6,677	6,250	6,497

Notes * Indicators shown are those published in the 2009/10 National Performance Report.

WATER UTILITY		WATER RESOURCES																													
		USES OF WATER SUPPLIED																													
		Volume of water supplied - Residential (incl nonpotable) W8 (ML)				Volume of water supplied - commercial, municipal, industrial (incl nonpotable) W9 (ML)				Volume of water supplied - other (incl nonpotable) W10 (ML)				Total Urban Water Supplied (Excl Bulk Water & Environmental Flows Incl Recycled & Losses) W11 (ML)				Average Annual Residential Water Supplied W12 (kL/prop)				Volume of water supplied - Environmental flows W13 (ML)				Volume of bulk water exports W14 (ML)				Volume of bulk recycled water exports W15 (ML)			
		2006/07	2007/08	2008/09	2009/10	2006/07	2007/08	2008/09	2009/10	2006/07	2007/08	2008/09	2009/10	2006/07	2007/08	2008/09	2009/10	2006/07	2007/08	2008/09	2009/10	2006/07	2007/08	2008/09	2009/10	2006/07	2007/08	2008/09	2009/10	2006/07	2007/08	2008/09	2009/10
	Sydney Water Corporation	316,813	292,782	320,861	334,488	147,644	136,064	126,712	130,640	45,473	52,855	44,395	40,522	509,930	481,701	491,968	505,650	199	182	198	205	0	0	0	0	0	0	0	0	0	0	0	0
	Hunter Water Corporation	39,238	36,428	37,199	38,463	22,027	20,866	21,487	21,081	9,334	8,715	8,334	8,689	70,599	66,009	67,020	68,233	195	177	180	184	5,110	5,110	5,110	5,110	4,157	1,235	161	2,316	0	0	0	0
	Sydney Catchment Authority																					70,156	70,842	80,680	82,382	507,258	479,430	490,491	481,961				
1	Gosford City Council	9,800	8,990	9,356	9,848	2,401	2,161	2,188	2,159	1,356	905	1,075	1,601	13,557	12,056	12,619	13,608	147	135	140	146	0	0	0	0	3,545	0	0	0	0	0	0	0
2	Wyong Shire Council	7,568	8,184	7,970	8,767		3,434	4,153	4,145		1,210	1,232	988	12,551	12,828	13,355	13,900	139	146	141	154	0	0	0	0	1,966	4,451	4,766	4,491	0	0	0	0
3	Shoalhaven City Council	6,907	6,154	6,484	6,208		4,197	7,143	7,570		2,098	1,502	1,456	13,011	12,449	15,129	15,234	164	144	152	145	0	0	0	0	0	0	0	0	0	0	0	0
4	Rous County Council	513	388	291	286		214	72	1,121		67	139	160	805	668	502	1,567					0	0	0	0	10,051	10,000	10,362	10,789	0	0	0	0
5	MidCoast County Council	5,560	5,014	5,067	5,209		2,342	2,339	2,375		1,579	1,763	1,579	9,506	8,935	9,169	9,163	167	149	150	154	0	0	0	0			0	0	0	0	0	0
6	Tweed Shire Council	6,004	5,251	5,441	5,281		2,454	2,707	3,671		1,327	1,057	1,500	9,838	9,032	9,205	10,452	199	174	180	176	0	0	0	0	38	66	79	1	0	0	0	0
7	Port Macquarie-Hastings Council	4,303	4,015	4,072	4,329		1,480	1,513	1,532		593	605	639	6,514	6,088	6,190	6,500	157	154	151	166	0	0	0	0	0	0	0	0	0	0	0	0
8	Riverina Water County Council	10,252	8,329	9,710	8,678		5,172	5,974	5,473		1,339	1,393	1,702	17,559	14,840	17,077	15,853	410	327	374	330	0	0	0	0			0	0	0	0	0	0
10	Coffs Harbour City Council	3,887	3,743	3,675	4,194		1,441	1,505	1,798		447	621	627	5,798	5,631	5,801	6,619	178	169	165	186	0	0	0	0	0	0	649	-	0	0	0	0
11	Albury City Council	5,741	3,857	4,488	4,527		1,303	1,716	1,592		573	689	679	8,243	5,733	6,893	6,798	276	193	222	220	0	0	0	0	436	291	389	328	0	0	0	0
12	Fish River Water Supply	228	703				150	101	101		420	583	968		1,273	684	1,459					0	0	0	0	11,249	6,792	4,829	3,999	0	0	0	0
13	Tamworth Regional Council	4,088	3,484	4,110	4,733		3,172	3,314	3,539		1,813	1,848	1,170	8,708	8,469	9,272	9,442	230	192	226	256	0	0	0	0		19	18	0	0	0	0	0
14	Clarence Valley Council	3,324	3,222	3,210	3,241		2,331	2,232	2,240		1,096	780	1,255	9,307	6,649	6,222	6,736	184	178	176	174	0	0	0	0	4,232	0	0	0	0	0	0	0
15	Eurobodalla Shire Council	2,271	2,155	2,362	2,128		1,116	983	1,024		1,169	651	1,163	4,063	4,440	3,996	4,315	126	119	129	116	0	0	0	0	0	0	0	0	0	0	0	0
16	Wingecarribee Shire Council	3,532	2,820	3,088	3,239		927	946	995		497	791	628	4,939	4,244	4,825	4,862	214	168	183	190	0	0	0	0	3	0	0	0	0	0	0	0
17	Queanbeyan City Council	3,058	2,766	2,925	2,985		639	723	743		378	405	551	4,534	3,783	4,053	4,279	211	188	198	200	0	0	0	0			0	0	0	0	0	0
18	Dubbo City Council	5,976	4,458	4,724	4,908		1,755	2,053	1,712		1,132	1,428	1,072	10,378	7,345	8,205	7,692	431	322	331	329	0	0	0	0			0	0	0	0	0	0
19	Orange City Council	4,536	2,590	3,696	2,145		4,711	4,121			869	537		8,999	8,170	8,354	6,929			259	148	0	0	0	0			0	0	0	0	0	0
21	Bathurst Regional Council	3,805	3,190	3,210	3,366		2,010	1,995	2,033		577	578	602	7,136	5,777	5,783	6,001	290	241	240	252	0	0	0	0	0	4	4	6	0	0	0	0
22	Lismore City Council	2,176	2,057	2,023	2,152		942	883	926		333	616	713	3,557	3,332	3,522	3,791	174	163	159	168	0	0	0	0			0	4	0	0	0	0
23	Bega Valley Shire Council	2,067	1,860	1,999	2,144		1,239	1,397	1,597		600	594	472	3,742	3,699	3,990	4,213			154	165	0	0	0	0	9	4	4	0	0	0	0	0
24	Ballina Shire Council	2,394	2,243	2,217	2,447		737	743	1,444		567	608	876	4,265	3,547	3,568	4,767	198	186	175	188	0	0	0	0			0	0	0	0	0	0
25	Kempsey Shire Council	1,900	1,767	1,642	1,874		1,145	1,073	1,251		832	910	649	4,061	3,784	3,625	3,774	184	169	156	177	0	0	0	0	17	17	17	27	0	0	0	0
26	Country Energy	2,685	2,801	2,712	2,676		3,438	2,600	2,775		494	448	475	6,476	6,733	5,760	5,926	274	284	284	280	0	0	0	0	0	0	0	0	0	0	0	0
27	Byron Shire Council	1,744	1,707	1,712	1,855		1,013	1,026	941		214	282	376	2,851	2,934	3,020	3,172	186	181	181	194	0	0	0	0	0	0	0	5	0	0	0	0
28A	Goldenfields Water (Reticulation)	2,234	1,740	2,055	1,797		2,704	2,938	2,864		494	541	504	5,970	4,938	5,534	5,165	294	229	298	259	0	0	0	0	0	0	0	0	0	0	0	0
28B	Goldenfields Water (Bulk Supply)											539				539								0	0			9,115	8,716			0	0
20	Goulburn Mulwaree			1,262	1,271			929	721			350	221			2,541	2,213			134	136			0	0			1	3			0	0
9	Wagga Wagga City Council															294														0	0	0	0
	LWU Range Max	10,252	8,990	9,710	9,848			7,143	7,570			1848	1,702	17559	14840	17077	15,853	431	327	374	330	0	0	0	0	11249	10000	10362	10,789	0	0	0	0
	LWU Range Min	228	388	291	286			72	101			139	160	805	668	294	1,459	126	119	129	116	0	0	0	0	0	0	0	0	0	0	0	0
	Median of NMU Indicators shown in Table	3,669	3,005	3,210	3,240			1,716	1,655			618	696	6514	5755	5760	6,001	192	176	176	177	0	0	0	0	6	0	0	0	0	0	0	0

WATER UTILITY		WATER RESOURCES															
		SEWAGE COLLECTED															
		Volume of sewage collected - Residential, nonresidential and nontrade waste				Volume of sewage collected - trade waste				Total Sewage collected				Sewage collected per property			
		W16 (ML)				W17 (ML)				W18 (ML)				W19 (kL/property)			
		2006/07	2007/08	2008/09	2009/10	2006/07	2007/08	2008/09	2009/10	2006/07	2007/08	2008/09	2009/10	2006/07	2007/08	2008/09	2009/10
	Sydney Water Corporation	459,379	520,845	451,075	440,251	26,133	25,536	24,617	23,986	485,512	546,381	475,692	464,237	290	324	279	269
	Hunter Water Corporation	73,944	71,087	61,590	52,379	2,394	3,296	3,226	3,102	76,338	74,383	64,815	55,481	372	356	307	260
	Sydney Catchment Authority																
1	Gosford City Council	13,180	13,422	11,667	11,866	1,040	1,346	1,545	969	14,220	14,768	13,212	12,835	210	217	193	187
2	Wyong Shire Council		14,195	15,141	13,980			-	-	13,030	14,195	15,141	13,980	227	243	258	236
3	Shoalhaven City Council		7,223	6,277	6,824			230	119	7,069	7,223	6,507	6,943	191	188	165	171
4	Rous County Council																
5	MidCoast County Council	7,416	7,874	7,378	6,312	146	144	132	122	7,660	8,018	7,510	6,434	239	248	231	196
6	Tweed Shire Council	5,868	6,510	7,642	8,634	1,386	1,382	1,315	187	7,262	7,892	8,957	8,821	266	270	302	300
7	Port Macquarie-Hastings Council		8,229	9,082	7,857			-	-	8,333	8,229	9,082	7,857	323	317	334	298
8	Riverina Water County Council																
10	Coffs Harbour City Council		6,703	5,919	6,436			875	0	6,121	6,703	6,794	6,436	280	302	302	284
11	Albury City Council	3,386	4,137	3,609	4,219	900	154	178	311	4,284	4,291	3,787	4,530	204	211	184	216
12	Fish River Water Supply																
13	Tamworth Regional Council	3,319	3,253	3,712	3,834	935	1,052	1,029	1,000	4,266	4,305	4,741	4,834	237	236	258	260
14	Clarence Valley Council		2,957	3,262	2,966		38	0	58	2,623	2,995	3,262	3,024	215	214	228	210
15	Eurobodalla Shire Council	3,255	3,125	2,875	3,627	94	62	0	0	3,339	3,187	2,875	3,627	193	183	163	205
16	Wingecarribee Shire Council	2,967	4,004	3,010	3,032	118	102	108	112	3,360	4,106	3,118	3,144	240	290	218	217
17	Queanbeyan City Council	3,480	3,740	3,691	3,361	236	250	300	300	3,705	3,990	3,991	3,661	239	250	249	228
18	Dubbo City Council	2,394	2,409	2,000	2,191	323	547	715	715	2,711	2,956	2,715	2,906	188	200	182	188
19	Orange City Council	2,842	3,509	3,871	3,318	194	188	137	103	3,131	3,697	4,008	3,421	202	248	265	219
21	Bathurst Regional Council	2,983	3,069	2,437	3,498	526	538	512	564	3,514	3,607	2,949	4,062	251	251	203	274
22	Lismore City Council		3,263	4,189	5,383			-	-	3,263	3,263	4,189	5,383	269	267	341	434
23	Bega Valley Shire Council		1,869	1,764	2,010			-	-	2,052	1,869	1,764	2,010	190	161	149	169
24	Ballina Shire Council		2,249	4,579	3,999			-	7	3,509	2,249	4,579	4,006	271	180	360	306
25	Kempsey Shire Council	1,926	2,560	2,896	2,298	86	54	90	100	2,011	2,614	2,986	2,398	226	293	333	266
26	Country Energy		0	1,240	1,357			0	0	1,344	1,316	1,240	1,357	140	136	128	140
27	Byron Shire Council		3,025	3,008	3,286		225	294	0	2,813	3,250	3,302	3,286	287	325	335	324
28A	Goldenfields Water (Reticulation)																
28B	Goldenfields Water (Bulk Supply)																
20	Goulburn Mulwaree			1,660	1,576			-	-			1,660	1,576			164	165
9	Wagga Wagga City Council		4,827	4,627	4,347		616	747	827	5,675	5,443	5,374	5,174	250	236	228	206
	LWU Range Max		14,195	15,141	13,980		1,382	1,545	1,000	14,220	14,768	15,141	13,980	323	325	360	434
	LWU Range Min		0	1,240	1,357		38	0	0	1,344	1,316	1,240	1,357	140	136	128	140
	Median of NMU Indicators shown in Table		3,509	3,702	3,731		225	262	119	3,514	3,990	4,000	4,034	237	243	229	218

WATER UTILITY	WATER RESOURCES																											
	USES OF RECYCLED WATER																											
	Volume of Recycled water supplied (Residential) W20 (ML)				Volume of Recycled water supplied (Commercial, Industrial, Municipal) W21 (ML)				Volume of Recycled water supplied (Agricultural) W22 (ML)				Volume of Recycled water supplied (Environmental) W23 (ML)				Volume of Recycled water supplied (On-site) W24 (ML)				Volume of Recycled water supplied (Other) W25 (ML)				Total Recycled water supplied W26 (ML)				Recycled water (% of effluent recycled) W27 (%)			
	2006/07	2007/08	2008/09	2009/10	2006/07	2007/08	2008/09	2009/10	2006/07	2007/08	2008/09	2009/10	2006/07	2007/08	2008/09	2009/10	2006/07	2007/08	2008/09	2009/10	2006/07	2007/08	2008/09	2009/10	2006/07	2007/08	2008/09	2009/10	2006/07	2007/08	2008/09	2009/10
Sydney Water Corporation	1,652	1,402	1,704	2,209	5,995	7,212	5,155	7,537	130	632	3,034	5,643	0	0	0	1,980	13,352	14,917	15,549	16,314		0	0		21,129	24,163	25,442	33,683	4	4	5	7
Hunter Water Corporation	0	0	0	0	1,875	1,984	2,289	2,648	1,967	2,269	2,623	2,520	0	0	0	0	218	218	180	180	0	0	0	0	4,060	4,471	5,092	5,348	5	6	8	10
Sydney Catchment Authority																																
1 Gosford City Council	0	0	0	0	0	0	68	14	0	0	0	0	0	0	-	0	212	277	216	348	0	0	0	0	212	277	284	362	1	2	2	3
2 Wyong Shire Council	0	0	0	0	0	832	865	940	852	0	9	0		0	0	0	381	391	422	84		0	0	0	1,233	1,223	1,296	1,024	9	9	9	7
3 Shoalhaven City Council	0	0	0	0	109	147	125	144	1,742	1,313	1,753	2,261		0	-	0		20	24	24		0	0	0	1,919	1,480	1,902	2,429	27	20	29	35
4 Rous County Council																																
5 MidCoast County Council	0	0	0	0	0	0	4	0	75	57	151	703		0	0	0		2	4	26		0	0	0	75	59	159	729	1	1	2	11
6 Tweed Shire Council	0	0	0	0	255	257	645	778	80	41	40	38		0	0	0	5	5	58	6		0	0	0	340	303	743	822	5	5	8	9
7 Port Macquarie-Hastings Council	0	0	0	0	41	158	137	109	262	107	93	207		0	0	0		0	36	53		0	0	0	0	265	266	369		3	3	5
8 Riverina Water County Council																																
10 Coffs Harbour City Council	0	0	0	0	86	93	107	346	487	637	1,403	516		0	-	-	63	60	62	167	0	0	0	0	636	790	1,572	1,029	10	12	23	16
11 Albury City Council	0	0	0	0	0	0	0	0	2,114	1,056	2,522	1,913		0	1,067	2,445	2,354	3,137	0	0		0	0	0	4,468	4,193	3,589	4,358	104	98	96	100
12 Fish River Water Supply																																
13 Tamworth Regional Council	0	0	0	0	0	72	81	0	1,468	1,488	1,678	1,727		0	0	0		0	7	123		0	0	0	1,468	1,560	1,766	1,850	34	36	36	38
14 Clarence Valley Council	0	0	0	0	0	114	127	165	130	0	0	0	0	0	0	0	0	0	0	0		0	0	0	103	114	127	165	4	4	4	5
15 Eurobodalla Shire Council	0	0	0	0	23	184	171	281	142	0	0	18		0	0	0	0	59	66	71		0	0	0	273	243	237	370	8	8	8	10
16 Wingecarribee Shire Council	0	0	0	0	0	54	64	73	70	0	0	0		0	0	0	17	17	0	0		0	0	0	87	71	64	73	3	2	2	2
17 Queanbeyan City Council	0	0	0	0	0	0	0	0	20	0	0	0		0	0	0		56	47	47		0	0	0	81	56	47	47	2	1	1	1
18 Dubbo City Council	0	0	0	0	0	0	0	0	2,639	2,914	2,576	2,183		0	0	0	0	0	0	98		0	0	0	2,658	2,914	2,576	2,281	98	99	97	78
19 Orange City Council	0	0	0	0	2,836	3,367	3,218	3,033	0	25	27	0		0	0	0	190	104	2	0		0	0	0	2,836	3,496	3,247	3,033	91	95	87	90
21 Bathurst Regional Council	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2,949	2,945	575	848	590	691	0	0	0	0	575	848	3,539	3,636	16	24	100	100
22 Lismore City Council	0	0	0	0	0	0	0	0	182	33	10	30		0	0	0	0	0	0	0		0	0	0	182	33	10	30	6	1	0	1
23 Bega Valley Shire Council	0	0	0	0	0	457	556	613	616	156	257	214		0	0	0	0	0	0	0		0	0	0	608	613	813	827	30	33	46	41
24 Ballina Shire Council	0	0	0	0	155	107	119	717	56	0	33	51		0	-	0		0	0	0		0	0	0	193	107	152	768		5	3	19
25 Kempsey Shire Council	0	0	0	0	15	34	32	40	96	11	7	9		0	0	0		1	1	6		0	0	0	119	46	40	55	6	2	1	2
26 Country Energy	0	0	0	0	641	649	523	622	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	641	649	523	622	48	49	41	46
27 Byron Shire Council	0	0	0	0	0	340	235	218	776	343	210	231		0	0	0	48	40	42	28		0	0	0	824	723	487	477	29	22	13	15
28A Goldenfields Water (Reticulation)																																
28B Goldenfields Water (Bulk Supply)																																
20 Goulburn Mulwaree			0	0			62	0			1,521	1,261			-	0			1,583	0			0	0			3,166	1,261			100	80
9 Wagga Wagga City Council	15	13	0	0	273	257	294	226	348	280	278	227		0	0	0	122	56	0	0		0	0	0	747	606	572	453	13	11	11	9
LWU Range Max	15	13	0	0	2,836	3,367	3,218	3,033	2,639	2,914	2,576	2,261	0	0	2,949	2,945	2,354	3,137	1,583	691	0	0	0	0	4,468	4,193	3,589	4,358	104	99	100	100
LWU Range Min	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	33	10	30	1	1	0	1
Median of NMU Indicators shown in Table	0	0	0	0	0	107	113	127	142	33	37	45	0	0	0	0	33	17	6	15	0	0	0	0	575	606	548	749	10	9	10	13

WATER UTILITY		ASSETS																									
		WATER ASSETS												SGE ASSETS													
		No. of WTWs providing full treatment				Length of Water Mains (excluding source transfer mains & property connections)				Properties served per km of water main				Number of Sewage Treatment Plants				Length of sewerage mains & channels				Properties served per km of sewer main				Number of Recycled Water Treatment Plants			
		A1				A2				A3				A4				A5				A6				A7			
		(No.)				(km)				(no.)				(no.)				(km)				(no.)				(no.)			
		2006/07	2007/08	2008/09	2009/10	2006/07	2007/08	2008/09	2009/10	2006/07	2007/08	2008/09	2009/10	2006/07	2007/08	2008/09	2009/10	2006/07	2007/08	2008/09	2009/10	2006/07	2007/08	2008/09	2009/10	2006/07	2007/08	2008/09	2009/10
	Sydney Water Corporation	9	9	9	10	20,824	20,896	20,936	21,015	83	83	84	84	30	31	29	29	23,520	23,708	23,817	24,022	71	71	72	72	2	2	2	2
	Hunter Water Corporation	5	5	6	6	4,638	4,692	4,822	4,857	47	47	46	46	17	17	18	18	4,523	4,556	4,626	4,667	45	46	46	46	0	0	0	0
	Sydney Catchment Authority																												
1	Gosford City Council	1	2	2	2	946	1,007	1,014	1,014	73	69	69	69	2	2	2	2	1,399	1,400	1,401	1,323	48	49	49	52	0	0	0	2
2	Wyong Shire Council	1	1	1	1	1,107	1,120	1,136	1,145	52	53	52	52	6	6	6	6	1,199	1,210	1,220	1,201	48	48	48	49	0	0	0	0
3	Shoalhaven City Council	4	4	4	4	1,462	1,469	1,471	1,519	31	31	31	30	10	10	12	12	1,034	1,112	1,117	1,139	36	35	35	36	0	0	0	0
4	Rous County Council	2	2	2	2	76	80	80	125																			0	0
5	MidCoast County Council	2	2	2	2	1,195	1,187	1,234	1,251	30	30	29	29	12	12	12	12	922	947	965	954	35	34	34	34	0	0	0	0
6	Tweed Shire Council	3	3	3	3	660	670	726	690	44	47	44	45	8	8	8	7	636	642	706	691	43	45	42	43	0	0	0	0
7	Port Macquarie-Hastings Council	4	4	4	4	753	768	771	775	39	37	39	37	6	6	6	5	580	595	600	630	44	44	45	42	0	0	0	0
8	Riverina Water County Council	4	4	5	17	1,593	1,631	1,623	1,612	17	17	17	18															0	0
10	Coffs Harbour City Council	1	1	1	2	668	603	611	615	35	39	39	39	5	5	5	5	602	649	653	654	36	34	34	35	0	0	0	0
11	Albury City Council	1	1	1	1	563	530	536	562	40	41	41	40	3	4	4	4	464	484	495	497	45	42	42	42	0	0	0	0
12	Fish River Water Supply	1	1	1	1	238	241	231	241																			0	0
13	Tamworth Regional Council	5	5	5	5	606	639	644	655	33	32	32	31	5	5	5	5	480	496	504	519	38	37	36	36	0	0	0	0
14	Clarence Valley Council	1	0	0	0	1,180	1,189	1,195	1,097	17	17	17	19	11	8	8	9	328	328	329	331	37	43	44	43	0	0	0	0
15	Eurobodalla Shire Council	1	0	0	0	871	877	886	934	22	22	22	21	5	5	5	5	402	505	508	509	43	35	35	35	0	0	0	0
16	Wingecarribee Shire Council	3	3	3	3	620	668	648	653	28	27	28	28	5	5	5	5	455	460	509	513	31	31	28	28	0	0	0	0
17	Queanbeyan City Council	0	0	0	0	272	279	279	279	57	57	57	57	1	1	1	1	321	326	326	327	48	49	49	49	0	0	0	0
18	Dubbo City Council	1	1	1	1	451	446	456	466	35	35	35	36	1	1	1	1	363	370	374	391	40	40	40	39	0	0	0	0
19	Orange City Council	2	2	2	2	481	481	497	503	32	33	32	32	2	2	2	2	405	382	393	395	38	39	38	40	0	0	0	0
21	Bathurst Regional Council	1	1	1	1	341	359	361	370	42	41	41	40	1	1	1	1	355	364	371	371	39	39	39	40	0	0	0	0
22	Lismore City Council	0	0	0	0	335	337	340	339	41	41	41	41	3	3	3	3	337	345	346	347	36	35	36	36	0	0	0	0
23	Bega Valley Shire Council	0	0	0	0	576	576	576	576	24	24	24	24	6	6	10	10	314	390	390	390	34	30	30	30	0	0	0	0
24	Ballina Shire Council	1	1	1	1	338	339	341	348	40	41	41	41	4	4	4	4	304	308	312	319	41	41	41	41	0	0	0	0
25	Kempsey Shire Council	1	2	2	2	539	542	544	547	22	23	23	23	7	7	7	7	255	270	267	268	35	33	34	34	0	0	0	0
26	Country Energy	2	3	3	3	362	362	362	364	30	30	29	29	2	2	2	2			195	248			50	39	0	0	0	0
27	Byron Shire Council	1	1	1	1	233	233	233	237	45	45	46	45	6	6	5	5	238	252	252	239	41	40	39	42	0	0	0	0
28A	Goldenfields Water (Reticulation)	1	1	1	1	1,825	1,829	1,829	1,821	6	6	5	6															0	0
28B	Goldenfields Water (Bulk Supply)	1	1	1	3	315	315	315	315																			0	0
20	Goulburn Mulwaree			2	2			242	269			44	38			2	2			239	272			42	35			0	0
9	Wagga Wagga City Council													5	5	5	5	540	559	566	573	42	41	42	44	0	0	0	0
	LWU Range Max	5	5	5	17	1,825	1,829	1,829	1,821	73	69	69	69	12	12	12	12	1,399	1,400	1,401	1,323	48	49	50	52	0	0	0	
	LWU Range Min	0	0	0	0	76	80	80	125	6	6	5	6	1	1	1	1	238	252	195	239	31	30	28	28	0	0	0	
	Median of NMU Indicators shown in Table	1	1	1	2	576	576	560	569	34	34	35	36	5	5	5	5	430	472	444	446	40	40	40	40	0	0	0	

WATER UTILITY		ASSETS																					
		WATER ASSETS																SGE ASSETS					
		Water main breaks per 100km of main				Infrastructure Leakage Index (ILI)				Real lossses (L/connection/day)				Real lossses (kL/km main/day)				Sge Main Breaks and chokes per 100km of main (excludes property connections)				Property Connection Breaks and chokes per 1000 props			
		A8				A9				A10				A11				A14				A15			
		(no./100km)																(per 100km of main)				(per 1000 properties)			
		2006/07	2007/08	2008/09	2009/10	2006/07	2007/08	2008/09	2009/10	2006/07	2007/08	2008/09	2009/10	2006/07	2007/08	2008/09	2009/10	2006/07	2007/08	2008/09	2009/10	2006/07	2007/08	2008/09	2009/10
	Sydney Water Corporation	35	30	34	28	1.5	1.5	1.4	1	94	91	81	73	5.8	5.6	5.0	5				56				0
	Hunter Water Corporation	37	30	33	32	1.3	1.2	1.3	1	85	80	94	88	4.2	3.9	3.7	4				58				13
	Sydney Catchment Authority																								
1	Gosford City Council	36	29	27	34		1.0	1.0	1.0		25	32	52		1.4	1.9	3.0				40				4
2	Wyong Shire Council	4	4	9	6	1.0	1.0	1.0	1.0	26	28	29	31	1.4	1.5	1.5	1.5				48				2
3	Shoalhaven City Council	14	9	14	9	1.0	1.0	1.0	1.0	39	80	59	69	1.2	2.5	1.8	2.1				15				2
4	Rous County Council	48	24	16	21							9	10	0.6	1.4	4.8	3.5								
5	MidCoast County Council	10	9	5	3	1.0	1.1	1.3	1.1	60	86	101	85	1.3	2.3	2.7	2.2				7				-
6	Tweed Shire Council	10	10	5	3			1.0	1.5			63	89			2.0	3.1				5				1
7	Port Macquarie-Hastings Council	4	2	3	2	1.8	1.0	1.0	1.0	95	52	39	40	3.1	1.7	1.3	1.4				20				-
8	Riverina Water County Council	20	13	14	10	1.6	1.3	1.0	1.0	143	126	56	50	2.4	1.9	0.8	0.9								
10	Coffs Harbour City Council	9	7	11	11	1.0	1.0	1.0	1.0	47	49	49	46	1.6	1.8	1.8	1.7				37				8
11	Albury City Council	15	8	12	7	2.6	1.8	1.4	1.4	99	68	55	51	3.7	2.6	2.1	2.0				185				44
12	Fish River Water Supply	3	2	5	2									9.4	4.8	6.9	11.0								
13	Tamworth Regional Council	12	28	12	5	5.4	7.0	6.6	5.0	154	202	188	143	4.3	5.9	5.6	4.2				72				2
14	Clarence Valley Council	10	19	10	16			1.0	1.1			54	116			1.0	2.3				40				3
15	Eurobodalla Shire Council	2	3	4	6	1.7	2.2	1.1	2.1	129	172	88	166	2.5	3.4	1.7	3.2				21				8
16	Wingecarribee Shire Council			8	12			1.5	1.0			112	87			2.9	2.3				50				7
17	Queanbeyan City Council	6	5	1	0			1.0	1.8			58	102			2.4	4.3				14				0
18	Dubbo City Council	5	7	7	4	5.8	3.2	3.7	3.4	292	155	177	163	8.4	4.8	5.6	5.2				38				14
19	Orange City Council			28	11	1.0	1.9	1.0		73	145	60		2.3	4.6	1.8	2.5				85				1
21	Bathurst Regional Council	20	11	9	9			1.0	1.0			77	71			2.6	2.7				93				14
22	Lismore City Council	22	20	20	23	2.2	1.0	1.6	2.0	144	43	106	126	5.0	1.6	4.0	5.0				104				12
23	Bega Valley Shire Council	7	7	5	4	1.1	1.1	1.0	1.0	76	77	58	58	1.5	1.5	1.2	1.2				30				0
24	Ballina Shire Council	3	4	9	13	2.9	1.0	2.1	3.2	169	37	121	197	6.0	1.3	4.3	6.2				16				2
25	Kempsey Shire Council	9	12	24	11	4.4	1.9	1.3	1.0	298	119	80	63	5.4	2.4	1.7	1.3				3				2
26	Country Energy	10	18	11	12			1.2	1.3			68	75			2.0	2.1				137				51
27	Byron Shire Council	9	8	8	12	1.2	1.0	1.3	2.6	59	53	49	101	2.4	2.2	2.0	4.1				27				8
28A	Goldenfields Water (Reticulation)	15	7	6	19	1.0	1.0	1.0	1.0	73	98	99	90	0.4	0.5	0.6	0.5								
28B	Goldenfields Water (Bulk Supply)		0	0	0									6.8	5.2	4.7									
20	Goulburn Mulwaree			14	14			1.0	1.0			43	40			1.7	1.4				143				8
9	Wagga Wagga City Council																				96				46
	LWU Range Max	48	29	28	34	5.8	7.0	6.6	5.0	298	202	188	197	9	6	7	11				185				51
	LWU Range Min	2	0	0	0	1.0	1.0	1.0	1.0	26	25	9	10	0	1	1	1				3				0
	Median of NMU Indicators shown in Table	10	8	9	10	1.6	1.1	1.0	1.1	95	78	59	75	2	2	2	2				39				6

	WATER UTILITY	ENVIRONMENTAL																											
		SEWAGE TREATMENT LEVELS												SEWAGE TREATMENT COMPLIANCE															
		% sge treated to primary level only E1 (%)				% sge treated to secondary level (but not tertiary) E2 (%)				% sge treated to tertiary level E3 (%)				% sge treated that was compliant E4 (%)				STWs compliant at all times E5 (no.)				Public disclosure of STW performance E6 (YES/NO)				Compliance with environmental regulator - sewerage E7 (YES/NO)			
		2006/07	2007/08	2008/09	2009/10	2006/07	2007/08	2008/09	2009/10	2006/07	2007/08	2008/09	2009/10	2006/07	2007/08	2008/09	2009/10	2006/07	2007/08	2008/09	2009/10	2006/07	2007/08	2008/09	2009/10	2006/07	2007/08	2008/09	2009/10
	Sydney Water Corporation	74	67	74	76	4	11	3	3	22	22	22	21	100	96	96	97	28 of 30	29 of 31	27 of 29		Yes	Yes	Yes	Yes	No	Yes	No	Yes
	Hunter Water Corporation	0	0	0	0	56	56	58	59	44	44	42	41	99	87	91	95	15 of 17	11 of 17	12 of 18	14	Yes	Yes	Yes	Yes	Yes	Yes	No	No
	Sydney Catchment Authority																												
1	Gosford City Council	1	1	0	0	99	99	98	97	0	0	2	3	100	100	100	100	1 of 2	2 of 2	2 of 2	2 of 2	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes
2	Wyong Shire Council				0	91	92	91	93	10	8	9	7	99	100	100	100	5 of 6	6 of 6	6 of 6	6 of 6	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes
3	Shoalhaven City Council				0	38	40	42	42	62	60	58	58	92	86	83	83	8 of 10	7 of 10	9 of 12	10 of 12	Yes	Yes	Yes	Yes	No	No	No	No
4	Rous County Council																												
5	MidCoast County Council				0	44	13	12	12	56	87	88	88	95	98	100	99	9 of 12	10 of 12	12 of 12	11 of 12	Yes	Yes	Yes	Yes	No	No	Yes	No
6	Tweed Shire Council				0	11	11	6	0	89	89	94	100	91	89	91	93	4 of 8	3 of 8	3 of 8	1 of 7	Yes	Yes	Yes	Yes	No	No	No	No
7	Port Macquarie-Hastings Council				0				0	100	100	100	100	50	89	90	58	3 of 5	4 of 6	4 of 6	2 of 5	Yes	Yes	Yes	Yes	No	No	No	No
8	Riverina Water County Council																												
10	Coffs Harbour City Council				0	58	58	54	0	42	42	46	100			100	100			5 of 5	5 of 5	Yes	Yes	Yes	Yes	No	No	Yes	Yes
11	Albury City Council				0			0	0	100	100	100	100	86	87	86	92	2 of 3	3 of 4	3 of 4	3 of 4	Yes	Yes	Yes	Yes	No	No	No	No
12	Fish River Water Supply																												
13	Tamworth Regional Council				0	100	100	100	100				0			99	99	4 of 5	5 of 5	4 of 5	4 of 5	Yes	Yes	Yes	Yes	No	No	No	No
14	Clarence Valley Council				0	2	3	15	69	98	97	85	31			83	70	0 of 11	4 of 8	2 of 8	1 of 8	Yes	Yes	Yes	Yes	Yes	No	No	No
15	Eurobodalla Shire Council				0	99	91	92	5		9	8	95	100	100	100	100	5 of 5	5 of 5	5 of 5	5 of 5	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes
16	Wingecarribee Shire Council				0				0	100	100	100	100	81	100	100	97	3 of 5	5 of 5	5 of 5	4 of 5	Yes	Yes	Yes	Yes	No	No	Yes	No
17	Queanbeyan City Council				0				0	100	100	100	100	100	100	100	100	1 of 1	1 of 1	1 of 1	1 of 1	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes
18	Dubbo City Council				0				0	100	100	100	100	57	70	75	92	0 of 1	0 of 1	0 of 1	0 of 1	Yes	Yes	Yes	Yes	No	No	No	No
19	Orange City Council			4	0		1	1	0	100	99	96	100	81	100	45	100	1 of 2	2 of 2	1 of 2	2 of 2	Yes	Yes	Yes	Yes	Yes	No	No	Yes
21	Bathurst Regional Council				0				0	100	100	100	100	81	88	100	100	0 of 1	0 of 1	1 of 1	1 of 1	Yes	Yes	Yes	Yes	No	No	Yes	Yes
22	Lismore City Council			4	3	5	1	13	4	95	99	83	92			100	100	2 of 3	3 of 3	3 of 3	3 of 3	Yes	Yes	Yes	Yes	No	No	Yes	Yes
23	Bega Valley Shire Council				0	92	71	70	70	8	29	30	30	100	100	97	95	6 of 6	6 of 6	9 of 10	8 of 10	Yes	Yes	Yes	Yes	Yes	No	No	No
24	Ballina Shire Council				0				0			100	100	98	100	93	96	1 of 4	4 of 4	3 of 4	3 of 4	Yes	Yes	Yes	Yes	No	No	No	No
25	Kempsey Shire Council				0	26	19	19	27	74	81	81	73	70	74	82	76	5 of 7	5 of 7	6 of 7	5 of 7	Yes	Yes	Yes	Yes	No	No	No	No
26	Country Energy				0	100	100	100	100			0	0			100	100	0 of 2	0 of 2	2 of 2	2 of 2	Yes	Yes	Yes	Yes	No	No	Yes	Yes
27	Byron Shire Council				0	24	0	27	0	76	100	73	100	92	90	89	98	3 of 6	2 of 6	3 of 5	4 of 5	Yes	Yes	Yes	Yes	No	No	No	No
28A	Goldenfields Water (Reticulation)																												
28B	Goldenfields Water (Bulk Supply)																												
20	Goulburn Mulwaree				0				0			100	100			58	100			1 of 2	2 of 2			Yes	Yes			No	Yes
9	Wagga Wagga City Council				0	8	3	3	3	92	97	97	97	35	88	95	70	3 of 5	4 of 5	3 of 5	3 of 5	Yes	Yes	Yes	Yes	No	No	No	No
	LWU Range Max					100	100	100	100	100	100	100	100	100	100	100	100												
	LWU Range Min					2	0	0	0	0	0	0	0	35	70	45	58												
	Median of NMU Indicators shown in Table					44	30	27	2	92	97	88	98	92	94	96	99												

WATER UTILITY		ENVIRONMENTAL																							
		BIOSOLIDS				GREENHOUSE GAS WS & SGE																			
		Biosolids reused				Greenhouse emissions WATER				Greenhouse emissions SEWERAGE				Net greenhouse emissions OTHER				TOTAL Net greenhouse emissions				Sewer overflows reported to environmental regulator			
		E8				E9				E10				E11				E12				E13			
		(%)				(t CO2 per 1,000 properties)				(t CO2 per 1,000 properties)				(t CO2 per 1,000 properties)				(t CO2 per 1,000 properties)				(number per 100km of main)			
		2006/07	2007/08	2008/09	2009/10	2006/07	2007/08	2008/09	2009/10	2006/07	2007/08	2008/09	2009/10	2006/07	2007/08	2008/09	2009/10	2006/07	2007/08	2008/09	2009/10	2006/07	2007/08	2008/09	2009/10
	Sydney Water Corporation	100	100	100	100		83	68	71		150	192	184		11	-55	-87		240	200	164	90	64	0	0
	Hunter Water Corporation	104	100	88	104	175	117	132	144	192	215	273	294	15	14	21	26	371	333	412	448	53	43	2	0
	Sydney Catchment Authority																								
1	Gosford City Council	100	100	100	100		205	128	147		179	298	312			13	24	386	380	439	482			1	3
2	Wyong Shire Council	100	100	100	100			-	-			-	-			-	-			-	-			0	0
3	Shoalhaven City Council	100	100	100	100	223	220	239	205	270	187	163	164	223	11	7	8	394	389	408	377			0	3
4	Rous County Council							-				-				-				-					
5	MidCoast County Council	100	100	100	100	190	188	165	117	212	136	138	129	190	12	12	80	324	321	315	326			1	1
6	Tweed Shire Council	58	57	61	100	207	190	150	161	219	199	189	266			0	0	408	375	339	427			0	0
7	Port Macquarie-Hastings Council	89	93	100	100							12	103							12	103			1	0
8	Riverina Water County Council							395	407			-	-			0	0			395	407				
10	Coffs Harbour City Council	100	100	100	100			104	113			278	322			76	19			458	453			0	1
11	Albury City Council	0	0	0	0		282	310	308			238	233					401	282	548	540			0	0
12	Fish River Water Supply							118				-				0				118					
13	Tamworth Regional Council	96	97	99	100			261	223			118	233							379	457			0	0
14	Clarence Valley Council	0	35	0	0			16	23			84	90			-	-			100	113			1	0
15	Eurobodalla Shire Council	0	5	0	29	181	180	186	192	197	181	159	139	181	0		-	347	346	345	331			5	19
16	Wingecarribee Shire Council	0	100	0	0			178	177			151	143			7	17			336	338			3	4
17	Queanbeyan City Council	100	0	100	100	13	13	15	15	13	154	160	224	13	37	39	43	210	204	214	281			0	0
18	Dubbo City Council	100	100	100	100	483	483	545	280	523	240	202	396	483	13	13	12	722	722	759	689			2	0
19	Orange City Council	79	100	100	0	289	280	241	242	291	243	186	193			0		521	505	428	435			3	10
21	Bathurst Regional Council	100	95	96	95			-	-			-	-			-	-			-	-			-	0
22	Lismore City Council		82	0	0			7	14			162	185			0	-			169	198			1	4
23	Bega Valley Shire Council	0	0	0	0			8	8			8	69			1	-	172		17	77			1	0
24	Ballina Shire Council	100	100	100	100			2	13			264	267			-	-			266	280			3	2
25	Kempsey Shire Council			0	49	209	207	173	214	285	180	150	149	209	1	1	39	344	340	324	401			1	0
26	Country Energy	0	100	0	0			549	906			55	77				15			604	998			0	0
27	Byron Shire Council	100	100	100	100			-	14			-	457			-	-			-	471			14	5
28A	Goldenfields Water (Reticulation)											-	-												
28B	Goldenfields Water (Bulk Supply)											-													
20	Goulburn Mulwaree			100	0			122	114			134	169			2	2			257	285			1	0
9	Wagga Wagga City Council	100	100	100	96							36	199			-	-			36	199			0	0
	LWU Range Max	100	100	100	100		483	549	906		243	298	457		37	76	80		722	759	998			14	19
	LWU Range Min	0	0	0	0		13	2	8		136	8	69		0	0	0		204	12	77			0	0
	Median of NMU Indicators shown in Table	100	100	100	98		206	165	161		181	159	189		12	2	16		361	336	377			1	0

	WATER UTILITY	CUSTOMERS																													
		WS CUSTOMERS																SGE CUSTOMERS															
		Population receiving water supply services C1 ('000)				Connected residential properties - water supply C2 ('000)				Connected nonresidential properties - water supply C3 ('000)				Total connected properties - water supply C4 ('000)				Population receiving sewerage services C5 ('000)				Connected residential properties - sewerage C6 ('000)				Connected nonresidential properties - sewerage C7 ('000)				Total connected properties - sewerage C8 ('000)			
		2006/07	2007/08	2008/09	2009/10	2006/07	2007/08	2008/09	2009/10	2006/07	2007/08	2008/09	2009/10	2006/07	2007/08	2008/09	2009/10	2006/07	2007/08	2008/09	2009/10	2006/07	2007/08	2008/09	2009/10	2006/07	2007/08	2008/09	2009/10	2006/07	2007/08	2008/09	2009/10
	Sydney Water Corporation	4,308	4,322	4,344	4,435	1,595	1,608	1,623	1,635	126	129	132	137	1,721	1,737	1,755	1,772	4,181	4,195	4,240	4,333	1,557	1,570	1,586	1,598	115	118	121	126	1,672	1,688	1,707	1,724
	Hunter Water Corporation	506	511	516	522	202	205	207	209	14	15	15	16	216	221	222	225	486	491	496	501	191	194	199	201	14	14	12	12	205	209	211	213
	Sydney Catchment Authority																																
1	Gosford City Council	159	158	160	161	67	67	67	67	3	3	3	3	69	70	70	70	155	155	156	157	65	65	66	66	3	3	3	3	68	68	68	69
2	Wyong Shire Council	142	143	145	149	55	56	57	57	4	3	3	3	58	59	59	60	140	141	143	147	54	56	56	56	3	3	3	3	57	58	59	59
3	Shoalhaven City Council	88	88	89	91	42	43	43	43	3	3	3	3	45	45	46	46	77	82	80	81	35	37	38	39	2	1	1	2	37	39	39	41
4	Rous County Council							40	40			5	5			46	46																
5	MidCoast County Council	77	77	78	78	33	34	34	34	3	2	2	2	36	36	36	36	76	76	77	77	30	30	30	30	2	2	2	3	32	32	33	33
6	Tweed Shire Council	71	72	73	74	28	30	30	30	1	1	1	1	29	31	32	31	66	67	69	69	27	28	29	28	1	1	1	1	27	29	30	29
7	Port Macquarie-Hastings Council	75	77	78	79	27	26	27	26	2	3	3	3	29	29	30	29	69	69	70	71	24	24	25	25	2	2	2	2	26	26	27	26
8	Riverina Water County Council	64	65	69	68	25	26	26	26	2	2	2	2	27	28	28	29																
10	Coffs Harbour City Council	62	63	65	66	22	22	22	23	2	1	2	2	23	24	24	24	60	62	64	65	21	21	21	21	1	1	1	1	22	22	22	23
11	Albury City Council	48	48	50	51	21	20	20	21	2	2	2	2	23	22	22	23	48	47	50	51	19	19	19	19	2	2	2	2	21	20	21	21
12	Fish River Water Supply							21	21			3	3			24	24																
13	Tamworth Regional Council	43	43	44	43	18	18	18	18	2	2	2	2	20	20	20	21	42	42	42	43	16	17	17	17	2	2	2	2	18	18	18	19
14	Clarence Valley Council	50	50	50	49	18	18	18	19	1	2	3	2	20	21	21	21	32	28	28	28	10	13	13	13	2	1	1	1	12	14	14	14
15	Eurobodalla Shire Council	35	37	36	37	18	18	18	18	1	1	1	1	19	19	19	19	35	37	35	36	17	17	17	17	1	1	1	1	17	17	18	18
16	Wingecarribee Shire Council	36	36	38	37	17	17	17	17	1	1	1	1	18	18	18	18	32	32	34	33	13	13	14	14	1	1	1	1	14	14	14	14
17	Queanbeyan City Council	36	36	36	39	15	15	15	15	1	1	1	1	16	16	16	16	36	36	36	39	15	15	15	15	1	1	1	1	16	16	16	16
18	Dubbo City Council	35	36	36	33	14	14	14	15	2	2	2	2	16	16	16	17	33	34	32	33	13	13	14	14	1	1	1	1	14	15	15	15
19	Orange City Council	35	36	38	38	14	15	14	15	2	2	2	2	16	16	16	16	35	36	38	38	13	14	14	15	2	1	1	1	16	15	15	16
21	Bathurst Regional Council	31	33	33	33	13	13	13	13	1	1	2	1	14	15	15	15	31	33	33	33	13	13	13	13	1	1	2	2	14	14	15	15
22	Lismore City Council	35	35	35	31	13	13	13	13	1	1	1	1	14	14	14	14	32	32	33	29	11	11	11	11	1	1	1	1	12	12	12	12
23	Bega Valley Shire Council	28	28	29	30	13	13	13	13	1	1	1	1	14	14	14	14	22	24	23	25	10	11	11	11	1	1	1	1	11	12	12	12
24	Ballina Shire Council	33	33	36	36	12	12	13	13	1	2	1	1	13	14	14	14	33	31	34	35	12	12	12	12	1	1	1	1	13	13	13	13
25	Kempsey Shire Council	25	23	25	25	10	10	11	11	2	2	2	2	12	12	12	12	20	18	19	19	8	8	8	8	1	1	1	1	9	9	9	9
26	Country Energy	20	19	19	20	10	10	10	10	1	1	1	1	11	11	10	10	19	19	19	19	9	9	9	9	1	1	1	1	10	10	10	10
27	Byron Shire Council	29	29	29	29	9	9	9	10	1	1	1	1	11	11	11	11	29	29	29	29	9	9	9	9	1	1	1	1	10	10	10	10
28A	Goldenfields Water (Reticulation)	21	21	21	21	8	8	7	7	3	3	3	3	11	11	10	10																
28B	Goldenfields Water (Bulk Supply)																																
20	Goulburn Mulwaree			22	22			9	9			1	1			11	10			21	22			9	9			1	1			10	10
9	Wagga Wagga City Council																	57	57	57	57	21	22	22	24	2	2	2	2	23	23	24	25
	LWU Range Max		158	160	161	67	67	67	67		3	5	5	69	70	70	70.3		155	156	157		65	66	66		3	3	3	68	68	68	68.5
	LWU Range Min		19	19	20	8	8	7	7		1	1	1	11	11	10	10.0		18	19	19		8	8	8		1	1	1	9	9	9	9.0
	Median of NMU Indicators shown in Table		37	38	38	18	18	18	18		2	2	2	19	19	19	19.4		36	36	37		15	14	15		1	1	1	16	16	16	15.9

WATER UTILITY	COMPLAINTS & INTERRUPTIONS																																					
	WS								SGE				WS & SGE										WS				SGE				WS									
	Water quality complaints C9 (per 1000 properties)				Water service complaints C10 (per 1000 properties)				Sewage service complaints (including odour complaints) C11 (per 1000 properties)				Billing and account complaints - water supply & sewerage C12 (per 1000 properties)				Total water and sewerage complaints C13 (per 1000 properties)				% of calls answered by an operator within 30 secs C14 (%)				Av duration of unplanned interruptions C15 (min)				Av sewerage interruption C16 (min)				Average frequency of unplanned interruptions - water C17 (per 1000 props)				No. of restrictions applied for non-payment of bills C18 (per 1000 props)				No. of legal actions applied for non-payment of bills C19 (per 1000 props)			
	2006/07	2007/08	2008/09	2009/10	2006/07	2007/08	2008/09	2009/10	2006/07	2007/08	2008/09	2009/10	2006/07	2007/08	2008/09	2009/10	2006/07	2007/08	2008/09	2009/10	2006/07	2007/08	2008/09	2009/10	2006/07	2007/08	2008/09	2009/10	2006/07	2007/08	2008/09	2009/10	2006/07	2007/08	2008/09	2009/10	2006/07	2007/08	2008/09	2009/10
Sydney Water Corporation	0.8	0.9	0.6	0.3	0.4	0.5	0.4	0.1	0.8	0.9	0.4	0.4	3	5	4	1	4.7	8.1	6.0	1.7	83	89	85	89	141	167	141	140	137	143	240	238	6	5	5	4	1	2	2	4	0	0	0	0
Hunter Water Corporation	3.9	2.8	3.2	3.4	8.2	4.0	0.2	0.3	35.2	26.5	2.3	2.2	6	3	2	2	44	39	7	8	61	56	72	70	177	118	121	119	151	144	0	0	372	225	271	255	4	8	5	5	0	0	0	0
Sydney Catchment Authority																																										
1 Gosford City Council	56	94	25	39			-	-			-	2			-	-			-	42			-	-	224	232	238	230	120	134	116	161	280	181	203	239	0	0	0	0	1	7	6	7
2 Wyong Shire Council	7	3	5	5	2	2	4	3	9	11	12	12			0	0			21	21		88	92	65	150	202	210	204	186	165	156	150	33	39	61	61	0	0	0	0	0	0	1	0
3 Shoalhaven City Council	3	3	3	1			1	0			7	7			0	0			13	8		100	100	100			-	112			-	96			-	39	1	1	1	1	0	0	0	0
4 Rous County Council																			0	0		95	95	95																				
5 MidCoast County Council	31	27	9	12	52	27	2	2	13	12	2	1		0	0	0	97	65	15	18			-	-			-	-		330	-	-			-	-	7	5	6	2	0	0	2	5
6 Tweed Shire Council	1	1	1	3	32	23	20	3		8	4	4			0	0	34	31	26	10			-	-			120	120			180	174			9	14	0	0	0	0	0	0	0	1
7 Port Macquarie-Hastings Council	6	6	9	8	22	22	18	22	4	3	6	5	1	0	0	0	35	31	36	39		86	81	85	180	210	178	236		60	60	60	12	7	11	5	1	0	0	1	0	0	0	0
8 Riverina Water County Council	3	4	2	3	3	9	13	3						1	1	2		14	17	9		99	99	98			334	206							34	39	1	1	1	1	0	0	0	0
10 Coffs Harbour City Council	3	3	8	4	25	26	40	10	26	34	27	4	0	0	0	0	53	64	88	18			-	85			120	120			120	120		7	24	20	6	2	2	2		0	0	0
11 Albury City Council			0	1.1			5	4			49	44			0	0	49	51	55	49			-	49			180	200			120	118			-	-	0	0	0	0	0	0	0	13
12 Fish River Water Supply																			1	1		98	98	98																				
13 Tamworth Regional Council			-	-			43	48			25	21			0	0			72	74			-	-			-	-			-	-			-	-	6	4	2	4	0	0	0	0
14 Clarence Valley Council	8	9	3	9		0	12	41	13	15	10	30	1	2	1	1		22	37	103			-	-			120	-			120	-			-	-	0	0	0	0	0	0	0	7
15 Eurobodalla Shire Council			-	-			0	0			1	1			0	0			2	1			-	100			-	-			-	-			2	3	0	0	0	0	0	2	0	0
16 Wingecarribee Shire Council	19	10	5	6			36	64			22	31			3	16			79	139		100	75	75			120	-			120	120			46	61	6	7	7	7	0	2	3	3
17 Queanbeyan City Council	0	0	0	-	34	39	5	9	26	27	17	19	14	9	9	5	75	78	31	34			-	-			240	180			240	60			6	5	0	0	0	0			12	13
18 Dubbo City Council			0	0.6			2	2			13	10			1	1			18	13		82	87	88	112	179	138	138	60	91	93	89	26	20	24	31	0	0	0	0	0	0	0	0
19 Orange City Council			2	2			62	77			25	23			7	8			100	112			-	80			180	180			-	-			175	-	1	0	1	0			0	0
21 Bathurst Regional Council	11	24	14	17	79	55	74	63	29	29	27	30		0	0	0	119	107	117	108			-	-			120	120			120	120			2	2			-	0			-	0
22 Lismore City Council	4	0	2	4	4	58	72	4	31	33	26	4		0	0	0		87	111	13		75	75	75	150	208	351	271			60	60			49	37	0	0	0	0	0	0	0	1
23 Bega Valley Shire Council			2	2			3	3			8	11			2	2			16	20		87	72	71			180	180			120	120			-	-	2	0	0	0		1	1	0
24 Ballina Shire Council			0	3			1	3	6	10	11	6			0	0			12	12		99	99	99	120	120	120	120	120	120	120	120			-	-			0	0			-	0
25 Kempsey Shire Council	1	0	0	1.3	1	0	0	0	0	2	1	1		0	0	0	1	3	2	3			0	51			100	159			146	83			114	23	1	1	1	1	0	0	0	0
26 Country Energy	0.1	0.0	0.1	0.1	1	0	0	0			1	1	1	0	0	0			2	1			-	80			60	-			60	-			-	-	0	1	1	0	0	0	0	0
27 Byron Shire Council	4	1	0	0.2			0	0			2	2			7	5			10	8			-	-			120	120			60	60			9	11	2	0	2	8	0	0	0	0
28A Goldenfields Water (Reticulation)			7	7			46	49							0	-			51	56			-	-			191	272							150	117	1	5	5	7	0	0	0	0
28B Goldenfields Water (Bulk Supply)																							-	-																				
20 Goulburn Mulwaree			6	3.6			35	38			38	41			0	0			81	86			-	-			180	180			90	90			-	-			5	8			0	0
9 Wagga Wagga City Council										89	76	68			0				76	68			-	100							47													
LWU Range Max	56	94	25	39		58	74	77	31.4	89.2	76.1	68			9.2	16	119	107	117	139			100	100	224	232	351	272	186	330	240	174	280	181	203	239	7	7	7	8	1	7	12	
LWU Range Min	0	0	0	0		0	0	0	0.3	2.4	0.6	1			0.0	0	1	3	0	0			0	49	112	120	60	112	60	60	60	47	12	7	2	2	0	0	0	0	0	0	0	
Median of NMU Indicators shown in Table	4	3	2	3		22	9	4	13.0	13.7	11.8	9			0.1	0	51	51	26	19			90	85	150	205	178	180	120	127	120	107	30	20	29	27	1	0	0	0	0	0	0	

	WATER UTILITY	HEALTH																									
		WS												WS													
		Water quality guidelines H1				No. of zones with microbiological compliance H2				% population with microbiological compliance H3 (%)				No. of zones with chemical compliance H4				Risk based drinking water management plan externally assessed H5 (YES/NO)				Risk based drinking water plan H6				Public disclosure of WQ performance H7 (YES/NO)			
		2006/07	2007/08	2008/09	2009/10	2006/07	2007/08	2008/09	2009/10	2006/07	2007/08	2008/09	2009/10	2006/07	2007/08	2008/09	2009/10	2006/07	2007/08	2008/09	2009/10	2006/07	2007/08	2008/09	2009/10	2006/07	2007/08	2008/09	2009/10
	Sydney Water Corporation	ADWG 2004	ADWG 2004	ADWG 2004	ADWG 2004	13 of 13	13 of 13	13 of 13	13 of 13	100	100	100	100	13 of 13	13 of 13	13 of 13	13 of 13	Yes	Yes	Yes	Yes	ISO 9001	ISO 9001	ISO9001	ISO9001	Yes	Yes	Yes	Yes
	Hunter Water Corporation	ADWG 2004	ADWG 2004	ADWG 2004	ADWG 2004	3 of 3	4 of 4	4 of 5	5 of 5	99.8	100.0	100	100	3 of 3	4 of 4	5 of 5	5 of 5	No	No	No	No	ADWG	ADWG	ADWG	ADWG	Yes	Yes	Yes	Yes
	Sydney Catchment Authority	ADWG 2004	ADWG 2004	ADWG 2004	ADWG 2004																								
1	Gosford City Council	ADWG 2004	ADWG 2004	ADWG 2004	ADWG 2004	1 of 1	1 of 1	2 of 2	2 of 2	100	100	100	100			2 of 2	2 of 2	No	No	No	No	No	No	No	ADWG	Yes	Yes	Yes	Yes
2	Wyong Shire Council	ADWG 2004	ADWG 2004	ADWG 2004	ADWG 2004	1 of 1	1 of 1	1 of 1	1 of 1	100	100	100	100	1 of 1	1 of 1	1 of 1	1 of 1	No	No	No	No	No	No	No	ADWG	Yes	Yes	Yes	Yes
3	Shoalhaven City Council	ADWG 2004	ADWG 2004	ADWG 2004	ADWG 2004	4 of 4	4 of 4	4 of 4	4 of 4	100	100	100	100	4 of 4	4 of 4	4 of 4	4 of 4	No	No	No	No	No	HACCP	HACCP	HACCP	Yes	Yes	Yes	Yes
4	Rous County Council	ADWG 2004	ADWG 2004	ADWG 2004	ADWG 2004	2 of 2	1 of 2	2 of 2	2 of 2	100	100	100	100	2 of 2	1 of 2	2 of 2	2 of 2	No	No	No	No	ADWG	ADWG	ADWG	ADWG	Yes	Yes	Yes	Yes
5	MidCoast County Council	ADWG 2004	ADWG 2004	ADWG 2004	ADWG 2004	4 of 4	2 of 4	4 of 4	4 of 4	100	91	100	100	2 of 4	2 of 4	3 of 4	3 of 4	No	Yes	Yes	Yes	No	ADWG	ADWG	ADWG	Yes	Yes	Yes	Yes
6	Tweed Shire Council	ADWG 2004	ADWG 2004	ADWG 2004	ADWG 2004	3 of 3	3 of 3	3 of 3	3 of 3	98	100	100	100	2 of 3	2 of 3	3 of 3	3 of 3	No	No	No	No	No	ADWG	ADWG	ADWG	Yes	Yes	Yes	Yes
7	Port Macquarie-Hastings Council	ADWG 2004	ADWG 2004	ADWG 2004	ADWG 2004	4 of 5	5 of 5	5 of 5	5 of 5	100	100	100	100	4 of 4	4 of 4	4 of 5	5 of 5	No	No	No	No	No	ADWG	ADWG	ADWG	Yes	Yes	Yes	Yes
8	Riverina Water County Council	ADWG 2004	ADWG 2004	ADWG 2004	ADWG 2004	13 of 15	13 of 14	14 of 14	14 of 14	99	99	100	100	14 of 15	12 of 14	13 of 14	10 of 14	Yes	Yes	Yes	Yes	ADWG	HACCP	HACCP	HACCP	Yes	Yes	Yes	Yes
10	Coffs Harbour City Council	ADWG 2004	ADWG 2004	ADWG 2004	ADWG 2004	3 of 3	3 of 3	3 of 3	3 of 3	100	100	100	100	3 of 3	3 of 3	3 of 3	3 of 3	No	No	No	No	No	ADWG	ADWG	ADWG	Yes	Yes	Yes	Yes
11	Albury City Council	ADWG 2004	ADWG 2004	ADWG 2004	ADWG 2004	2 of 2	3 of 4	4 of 4	1 of 1	100	75	100	100	2 of 2	4 of 4	4 of 4	0 of 1	No	No	No	No	No	No	ADWG	ADWG	Yes	Yes	Yes	Yes
12	Fish River Water Supply	ADWG 2004	ADWG 2004	ADWG 2004	ADWG 2004	0 of 1	1 of 1	1 of 1	1 of 1		100	100	100	0 of 1	0 of 1	1 of 1	1 of 1	No	No	No	No	No	No	No	ADWG	Yes	Yes	Yes	Yes
13	Tamworth Regional Council	ADWG 2004	ADWG 2004	ADWG 2004	ADWG 2004	6 of 7	5 of 7	7 of 7	6 of 7	100	98	100	99	5 of 7	5 of 7	6 of 7	6 of 7	No	No	No	No	No	No	No	ADWG	Yes	Yes	Yes	Yes
14	Clarence Valley Council	ADWG 2004	ADWG 2004	ADWG 2004	ADWG 2004	4 of 7	3 of 5	4 of 5	4 of 5		98	99	99		4 of 5	5 of 5	4 of 5	No	No	No	No	No	No	No	ADWG	Yes	Yes	Yes	Yes
15	Eurobodalla Shire Council	ADWG 2004	ADWG 2004	ADWG 2004	ADWG 2004	1 of 1		1 of 1	1 of 1			100	100	1 of 1		1 of 1	1 of 1	No	No	No	No	No	No	No	ADWG	Yes	Yes	Yes	Yes
16	Wingecarribee Shire Council	ADWG 2004	ADWG 2004	ADWG 2004	ADWG 2004	3 of 3	2 of 2	2 of 2	3 of 3	100	100	100	100	2 of 3	2 of 2	1 of 2	3 of 3	No	No	No	No	No	No	No	ADWG	Yes	Yes	Yes	Yes
17	Queanbeyan City Council	ADWG 2004	ADWG 2004	ADWG 2004	ADWG 2004	1 of 1	1 of 1	1 of 1	1 of 1	100	100	100	100			1 of 1	1 of 1	No	No	No	No	No	No	No	ADWG	Yes	Yes	Yes	Yes
18	Dubbo City Council	ADWG 2004	ADWG 2004	ADWG 2004	ADWG 2004	0 of 1	1 of 1	1 of 1	1 of 1	99	100	100	100	0 of 1	1 of 1	1 of 1	1 of 1	No	No	No	No	No	No	No	ADWG	Yes	Yes	Yes	Yes
19	Orange City Council	ADWG 2004	ADWG 2004	ADWG 2004	ADWG 2004	2 of 2	2 of 2	2 of 2	2 of 2	100	100	100	100	2 of 2	2 of 2	2 of 2	2 of 2	No	No	No	No	No	No	No	ADWG	Yes	Yes	Yes	Yes
21	Bathurst Regional Council	ADWG 2004	ADWG 2004	ADWG 2004	ADWG 2004	1 of 1	1 of 1	1 of 1	1 of 1	99	100	100	100	1 of 1	1 of 1	1 of 1	1 of 1	No	No	No	No	No	No	No	ADWG	Yes	Yes	Yes	Yes
22	Lismore City Council	ADWG 2004	ADWG 2004	ADWG 2004	ADWG 2004	1 of 1	1 of 1	1 of 1	1 of 1	97	100	100	100	1 of 1	1 of 1	0 of 1	1 of 1	No	No	No	No	No	No	No	ADWG	Yes	Yes	Yes	Yes
23	Bega Valley Shire Council	ADWG 2004	ADWG 2004	ADWG 2004	ADWG 2004	6 of 6	6 of 6	6 of 6	6 of 6	100	100	100	100	3 of 6	6 of 6	6 of 6	5 of 6	No	No	No	No	No	No	No	ADWG	Yes	Yes	Yes	Yes
24	Ballina Shire Council	ADWG 2004	ADWG 2004	ADWG 2004	ADWG 2004	1 of 1	1 of 1	1 of 1	1 of 1	100	100	100	100	1 of 1	1 of 1	1 of 1	1 of 1	No	No	No	No	Yes	Yes	No	ADWG	Yes	Yes	Yes	Yes
25	Kempsey Shire Council	ADWG 2004	ADWG 2004	ADWG 2004	ADWG 2004	6 of 9	7 of 8	7 of 8	7 of 7	99	100	100	100	6 of 9	7 of 8	6 of 8	7 of 7	No	No	No	No	No	NHMRC	NHMRC	NHMRC	Yes	Yes	Yes	Yes
26	Country Energy	ADWG 2004	ADWG 2004	ADWG 2004	ADWG 2004	2 of 2	2 of 2	2 of 2	2 of 2	100	100	100	100	1 of 2	2 of 2	2 of 2	2 of 2	No	No	No	No	No	No	No	ADWG	Yes	Yes	Yes	Yes
27	Byron Shire Council	ADWG 2004	ADWG 2004	ADWG 2004	ADWG 2004	1 of 1	1 of 1	1 of 1	1 of 1	100	100	100	100	1 of 1	1 of 1	1 of 1	1 of 1	No	No	No	No	No	ADWG	ADWG	ADWG	Yes	Yes	Yes	Yes
28A	Goldenfields Water (Reticulation)	ADWG 2004	ADWG 2004	ADWG 2004	ADWG 2004	1 of 1	1 of 1	1 of 1	1 of 1	100	100	100	100	1 of 1	1 of 1	1 of 1	1 of 1	No	No	No	No	ADWG	ADWG	ADWG	ADWG	Yes	Yes	Yes	Yes
28B	Goldenfields Water (Bulk Supply)	ADWG 2004	ADWG 2004	ADWG 2004	ADWG 2004	4 of 4	2 of 3	3 of 3	2 of 3	100	95	100	99	3 of 4	1 of 1	3 of 3	3 of 3	No	No	No	No	ADWG	ADWG	ADWG	ADWG	Yes	Yes	Yes	Yes
20	Goulburn Mulwaree			ADWG 2004	ADWG 2004			2 of 2	2 of 2			100	100			2 of 2	2 of 2			No	No			No	ADWG			Yes	Yes
9	Wagga Wagga City Council																								ADWG				
	LWU Range Max									100	100	100	100																
	LWU Range Min									97	75	99	99																
	Median of NMU Indicators shown in Table									100	100	100	100																

	WATER UTILITY	RESIDENTIAL CHARGES AND BILLS – WATER SUPPLY																									
		Tariff structure P1		Free water allowance P1.1		Fixed charge P1.2		Usage charge 1st step P1.3				Usage charge 2nd step P1.4				Usage charge 3rd step P1.5				Usage charge 4th step P1.6				Usage charge 5th step P1.7			
						Basis	$	kL limit		$/kL		kL limit		$/kL		kL limit		$/kL		kL limit		$/kL		kL limit		$/kL	
		2008/09	2009/10	2008/09	2009/10	2009/10	2009/10	2008/09	2009/10	2008/09	2009/10	2008/09	2009/10	2008/09	2009/10	2008/09	2009/10	2008/09	2009/10	2008/09	2009/10	2008/09	2009/10	2008/09	2009/10	2008/09	2009/10
	Sydney Water Corporation	Inclining Block	Two Part				102	<400	All	1.61	1.87	>400		1.83													
	Hunter Water Corporation	Inclining Block	Two Part				40	All	All	1.27	1.57																
	Sydney Catchment Authority																										
1	Gosford City Council	Two Part	Two Part	0	0	Connection size	92	All	All	1.67	1.78																
2	Wyong Shire Council	Two Part	Two Part	0	0	Connection size	102	All	All	1.67	1.78																
3	Shoalhaven City Council	Inclining Block	Inclining Block	0	0	Connection size	65	<450	<450	1.00	1.30	>450	>450	1.50	1.95												
4	Rous County Council																										
5	MidCoast Water	Inclining Block	Inclining Block	0	0	Meter size	142	<200	<200	1.75	2.02	>200	>200	1.95	2.24												
6	Tweed Shire Council	Two Part	Inclining Block	0	0	Meter size	102	All	<450	1.36	1.50		>450		2.25												
7	Port Macquarie Hastings Council	Inclining Block	Inclining Block	0	0	Meter size	141	<270	<270	1.84	1.97	>270	>270	3.68	3.94												
8	Riverina Water	Two Part	Inclining Block	0	0	Uniform charge	80	All	<600	0.78	0.86		>600		1.29												
10	Coffs Harbour City Council	Inclining Block	Inclining Block	0	0	Uniform charge	124	<365	<365	1.96	2.14	>365	>365	2.55	3.00												
11	Albury City Council	Inclining Block	Inclining Block	0	0	Meter size	87	<225	<225	0.52	0.54	>225	>225	1.04	1.09												
12	Fish River Water Supply																										
13	Tamworth Regional Council	Inclining Block	Inclining Block	0	0	Connection size	187	<400	<400	0.99	1.06	400-800	400-800	1.49	1.59	>800	>800	2.03	2.39								
14	Clarence Valley Council	Inclining Block	Inclining Block	0	0	Connection size	119	<450	<450	1.22	1.30	>450	>450	1.83	1.95												
15	Eurobodalla Shire Council	Inclining Block	Inclining Block	0	0	Meter size	305	<450	<450	1.70	1.95	>450	>450	2.55	2.90												
16	Wingecarribee Shire Council	Inclining Block	Inclining Block	0	0	Meter size	107	<225	<225	1.28	1.31	>225	>225	1.92	1.96												
17	Queanbeyan City Council	Inclining Block	Inclining Block	0	0	Meter size	271	<200	<176	1.70	1.81	>200	>176	2.30	2.44												
18	Dubbo City Council	Inclining Block	Inclining Block	0	0	Meter size	126	<550	<450	0.91	0.94	>550	>450	1.45	1.75												
19	Orange City Council	Inclining Block	Inclining Block	0	0	Connection size	118	<450	<450	1.51	1.54	>450	>450	2.27	2.31												
21	Bathurst Regional Council	Inclining Block	Inclining Block	0	0	Connection size	125	<250	<250	0.76	1.25	>250	>250	1.15	1.88												
22	Lismore City Council	Two Part	Two Part	0	0	Connection size	130	All	All	1.70	1.90																
23	Bega Valley Shire Council	Two Part	Two Part	0	0	Connection size	164	All	All	2.10	2.10																
24	Ballina Shire Council	Inclining Block	Inclining Block	0	0	Connection size	123	<350	<350	1.18	1.32	>350	>350	1.77	1.98												
25	Kempsey Shire Council	Inclining Block	Inclining Block	0	0	Uniform charge	260	<250	<250	1.10	1.20	>250	>250	1.65	1.75												
26	Country Energy	Inclining Block	Inclining Block	0	0	Connection size	219	<400	<400	0.91	1.05	>400	>400	2.36	2.36												
27	Byron Shire Council	Two Part	Inclining Block	0	0	Connection size	115	All	<450	1.44	1.70		>450		2.50												
28A	Goldenfields Water (Reticulation)	Two part	Inclining Block	0	0	Uniform charge	125	All	<600	1.20	1.52		>600		2.30												
28B	Goldenfields Water (Bulk Supply)																										
20	Goulburn Mulwaree Council		Inclining Block		0	Connection size	230		<292		1.49		>292		2.00												
9	Wagga Wagga Council																										
	NMU Range Max						305			2.10	2.14			3.68	3.94			2.03	2.39								
	NMU Range Min						65			0.52	0.54			1.04	1.09			2.03	2.39								
	Median of NMU Indicators shown in Table						125			1.32	1.50			1.88	2.00			2.03	2.39								

	WATER UTILITY	RESIDENTIAL CHARGES AND BILLS WATER SUPPLY Special levies P1.12 $		Income retained from special levies P1.13 (Yes/No)		Annual Bill based on 200kL/a P2 ($ per assessment)				Average Annual Residential Water Supplied P2.1 (kL)				Typical Residential Bill (TRB) P3 ($ per assessment)				Number of meter readings per annum P3.1 (no.)				Number of bills per annum P3.2 (no.)			
		2008/09	2009/10	2008/09	2009/10	2006/07	2007/08	2008/09	2009/10	2006/07	2007/08	2008/09	2009/10	2006/07	2007/08	2008/09	2009/10	2006/07	2007/08	2008/09	2009/10	2006/07	2007/08	2008/09	2009/10
	Sydney Water Corporation						325	398	476		186	198	205	325	323	404	484	4	4	4	4	4	4	4	4
	Hunter Water Corporation						278	295	354		177	180	184	269	264	276	329	3	3	3	3	3	3	3	3
	Sydney Catchment Authority																								
1	Gosford City Council	15	16	No	No	335	381	432	464		135	140	146	270	286	329	368			2	2			2	2
2	Wyong Shire Council	15	16	No	No	346	392	441	473		146	141	154	288	313	340	392			2	2			2	2
3	Shoalhaven City Council	0	0	No	No	261	265	267	325		144	152	145	230	209	218	254	4	4	4	4	4	4	4	4
4	Rous County Council																								
5	MidCoast Water	0	0	No	No	436	443	485	546		149	150	154	388	365	395	453	4	4	4	4	4	4	4	4
6	Tweed Shire Council	0	0	No	No	331	360	379	402		174	180	176	346	343	350	366	2	2	2	2	2	2	2	2
7	Port Macquarie Hastings Council	0	0	No	No	421	439	489	535		154	151	166	356	365	397	468	4	4	4	4	4	4	4	4
8	Riverina Water	0	0	No	No	244	243	241	252		327	374	330	409	343	380	364	4	4	4	4	4	4	4	4
10	Coffs Harbour City Council	0	0	No	No	511	513	517	552		169	165	186	469	452	446	523	4	4	4	4	4	4	4	4
11	Albury City Council	0	0	No	No	194	197	195	195		193	222	220	259	194	207	206			3	3	3	3	3	3
12	Fish River Water Supply																								
13	Tamworth Regional Council	0	0	No	No	350	369	382	399		192	226	256	376	362	408	458	4	4	4	4	4	4	4	4
14	Clarence Valley Council	0	0	No	No	334	348	364	379		178	176	174	316	349	334	340	4	4	4	4	4	4	4	4
15	Eurobodalla Shire Council	0	0	No	No	546	638	650	695		119	129	116	440	501	527	531			3	3			3	3
16	Wingecarribee Shire Council	0	0	No	No	378	366	366	369		168	183	190	397	324	344	356			3	3			3	3
17	Queanbeyan City Council	0	0	No	No	586	619	616	648		188	198	200	622	593	613	649			4	4			4	4
18	Dubbo City Council	0	0	No	No	310	305	310	314		322	331	329	529	417	432	435			4	4			4	4
19	Orange City Council	0	0	No	No	419	419	422	426		178	259	148	608	396	506	345			4	4			4	4
21	Bathurst Regional Council	0	0	No	No	376	379	396	375		241	240	252	419	398	427	441			4	4			4	4
22	Lismore City Council	0	0	No	No	375	390	450	510		163	159	168	341	338	379	449			4	4			4	4
23	Bega Valley Shire Council	0	0	No	No	453	580	563	584		144	154	165	394	457	464	511			3	3			3	3
24	Ballina Shire Council	0	0	No	No	300	331	354	387		186	175	188	298	316	324	371			4	4			4	4
25	Kempsey Shire Council	0	0	No	No	482	498	506	500		169	156	177	467	467	457	472			4	4			4	4
26	Country Energy	0	0	No	No	368	387	405	429		284	284	280	432	454	483	512			4	4			4	4
27	Byron Shire Council	0	0	No	No	374	389	420	455		181	181	194	349	363	392	445			4	4			4	4
28A	Goldenfields Water (Reticulation)	0	0	No	No	463	456	454	429		252	298	259	575	518	574	514	4	4	4	4	4	4	4	4
28B	Goldenfields Water (Bulk Supply)																								
20	Goulburn Mulwaree Council		0		No				528				136				432								
9	Wagga Wagga Council																								
	NMU Range Max							650	695			374	330		593	613	649		4	4	4		4	4	4
	NMU Range Min							195	195			129	116		194	207	206		2	2	2		2	2	2
	Median of NMU Indicators shown in Table							421	429			178	177		364	396	441		4	4	4		4	4	4

WATER UTILITY		RESIDENTIAL CHARGES AND BILLS – SEWERAGE																			
		Tariff Structure P4 (Charge Type)				Fixed charge min P4.1 ($)				Usage charge P4.2 ($/kL)				Special Levies P4.3						Income from Special Levies Retained by Utility P4.4 (Yes/No)	
														Description	($)						
		2006/07	2007/08	2008/09	2009/10	2006/07	2007/08	2008/09	2009/10	2006/07	2007/08	2008/09	2009/10		2006/07	2007/08	2008/09	2009/10		2008/09	2009/10
	Sydney Water Corporation					410	430	491	501	0	0	0	0		0	0	0	0			No
	Hunter Water Corporation				Service charge only	291 + usage	319 + usage	329 + usage	462	0.45	0.47	0.48	0	Environmental	0	56	56	33		Yes	Yes
	Sydney Catchment Authority					1.05															
1	Gosford City Council		Fixed	Fixed Charge	Fixed Charge	396	406	409	464	0	0	0	0		0	0	0	0		No	No
2	Wyong Shire Council		Fixed	Fixed Charge	Fixed Charge	402	416	407	429	0	0	0	0		0	0	0	0		No	No
3	Shoalhaven City Council		Fixed	Fixed Charge	Fixed Charge	555	571	570	585	0	0	0	0		0	0	0	0		No	No
4	Rous County Council																				
5	MidCoast Water		Fixed	Fixed Charge	Fixed Charge	643	682	706	794	0	0	0	0		0	0	0	0		No	No
6	Tweed Shire Council		Fixed	Fixed Charge	Fixed Charge	499	519	521	527	0	0	0	0		0	0	0	0		No	No
7	Port Macquarie Hastings Council		Fixed	Fixed Charge	Fixed Charge	444	510	569	601	0	0	0	0		0	0	0	0		No	No
8	Riverina Water																				
10	Coffs Harbour City Council		Fixed	Fixed Charge	Fixed Charge	621	633	644	676	0	0	0	0		0	0	0	0		No	No
11	Albury City Council		Fixed	Fixed Charge	Fixed Charge	374	414	408	426	0	0	0	0		0	0	0	0		No	No
12	Fish River Water Supply																				
13	Tamworth Regional Council		Fixed	Fixed Charge	Fixed Charge	569	638	653	675	0	0	0	0		0	0	0	0		No	No
14	Clarence Valley Council		Fixed	Fixed Charge	Fixed Charge	506	559	598	637	0	0	0	0		0	0	0	0		No	No
15	Eurobodalla Shire Council		Fixed	Fixed Charge	Fixed Charge	548	583	631	662	0	0	0	0		0	0	0	0		No	No
16	Wingecarribee Shire Council		Fixed	Fixed Charge	Fixed Charge	527	543	543	546	0	0	0	0		0	0	0	0		No	No
17	Queanbeyan City Council		Fixed	Fixed Charge	Fixed Charge	322	331	330	334	0	0	0	0		0	0	0	0		No	No
18	Dubbo City Council		Fixed	Fixed Charge	Fixed Charge	457	480	489	502	0	0	0	0		0	0	0	0		No	No
19	Orange City Council		Fixed	Fixed Charge	Fixed Charge	288	298	299	292	0	0	0	0		0	0	0	0		No	No
21	Bathurst Regional Council		Fixed	Fixed Charge	Fixed Charge	370	383	390	399	0	0	0	0		0	0	0	0		No	No
22	Lismore City Council		Fixed	Fixed Charge	Fixed Charge	469	486	487	545	0	0	0	0		0	0	0	0		No	No
23	Bega Valley Shire Council		Fixed	Fixed Charge	Fixed Charge	683	939	910	957	0	0	0	0		0	0	0	0		No	No
24	Ballina Shire Council		Fixed	Fixed Charge	Fixed Charge	380	422	450	480	0	0	0	0		0	0	0	0		No	No
25	Kempsey Shire Council		Fixed	Fixed Charge	Fixed Charge	545	583	583	595	0	0	0	0		0	0	0	0		No	No
26	Country Energy		Fixed	Fixed Charge	Fixed Charge	314	346	369	397	0	0	0	0		0	0	0	0		No	No
27	Byron Shire Council		Fixed + Usage	Fixed + Usage Char	Fixed + Usage C	538	574	589	603	1.23	1.10	1.10	1.08		0	0	0	0		No	No
28A	Goldenfields Water (Reticulation)																				
28B	Goldenfields Water (Bulk Supply)																				
20	Goulburn Mulwaree Council				Fixed Charge				600				0					0			No
9	Wagga Wagga Council		Fixed	Fixed Charge	Fixed Charge	337	351	364	380	0	0	0	0		0	0	0	0		No	No
	NMU Range Max						939	910	957		1	1	1			0	0	0			
	NMU Range Min						298	299	292		0	0	0			0	0	0			
	Median of NMU Indicators shown in Table						510	521	545		0	0	0			0	0	0			

	WATER UTILITY	RESIDENTIAL CHARGES AND BILLS																			
		SEWERAGE												WS & SGE							
		Annual Bill based on 200kL/a				Typical Residential Bill (TRB)				Number of bills per annum				Annual Bill based on 200kL/a WS + Sge				Typical Residential Bill (TRB) WS + Sge			
		P5				P6				P6.1				P7				P8			
		($ per assessment)				($ per assessment)				(no.)				($ per assessment)				($ per assessment)			
		2006/07	2007/08	2008/09	2009/10	2006/07	2007/08	2008/09	2009/10	2006/07	2007/08	2008/09	2009/10	2006/07	2007/08	2008/09	2009/10	2006/07	2007/08	2008/09	2009/10
	Sydney Water Corporation	410	430	491	501	410	430	491	501	4	4	4	4		773	898	977	735	753	895	985
	Hunter Water Corporation	387	368	377	496	387	362	372	496	3	3	3	3		662	679	850	655	627	648	825
	Sydney Catchment Authority																				
1	Gosford City Council	410	406	409	464	410	406	409	464			2	2		787	840	927	680	693	737	832
2	Wyong Shire Council	415	416	407	429	415	416	407	429			2	2		807	848	903	703	729	747	821
3	Shoalhaven City Council	574	571	570	585	574	571	570	585	4	4	4	4		836	837	910	804	779	788	839
4	Rous County Council																				
5	MidCoast Water	666	682	706	794	666	682	706	794	4	4	4	4		1125	1191	1,340	1,053	1,046	1,101	1,247
6	Tweed Shire Council	516	519	521	527	516	519	521	527	2	2	2	2		879	899	929	863	862	871	893
7	Port Macquarie Hastings Council	459	510	569	601	459	510	569	601	4	4	4	4		949	1058	1,136	815	875	966	1,069
8	Riverina Water																				
10	Coffs Harbour City Council	643	633	644	676	643	633	644	676	4	4	4	4		1146	1161	1,228	1,111	1,085	1,090	1,199
11	Albury City Council	387	414	408	426	387	414	408	426	3	3	3	3		611	604	621	647	607	616	632
12	Fish River Water Supply																				
13	Tamworth Regional Council	589	638	653	675	589	638	653	675	4	4	4	4		1008	1034	1,074	966	1,000	1,060	1,133
14	Clarence Valley Council	524	559	598	637	524	559	598	637	4	4	4	4		907	963	1,016	839	908	932	977
15	Eurobodalla Shire Council	567	583	631	662	567	583	631	662			3	3		1222	1281	1,357	1,008	1,085	1,158	1,193
16	Wingecarribee Shire Council	545	543	543	546	545	543	543	546			3	3		909	909	915	942	867	886	902
17	Queanbeyan City Council	333	331	330	334	333	331	330	334			4	4		951	946	982	955	924	943	983
18	Dubbo City Council	473	480	489	502	473	480	489	502			4	4		786	799	816	1,002	897	921	937
19	Orange City Council	298	298	299	292	298	298	299	292			4	4		718	722	718	906	694	805	637
21	Bathurst Regional Council	382	383	390	399	382	383	390	399			4	4		762	786	774	801	781	817	840
22	Lismore City Council	485	486	487	545	485	486	487	545			4	4		877	937	1,055	826	824	866	994
23	Bega Valley Shire Council	707	939	910	957	707	939	910	957			3	3		1519	1473	1,541	1,101	1,396	1,375	1,468
24	Ballina Shire Council	393	422	450	480	393	422	450	480			4	4		753	804	867	691	738	774	851
25	Kempsey Shire Council	564	583	583	595	564	583	583	595			4	4		1082	1089	1,095	1,031	1,050	1,040	1,067
26	Country Energy	325	346	369	397	325	346	369	397			4	4		733	774	826	757	800	852	909
27	Byron Shire Council	753	764	755	765	743	752	739	760			4	4		1153	1175	1,220	1,093	1,115	1,131	1,205
28A	Goldenfields Water (Reticulation)																				
28B	Goldenfields Water (Bulk Supply)																				
20	Goulburn Mulwaree Council				600				600								1,128				1,032
9	Wagga Wagga Council	349	351	364	380	349	351	364	380			4	4								
	NMU Range Max			910	957	743	939	910	957			4	4			1,473	1,541	1,111	1,396	1,375	1,468
	NMU Range Min			299	292	298	298	299	292			2	2			604	621	647	607	616	632
	Median of NMU Indicators shown in Table			521	546	485	510	521	546			4	4			923	982	884	871	904	977

WATER UTILITY		FINANCIAL																											
		WS				SGE				WS & SGE				WS								SGE				WS & SGE			
		Total Revenue Water (excludes gain/loss on disposal of assets, grants for capital works & investment income)				Total Revenue Sewerage (excludes gain/loss on disposal of assets, grants for capital works & investment income)				Total Income WS + Sge (includes gain/loss on disposal of assets) (may not equal F1 + F2)				Residential Revenue from Usage Charges				Revenue per property for WS				Revenue per property for Sge				Income for Utility				Revenue from CSOs			
		F1				F2				F3				F4				F5				F6				F7				F8			
		($'000)				($'000)				($'000)				(%)				($/property)				($/property)				($/property)				(%)			
		2006/07	2007/08	2008/09	2009/10	2006/07	2007/08	2008/09	2009/10	2006/07	2007/08	2008/09	2009/10	2006/07	2007/08	2008/09	2009/10	2006/07	2007/08	2008/09	2009/10	2006/07	2007/08	2008/09	2009/10	2006/07	2007/08	2008/09	2009/10	2006/07	2007/08	2008/09	2009/10
	Sydney Water Corporation	847,567	778,515	928,376	1,070,000	944,235	958,596	1,020,000	1,070,000	1,770,000	1,780,000	1,910,000	2,130,000	82	84	0	82	492	448	529	605	565	568	596	623	1,030	1,025	1,091	1,203	6.0	5.0	6.0	6.0
	Hunter Water Corporation	110,597	92,099	92,171	112,479													512	418	415	500	532	557	540	572	1,022	958	929	1,044	4.0	4.0	4.6	4.8
	Sydney Catchment Authority	164,916	168,913	180,332	196,274																												
1	Gosford City Council	28,047	24,883	29,524	32,904	32,475	30,675	30,916	36,742	60,674	55,558	60,143	69,819	68	70	75	73	405	358	421	468	480	450	452	536	875	798	858	994	2.0	2.0	2.0	0.8
2	Wyong Shire Council	42,750	30,754	31,890	46,325	31,134	27,152	26,050	29,021	73,884	57,906	57,940	75,346	66	69	74	63	735	521	536	774	542	465	444	491	1,272	981	974	1,260	2.0	2.0	2.2	0.9
3	Shoalhaven City Council	16,688	16,076	16,905	19,749	29,933	30,347	30,904	32,653	46,495	46,423	47,546	52,269	62	67	71	74	372	354	370	431	808	788	784	806	1,038	1,022	1,041	1,140	2.0	2.0	2.0	1.9
4	Rous Water	10,350	12,998	14,162	16,540					10,511	12,998	13,711	14,893																	0.0	0.0	0.1	0.1
5	MidCoast Water	19,762	19,178	19,353	23,412	26,304	27,156	27,188	31,639	45,522	46,334	46,292	54,934	72	71	75	77	552	532	534	645	820	840	835	963	1,272	1,284	1,276	1,512	2.0	2.0	1.8	1.6
6	Tweed Shire Council	22,645	21,975	18,726	20,556	25,324	29,611	28,160	26,331	47,668	51,585	45,666	44,173	72	70	72	75	783	713	592	659	927	1,070	949	894	1,650	1,638	1,442	1,417	2.0	2.5	1.6	1.6
7	Port Macquarie Hastings Council	17,646	17,662	21,962	23,551	14,122	16,206	19,674	19,618	31,542	33,868	41,241	42,977	74	74	74	70	604	617	735	814	548	624	724	743	1,080	1,184	1,380	1,486	2.0	2.0	1.7	1.3
8	Riverina Water	19,704	17,588	18,117	18,571					19,642	17,588	18,117	18,560	80	77	79	80	722	633	641	649					719	633	641	649	1.0	1.0	1.1	1.0
10	Coffs Harbour City Council	15,475	17,832	16,580	32,293	20,697	22,673	20,973	24,581	36,175	40,505	37,552	56,463	78	80	76	75	663	756	696	1,343	947	1,020	934	1,083	1,551	1,718	1,576	2,348	1.0	1.0	1.2	0.8
11	Albury City Council	9,727	8,218	8,042	9,155	11,327	12,262	12,388	14,876	21,054	20,481	20,429	24,031	70	52	64	64	431	375	362	406	539	602	601	710	932	934	920	1,065	2.0	1.0	1.5	1.3
12	Fish River Water Supply																																
13	Tamworth Regional Council	13,095	14,771	15,399	15,720	13,344	15,134	18,902	21,224	26,439	29,905	34,301	36,944	60	56	61	64	658	732	757	762	742	831	1,028	1,141	1,329	1,483	1,686	1,791	1.0	1.0	1.1	1.0
14	Clarence Valley Council	26,877	31,936	15,654	12,139	9,787	10,586	10,632	11,712	36,664	42,522	26,253	23,767	73	71	69	64	1,378	1,554	752	579	802	757	742	814	1,880	2,069	1,261	1,134	2.0	1.0	1.7	1.8
15	Eurobodalla Shire Council	11,024	12,756	13,168	13,799	11,952	12,544	13,812	14,948	22,506	25,300	25,270	28,118	44	40	40	43	584	672	686	713	691	720	785	844	1,190	1,334	1,316	1,453	2.0	2.0	1.5	1.4
16	Wingecarribee Shire Council	10,600	8,417	9,256	10,880	11,100	10,261	9,889	10,814	21,648	18,678	19,127	21,665	65	68	71	71	602	472	514	600	793	726	692	747	1,230	1,046	1,063	1,194	1.0	1.0	2.0	1.4
17	Queanbeyan City Council	11,322	10,894	9,895	12,029	6,199	7,981	5,899	6,226	17,564	18,875	15,621	17,942	61	57	56	62	731	683	627	755	400	500	368	387	1,134	1,183	990	1,126	1.0	1.0	1.0	1.1
18	Dubbo City Council	12,015	8,933	9,427	10,966	9,457	9,983	9,897	10,194	21,486	18,916	18,646	20,776	83	75	75	77	769	572	585	650	656	676	663	661	1,375	1,210	1,157	1,232	1.0	1.0	1.0	0.9
19	Orange City Council	13,398	10,810	12,894	9,706	8,367	11,240	13,884	7,347	21,774	22,050	26,779	17,090	75	72	72	70	859	672	800	602	540	754	918	470	1,395	1,372	1,661	1,060	1.0	1.0	0.9	1.4
21	Bathurst Regional Council	9,245	9,488	10,878	10,843	7,812	7,045	8,026	7,899	17,072	16,533	18,904	18,741	43	38	52	81	642	645	728	739	558	491	552	534	1,186	1,123	1,265	1,277	1.0	1.0	1.1	1.1
22	Lismore City Council	6,164	6,705	7,172	8,398	7,785	9,212	8,102	8,546	13,875	15,917	14,908	16,523	71	68	73	72	449	484	514	597	642	753	659	689	1,012	1,149	1,068	1,175	2.0	2.0	2.0	1.5
23	Bega Valley Shire Council	7,281	8,419	8,861	9,839	8,941	12,409	12,456	13,676	17,835	20,828	21,311	23,503	66	72	73	67	528	610	631	700	828	1,069	1,051	1,150	1,293	1,509	1,517	1,671	1.0	1.0	1.2	1.1
24	Ballina Shire Council	5,813	6,304	6,292	7,734	8,056	9,360	8,799	10,574	13,831	15,664	14,833	18,308	66	67	66	70	434	453	449	539	645	747	692	807	1,032	1,125	1,058	1,276	2.0	2.0	2.0	1.6
25	Kempsey Shire Council	7,225	7,077	7,465	7,883	6,223	6,454	6,562	6,805	13,537	13,531	13,519	14,490	38	38	41	49	597	578	607	636	699	724	731	754	1,118	1,106	1,100	1,169	1.0	2.0	1.8	1.7
26	Country Energy	12,830	12,989	12,755	12,701	3,910	4,366	4,659	4,861	16,747	17,355	17,414	17,562	59	56	57	60	1,199	1,204	1,220	1,213	407	452	480	501	1,566	1,608	1,666	1,677	2.0	2.0	1.6	1.5
27	Byron Shire Council	5,133	4,872	5,809	6,655	10,402	10,448	11,288	12,063	15,535	15,320	16,983	18,718	71	66	70	77	489	464	546	618	1,062	1,046	1,146	1,190	1,479	1,458	1,595	1,737	1.0	1.0	0.9	0.8
28A	Goldenfields Water (Reticulation)	6,832	5,805	6,335	6,349					6,785	5,805	6,259	6,338	66	61	65	78	645	548	634	632					640	548	627	634	2.0	2.0	1.6	1.5
28B	Goldenfields Water (Bulk Supply)				6,665								6,657																				
20	Goulburn Mulwaree Council				7,180				8,260				15,894				40				702				865				1,554				1.1
9	Wagga Wagga Council					12,537	12,986	13,868	14,504	12,537	12,986	13,868	11,105									552	563	587	577					1.0	1.0	1.1	1.4
	NMU Range Max	42,750	31,936	31,890	46,325	32,475	30,675	30,916	36,742	73,884	57,906	60,143	75,346	83	80	79	81	1,378	1,554	1,220	1,343	1,062	1,070	1,146	1,190	1,880	2,069	1,686	2,348	2.0	2.5	2.2	1.9
	NMU Range Min	5,133	4,872	5,809	6,349	3,910	4,366	4,659	4,861	6,785	5,805	6,259	6,338	38	38	40	40	372	354	362	406	400	450	368	387	640	548	627	634	0.0	0.0	0.1	0.1
	Median of NMU Indicators shown in Table	12,015	12,756	12,894	12,029	11,100	12,262	12,456	12,870	21,270	19,698	19,778	19,759	67	68	71	70	623	594	617	649	656	726	724	751	1,210	1,183	1,209	1,260	1.5	1.0	1.5	1.3

	WATER UTILITY	FINANCIAL																									
		WS				SGE				WS				SGE				WS + SGE				WS				SGE			
		Written Down Replacement Cost of WS Assets				Written Down Replacement Cost of Sge Assets				Operating Cost OMA - Water Supply				Operating Cost OMA - Sewerage				Combined Operating Cost OMA - WS & Sge				Total Water Capital Expenditure				Total Sge Capital Expenditure			
		F9				F10				F11				F12				F13				F14				F15			
		($'000)				($'000)				($/prop)				($/prop)				($/prop)				($'000)				($'000)			
		2006/07	2007/08	2008/09	2009/10	2006/07	2007/08	2008/09	2009/10	2006/07	2007/08	2008/09	2009/10	2006/07	2007/08	2008/09	2009/10	2006/07	2007/08	2008/09	2009/10	2006/07	2007/08	2008/09	2009/10	2006/07	2007/08	2008/09	2009/10
	Sydney Water Corporation	7,881,873	8,889,412	10,433,975	11,592,458	15,929,128	20,069,452	21,549,095	22,278,233	284	354	306	311	207	275	246	245	485	621	551	556	249,546	960,114	1,490,000	800,845	443,770	468,009	403,781	455,005
	Hunter Water Corporation	1,044,526	1,486,197	1,535,793	1,579,034	1,548,715	1,622,182	2,648,806	2,715,289	230	196	189	190	249	273	278	305	466	455	466	496	67,021	39,704	69,573	53,567	47,618	45,829	72,802	106,368
	Sydney Catchment Authority																					95,816	76,899	81,591	54,357				
1	Gosford City Council	424,985	455,081	463,393	523,975	360,790	374,675	381,264	413,083	338	285	291	353	290	275	288	313	628	554	579	666	30936	23288	19947	41,667	4,305	15,655	15,695	16,681
2	Wyong Shire Council		454,986	463,165	510,820		388,314	395,968	396,095	343	291	368	391	310	317	326	327	651	605	694	718		16041	15913	51,554		3,969	4,139	10,032
3	Shoalhaven City Council		281,440	286,281	289,545		432,546	456,966	470,883	238	246	266	274	403	419	434	427	642	600	700	701		9155	1701	15,962		20,021	21,212	26,379
4	Rous Water		308,562	316,043	310,148																		16481	3760	4,993				
5	MidCoast Water		259,957	296,643	326,096		393,492	427,448	437,452	281	344	292	316	454	433	425	416	735	731	716	732		35314	37346	31,712		24,587	23,522	9,636
6	Tweed Shire Council		338,801	342,740	420,347		451,855	454,127	458,345	315	303	310	356	363	392	423	451	679	667	733	807		8862	52533	81,396		54,443	13,337	10,699
7	Port Macquarie Hastings Council		335,985	348,354	356,333		179,883	205,511	221,201	308	252	257	308	375	397	357	367	683	613	614	675		3672	4043	3,794		10,112	26,874	17,074
8	Riverina Water		136,485	144,122	147,896					302	301	311	315					302	301	311	315		8774	8857	6,660				
10	Coffs Harbour City Council		192,169	295,363	315,649		260,582	298,375	310,315	248	250	283	300	423	441	439	485	671	666	722	785		25180	32512	6,280		47,825	34,819	13,230
11	Albury City Council		180,156	187,189	188,849		142,000	157,832	161,771	249	285	276	269	360	337	260	386	610	598	536	654		4037	4207	0		4,432	5,025	0
12	Fish River Water Supply																												
13	Tamworth Regional Council		152,295	155,993	162,447		98,447	101,886	104,536	371	351	405	451	351	284	283	333	722	608	688	784		10574	6585	4,016		5,580	20,864	48,261
14	Clarence Valley Council		212,489	217,785	223,373		60,367	116,305	116,865	268	257	297	313	375	376	365	360	644	513	662	673		54571	9004	2,848		7,503	43,513	23,119
15	Eurobodalla Shire Council		142,979	178,006	191,641		153,689	162,743	167,833	359	344	319	336	430	465	412	445	789	771	731	781		18196	14646	17,715		4,492	4,111	6,359
16	Wingecarribee Shire Council		95,713	163,821	173,502		120,544	184,798	206,219	272	308	304	308	355	342	330	367	627	579	634	676		3799	8997	2,782		4,011	11,551	13,266
17	Queanbeyan City Council		104,499	105,159	105,934		109,954	110,579	111,573	573	368	508	667	248	289	255	366	821	658	763	1,033		1342	729	686		4,850	3,337	1,012
18	Dubbo City Council		167,887	166,725	190,365		134,779	136,517	157,032	484	461	428	451	353	353	379	346	838	795	807	797		2506	1811	4,800		1,955	4,384	2,105
19	Orange City Council		116,029	130,716	133,743		91,990	105,388	107,197	327	334	336	281	285	335	303	300	612	646	639	581		1078	5851	3,581		679	780	884
21	Bathurst Regional Council		121,231	125,567	128,442		67,705	70,374	72,302	440	394	399	427	353	334	350	348	793	720	749	775		4232	2892	1,419		1,840	2,730	1,718
22	Lismore City Council		73,777	73,889	74,983		174,365	175,089	181,003	368	398	425	462	361	407	374	392	728	756	799	854		3438	1153	1,513		5,020	1,951	5,655
23	Bega Valley Shire Council		96,355	100,141	104,230		109,710	115,872	115,569	380	354	380	402	558	606	609	660	936	864	989	1,061		2986	3008	3,959		21,971	8,064	956
24	Ballina Shire Council		81,738	82,787	83,908		87,401	90,823	97,823	373	389	447	468	418	481	550	573	791	822	997	1,041		545	646	392		4,609	5,163	7,669
25	Kempsey Shire Council		219,915	224,105	231,594		104,086	112,662	119,214	302	322	342	372	377	385	390	433	680	602	732	806		1877	2792	5,467		2,094	8,260	5,749
26	Country Energy									948	844	819	817	255	283	345	253	1203	1097	1164	1,071		8779	19225	26,331		1,598	945	959
27	Byron Shire Council		48,637	49,229	49,695		147,842	156,203	184,061	411	435	439	458	563	558	584	584	974	965	1023	1,042		1532	419	247		6,337	8,089	28,121
28A	Goldenfields Water (Reticulation)		104,572	108,710	110,209							399	420							399	420		2584	1370	1,160				
28B	Goldenfields Water (Bulk Supply)				108,682																				3,357				
20	Goulburn Mulwaree Council				140,197				86,492				383				382				765				4,260				1,657
9	Wagga Wagga Council							211627	219,005					230	267	276	251	230	267	276	251					4,701	14,393	31,544	11,409
	NMU Range Max	424,985	455,081	463,393	523,975	360,790	451,855	456,966	470,883	948	844	819	817	563	606	609	660	1,203	1,097	1,164	1,071	30,936	54,571	52,533	81,396	4,701	54,443	43,513	48,261
	NMU Range Min	424,985	48,637	49,229	49,695	360,790	60,367	70,374	72,302	238	246	257	269	230	267	255	251	230	267	276	251	30,936	545	419	0	4,305	679	780	0
	Median of NMU Indicators shown in Table	424,985	160,091	172,366	181,176	360,790	142,000	160,288	167,833	338	334	339	372	361	376	365	375	681	652	716	770	30,936	4,232	4,207	4,016	4,503	5,020	8,089	8,653

	WATER UTILITY	FINANCIAL																									
		WS + SGE				WS				SGE				WS + SGE													
		Capital Expenditure WS + Sge				ERRR WS				ERRR Sge				ERRR WS & Sge				Dividend Paid or Payable				Dividend Payout Ratio				Net Debt to Equity			
		F16				F17				F18				F19				F20				F21				F22			
		($'000)				(%)				(%)				(%)				($'000)				(%)				(%)			
		2006/07	2007/08	2008/09	2009/10	2006/07	2007/08	2008/09	2009/10	2006/07	2007/08	2008/09	2009/10	2006/07	2007/08	2008/09	2009/10	2006/07	2007/08	2008/09	2009/10	2006/07	2007/08	2008/09	2009/10	2006/07	2007/08	2008/09	2009/10
	Sydney Water Corporation	693,315	1,430,000	1,890,000	1,260,000	1.9	-0.5	1.7	2.3	1.9	1.2	0.9	1.7	1.9	0.7	1.2	1.9	152,740	200,450	209,715	232,000	41.7	105.3	115.5	52.0	45	62	103	120
	Hunter Water Corporation	114,639	85,533	142,375	159,935	3.5	2.0	2.5	3.7	1.5	2.3	2.0	1.8	2.3	2.2	2.2	2.5	38,294	36,503	31,099	34,100	59	96	69	76	23	30	32	39
	Sydney Catchment Authority			81,591	54,357													18,090	6,503	27,433	31,211	90	75	75	75				
1	Gosford City Council	35,242	38,943	35,641	58,348	-0.4	-0.3	0.3	0.1	1.4	1.3	1.1	2.1	0.4	0.4	0.6	1.0	1,033	1,842	1,733	3,849	24	437	115	180	-2	-1	1	3
2	Wyong Shire Council	57,773	20,010	20,052	61,586	3.2	0.0	-0.6	1.6	1.4	-1.2	-1.6	-1.0	2.3	-0.5	-1.0	0.5	0	0	0	0			0	0	6	8	10	11
3	Shoalhaven City Council	45,326	29,176	22,913	42,341	0.6	-0.3	-0.3	0.4	2.2	1.6	1.3	1.6	1.5	0.9	0.7	1.1	2,793	2,329	1,200	940	14	67	-409	13	1	1	4	3
4	Rous Water	35,451	16,481	3,760	4,993	0.3	-0.2	-0.4	-0.4									0	0	0	0			0	0		10	11	10
5	MidCoast Water	48,221	59,901	60,868	41,348	2.4	0.2	0.8	3.5	1.2	-0.1	-0.2	0.3	1.6	0.0	0.2	1.7	0	0	0	0			0	0	9	16	25	30
6	Tweed Shire Council	56,971	68,084	65,870	92,095	1.4	1.3	0.2	0.4	0.2	1.0	-0.2	-0.3	0.7	1.1	0.0	0.0	0	0	0	0			0	0	-6	-6	1	2
7	Port Macquarie Hastings Council	31,715	13,785	30,917	20,868	1.1	0.7	1.7	1.9	0.1	0.3	2.1	1.4	0.8	0.6	1.9	1.7	822	0	0	0	31	0	0	0	-5	-3	2	0
8	Riverina Water	9,235	8,774	8,857	6,660	5.1	3.4	3.4	3.4									0	0	0	0			0	0		-7	0	-5
10	Coffs Harbour City Council	23,092	73,005	67,331	19,510	2.9	3.9	1.7	6.3	3.0	3.1	2.1	2.6	3.0	3.4	1.9	4.5	0	0	0	0			0	0	-4	13	26	24
11	Albury City Council	5,092	8,470	9,232	0	-0.3	-1.6	-1.6	-1.0	0.1	1.3	2.1	2.1	-0.1	-0.4	0.1	0.4	0	0	0	0			0	0	2	3	4	4
12	Fish River Water Supply																												
13	Tamworth Regional Council	7,999	16,154	27,449	52,277	2.7	3.0	2.1	1.7	6.4	6.9	7.8	6.5	4.2	4.6	4.7	4.2	1,147	1,106	1,075	1,059	15	9	6	6	-18	-12	-9	-1
14	Clarence Valley Council	52,185	62,074	52,518	25,967	9.8	9.9	1.7	0.7	5.4	3.6	1.2	1.7	8.7	8.4	1.5	1.0	0	0	0	0			0	0	-8	-1	6	8
15	Eurobodalla Shire Council	8,449	22,688	18,758	24,074	1.5	2.4	2.3	2.3	1.2	1.0	1.6	1.8	1.4	2.0	1.9	2.0	359	0	0	345	12	0	0	4	-2	2	0	2
16	Wingecarribee Shire Council	6,171	7,810	20,548	16,048	3.8	0.4	0.0	0.6	2.7	2.2	1.0	0.9	3.2	1.4	0.5	0.8	0	0	0	0			0	0	-7	-6	-2	1
17	Queanbeyan City Council	2,218	6,192	4,066	1,698	0.6	2.2	-0.7	-1.2	0.0	0.1	-1.0	-2.3	0.3	1.1	-0.9	-1.8	0	0	0	0			0	0	-14	-16	-16	-15
18	Dubbo City Council	8,188	4,461	6,194	6,905	1.1	-0.3	0.2	0.6	1.4	1.7	1.4	1.7	1.3	0.6	0.7	1.1	0	0	0	0		0	0	0	4	3	3	3
19	Orange City Council	8,296	1,758	6,630	4,465	4.6	1.0	2.5	0.6	1.0	3.3	5.8	-0.4	3.0	2.0	4.0	0.1	0	0	0	0			0	0	-11	-12	-11	-11
21	Bathurst Regional Council	23,265	6,072	5,622	3,137	0.5	1.1	1.9	1.4	1.2	1.3	2.2	1.1	0.8	1.1	2.0	1.3	0	0	0	0			0	0	-9	-9	-10	-11
22	Lismore City Council	4,916	8,458	3,104	7,168	0.6	-1.6	-1.7	-0.8	0.9	-0.9	-1.3	-1.3	0.8	-1.1	-1.5	-1.1	225	0	0	0	9	0	0	0	-6	-4	-4	-5
23	Bega Valley Shire Council	23,411	24,957	11,072	4,915	-0.3	1.6	1.5	1.9	0.6	2.1	1.5	1.9	0.3	1.8	1.5	1.9	0	0	0	0			0	0	-3	0	0	-4
24	Ballina Shire Council	4,776	5,155	5,809	8,061	0.1	-1.2	-2.4	-1.3	1.1	-0.7	-2.3	-0.3	0.6	-1.0	-2.3	-0.8	382	253	0	0	15	130	0	0	-13	-13	-11	-10
25	Kempsey Shire Council	4,097	3,971	11,052	11,216	1.1	-0.4	-0.5	-0.4	1.6	0.5	0.4	0.6	1.2	-0.1	-0.2	0.0	0	0	0	0			0	0	3	2	4	6
26	Country Energy	7,374	10,377	20,171	27,290													0	0	0	0			0	0		0	0	0
27	Byron Shire Council	6,439	7,868	8,508	28,368	0.2	-1.3	0.2	1.3	1.9	1.3	1.4	1.5	1.1	0.7	1.1	1.4	0	0	0	0			0	0	2	4	6	18
28A	Goldenfields Water (Reticulation)	6,654	2,584	1,370	1,160	-0.3	-1.3	-0.9	-1.1									0	0	0	0			0	0		-9	0	-9
28B	Goldenfields Water (Bulk Supply)					0.4	-0.5	-0.8	-0.4								0				0			0	0		-9	0	-8
20	Goulburn Mulwaree Council				5,917				0.1				3.6				1.5				0				0				5
9	Wagga Wagga Council	4,701	14,393	31,544	11,409					3.6	0.0	1.0	1.3					0	0	0	0			0	0		-9	4	5
	NMU Range Max	57,773	73,005	67,331	92,095	10	10	3	6	6.4	6.9	7.8	6.5	8.7	8.4	4.7	4.5	2,793	2,329	1,733	3,849	31	437	115	180	9	16	26	30
	NMU Range Min	2,218	1,758	1,370	0	0	-2	-2	-1	0.0	-1.2	-2.3	-2.3	-0.1	-1.1	-2.3	-1.8	0	0	0	0	9	0	-409	0	-18	-16	-16	-15
	Median of NMU Indicators shown in Table	8,372	12,081	14,915	11,409	1	0	0	1	1.3	1.3	1.2	1.4	1.2	0.9	0.7	1.1	0	0	0	0	15	4	0	0	-4	-1	1	2

WATER UTILITY	FINANCIAL																													
	WS + SGE												WS				SGE				WS				SGE				WS & Sge			
	Interest Cover				Net Profit after Tax				CSO				Capital Works Grants WS				Capital Works Grants SGE				Water Supply Capital Expenditure				Sewerage Capital Expenditure				NPAT Ratio			
	F23				F24 ($'000)				F25 ($'000)				F26 ($'000)				F27 ($'000)				F28 ($/property)				F29 ($/property)				F30			
	2006/07	2007/08	2008/09	2009/10	2006/07	2007/08	2008/09	2009/10	2006/07	2007/08	2008/09	2009/10	2006/07	2007/08	2008/09	2009/10	2006/07	2007/08	2008/09	2009/10	2006/07	2007/08	2008/09	2009/10	2006/07	2007/08	2008/09	2009/10	2006/07	2007/08	2008/09	2009/10
Sydney Water Corporation	2.4	0.9	1.5	3.2	366,552	190,428	181,584	445,854	97,837	96,316	115,329	130,607	0	0	0	0	0	0	0	0	145	553	847	452	265	277	237	264			10	21
Hunter Water Corporation	5.9	3.2	3.0	2.4	64,600	38,017	45,271	44,974	9,811	9,451	9,491	11,328	0	0	0	0	0	2,771	0	0	310	180	313	238	232	219	345	499			22	19
Sydney Catchment Authority					23,797	4,938	40,073	43,030																								
1 Gosford City Council	>100	2	>100	2	4,366	422	1,511	2,134	1132	1176	1189	591	221	859	1505	15,829	0	2144	1853	1,061	448	333	285	593	63	230	229	243			3	3.1
2 Wyong Shire Council	22	0	0	1	-6,296	-26,608	-17,935	-4,915	1412	1378	1299	677	2801	741	328	12,835	0	42	0	1	0	272	267	862		68	71	170			-31	-6.5
3 Shoalhaven City Council	>100	3	1	9	19,599	3,741	-294	7,322	906	924	946	974	0	0	4	75	11591	9219	4620	5,043	0	203	37	348		513	538	651			-1	14.0
4 Rous Water	>100	0	0	0	1,104	-11,763	-5,361	-6,293	12	11	7	12	0	0	0	1,779					0	0	0								-39	-42.3
5 MidCoast Water	>100	0	0	1	11,673	-20,002	-15,356	1,862	1039	1004	844	875	2673	2161	3196	734	0	0	1459	219	0	981	1030	873		768	722	293			-33	3.4
6 Tweed Shire Council	>100	>100	0	>100	8,429	6,901	-4,054	-1,809	786	752	735	727	0	0	0	0	144	0	109	0	0	286	1659	2,611		1877	449	363			-9	-4.1
7 Port Macquarie Hastings Council	>100	0	1	>100	2,645	-3,142	-7,331	10,204	751	692	695	538	153	0	0	623	2	6	5	0	0	127	135	131		389	988	647			-18	23.7
8 Riverina Water	6	>100	>100	>100	3,499	4,812	4,031	2,545	219	197	194	192	0	0	0	11					0	313	313	233							22	13.7
10 Coffs Harbour City Council	>100	1	1	4	14,155	4,636	-5,557	19,862	493	497	461	476	0	0	587	0	1622	5556	4229	622	0	1049	1365	261		2174	1550	583			-15	35.2
11 Albury City Council	31	0	0	4	-4,596	-2,332	-1,044	1,008	361	302	301	303	0	0	0	0	0	0	0	0	0	184	189	0		222	244	0			-5	4.2
12 Fish River Water Supply																																
13 Tamworth Regional Council	>100	>100	>100	>100	7,620	12,680	16,757	16,991	392	391	389	380	464	993	228	121	49	0	0	0	0	529	324	195		310	1135	2,595			49	46.0
14 Clarence Valley Council	>100	17	2	1	29,628	23,318	2,117	1,294	423	437	433	421	6690	6027	361	674	0	1336	9492	2,893	0	2599	433	136		536	3037	1,606			8	5.4
15 Eurobodalla Shire Council	>100	>100	12	>100	3,091	3,078	4,126	9,286	392	384	382	381	914	4780	7826	2,186	0	0	3396	0	0	958	763	915		264	234	359			16	33.0
16 Wingecarribee Shire Council	>100	>100	>100	5	5,090	782	432	-585	293	280	377	300	0	0	0	0	385	774	3412	3,133	0	211	500	153		287	809	916			2	-2.7
17 Queanbeyan City Council	>100	>100	0	0	2,610	4,135	-1,992	-2,533	175	164	160	201	0	0	0	0	0	0	0	0	0	84	46	43		304	208	63			-13	-14.1
18 Dubbo City Council	31	2	2	29	3,166	516	99	3,281	203	191	184	178	142	13	5	5	7	3	1	0	0	157	112	285		130	294	137			1	15.8
19 Orange City Council	>100	42	>100	>100	6,402	1,101	7,612	-1,321	253	253	250	246	768	211	2846	2,950	0	0	0	0	0	67	363	222		45	52	57			28	-7.7
21 Bathurst Regional Council	>100	>100	>100	>100	1,564	3,231	5,039	2,514	205	202	204	202	239	16	31	32	0	0	0	26	0	282	194	97		131	188	116			27	13.4
22 Lismore City Council	>100	0	0	0	2,592	-4,126	-4,933	-236	238	245	292	248	0	0	0	0	55	0	0	0	0	246	83	108		418	159	456			-33	-1.4
23 Bega Valley Shire Council	>100	>100	8	10	9,732	4,144	2,832	3,803	249	257	258	254	17	19	438	2,876	10211	8227	3879	0	0	213	214	282		1831	680	80			13	16.2
24 Ballina Shire Council	>100	0	0	0	2,517	195	-3,088	2,591	332	291	291	295	0	0	0	0	12	49	0	0	0	39	46	27		355	406	586			-21	14.2
25 Kempsey Shire Council	7	0	0	0	1,502	-1,975	-3,325	-2,686	129	254	247	250	0	0	44	504	0	6	0	35	0	156	227	441		233	920	637			-25	-18.5
26 Country Energy	>100	>100	>100	>100	-59	0	1,343	2,958	312	300	279	266	0	0	0	184	0	0	0	0	0	798	1839	2,514		160	97	99			8	16.8
27 Byron Shire Council	>100	0	1	2	1,716	-548	-1,168	-1,086	166	157	152	149	49	0	0	0	43	332	785	1,789	0	139	39	23		634	821	2,775			-7	-5.8
28A Goldenfields Water (Reticulation)	>100	0	0	0	1,441	-23	-188	-725	106	101	98	97	36	8	0	0					0	235	137	116							-3	-11.4
28B Goldenfields Water (Bulk Supply)								-9				0				0															-10	-0.1
20 Goulburn Mulwaree Council				7				3,094				176				1,000				0				417				173			3	19.5
9 Wagga Wagga Council	>100	>100	9	>100	5,386	2,151	1,782	417	166	162	157	159					0	0	0	0						626	1336	454			13	3.8
NMU Range Max	31	>100	>100		29,628	23,318	16,757	19,862	1,412	1,378	1,299	974	6,690	6,027	7,826	15,829	11,591	9,219	9,492	5,043	448	2,599	1,839	2,611	63	2,174	3,037	2,775			49	46
NMU Range Min	6	0	0	0	-6,296	-26,608	-17,935	-6,293	12	11	7	0	0	0	0	0	0	0	0	0	0	0	0	0	63	45	52	0			-39	-42
Median of NMU Indicators shown in Table	22	>100	>100	1	3,128	649	-241	1,578	303	285	291	260	17	0	4	75	0	3	1	0	0	235	227	233	63	310	449	361			-2	4

Appendix G: Greenhouse Gas Calculator

Overview

Greenhouse gases are produced from the use of fossil fuel in a water utility's operations, including transport and office accommodation, and are also produced from the chemical reactions resulting from the processing of sewage in a sewage treatment works. The mass of greenhouse gases can be calculated by applying appropriate conversion factors to the quantities of fuel consumed and by using appropriate formulae to calculate emissions from sewage treatment works.

The Federal Government provides guidance in the calculation of emissions and has published supporting information including tables of conversion factors and formula for the calculation of emissions from sewage treatment works (see Federal Department of Climate Change and Energy Efficiency). However, the calculation of emissions is relatively complex and, for sewage treatment works, requires the measurement or estimation of a number of factors. It requires the utility to assess the relevance and suitability of the appropriate factors and to apply these factors to its situation.

In order to assist NSW utilities in estimating the greenhouse gas emissions resulting from their water and sewerage operations, the NSW Office of Water has developed this greenhouse gas calculator for use by utilities. This will simplify and standardise the process. The calculator is a spreadsheet based on the Federal Government factors and also includes some simplifying assumptions for sewage treatment. Utilities should review whether these assumptions are appropriate for their situation. Where a utility has specific data or different circumstances, the calculator may not apply.

To calculate greenhouse gas emissions, utilities should follow steps A to D in the Instructions worksheet (see pink tab **Instructions**). These steps comprise:

A Emissions from water and sewerage operations - excluding STWs

B Emissions from Sewage Treatment Works (STWs)

C Carbon Offsets

D Total Emissions

Calculation of emissions for an example utility is shown at the green tab **Example**.

Instructions

Calculate the emissions from your water and sewerage operations and also from your sewage treatment works by following steps A to D below[1].

An example has been provided for an example utility showing the procedure for calculation of emissions (see green tab **Example**).

A. Emissions from Water and Sewerage Operations - excluding Sewage Treatment Works (STWs)

To calculate emissions from water and sewerage operations, go to orange tab **Emissions**.

Collect the relevant data (quantities of each fuel combusted including electricity) for your water, sewerage and other operations.

Insert the quantities of each fuel in the appropriate blue shaded cells.

[1] Examples of common emission sources are shown at yellow tab **Emission Source Examples**

B. Emissions from Sewage Treatment Works (STWs)

To calculate emissions from the sewage treatment works, go to orange tab **STW 1**.

Insert the relevant data in the blue cells for steps 1 to 8 for your STW.

However, if your utility does not have sufficient data to use the tables, you may use the graphs of emissions from typical sewage treatment works provided under orange tab **STW Graphs**.

Repeat as necessary for each of your STWs in tabs **STW 2** to **STW 10**.

Sum the total emissions from each of your STWs (sum step 11 for **STW 1** to **STW 10**).

Insert the sum of total emissions from your STWs into the blue shaded cell for sewage treatment in the orange tab **Emissions**.

C. Carbon Offsets

Go to the orange tab **Emissions**.

Determine your utility's accredited sequestration (usually in the form of tonnes of carbon in tree plantations).

Enter the accredited sequestration in the blue shaded cell for sequestration.

D. Total Emissions

Your utility's total greenhouse gas emissions will be shown at the bottom of orange tab **Emissions**.

Note that the orange tab **Emissions** worksheet is based on Tables 1 to 4 of the Australian Government Department of Climate Change "National Greenhouse Accounts (NGA) Factors" June 2009. The NSW Office of Water will arrange for updating of this worksheet if Tables 1 to 4 are updated or when better information becomes available.

Calculation of Emissions from Water and Sewerage Operations

GUIDANCE FOR ESTIMATING GREENHOUSE GAS EMISSIONS BY NSW WATER UTILITIES

CALCULATION OF EMISSIONS FROM WATER AND SEWERAGE OPERATIONS
Based on Tables 1 to 4 of the NATIONAL GREENHOUSE ACCOUNTS (NGA) FACTORS June 2009

Insert Council Name and Year
Insert Council name and year in cell above

1. Enter the annual quantity of fuel used in water, sewerage or other operations in the appropriate blue cells below.
2. Enter the estimated emissions from sewage treatment works (from orange tab STW 1 to STW 10).
3. Enter the carbon offset (if any) in the cell for sequestration.
4. The TOTAL Emissions (tonnes CO2-e) are shown at the bottom of the table.

FUEL or PROCESS UTILISED	UNITS	ANNUAL QUANTITY of FUEL USED				GREENHOUSE GAS EMISSIONS			
		WATER SUPPLY	SEWERAGE OPERATION	OTHER*	TOTAL USED	WATER SUPPLY	SEWERAGE OPERATION	OTHER*	TOTAL EMISSIONS
		Water source, storage, treatment, transfer and distribution	Sewage collection, storage, treatment and discharge	Transport (vehicles), office buildings, sequestration		t CO2 -e	t CO2 -e	t CO2 -e	t CO2 -e
ELECTRICITY PURCHASED FROM GRID (Table 5 of NGA)		Enter data into the blue cells only							
Electricity purchased from NSW or QLD Grid	kWh								
Electricity purchased from Vic Grid	kWh								
SUBTOTAL	t CO2-e					0.0	0.0	0.0	0.0
LIQUID FUELS (Transport) (Adapted from Table 4 of NGA)									
Gasoline for use in an aircraft (AVGAS)	kL								
Kerosene for use in an aircraft (AVTUR)	kL								
Fuel oil (General transport)	kL								
Biodiesel (General transport)	kL								
Gasoline (Vehicles)	kL								
Diesel oil (Vehicles)	kL								
Liquefied petroleum gas (Vehicles)	kL								
Ethanol (Vehicles)	kL								
SUBTOTAL	t CO2-e					0.0	0.0	0.0	0.0
LIQUID FUELS (Non Transport) (Adapted from Table 3 of NGA)									
Petroleum based oils (other than fuel, eg lubricants)	kL								
Gasoline (other than for use in an aircraft)	kL								
Kerosene (other than for use in an aircraft)	kL								
Heating oil	kL								
Diesel oil	kL								
Fuel oil	kL								
Liquefied petroleum gas	kL								
Biodiesel	kL								
Ethanol for use in an internal combustion engine	kL								
SUBTOTAL	t CO2-e					0.0	0.0	0.0	0.0
SOLID FUELS (Non Transport) (Adapted from Table 1 of NGA)									
Black coal	t								
Brown coal	t								
Coking coal	t								
Brown coal briquettes	t								
Industrial materials (eg. tyres) derived from fossil fuels	t								
Municipal materials (non-biomass)	t								
Municipal and industrial materials (Biomass)	t								
Wood (dry)	t								
Wood (Green and air dried)	t								
Bagasse	t								
Charcoal	t								
SUBTOTAL	t CO2-e					0.0	0.0	0.0	0.0
NATURAL GAS (Non Transport) (Adapted from Table 2 of NGA)									
Coal seam methane	m^3								
Coal mine waste gas	m^3								
Town gas	m^3								
Liquefied natural gas	kL								
Landfill or sludge biogas (methane only)	m^3								
SUBTOTAL	t CO2-e					0.0	0.0	0.0	0.0
SEWAGE TREATMENT (from STW spreadsheet)									
Sum of STW 1 to STW 10 or from STW Graphs	t								
SUBTOTAL	t CO2-e						0.0		0.0
SEQUESTRATION									
Carbon Offset	t								
SUBTOTAL	t CO2-e							0.0	0.0
TOTAL EMISSIONS	t CO2-e					0.0	0.0	0.0	0.0

* OTHER is the estimated water and sewerage component of the fuel used in Councils' office buildings and vehicles and can also include sequestration as an offset (ie. a negative value).

Calculation of Greenhouse Gas Emissions from Sewerage Treatment Works

GUIDANCE FOR ESTIMATING GREENHOUSE GAS EMISSIONS FOR NSW WATER UTILITIES

B. CALCULATION OF GREENHOUSE GAS EMISSIONS FROM SEWAGE TREATMENT WORKS (STWs)

STW 1

Insert STW identifier in blue cell above and enter data in blue cells below (steps 1 to 8). Total emissions are shown at step 11.
If additional STWs are required, see orange worksheets STW 2 to STW 10.

Step			Input	Result	
1	Inflow to STW	Insert volume of sewage entering STW (if known). Else leave blank.		0	ML
		OR			
2	Population	Insert actual population served by STW (if known). Else leave blank.		0	no.
		(If population unknown, it can be estimated assuming residential sewage is 240 L/c/d.)			
		OR			
3	COD in influent (CODw)	Insert COD in influent (if known). Else leave blank.			tonnes
		(If BOD in influent is known, COD can be calculated from BOD x 2.6).			
		If COD or BOD in influent are unknown, COD in influent is estimated from the following approximation.			
		CODw = 0.0585 x population		0	tonnes
4	Volatile solids in sludge (VSsl)	Insert estimated volatile solids in sludge (if known). Else leave blank.			tonnes
5	COD in sludge (CODsl)	CODsl is calculated as VSsl x 1.48 if VSsl is known.		0	tonnes
		If VSsl is unknown, CODsl estimated to be 0.6 x CODw			
6	COD in effluent (CODeff)	Insert COD in effluent (if known). Else leave blank.			tonnes
		(If BOD in effluent is known, COD can be calculated from BOD x 2.6).			
		If COD or BOD in effluent are unknown, COD in effluent is estimated from the following approximation.			
		CODeff = 0.08 x CODw		0	tonnes
7	Fraction sewage/sludge anaerobic	Select Fwan for appropriate type of STW from table below at note (e).			
		Select Fslan for appropriate type of STW from table below at note (e).			
		COD sludge transferred to fill CODtrl = CODsl x (1-Fslan x 0.4).		0	tonnes
		COD sludge transferred not to fill CODtro assumed to be zero		0	tonnes
8	Volume of biogas (Q)	Input volumes of sludge biogas combusted, flared or transferred elsewhere.			m3
		Methane captured from biogas = 0.0142464 x Q		0	t CO2-e
9	Total methane emissions	Total methane emissions		0	t CO2-e
		Nitrogen entering STW Nin = 0.036 x 0.16 x Population		0	tonnes
		Nitrogen in sludge transferred to landfill Ntrl = CODtrl / CODw x Nin			tonnes
		Nitrogen in sludge transferred not to landfill Ntro assumed to be zero		0	tonnes
		Nitrogen in effluent Nout = CODeff / CODw x Nin			tonnes
10	Total nitrous oxide emissions	Total nitrous oxide emissions		0	t CO2-e
11	TOTAL EMISSIONS FROM STW	Methane plus nitrous oxide emissions		0	t CO2-e

NOTES:

(a) Calculation of emissions from STWs requires estimation or measurement of various parameters including BOD or COD for inflow and outflow.

(b) The greenhouse gas emissions can be calculated using the NGER System Measurement Technical Guidelines June 2009 (NGER Guidelines). The NGER Guidelines are available on the Department of Climate Change and Energy Efficiency website.

(c) The calculations above include a number of simplifying assumptions which have been based on typical STW operations shown at yellow tab STW Assumptions. However, where these assumptions are incorrect, they can be overridden as necessary.

(d) Graphs have also been prepared based on typical STW operations for different inflows and populations. These are shown at orange tab STW Graphs.

(e) Table of default fractions for different treatment types is shown below. See also yellow tab STW Assumptions

TYPE OF TREATMENT	STW assumed for each type of treatment		Fwan	Fslan
Managed aerobic treatment	Aerated Lagoon	**AL**	0	0
Unmanaged aerobic treatment	Oxidation Pond (<2m deep)	**A**	0.2	0.2
	Trickling Filter / lagoon <2m deep	**TF**	0.3	0.3
	Trickling Filter (digester)	**TF**	0.3	0.8
Unmanaged anaerobic treatment	Anaerobic pond (<2m deep)	**AN**	0.2	0.2
	Anaerobic pond (>2m deep)	**AN**	0.8	0.8
Managed aerobic treatment	Conventional Activated Sludge	**C**	0	0
	Continuous Extended Aeration	**CEA**	0	0
	Intermittent Extended Aeration	**IEA**	0	0

Graphs of Emissions from different types of STW

GUIDANCE FOR ESTIMATING GREENHOUSE GAS EMISSIONS FOR NSW WATER UTILITIES

Graphs of Emissions for different types of STW

The greenhouse gas emissions for typical types of treatment are graphed below against population and inflow.
The graphs have been developed on the assumption that inflow from residential sewage is 240 L per capita per day and that the types of treatment correspond to the default fractions anaerobic shown in yellow tab **STW Assumptions**.
Refer also to the other assumptions shown at yellow tab **STW Assumptions.**

Figure 1. Greenhouse Gases Based on Population

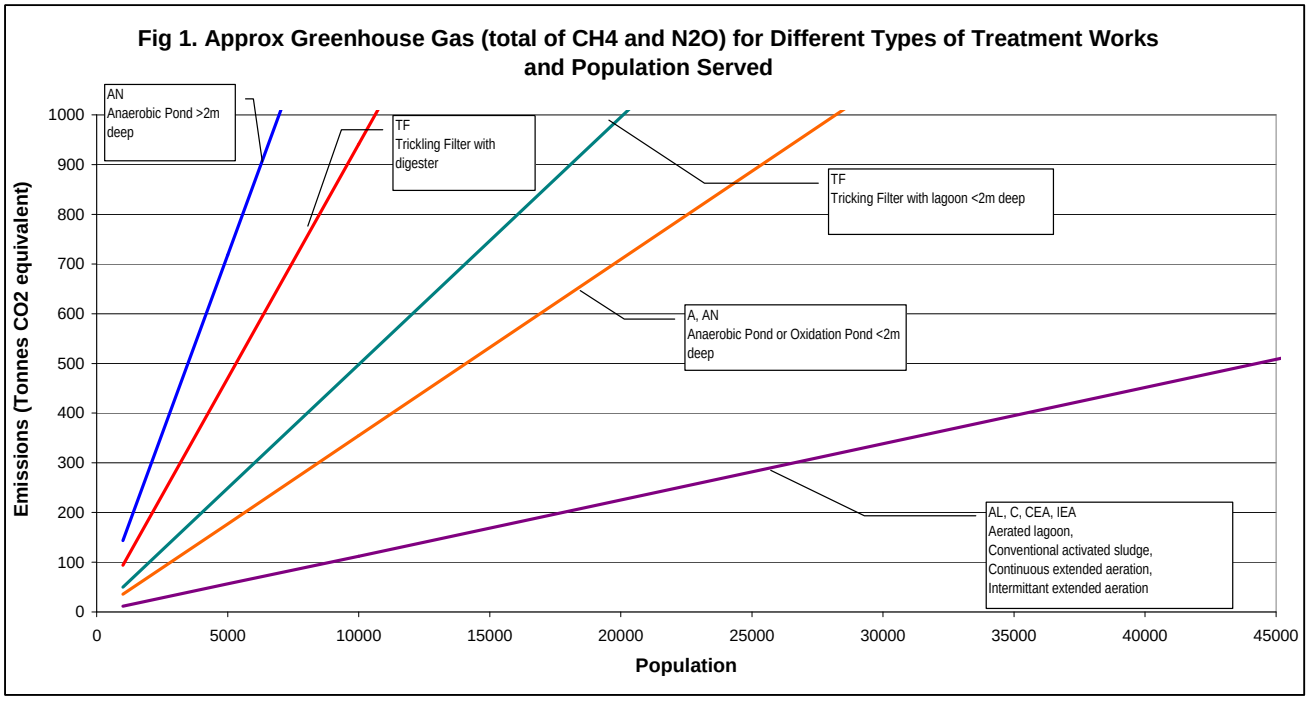
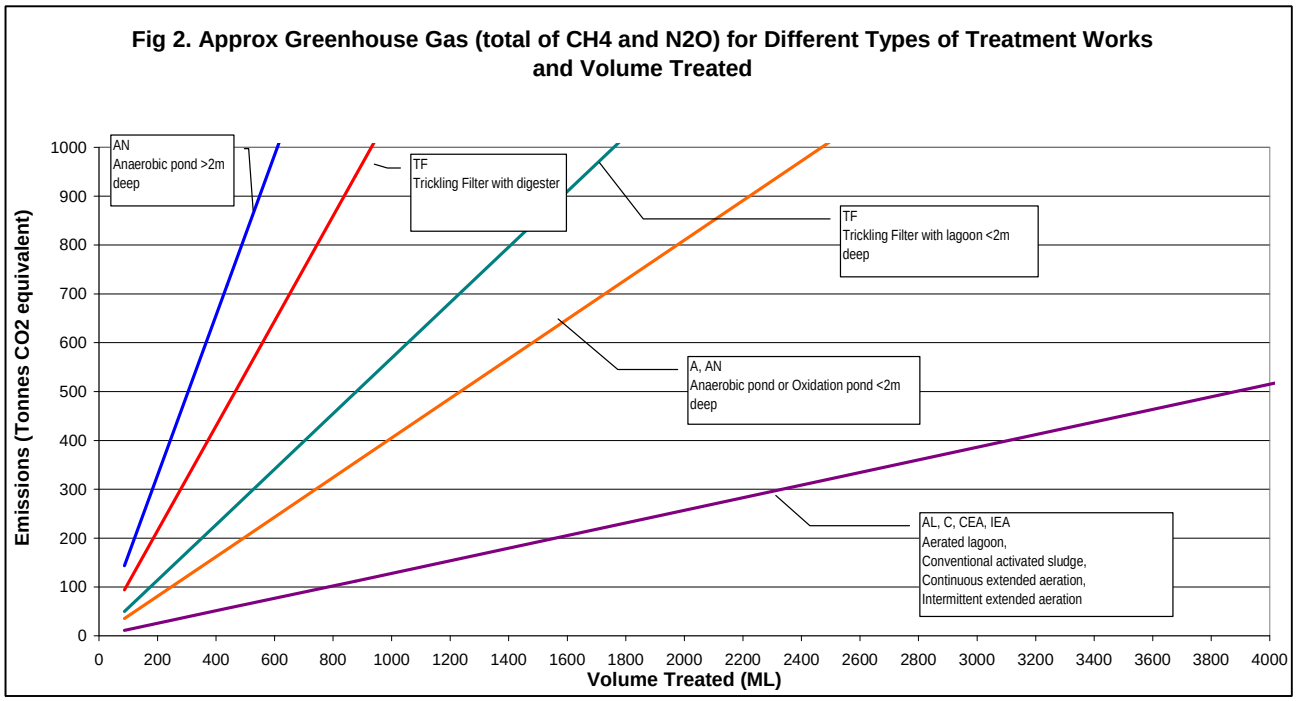


Figure 2. Greenhouse Gases Based on Volume of Inflow



Assumptions Adopted for the Calculation of Emissions from STWs

Assumptions Adopted for the Calculation of Emissions from STWs (orange tabs STW1 to STW10)

The following assumptions have been provided to assist in the calculation of emissions from STWs.
Using these assumptions will enable a first approximation of greenhouse gas emissions.
Where utilities have measured data or different circumstances, the assumptions below may not apply.

(a) BOD from domestic sewage is assumed to be 2.25 tonnes per annum per 100 persons
COD is assumed to be 2.6 times BOD
COD = 2.6 x 2.25 / 100 = 0.0585 tonnes per capita

COD in influent to the STW (CODw) is therefore calculated from
CODw = 0.0585 x population

(b) COD removed as sludge (CODsl) is assumed to be typically about 60% of COD entering STW
CODsl = 0.6 x CODw
OR
CODsl = VSsl x 1.48 where VSsl is the estimated volatile solids in the sludge

(c) COD leaving the STW in effluent (CODeff) is assumed to be
CODeff = 0.08 x CODw
unless CODeff is known, in which case the actual value should be insesrted

(d) It is assumed that only 40% of sludge is volatile
Only the fraction of the volatile sludge that is anaerobic will emit greenhouse gas
Fslan is the fraction COD in sludge anaerobic (default values given in NGER guidelines for different treatment types - see table below)
COD remaining in sludge (ie. transferred out either to landfill or other to than landfill) can be calculated from
CODremaining = CODsl x (1 - [Fslan x 0.4])

Assume that all transfer of COD remaining in sludge is to landfill (CODtrl) and zero is to other than landfill (CODtro)
CODtrl = COD remaining = CODsl x (1 - [Fslan x 0.4])
CODtro = 0

(e) Where the inflow to the STW is measured but the population served is unknown, the population can be calculated from the assumption that the volume of inflow for residential sewage is 240 L per capita per day.

(f) Default values for Fwan (fraction sewage COD anaerobic) and Fslan (fraction COD in sludge anaerobic) for each type of treatment are provided in the NGER Guidelines and are shown in the table below
The STWs assumed to correspond to each type of treatment are also shown in the table below

TYPE OF TREATMENT	STW assumed for each type of treatment		Fwan	Fslan
Managed aerobic treatment	Aerated Lagoon	**AL**	0	0
Unmanaged aerobic treatment	Oxidation Pond (<2m deep)	**A**	0.2	0.2
	Trickling Filter / lagoon <2m deep	**TF**	0.3	0.3
	Trickling Filter (digester)	**TF**	0.3	0.8
Unmanaged anaerobic treatment	Anaerobic pond (<2m deep)	**AN**	0.2	0.2
	Anaerobic pond (>2m deep)	**AN**	0.8	0.8
Managed aerobic treatment	Conventional Activated Sludge	**C**	0	0
	Continuous Extended Aeration	**CEA**	0	0
	Intermittent Extended Aeration	**IEA**	0	0

(g) The methane captured is calculated using the formula shown in the NGER Guidelines
Methane captured = 0.0142464 x Q in tonnes CO2-e (where Q is the volume combusted, flared or transferred in m3)

(h) The methane emissions generated are calculated using the formula shown in the NGER Guidelines
CH4gen = (CODw-CODsl-CODeff) x Fwan x EFw + (CODsl-CODtrl-CODtro) x Fslan x EFsl in tonnes CO2-e
EFw and EFsl are emission factors of 5.3 as recommended in the NGER Guidelines

The total methane emissions is the methane generated less the methane captured
Total Methane Emissions = CH4gen - methane captured in tonnes CO2-e

(i) Assume Nitrogen entering the plant is
Nin = Protein x Fracpr x Population
where
Protein = 0.036 (default from NGER Guidelines)
Fracpr = 0.16 (default from NGER Guidelines)

(j) Assume Nitrogen in sludge transferred to landfill is in the same proportion as COD in sludge transferred to landfill
Ntrl = CODtrl / CODw x Nin
where CODtrl and CODw are from steps 7 and 3 above

Assume Nitrogen in sludge transferred to other than landfill is zero

(k) Assume Nitrogen in effluent is in the same proportion as COD in effluent
Nout = CODeff / CODw x Nin
where CODeff and CODw are from steps 6 and 3 above

(l) Nitrous oxide emissions are calculated using the formula shown in the NGER Guidelines
N2O = (Nin - Ntrl - Ntro - Nout) x EF1 + Nout x EF2
where EF1 and EF2 are emission factors with default values of 4.9 tonnes NO2 measured in CO2-e per tonne nitrogen produced

For convenience, based on all of the above assumptions, graphs have been prepared for different types of STWs for different inflows or populations.
These graphs are shown at the orange tab STW Graphs.

Example Calculation of Emissions from Water and Sewerage Operations

Example Calculation of Emissions from Water and Sewerage Operations

Example Council 2009-10

For an example council, fictitious fuel quantities have been assumed and are shown in the table at right.
These quantities have been entered into the appropriate blue shaded cells in the emissions table below.

The council also has a Trickling Filter STW with lagoon <2m deep.
The STW has no biogas captured or flared.
Inflow to STW is 430ML
It serves about 5,000 people

The total greenhouse gas generated from this STW is shown in the green tab Example STW and is 244 t CO2-e

Fuel Type	Water		Sewerage		Other	
Electricity	200000	kwh	300000	kwh	100000	kwh
Fuel oil	10	kL	15	kL	15	kL
Diesel oil					10	kL
Ethanol					12	kL
Heating oil					5	kL
Diesel oil (non transport					2	kL
Fuel oil (non transport)					1	kL
Wood (dry)					55	t
Town gas	125	m3	335	m3	540	m3
Carbon offset					45	t

This value is entered into the blue shaded cell for sewerage operations emissions below

The total greenhouse gas emissions are shown below as 777t CO2-e (208t for water supply, 556t for sewerage and 14t for Other).

FUEL or PROCESS UTILISED	UNITS	ANNUAL QUANTITY USED				GREENHOUSE GAS EMISSIONS (t CO2-equivalent)			
		WATER SUPPLY OPERATIONS	SEWERAGE OPERATIONS	OTHER*	TOTAL USED	WATER SUPPLY OPERATIONS	SEWERAGE OPERATIONS	OTHER*	TOTAL EMISSIONS
		Water source, storage, treatment, transfer and distribution	Sewage collection, storage, treatment and discharge	Transport (vehicles), office buildings, sequestration		t CO2 -e	t CO2 -e	t CO2 -e	t CO2 -e
ELECTRICITY PURCHASED FROM GRID (Table 5 of NGA)		Enter data into the blue cells only							
Electricity purchased from NSW or QLD Grid	kWh	200,000	300,000	100,000	600,000	178.0	267.0	89.0	534.0
Electricity purchased from Vic Grid	kWh								
SUBTOTAL	t CO2-e					178.0	267.0	89.0	534.0
LIQUID FUELS (Transport) (Adapted from Table 4 of NGA)									
Gasoline for use in an aircraft (AVGAS)	kL								
Kerosene for use in an aircraft (AVTUR)	kL								
Fuel oil (General transport)	kL	10	15	15	40	29.2	43.8	43.8	116.8
Biodiesel (General transport)	kL								
Gasoline (Vehicles)	kL								
Diesel oil (Vehicles)	kL			10	10			26.9	26.9
Liquefied petroleum gas (Vehicles)	kL								
Ethanol (Vehicles)	kL			12	12			0.1	0.1
SUBTOTAL	t CO2-e					29.2	43.8	70.9	143.9
LIQUID FUELS (Non Transport) (Adapted from Table 3 of NGA)									
Petroleum based oils (other than fuel, eg lubricants)	kL								
Gasoline (other than for use in an aircraft)	kL								
Kerosene (other than for use in an aircraft)	kL								
Heating oil	kL			5	5			12.9	12.9
Diesel oil	kL			2	2			4.0	4.0
Fuel oil	kL								
Liquefied petroleum gas	kL								
Biodiesel	kL								
Ethanol for use in an internal combustion engine	kL								
SUBTOTAL	t CO2-e					0.0	0.0	16.9	16.9
SOLID FUELS (Non Transport) (Adapted from Table 1 of NGA)									
Black coal	t								
Brown coal	t								
Coking coal	t								
Brown coal briquettes	t								
Industrial materials (eg. tyres) derived from fossil fuels	t								
Municipal materials (non-biomass)	t								
Municipal and industrial materials (Biomass)	t								
Wood (dry)	t			55	55			1.1	1.1
Wood (Green and air dried)	t								
Bagasse	t								
Charcoal	t								
SUBTOTAL	t CO2-e					0.0	0.0	1.1	1.1
NATURAL GAS (Non Transport) (Adapted from Table 2 of NGA)									
Coal seam methane	m^3								
Coal mine waste gas	m^3								
Town gas	m^3	125	335	540	1000	0.3	0.8	1.3	2.3
Liquefied natural gas	kL								
Landfill or sludge biogas (methane only)	m^3								
SUBTOTAL	t CO2-e					0.3	0.8	1.3	2.3
SEWAGE TREATMENT (from STW spreadsheet)									
From emissions calculated in 'STW Example' spreadsheet	t						244.0		244.0
SUBTOTAL	t CO2-e						244.0		244.0
SEQUESTRATION									
Carbon Offset	t			-45	-45			-165.2	-165.2
SUBTOTAL	t CO2-e							-165.2	-165.2
TOTAL EMISSIONS	t CO2-e					207.5	555.6	14.0	777.1

* OTHER is the estimated water and sewerage component of the fuel used in Councils' office buildings and vehicles and can also include sequestration as an offset (ie. a negative value).

Example Calculation of Greenhouse Gas Emissions from STWs

GUIDANCE FOR ESTIMATING GREENHOUSE GAS EMISSIONS FOR NSW WATER UTILITIES

B. CALCULATION OF GREENHOUSE GAS EMISSIONS FROM SEWAGE TREATMENT WORKS (STWs)

STW 1 | EXAMPLE STW (Trickling Filter with lagoon <2m deep) serving approx 5,000 people (inflow 430ML)

Insert STW identifier in blue cell above and enter data in blue cells below (steps 1 to 8). Total emissions are shown at step 11.
If additional STWs are required, see orange worksheets STW 2 to STW 10.

Step			Input	Result	
1	Inflow to STW	Insert volume of sewage entering STW (if known). Else leave blank.	430	430	ML
		OR			
2	Population	Insert actual population served by STW (if known). Else leave blank.		4,909	no.
		(If population unknown, it can be estimated assuming residential sewage is 240 L/c/d.)			
		OR			
3	COD in influent (CODw)	Insert COD in influent (if known). Else leave blank.			tonnes
		(If BOD in influent is known, COD can be calculated from BOD x 2.6).			
		If COD or BOD in influent are unknown, COD in influent is estimated from the following approximation.			
		CODw = 0.0585 x population		287	tonnes
4	Volatile solids in sludge (VSsl)	Insert estimated volatile solids in sludge (if known). Else leave blank.			tonnes
5	COD in sludge (CODsl)	CODsl is calculated as VSsl x 1.48 if VSsl is known.		172	tonnes
		If VSsl is unknown, CODsl estimated to be 0.6 x CODw			
6	COD in effluent (CODeff)	Insert COD in effluent (if known). Else leave blank.			tonnes
		(If BOD in effluent is known, COD can be calculated from BOD x 2.6).			
		If COD or BOD in effluent are unknown, COD in effluent is estimated from the following approximation.			
		CODeff = 0.08 x CODw		23	tonnes
7	Fraction sewage/sludge anaerobic	Select Fwan for appropriate type of STW from table below at note (e).	0.3		
		Select Fslan for appropriate type of STW from table below at note (e).	0.3		
		COD sludge transferred to fill CODtrl = CODsl x (1-Fslan x 0.4).		152	tonnes
		COD sludge transferred not to fill CODtro assumed to be zero		0	tonnes
8	Volume of biogas (Q)	Input volumes of sludge biogas combusted, flared or transferred elsewhere.			m3
		Methane captured from biogas = 0.0142464 x Q		0	t CO2-e
9	Total methane emissions	Total methane emissions		179	t CO2-e
		Nitrogen entering STW Nin = 0.036 x 0.16 x Population		28	tonnes
		Nitrogen in sludge transferred to landfill Ntrl = CODtrl / CODw x Nin		15	tonnes
		Nitrogen in sludge transferred not to landfill Ntro assumed to be zero		0	tonnes
		Nitrogen in effluent Nout = CODeff / CODw x Nin		2.3	tonnes
10	Total nitrous oxide emissions	Total nitrous oxide emissions		65	t CO2-e
11	TOTAL EMISSIONS FROM STW	Methane plus nitrous oxide emissions		244	t CO2-e

NOTES:

(a) Calculation of emissions from STWs requires estimation or measurement of various parameters including BOD or COD for inflow and outflow.

(b) The greenhouse gas emissions can be calculated using the NGER System Measurement Technical Guidelines June 2009 (NGER Guidelines). The NGER Guidelines are available on the Department of Climate Change and Energy Efficiency website.

(c) The calculations above include a number of simplifying assumptions which have been based on typical STW operations shown at yellow tab STW Assumptions. However, where these assumptions are incorrect, they can be overridden as necessary.

(d) Graphs have also been prepared based on typical STW operations for different inflows and populations. These are shown at orange tab STW Graphs.

(e) Table of default fractions for different treatment types is shown below. See also yellow tab STW Assumptions

TYPE OF TREATMENT	STW assumed for each type of treatment		Fwan	Fslan
Managed aerobic treatment	Aerated Lagoon	**AL**	0	0
Unmanaged aerobic treatment	Oxidation Pond (<2m deep)	**A**	0.2	0.2
	Trickling Filter / lagoon <2m deep	**TF**	0.3	0.3
	Trickling Filter (digester)	**TF**	0.3	0.8
Unmanaged anaerobic treatment	Anaerobic pond (<2m deep)	**AN**	0.2	0.2
	Anaerobic pond (>2m deep)	**AN**	0.8	0.8
Managed aerobic treatment	Conventional Activated Sludge	**C**	0	0
	Continuous Extended Aeration	**CEA**	0	0
	Intermittent Extended Aeration	**IEA**	0	0

Examples of Common Emission Sources in Water Supply and Sewerage

Examples of Common Emission Sources in Water Supply and Sewerage

SOURCE	WATER SUPPLY OPERATIONS	SEWERAGE OPERATIONS	OTHER*
ELECTRICITY PURCHASED FROM GRID (Table 5 of NGA)	Electricity used during water sourcing, treatment, distribution and transfer.	Electricity used during sewage collection, storage, treatment and discharge.	Electricity used in office buildings for both Water and Sewerage Operations.
LIQUID FUELS (Transport) (Table 4 of NGA)	N/A	N/A	Transport - vehicles owned & used by utility AND registered for road use.
LIQUID FUELS (Non Transport) (Table 3 of NGA)	Liquid fuels used for water supply operations other than transport vehicles	Liquid fuels used for sewerage operations other than transport vehicles	Fuels used for heating, hot water, etc in office buildings. Transport - vehicles owned by utility but NOT registered for road use.
SOLID FUELS (Non Transport) (Table 1 of NGA)	N/A	N/A	Wood/coals used for heating, etc in office buildings.
NATURAL GAS (Non Transport) (Table 2 of NGA)	Natural gas used for water supply operations other than in office buildings	Natural gas used for sewerage operations other than in office buildings	Natural gas used for heating, hot water, etc in office buildings.
WASTEWATER TREATMENT	N/A	Emissions from wastewater treatment (methane and nitrous oxide) See instructions sheet	N/A
SEQUESTRATION	N/A	N/A	Accredited Carbon offsets e.g. tree plantations
EXCLUDED (SCOPE 3)	Disposal of waste generated. Employee business travel. Employees commuting to/from work. Out-sourced activities (transport/vehicles not owned by utility). Transportation of products, materials and waste.		

Index

Note:
Page numbers shown in:

- **black bold** are the main reference to each topic;
- **blue bold** refer to figures comparing the performance of the **NSW utilities**; and
- **red bold** refer to graphs of **Interstate performance comparisons**.