



NSW Government
Department of Water & Energy

Best-Practice Management of Water Supply and Sewerage

Guidelines

August 2007



Best-Practice Management of Water Supply and Sewerage

Guidelines

August 2007

Sam Samra
Senior Manager
Water Utility Performance

Colin McLean
Executive Director
Water Utilities

© CROWN COPYRIGHT 2007
NEW SOUTH WALES

ISBN 0 9752232 0 8

DISCLAIMER

Whilst the Department of Water and Energy has taken due care in preparation of these guidelines, it accepts no liability for any errors or omissions, nor for any use of the guidelines by any person.

Foreword

These *Guidelines for Best-Practice Management of Water Supply and Sewerage* have been published by the Minister for Water Utilities pursuant to section 409(6) of the *Local Government Act 1993*. The Minister for Local Government has concurred with these guidelines.

The guidelines encourage continuing improvement in performance and identify 6 criteria for best-practice management of water supply and sewerage. They also set out the outcomes local government Local Water Utilities (LWUs) need to achieve in order to be eligible for payment of a dividend from the surplus of their water supply or sewerage businesses.

LWUs which achieve the outcomes required by these guidelines will have effective and sustainable water supply and sewerage businesses and will have demonstrated best-practice management of these businesses as well as their compliance with *National Competition Policy* and the *National Water Initiative*.

Any local government LWU wishing to pay a dividend from the surplus of its water supply and sewerage businesses or seeking financial assistance under the Country Towns Water Supply and Sewerage (CTWS&S) Program must demonstrate its achievement of these outcomes through substantial compliance with these guidelines for each of the 6 criteria.



Acknowledgements

These *Guidelines for Best-Practice Management of Water Supply and Sewerage* have been prepared by the Department of Water and Energy. The valuable contributions of the Department of Local Government, the Local Government Association of NSW and Shires Association of NSW (LGA and SA), the NSW Local Government Water Industry Directorate and a number of Local Water Utilities (LWUs) are gratefully acknowledged.



Executive Summary

The NSW Government encourages best-practice by all NSW Local Water Utilities (LWUs). The purpose of best-practice management is:

- to encourage the effective and efficient delivery of water supply and sewerage services; and
- to promote sustainable water conservation practices and water demand management throughout NSW.

The NSW Government is required to demonstrate compliance with the Australian Government's *National Competition Policy* and *National Water Initiative*. The approach adopted since 1995 is to progressively encourage best-practice management by LWUs to ensure effective, efficient and sustainable water supply and sewerage businesses.

Demonstrated best-practice management is therefore a pre-requisite for payment of a dividend from the surplus of a local government LWU's water supply and sewerage businesses and for financial assistance under the CTWS&S Program.

There are six (6) criteria, each of which must be complied with to qualify for a dividend payment. These are:

1. Strategic Business Planning
2. Pricing (including Developer Charges, Liquid Trade Waste Policy and Approvals)
3. Water Conservation
4. Drought Management
5. Performance Reporting
6. Integrated Water Cycle Management

To be eligible to make a dividend payment from a surplus, an LWU must:

- Demonstrate best-practice management compliance through an independent compliance audit report; and
- Obtain an unqualified financial audit report for its water supply and/or sewerage business(es).
- Resolve in a council meeting open to the public that it has achieved "substantial compliance" with each criterion in these guidelines (pages 21, 34). The required outcome for each criterion is set out in column (3) of Table 1 on page 22.

LWUs that demonstrate best-practice management by achieving the outcomes required by these guidelines will have effective and sustainable water supply and sewerage businesses.

Pursuant to section 409 (5) of the *Local Government Act (1993)*, a dividend may be paid after the end of each financial year commencing in 2003/04.



Blank Page



Contents

Foreword	i
Acknowledgements	ii
Executive Summary	iii
Contents	v
PART A BEST-PRACTICE - PRINCIPLES	1
1 Introduction	1
1.1 Background	1
1.2 Compliance with Best-Practice	1
1.3 Purpose of these Guidelines	2
1.4 Local Government Amendment (National Competition Policy Review) Act 2003 No 8	3
2 Best-Practice Management	5
2.1 Introduction	5
2.2 Best-Practice Criteria	5
2.2.1 <i>Strategic Business Planning</i>	5
2.2.2 <i>Pricing (including Developer Charges, Liquid Trade Waste Policy and Approvals)</i>	7
2.2.3 <i>Water Conservation</i>	10
2.2.4 <i>Drought Management</i>	11
2.2.5 <i>Performance Reporting</i>	11
2.2.6 <i>Integrated Water Cycle Management</i>	11
2.3 Other Considerations	12
2.3.1 <i>Sewer Backlog Areas</i>	12
2.3.2 <i>Vulnerable Customers</i>	12
2.3.3 <i>Further Initiatives</i>	13
<i>Framework for Management of Drinking Water Quality</i>	13
<i>Quality Management Plan</i>	13
<i>Environmental Management Plan</i>	14
<i>Pricing of Recycled Water and Stormwater Reuse</i>	14
3 Dividends	15
3.1 Introduction	15
3.2 Criteria for Payment of Dividend	15
3.3 Amount of Dividend	16
3.3.1 <i>Dividend for Tax-equivalents</i>	16
3.3.2 <i>Dividend from Surplus</i>	17
4 Abbreviations and Glossary	19
PART B BEST-PRACTICE - PROCESS	21
5 Eligibility Criteria	21
<i>References for Table 1</i>	27
6 Payment of Dividend	29
6.1 Eligibility for Payment	29
6.2 Statement of Compliance	29



6.3	Amount of Dividend	29
6.4	Public Disclosure	29
6.5	Reporting to Minister	29

Appendices

Attachment 1 – Payment of a Dividend	31
Attachment 2 – Integrated Water Pricing	35
Appendix A – Strategic Business Planning and Financial Planning Check List	41
Appendix B – Pricing and Developer Charges Check List	49
Appendix C – Water Conservation Check List	61
Appendix D – Drought Management Check List	65
Appendix E – Performance Reporting Check List	69
Appendix F – Integrated Water Cycle Management Check List	73

Tables

Table 1 – Required Outcomes for Best-Practice Criteria	22
--	----

Figures

Figure 1 – Eligibility Criteria	21
---------------------------------	----



PART A BEST-PRACTICE - PRINCIPLES

1 Introduction

1.1 Background

In June 2007 there are 107 non-metropolitan Local Water Utilities (LWUs) in NSW, providing water supply and sewerage services to 1.8 million people. 99 of these LWUs are general purpose local government councils, 5 are county councils providing water

2007 NSW Non-metropolitan Local Water Utilities (LWUs)

- 107 LWUs in NSW
- Serve 1.8 million people
- Annual turnover \$870M
- Current replacement cost of assets \$11,700M

supply and/or sewerage services and 3 are bulk suppliers. For the 2005/06 financial year, the LWUs had a total turnover of \$870M and an asset base with a current replacement cost of \$11,700M. 60 of these LWUs (56%) were Category 1 businesses under *National Competition Policy*, having an annual turnover of over \$2M for their water supply or sewerage businesses.

The core function of LWUs is the sustainable provision of water supply and sewerage services to the community. Best-practice management is fundamental to the effective and efficient delivery of these services.

The *2005/06 NSW Water Supply and Sewerage Performance Monitoring Report* shows that LWUs are continuing to perform well in comparison with the water utilities in other states of Australia. The Report also shows that LWUs have made good progress in moving to comply with best-practice, eg. for water supply, compliance at June 2006 was 83% for business and financial planning, 70% for pricing, 91% for performance reporting, 57% for water conservation and 64% for drought management. 31% of LWUs have complied with all the required criteria. In addition, 27% of LWUs have at least commenced an Integrated Water Cycle Management (IWCM) strategy.

1.2 Compliance with Best-Practice

The NSW Government encourages best-practice for all LWUs. The purpose of best-practice management is:

- to encourage the effective and efficient delivery of water supply and sewerage services; and
- to promote sustainable water conservation practices and water demand management throughout NSW.

The NSW Government is required to demonstrate compliance with the Australian Government's National Competition Policy and the National Water Initiative. LWUs have been encouraged since 1995 to introduce best-practice management for water supply and sewerage businesses.

Compliance with the six best-practice criteria is mandatory for payment of a dividend from the surplus of an LWU's water supply and sewerage businesses



(refer to Attachment 1 on page 31). Compliance with these criteria is also mandatory for financial assistance under the *Country Towns Water Supply & Sewerage (CTWS&S) Program*.

In addition, all LWUs are expected to complete preparation of a strategic business plan and long-term financial plan by June 2009. It is also expected that by that time all LWUs will have substantially complied with these guidelines.

1.3 Purpose of these Guidelines

Through the NSW Government's *Country Towns Water Supply and Sewerage Program*, sections 283 to 322 of the *Water Management Act 2000*, and sections 56 to 66 of the *Local Government Act 1993*, the Minister for Water Utilities is responsible for overseeing the performance of Local Water Utilities (LWUs) in:

Providing 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.

In addition to meeting the requirements of the Australian Government's National Water Initiative, the guidelines reflect the NSW Government's policy in relation to the Application of National Competition Policy to Local Government¹ which states:

"the Government supports the objects of the Local Government (NSW) Act 1993, which devolves to local councils significant responsibility for the conduct of their own affairs. The Government is confident that NSW councils are fully able to appreciate the significant efficiency gains and reduction in service costs that can flow from the adoption of competition reforms, and will be able to responsibly apply the Agreement for the benefit of their constituents and clients."

The Department of Water and Energy has prepared these *Best-Practice Management of Water Supply and Sewerage Guidelines* pursuant to section 409(6) of the *Local Government Act 1993* (see 1.4 below). The Minister for Local Government has concurred with these guidelines.

The guidelines have been prepared to encourage continuing improvement in performance and identify criteria for best-practice management of water supply and sewerage.

These guidelines apply to all NSW LWUs, including the following utilities:

- Country Energy (Broken Hill area)
- State Water (Fish River Water Supply)
- Cobar Water Board
- Hawkesbury Council's sewerage business.

The first 3 utilities above are not local government councils and are not eligible to pay a dividend. Hawkesbury Council is the only metropolitan council responsible for provision of sewerage services.

¹ NSW Government Policy Statement on the Application of National Competition Policy to Local Government, June 1996



1.4 Local Government Amendment (National Competition Policy Review) Act 2003 No 8

The amendments to section 409 of the *Local Government Act 1993* are shown below. These amendments commenced on 1 November 2003.

- (5) Despite subsections (3) and (4), a council may:
 - (a) deduct, from the money required by subsection (3) to be used only for the specific purpose of water supply or sewerage services, an amount in the nature of a return on capital invested payment (dividend), and
 - (b) apply that amount towards any purpose allowed for the expenditure of money by councils by this Act or any other Act.
- (6) The Minister for Water Utilities, with the concurrence of the Minister administering this Act:
 - (a) is to cause guidelines to be prepared and published in the Gazette relating to the management of the provision of water supply and sewerage services by councils, and
 - (b) may, if of the opinion that a council has not substantially complied with the guidelines, direct the council to comply with any particular aspect of the guidelines before making any further deduction under subsection (5).
- (7) Before making a deduction under subsection (5), a council must:
 - (a) comply with the guidelines published under subsection (6) and any direction given under that subsection, and
 - (b) indicate in an open meeting of the council that the guidelines and any such direction have been complied with in relation to the making of the deduction.
- (8) Subsections (5)-(7) extend to a council that is a water supply authority within the meaning of the [Water Management Act 2000](#).

As at June 2007, the only councils that are water supply authorities under the *Water Management Act 2000* are Gosford and Wyong Councils.



Blank Page



2 Best-Practice Management

2.1 Introduction

With increasing demands on the limited water resources of NSW, it is vital that these resources are managed in an efficient and sustainable manner.

Best-practice management is essential for efficient and sustainable management of water resources and the environment. It enables a Local Water Utility (LWU) to achieve sustainable water supply and sewerage businesses and comply with the Australian Government's *National Competition Policy* (NCP) and *National Water Initiative* (NWI).

LWUs that achieve the outcomes required by these guidelines will have demonstrated best-practice management of these businesses.

Best-practice management involves a triple bottom line focus that provides a balanced view of the long-term sustainability of NSW water utilities. Triple bottom line accounting (social, environmental and economic) involves consideration of an LWU's business plan together with its social and environmental management practices.

Best-practice management of water supply and sewerage involves the following 6 criteria:

- Strategic Business Planning
- Pricing (including Developer Charges, Liquid Trade Waste Policy and Approvals)
- Water Conservation
- Drought Management
- Performance Reporting
- Integrated Water Cycle Management

2.2 Best-Practice Criteria

2.2.1 Strategic Business Planning

The community and governments are demanding increased accountability, increased levels of service and efficiency from water utilities. In addition, regulatory authorities are imposing more stringent environmental and health regulations. A Strategic Business Plan addresses these issues and provides a framework within which the LWU can provide these services in an efficient manner and can continue to improve its performance. The business plan must include an appropriate financial plan.

A strategic business plan is an LWU's principal planning tool for its water supply and sewerage businesses. The business plan should address key strategic issues facing the LWU including:

The community and governments are demanding increased accountability, increased levels of service and efficiency.

A strategic business plan is an LWU's principal planning tool for its water supply and sewerage businesses. The business plan must include an appropriate financial plan.



a) Operating environment review

This should be a review of the key external operating environment facing the LWU including:

- Customer demands in terms of current and forecast water and sewer backlog areas, forecast growth requirements and anticipated service standards.
- Shareholder and regulatory requirements (environmental, OH&S, governance arrangements)

b) Asset Management Plan

Operation and Maintenance Plans

These plans should provide details of how the LWU plans to operate and maintain the assets of the business so as to meet the current and expected services that its community demands. The plans should also indicate how the LWU will comply with current and anticipated regulatory requirements.

Capital Works Plan

This plan should provide details of proposed works to renew, replace and augment current systems so as to maintain current services and meet the community's future service levels in terms of growth and anticipated standards and levels of service. The Asset Management Plan is to include expenditure required to mitigate the impact of known externalities, eg. the impact of new water sharing plans on the utility's water supply.

c) Key performance indicators

The strategic business plan should provide details of the key performance indicators that the business will assess its performance against. Primarily this should clearly identify the service standards (eg. water quality and availability, water losses, sewage treatment and discharge and service coverage) which the community can expect from the business.

d) Customer Service Plan

e) Levels of Service

f) Human Resources Plan

An LWU that has completed a sound strategic business plan and long-term financial plan for its water supply and sewerage businesses has demonstrated the long-term financial sustainability of the businesses. **The LWU thus has control of the future development of these businesses, and providing it continues to levy Typical Residential Bills (TRBs) in accordance with its financial plan, the LWU will be able to fund all its future commitments for capital and recurrent expenditure and dividend and tax-equivalent payments.**

Financial Plan

A robust financial plan is a key element of an LWU's water supply or sewerage strategic business plan. The financial plan should clearly indicate how the business will finance the provision of services that meet levels of service negotiated with the community and the long-term commercial viability of the business. The plan should aim to achieve the lowest stable Typical Residential Bills² (TRBs).

² The Typical Residential Bill (TRB) is the annual bill paid by a residential customer using the LWU's average annual residential water consumption and is the **principal indicator of the overall cost** of a water supply or sewerage system. Pensioners pay a lower amount due to the \$87.50 pensioner rebate as do the owners of vacant lots, which pay no water usage charges.



The financial plan should identify how the following costs and payments will be financed:

- Operation, maintenance and administration costs
- Capital renewals and replacement costs (including an acceptable rate of return)
- Capital augmentation costs (including an acceptable rate of return)
- Dividends and tax-equivalents

The strategic business plan and financial plan should also address the issues in the Check List in **Appendix A**.

2.2.2 Pricing (including Developer Charges, Liquid Trade Waste Policy and Approvals)³

Best-practice water supply, sewerage and liquid trade waste pricing requires transparent tariff structures and price levels that:

- Recover efficient costs of service provision, including an appropriate return on infrastructure capital
- Provide appropriate signals to customers about the cost consequences of their service demands, in order to encourage efficient use of resources (both environmental and financial) associated with service provision
- Are consistent with the principles of the Australian Government's *Strategic Framework for Water Reform, National Competition Policy and National Water Initiative*
- Are simple for customers to understand and easy for the service provider to implement and administer
- Have due regard for the social implications of price/tariff movements in terms of impacts on "vulnerable" customers
- Support, where practical, government policy objectives in relation to regional development, employment, public health and welfare

a) Water Supply Pricing⁴

With water becoming an increasingly scarce resource both locally and globally, it is appropriate that LWUs focus on influencing water demand through increasing emphasis on usage based pricing.

Best-practice **water supply** pricing requires that the usage charge recover those costs that vary with demand in the long-term (ie. long-run marginal cost), through a usage charge. These costs should include licence and extraction fees from

Best-practice pricing includes removal of land value from access charges and removal of significant cross-subsidies.

³ As Gosford and Wyong Councils' pricing and developer charges are regulated by IPART, these councils need only demonstrate compliance with the liquid trade waste policy and approvals component of this criterion.

⁴ It is anticipated that in the future the *Local Government Act 1993* will be amended to allow integrated water pricing for water supply and sewerage services to non-metropolitan NSW. In such a case, integrated water pricing in accordance with Attachment 2 will comply with elements 2 (a), 2 (b) and 2 (c) of Criterion 2 in Table 1 on page 22.



external regulatory agencies and should reflect the indirect costs (ie. externalities) associated with these demands.

For some LWUs this cost may be such that all costs be recovered through a usage charge. Where an access charge is required, the access charge for larger non-residential customers should reflect their capacity requirements.

Where LWUs are responsible for both supply of potable water and management of the wastewater (sewerage), integrated water cycle management (IWCM) strategies, including recycling, are becoming increasingly important. In this context, integrated water pricing strategies could be considered. Whilst it is recognised that under the *Local Government Act, 1993* this is not possible at present, it is likely that in the near future the Act⁴ will be amended to allow use of integrated water pricing for water supply and sewerage services.

LWUs should adopt the following pricing principles when setting water supply tariffs:

1. Appropriate water usage charge/kL based on the long-run marginal cost of water supply.
2. Residential water usage charges must be set to recover at least 75% of residential revenue^{5,6}.
3. To encourage water conservation, high water consuming residential customers should be subjected to a step price increase of at least 50% for incremental usage above a specified threshold. This threshold should not exceed 450⁷ kL/a per household or 600⁸ kL/a for LWUs outside the DWE Coastal and Tablelands Zone.
4. LWUs must bill at least three times each year (and preferably every quarter) to improve the effectiveness of pricing signals.
5. LWUs should include both water access charges and water usage charges in each bill to customers. In addition, any LWU planning to update its water billing system should move to comply with the National Guidelines on the layout and content of customer bills. The Guidelines have been prepared pursuant to Item 66(iv) of the National Water Initiative⁹.
6. In situations where large cross-subsidies for non-residential customers currently exist, LWUs should develop pricing strategies that target the removal of these cross-subsidies over a 5 year period.

With a higher proportion of water supply revenue obtained from usage charges, LWUs' revenue will be more greatly affected by annual weather variations.

⁵ Except LWUs with under 4,000 connected properties which will need to recover at least 50% of residential revenue from water usage charges.

⁶ It is noted that the limit of 4,000 properties has been determined conservatively and many LWUs with 3,000 to 4,000 connected properties will be able to achieve 75% of residential revenue from usage charges.

⁷ LWUs with quarterly billing may use relevant volumes for the step price increase in each quarter, eg. 150kL in the summer quarter and 100kL in the others 3 quarters. Similarly, LWUs billing 3 times/a may allocate a relevant component of the threshold for each billing period.

⁸ For LWUs outside the DWE Coastal and Tablelands Zone with a high incidence of evaporative air coolers, providing the first step of the water usage charge is set at the long-run marginal cost, the threshold for the step price increase may be up to 600 kL/a. LWUs outside the DWE Coastal and Tablelands Zone include Inverell, Gwydir, Tamworth, Dubbo, Parkes, Forbes, Young, Cootamundra, Gundagai, Tumut and Tumbarumba, and any LWUs further west.

⁹ National Guidelines for Residential Customers' Water Accounts 2006, Natural Resource Management Ministerial Council.



LWUs may therefore establish a revenue fluctuation reserve of up to 10% of turnover. LWUs can draw on this reserve to assist them to cope with wet years or drought water restrictions where water sales are lower than predicted. Dry years will result in a corresponding increase in demand and revenue.

For guidance in developing and implementing best-practice pricing tariffs refer to Appendix B.

b) Sewerage Pricing

Best-practice **sewerage** pricing involves a uniform annual sewerage bill for residential customers. For non-residential customers an appropriate sewer usage charge is required for the estimated volume discharged to the sewerage system, together with an access charge based on the capacity requirements that their loads place on the system relative to residential customers.

For guidance in developing and implementing best-practice pricing tariffs refer to Appendix B.

c) Liquid Trade Waste Pricing, Policy & Approvals

Best-practice **liquid trade waste** pricing requires appropriate annual trade waste fees and re-inspection fees for all liquid trade waste dischargers. These fees are in addition to the non-residential sewerage bill.

The LWU must also levy an appropriate trade waste usage charge for trade waste dischargers with prescribed pre-treatment¹⁰, and appropriate excess mass charges for large trade waste dischargers (> about 20 kL/d) and for dischargers of industrial waste.

As noted in Appendix B on page 53, any large increases in liquid trade waste fees and charges may be phased-in over a period of up to 3 years.

The *Liquid Trade Waste Management Guidelines*, March 2005 provide guidance for LWUs on developing an appropriate trade waste policy and assessing, approving, monitoring, pricing and enforcing compliance for liquid trade waste dischargers to the sewerage system.

In order to properly manage dischargers of liquid trade waste to the sewerage system and to protect sewerage system assets and the environment, LWUs must adopt a Liquid Trade Waste Policy in accordance with the *Liquid Trade Waste Management Guidelines*. As noted on page 42 of the Guidelines, DWE consent is required for an LWU's trade waste policy. In addition, LWUs must issue a trade waste approval to each trade waste discharger connected to the sewerage system, and must annually inspect the premises of each discharger.

d) Developer Charges

Developer charges are up-front charges levied to recover part of the infrastructure costs incurred in servicing new development or changes to existing development. Developer charges provide a source of funding for infrastructure and provide signals to the community regarding the cost of urban development.

In essence, where the costs of serving new urban development are in excess of the current and expected costs of servicing existing customers, then the additional

¹⁰ Prescribed pre-treatment comprises the equipment shown in Table 7 of '*Liquid Trade Waste Management Guidelines*, March 2005, or any pre-treatment facilities deemed appropriate by the LWU.



costs should be recovered from new entrants in the form of an up-front contribution.

LWUs need to prepare a Development Servicing Plan (DSP)¹¹ with commercial water supply or sewerage developer charges in accordance with Developer Charges Guidelines for Water Supply, Sewerage and Stormwater, December, 2002. The DSP must disclose any cross-subsidies.

Guidance on water supply and sewerage developer charges is provided in the Check List in Appendix B.

e) Exceptions

Some exceptions to the achievement of the required outcomes by an LWU are acceptable if these are outside the LWU's control, for example, where an LWU has in place a binding pre-existing agreement for tariffs with certain customers. These exceptional contracts must be replaced as soon as is legally practicable with best-practice tariffs. In such circumstances the LWU is deemed to have achieved substantial compliance provided it (1) discloses the number of such pre-existing binding agreements in a council meeting open to the public and (2) appends a note to this effect to its Statement of Compliance (page 34).

2.2.3 Water Conservation

Appropriate water conservation and demand management are essential for ensuring efficient use of our valuable water resources and to improve environmental outcomes as required by the *Water Management Act 2000* and the National Water Initiative. Cost-effective demand management delivers significant environmental and social benefits and reduces capital and operating costs. Demand management is a key component of the strategic planning process. LWUs should identify and implement appropriate demand management measures to achieve cost and energy savings, protect the environment and reduce wastewater flows.

A key part of managing demand is understanding how and when water is used. A demand management program therefore requires metering of all customers supplied, together with demand analysis.

Demand management measures that should be examined as part of a demand management program include:

- The implementation of permanent water saving measures to minimise wastage, in accordance with Item 91 (iii) of the National Water Initiative¹².
- Active intervention – appropriate retrofit programs, rebates for water efficient appliances, rebates for rainwater tanks, effluent and stormwater re-use programs, building code programs (including the

Cost-effective water conservation and demand management deliver significant environmental and social benefits and reduces capital and operating costs.

¹¹ LWUs with growth of under 5 lots/a are exempted from preparing DSPs and need only prepare a brief Exemption Document in accordance with the Developer Charges Guidelines.

An LWU with growth of 5 or more lots/a that resolves not to levy developer charges needs to prepare a Policy Document in accordance with the Developer Charges Guidelines. However, such an LWU would fail to comply with these best-practice guidelines and is therefore *ineligible* for dividend payment from the surplus of its water supply or sewerage businesses. The LWU needs to tick the relevant "NO" box in Attachment 1 (pages 32 and 33).

¹² Review the effectiveness of temporary water restrictions and associated public education strategies, and assess the scope for extending low level restrictions as standard practice.



impact of the BASIX planning tool) and the requirement that large non-residential water users prepare and implement water savings action plans

- Water pricing reform
- Community education
- Water loss and leakage reduction programs.

Each LWU should review its demand management measures every 2 years to ensure that it has an appropriate balance between demand and supply-side investment.

Guidance on water conservation and demand management issues is provided in the Check List in Appendix C.

2.2.4 Drought Management

A fundamental responsibility of the manager of a water supply system is to soundly manage water use during droughts. Guidance on drought management issues is provided in the Check List in Appendix D.

As noted in Appendix D, adoption of a schedule of trigger points for the timely implementation of appropriate water restrictions is a key element of a drought management plan. The LWU's general manager is responsible for ensuring that such timely water restrictions are implemented in accordance with the utility's adopted schedule.

2.2.5 Performance Reporting

Annual performance reporting and monitoring are required under the Australian Government's *National Competition Policy* and *National Water Initiative*, are important for public accountability and have been strongly endorsed by the NSW Government, the Independent Pricing and Regulatory Tribunal, the Local Government Association and the Shires Association.

The NSW Government promotes continuous performance improvement to improve the quality and efficiency of services to the community. Performance monitoring provides valuable data for enabling an LWU to review and improve its performance by examining trends in its performance indicators and to benchmark its performance against that of similar utilities.

Guidance on performance reporting issues is provided in the Check List in Appendix E.

2.2.6 Integrated Water Cycle Management

Integrated water cycle management (IWCM) is the integrated management of the water supply, sewerage and stormwater services within a whole of catchment strategic framework having regard to catchment blueprints and other water management plans. IWCM is a framework to help identify water management problems, to address these problems, to determine the appropriate management responses and to manage the impacts of the problems so that social, environmental and economic objectives are met.

An IWCM Strategy has a long-term planning horizon. The first phase of the strategy (the IWCM Evaluation) defines the catchment, water resource and urban water issues faced by the LWU. Catchment issues such as floodplain management and acid sulphate soils may impact on the location of sewage

Performance monitoring provides valuable data for enabling an LWU to review and improve its performance.

IWCM is a framework to help identify water management problems and to determine appropriate management responses so that social, environmental and economic objectives are met.



treatment works (STWs), whilst water resource issues would include the changes to water access faced by LWUs under the *Water Management Act 2000* and urban water issues might include existing system deficiencies.

Once the issues are broadly defined, studies are undertaken for the second phase (the IWCM strategy) to better define issues and look at ways of managing them. Studies involve population and water demand projections, bulk supply and distribution analysis and management option development. This process results in the LWU adopting a long-term strategy for the integrated delivery of its water supply, sewerage and stormwater services to customers.

Such a strategy involves integrating planning and management of all components of the LWU's uses of the water cycle so that water is used optimally.

LWUs need to prepare an IWCM Evaluation by June 2007 in accordance with Appendix F and the *Integrated Water Cycle Management Guidelines*, October 2004. Unless the IWCM Evaluation demonstrates that preparation of an IWCM Strategy is not warranted, an IWCM Strategy is to be completed and implemented by June 2008. Guidance on IWCM issues is provided in the Check List in Appendix F.

2.3 Other Considerations

2.3.1 Sewer Backlog Areas

LWUs are reminded that they may spread part of the capital cost for serving sewer backlog areas across their full customer base. Such spreading of a part of the capital cost helps to make water supply and sewerage charges affordable for small towns.

2.3.2 Vulnerable Customers

Whilst best-practice water supply pricing will allow many customers to reduce their water supply bills, a small number of vulnerable customers may face financial hardship due to increased water bills. Such customers are large families on low incomes, who have a high level of non-discretionary water use and home dialysis patients.

It is recommended that LWUs define vulnerable customers as families holding a Health Care Card and who have three or more children and households with a patient on home dialysis.

To mitigate the impact of best-practice pricing on vulnerable customers, LWUs may implement programs for reducing the bills of such customers. Options available for LWUs in this regard include:

- Targeted retrofit programs for the installation of low-flow shower roses, tap aerators, tap timers and dual flush toilets;
- Rebates for the purchase of water-efficient front-loading washing machines; and
- Cash rebates for part or all of the access charge component of the water bill.

Prior to the adoption of such programs, it is recommended the LWU undertake an incidence analysis to identify the likely number of vulnerable customers adversely affected and the likely impacts of each option on the customers and the LWU's revenue.



It is important for LWUs to develop appropriate measures along the above lines for vulnerable customers to maintain social equity, while providing appropriate pricing signals to encourage all customers to avoid waste and to use water efficiently.

2.3.3 Further Initiatives

The NSW Government encourages LWUs to continue to improve their performance and to efficiently and effectively manage their water supply and sewerage businesses.

In this regard LWUs are strongly encouraged to prepare and implement a Drinking Water Quality Framework, Quality management Plan and an Environmental Management Plan for their water supply and sewerage businesses. LWUs should also have regard to forthcoming national principles and guidelines when setting future fees and charges for recycled water and stormwater reuse. The above initiatives are not at present a requirement for compliance with these guidelines.

- **Framework for Management of Drinking Water Quality**

A risk based drinking water quality management plan is required to be developed by each LWU under the *Australian Drinking Water Guidelines 2004* (refer to page 2-1, Ref 18 and NWI Indicator H6, Ref 16). It is recommended that all LWUs with over 10,000 connected properties obtain an external third party accredited assessment of their drinking water quality management plan (refer to NWI Indicator H5, Ref 16).

- **Quality Management Plan**

The Quality Management Plan (QMP) is aimed at improving the performance of the organisation in terms of customer and stakeholder satisfaction.

Many LWUs have insufficient documentation of their procedures and processes. Consequently, extensive corporate knowledge is lost when experienced staff leave or retire from the organisation. Not only does this create inefficiencies when the knowledge has to be re-learnt, it can lead to reduction in stakeholder satisfaction due to system failure and inadequate responses.

Key principles for improving organisational performance are:

- (1) Customer focus
- (2) Leadership
- (3) Involvement of people
- (4) Process approach
- (5) System approach to management
- (6) Continuous improvement
- (7) Factual approach to decision making
- (8) Mutually beneficial supplier relationships.

LWUs should commence with the preparation of a QMP for their water supply and sewerage operations. A staged implementation is recommended, whereby the first stage would be to document corporate



knowledge to enable continuing delivery of services and ensure that stakeholder satisfaction is maintained.

This would be followed by management systems aimed at communicating, monitoring and improving the performance of the LWU.

- **Environmental Management Plan**

An Environmental Management Plan (EMP) aims to address and manage environmental issues related to operation of the business. The main benefits of implementing an EMP by an LWU are:

- Contribute in the achievement of managing natural resources and the environment on a sustainable and socially responsible manner.
- Contribute to improve LWU's environmental performance.
- Reduce operation, maintenance and administration (OMA) costs by identifying opportunities to reduce waste and improve the LWU's business processes.
- Assist with compliance with environmental legislation and reduce the risk of fines and penalties.
- Protect LWU against legal prosecution and reduce legal risk.

The following 29 LWUs had an EMP in place in June 2006:

Albury, Bombala, Byron, Cabonne, Carrathool, Clarence Valley, Corowa, Dubbo, Eurobodalla, Fish River, Glen Innes Severn, Gosford, Goulburn Mulwaree, Greater Hume, Griffith, Port Macquarie-Hastings, Kempsey, Lismore, Lockhart, MidCoast, Nambucca, Orange, Riverina, Shoalhaven, Tenterfield, Wagga Wagga, Wakool, Wingecarribee and Wyong.

- **Pricing of Recycled Water and Stormwater Reuse**

National principles and guidelines are being developed under the *National Water Initiative* in regard to the setting of fees and charges for recycled water and stormwater reuse. LWUs should have regard to these principles and guidelines when setting future fees and charges for recycled water or stormwater reuse.



3 Dividends

3.1 Introduction

A local government LWU is now permitted to pay an annual dividend from its water supply or sewerage businesses. Such a dividend may be paid for each business after the end of each financial year commencing in 2003/04.

However, as a pre-requisite to the payment of a dividend from the surplus in accordance with section 409 (5) of the *Local Government Act 1993*, an LWU must demonstrate achievement of the required outcome for each criterion in column (3) of Table 1 (page 22) on the basis of “substantial compliance”.

An LWU must report its achievement of these outcomes in a note to its annual Special Purpose Financial Reports in accordance with Attachment 1 (page 34).

3.2 Criteria for Payment of Dividend

Achievement of the outcomes required by these guidelines will enable an LWU to demonstrate that its water supply and sewerage businesses are healthy and sustainable. This is essential to assure the local community that the LWU is managing the water supply and sewerage businesses responsibly and that the charges for these services will not increase unexpectedly.

It is recommended that each LWU verify that the overhead reallocation charge from its constituent council is calculated accurately and fairly before recommending that a dividend from its surplus be paid. An effective costing methodology, such as activity based costing, should be utilised when calculating the overhead reallocation charge, so as to allow recovery of only the LWU’s share of the overhead costs.

Prior to paying a dividend from the surplus of a water supply or sewerage business, the LWU must:

- (1) obtain an independent compliance audit report verifying that the LWU has demonstrated achievement of all the required outcomes set out in column (3) of Table 1 (page 22); and
- (2) obtain an independent financial audit report (conducted in accordance with Australian Accounting Standards and the requirements of the Ministers for Water Utilities and Local Government) that verifies the water supply and/or sewerage Special Purpose Financial Reports are a true and accurate reflection of the business and that the overhead reallocation charge to these businesses is a fair and reasonable cost.

The LWU must also resolve in a council meeting open to the public that it has achieved the required outcome for each of the 6 criteria in Table 1 of these guidelines.

LWUs must complete and forward the following documents to the Department of Water and Energy **prior to** payment of a dividend from the surplus:

- The Statement of Compliance and the Dividend Payment Form (page 34);
- The Statement of Financial Performance of Business Activities (page 18);
- The independent compliance audit report (page 34); and



- The unqualified independent financial audit report (page 34).

The Department will advise the LWU whether it may pay the proposed dividend from the surplus within 5 working days.

A county council which achieves the required outcomes may pay a dividend to its constituent councils on a pro-rata basis based on the number of assessments in each constituent council area.

LWUs facing major capital expenditure for new or replacement infrastructure should defer paying a significant dividend from their surplus as such a payment would directly increase the required Typical Residential Bill (TRB). Such capital expenditure in any financial year is defined as that which exceeds 3% of the current replacement cost (CRC) of the LWU's water supply or sewerage assets.

3.3 Amount of Dividend

A dividend is in the nature of a 'return on investment' paid to the 'shareholder' which in this case is the local government council responsible for managing and investing in the LWU's water supply and sewerage functions. The council may apply the dividend for any purpose under the *Local Government Act* or any other Act.

The dividend is in two parts: a dividend calculated for tax-equivalents and a dividend calculated from the surplus.

- All LWUs must pay the dividend for tax-equivalents.
- The dividend from the surplus may only be paid by LWUs which achieve the required outcome for each of the 6 criteria, as set out in Table 1 on page 18. The surplus excludes any government capital grants¹³ for infrastructure (eg. towards the capital cost of backlog sewerage projects).

3.3.1 Dividend for Tax-equivalents

To ensure ongoing commercial viability¹⁴, prices should be set so annual cost recovery by a water supply or sewerage business includes taxes or tax-equivalents (excluding income tax). Accordingly, all NSW LWUs must make a dividend payment for the amount calculated as the annual tax-equivalent payment (excluding income tax) commencing in 2003/04.

The reported tax-equivalent expenses¹⁵ (excluding income tax) for most NSW LWUs are under \$1/assessment. Accordingly, the upper limit for such dividend payments from each of an LWU's water supply or sewerage businesses is set at \$3/assessment. The council may apply the dividend for tax-equivalents for any purpose under the *Local Government Act* or any other act, including local community and charitable purposes.

¹³ Government capital grants include grants under the Country Towns Water Supply and Sewerage Program as well as any National Heritage Trust (NHT) funding. Such grants are "tax-free income" provided for investment in essential backlog infrastructure. Dividends will thus not be subsidised by government capital grants. Capital payments from other LWUs are also to be excluded.

¹⁴ The 2003 National Competition Policy Assessment Framework for Water Reform, National Competition Council, February 2003 (Ref 14 on page 27).

¹⁵ As reported in LWUs' Special Purpose Financial Reports which are provided with the LWUs' Annual Financial Statements.



Achievement of substantial compliance against the Best-Practice Guidelines is NOT a prerequisite for the payment of a dividend for tax-equivalents.

3.3.2 Dividend from Surplus

Provided that an LWU has demonstrated achievement of the required outcome for each criterion in column (3) of Table 1 (page 22) for its water supply or sewerage businesses, the LWU may pay an annual dividend from the surplus of that business.

The dividend payment is subject to the following preconditions:

- (1) The “Surplus Before Dividends” must be calculated on the basis shown in the Statement of Financial Performance of Business Activities on page 18; and
- (2) The dividend from surplus must not exceed 50% of this surplus in any one year; and
- (3) The dividend from surplus must not exceed the number of water supply or sewerage assessments¹⁶ at 30 June of the relevant year multiplied by \$30¹⁷, less the dividend for tax-equivalents; and
- (4) The dividend from surplus may only be paid so that the total dividend from surplus paid in each rolling three year period does not exceed the total relevant surplus in the same period.

¹⁶ Refers to the total of occupied assessments and unoccupied assessments.

¹⁷ The amount of \$30 is to be replaced by \$15 for a council which does not provide the full water supply service to its customers. Councils carrying out either a “bulk water supply” function or a “reticulation” function may therefore pay a maximum total dividend of \$15/assessment.



Example Statement - Special Purpose Financial Reports

STATEMENT OF FINANCIAL PERFORMANCE OF BUSINESS ACTIVITIES – WATER SUPPLY (4)
for the year ending 30 June 2007

	Year Ended 30 June 05 (Cat.) \$'000	Year Ended 30 June 06 (Cat.) \$'000	Year Ended 30 June 07 (Cat.) \$'000
INCOME FROM CONTINUING OPERATIONS			
Access Charges			
User charges			
Fees			
Grants for non capital purposes			
Profit on sale of assets			
Other ordinary income			
Total	_____	_____	_____
Less EXPENSES FROM CONTINUING OPERATIONS			
Employee related costs			
Overheads (direct and allocated)			
Water Purchase charges			
Materials & contracts			
Loss on sale of assets			
Other operating expenses			
Total	_____	_____	_____
NET OPERATING SURPLUS	_____	_____	_____
Less Depreciation	_____	_____	_____
Interest			
Dividend for Tax-Equivalents (not exceeding \$3/assessment)			
NET OPERATING SURPLUS BEFORE CAPITAL MOVEMENTS	_____	_____	_____
Add Developer Charges and Contributions (1)			
SURPLUS BEFORE DIVIDENDS (2)	_____	_____	_____
Less Dividends (3)			
Add Governments capital grants and capital payments			
SURPLUS (NET INCREASE IN ASSETS)	_____	_____	_____
Add Opening Retained Profits			
CLOSING RETAINED PROFITS	_____	_____	_____
NOTATION OF AMOUNTS UNPAID			
❖ Tax Equivalent Payments (amount in excess of \$3/assessment)			
❖ Debt Guarantee Fees			
❖ Corporate Taxation Equivalent (30%) based on the Net Operating Surplus			

- Notes:**
- (1) Exclude Government capital grants and capital payments from other LWUs.
 - (2) Relevant Surplus for purpose of determining dividend eligibility.
 - (3) The dividend payment in (3) above is subject to the following preconditions:
 - (a) The dividend from surplus must not exceed 50% of the surplus in (2) above in any one year; and
 - (b) The dividend from surplus must not exceed the number of water supply or sewerage assessments at 30 June of the relevant year multiplied by \$30, less the dividend for tax-equivalents; the dividend for tax-equivalents must not exceed \$30/assessment; and
 - (c) The dividend from surplus may only be paid so that the total dividend from surplus paid in each rolling three year period does not exceed the total relevant surplus in the same period.
 - (4) A similar Statement of Financial Performance is required for sewerage services.



4 Abbreviations and Glossary

a	Annum.
ADWG 2004	<i>Australian Drinking Water Guidelines</i> (National Health and Medical Research Council/Natural Resources Management Ministerial Council), 2004.
ADWF	Average dry weather flow. One of the design parameters for flow in sewers.
Annual Demand	The total water demand over a year. Used to size headworks components.
BOD	Biochemical oxygen demand. Used as a measure of the 'strength' of sewage.
Capital Cost	The present value (MEERA basis) of assets used to service development.
Capital Charge	Capital cost of assets per ET x Return on Investment (ROI) Factor.
COAG	Council of Australian Governments.
CPI	Consumer price index.
CRC	Current replacement cost.
CTWS&S	Country Towns Water Supply and Sewerage.
DEC	Department of Environment and Conservation.
Developer Charge (DC)	A charge levied on developers to recover part of the capital cost incurred in providing infrastructure for new development.
DM	Demand Management.
DEUS	Department of Energy, Utilities and sustainability.
Discount Rate	The rate used to calculate the present value of money arising in the future.
DLWC	Department of Land and Water Conservation.
DIPNR	Department of Infrastructure, Planning and Natural Resources.
DSP	Development Servicing Plan.
DWE	Department of Water and Energy.
EM	Environmental Management.
EP	Equivalent Persons (or equivalent population). Used as a design parameter for loadings of sewage treatment works.
EPA	Environment Protection Authority.
EPA 1979	<i>Environmental Planning and Assessment Act 1979</i> .
ET	Equivalent tenement. A measure of the demand a development will place on the infrastructure in terms of the water consumption or sewage discharge for an average residential dwelling.
FINMOD	The NSW Financial Planning Model.
FP	Financial plan.
GST	Goods and services tax.
IWCM	Integrated Water Cycle Management.



IPART	Independent Pricing and Regulatory Tribunal, NSW.
kL	Kilolitre (1000 litres).
LGA 1993	<i>Local Government Act 1993.</i>
LGA and SA	Local Government Association and Shires Association, NSW.
LWU	Local Water Utility.
MEERA	Modern Engineering Equivalent Replacement Asset. An asset value calculated on the basis that the asset is constructed at the time of valuation in accordance with modern engineering practice and the most economically viable technologies, which provides similar utility functions to the existing asset in service.
MEU	Ministry of Energy and Utilities.
ML	Megalitre (1,000,000 litres, or 1000 kilolitres).
NCP	National Competition Policy.
NPV	Net present value. The difference between the Present Value of a revenue stream and the Present Value of a cost stream.
NWI	National Water Initiative
OH&S	Occupational Health and Safety.
OH&S 2000	<i>Occupational Health and Safety Act 2000.</i>
OMA	Operation, maintenance and administration (cost).
Peak Day Demand	The maximum demand in any one day of the year. Used to size water treatment works, service reservoirs trunk mains and pumping stations in the distribution system.
POEO Act	<i>Protection of the Environment Operations Act 1997.</i>
PV	Present value. The value now of money, or ETs, in the future.
PWD	Public Works Department.
PWWF	Peak wet weather flow. One of the design parameters of flow in sewers.
Reduction Amount	The amount by which the capital charge is reduced to arrive at the developer charge. This amount reflects the capital contribution that will be paid by the occupier of a development as part of future annual charges.
ROI	Return on investment. Represents the income that is, or could be, generated by investing money.
SBP	Strategic Business Plan.
SS	Suspended solids, or the concentration of particles in sewage. Used as a measure of the 'strength' of sewage.
STW	Sewage treatment works.
TBL	Triple Bottom Line.
TRB	Typical residential bill.
UFW	Unaccounted-for-water.
WMA 2000	<i>Water Management Act 2000.</i>
WTW	Water treatment works.



PART B BEST-PRACTICE - PROCESS

5 Eligibility Criteria

In order to be eligible to pay a dividend from its water supply or sewerage business, an LWU will need to demonstrate achievement of the required outcomes for each of the 6 criteria shown in Figure 1 below and in Table 1 overleaf.

For each business, LWUs will need to demonstrate achievement of each outcome listed in column (3) of Table 1 in order to be eligible to pay a dividend. In addition, the LWU will need to obtain a compliance audit report and an unqualified financial audit report in accordance with section 3.2 (page 15).

Where an LWU has not achieved substantial compliance with best practice pricing principles (criterion 2(b) in column (3) of Table 1), the Minister for Water Utilities may agree to waive the requirement to achieve these outcomes in a particular financial year where:

- (1) there are exceptional circumstances that justify such a waiver; and
- (2) the LWU has made substantial progress in achieving substantial compliance; and
- (3) the LWU has made a demonstrated commitment to achieve substantial compliance within a period not exceeding 12 months.



Figure 1 Eligibility Criteria

An LWU must report its achievement of these outcomes in a note to its annual Special Purpose Financial Report in accordance with Attachment 1 (page 34).



Table 1 – Required Outcomes for Best-Practice Criteria				
Criterion (1)	Required Outcome (2)	Indicators to Demonstrate Achievement of Outcome (3)	Tools & Resources	COAG/NCP/NWI/Statutory Requirements (4)
1 Strategic Business Planning	A current, sound Strategic Business Plan (SBP) and financial plan.	<ul style="list-style-type: none"> • Current SBP that includes: <ul style="list-style-type: none"> ▪ Operating environment review ▪ Asset management plan (operation, maintenance, capital works) ▪ Key performance indicators ▪ Customer service plan ▪ Levels of service ▪ Human resources plan • Address issues in Ref 1 and the Check List* in Appendix A. A current SBP and financial plan is one which has been prepared or updated within the last 3 years. 	Appendix A	Demonstrate long term financial sustainability of the business to comply with NCP and NWI. Page 12 of Ref 14.
Financial Planning	A robust financial plan which includes a capital works plan.	<ul style="list-style-type: none"> • A robust minimum 20 year financial plan which identifies the lowest required stable typical residential bill (TRB). • Address the issues in Ref 2 and the Check List* in Appendix A. <p>* Each check list is essentially a road map to assist LWUs to quickly address the issues covered by the relevant guidelines as well as any developments since publication of the guidelines.</p>	Appendix A	See above.
2 Pricing ¹⁸ and (a) Developer Charges	Full cost-recovery for each of water supply and sewerage businesses.	<ul style="list-style-type: none"> • Appropriate tariffs without significant cross-subsidies. • Total annual income and projected TRB should be consistent with above financial plan. This generally results in a positive economic real rate of return (ERRR). 	Ref 4 Appendix B	Full cost-recovery with consumption based water supply pricing, trade waste charging and removal of cross-subsidies to comply with COAG Strategic Framework for Water Reform, NCP and NWI. Pages 12, 17, 18, 22 of Ref 14.

¹⁸ Agreement has been reached with the Local Government Association and the Shires Association of NSW to amendment of the *Local Government Act 1993* in order to provide NSW LWUs with the option of using integrated water pricing for their water supply and sewerage services. An LWU implementing integrated water pricing in accordance with Attachment 2 on Page 35 will comply with elements 2 (a), 2 (b) and 2 (c) of Criterion 2 above.



Table 1 – Required Outcomes for Best-Practice Criteria				
Criterion (1)	Required Outcome (2)	Indicators to Demonstrate Achievement of Outcome (3)	Tools & Resources	COAG/NCP/NWI/Statutory Requirements (4)
(b)	Complying water supply tariff.	<ul style="list-style-type: none"> • Appropriate water usage charge/kL based on long-run marginal cost. • Access charge relative to a customer’s capacity requirements. • No land value based charges (ie. rates) and no “free” or “pre-paid” water allowance. • Any large increases in non-residential customer bills phased in over 5 years. • To encourage water conservation, high water consuming residential customers should be subjected to a step price increase of at least 50% for incremental usage above a specified threshold. This threshold should not exceed 450 kL/a per household, except for LWUs outside the DWE Coastal and Tablelands Zone with a high incidence of evaporative air coolers, where a threshold of up to 600kL/a per household may be used. • LWUs with 4,000 or more connected properties to have at least 75% of residential revenue⁺ generated through usage charges by June 2008 (at least 50% required by June 2006 and at least 60% required by June 2007). • LWUs with under 4,000 connected properties to have at least 50% of residential water revenue⁺ generated through usage charges. <p>⁺ LWUs may demonstrate compliance with this requirement on the basis of either (i) or (ii) below:</p> <ul style="list-style-type: none"> (i) their projected total residential revenue for the next financial year, or (ii) their projected typical residential bill (on the basis of their average annual residential consumption per connected property) for the next financial year. 	Page 9 Ref 4 Page 10 Ref 4 Appendix B	
(c)	Complying sewerage tariff.	<ul style="list-style-type: none"> • Appropriate residential tariff. • No land value based charges (ie. rates). • Non-residential <ul style="list-style-type: none"> ▪ Two-part tariff. 	Page 28 Ref 4 Page 29 Ref 4 Page 29 Ref 4	



Table 1 – Required Outcomes for Best-Practice Criteria				
Criterion (1)	Required Outcome (2)	Indicators to Demonstrate Achievement of Outcome (3)	Tools & Resources	COAG/NCP/NWI/Statutory Requirements (4)
		<ul style="list-style-type: none"> ▪ Appropriate sewer usage charge/kL. ▪ Access charge that is reflective of the cost of providing these sewerage services. ▪ Any large increases in non-residential customer bills phased in over 5 years. 	Page 31 Ref 4	
(d)	Complying liquid trade waste fees and charges for <u>all</u> liquid trade waste dischargers.	<ul style="list-style-type: none"> • Annual trade waste fee for all liquid trade waste dischargers. • Trade waste usage charge for dischargers with prescribed pre-treatment. • Excess mass charges for large dischargers and industrial waste. 	Page 208 Ref 5 Page 209 Ref 5 Pages 209 to 212 Ref 5	
Developer Charges (DC)	(e) Commercial Developer Charges.	<ul style="list-style-type: none"> • Development Servicing Plan[#] in accordance with Ref 6, with commercial developer charges. <p>[#] LWUs with growth of under 5 lots/a exempted.</p>	Page iv Ref 6 Appendix B	<i>Sections 305 to 307 of Water Management Act 2000.</i> <i>Section 64 of Local Government Act 1993.</i>
Liquid Trade Waste Approvals	(f) Liquid trade waste approval issued to each trade waste discharger.	<ul style="list-style-type: none"> • Liquid Trade Waste approvals issued in accordance with Ref 5. • Liquid Trade Waste Policy adopted and implemented in accordance with Ref 5. 	Ref 5 Appendix A	COAG, NCP and NWI – page 18 of Ref 14 <i>Section 68 of Local Government Act 1993, Local Government (General) Regulation 2005.</i>



Table 1 – Required Outcomes for Best-Practice Criteria				
Criterion (1)	Required Outcome (2)	Indicators to Demonstrate Achievement of Outcome (3)	Tools & Resources	COAG/NCP/NWI/Statutory Requirements (4)
Dual Water Supplies (g)	Complying tariffs for dual water supplies.	<ul style="list-style-type: none"> The potable water supply tariff in dual water supplies to comply with 2(b) above, except that step pricing is not a requirement. For the non-potable component of dual water supplies: <ul style="list-style-type: none"> LWUs are encouraged to install a non-potable water meter for each customer served where practical. Appropriate non-potable water usage charge/kL based on long-run marginal cost. Access charge relative to a customer’s capacity requirements. No land value based charges (ie. rates) and no “free” or “pre-paid” non-potable water allowance. At least 50% of residential revenue⁺ generated through usage charges. <p>⁺ Refer to the footnote to element 2 (b) above.</p>	Page 9 Ref 4 Appendix B	
3 Water Conservation	Sound water conservation and demand management in place.	<ul style="list-style-type: none"> Sound water conservation and demand management implemented. Identification of most cost-effective demand management initiatives. Subsidisation and promotion of at least two of the identified demand management initiatives. Include demand monitoring, leakage measurement and reduction and community education. 	Appendix C	COAG, NCP and NWI Page 52 of Ref 14 <i>Water Management Act 2000.</i>
4 Drought Management	Sound drought management in place.	<ul style="list-style-type: none"> Compile data on existing system, your LWU’s drought management planning, including adoption of a schedule of trigger points for timely implementation of appropriate water restrictions. Sound drought management implemented in accordance with the LWU’s adopted schedule. 	Appendix D Ref 19	<i>Water Management Act 2000.</i> <i>Local Government Act 1993.</i>



Table 1 – Required Outcomes for Best-Practice Criteria				
Criterion	Required Outcome	Indicators to Demonstrate Achievement of Outcome	Tools & Resources	COAG/NCP/NWI/Statutory Requirements
(1)	(2)	(3)		(4)
5 Performance Reporting	<p>Completed performance reporting forms to DWE</p> <p>Review 2-page LWU Performance Report, prepare Action Plan.</p>	<ul style="list-style-type: none"> Reporting forms provided to DWE by 15 September each year. Draft of Special Schedules 3 to 6 and Notes 2 and 3 of the LWU's Special Purpose Financial Reports provided to DWE by 15 September each year. LWUs with over 10,000 connected properties to arrange auditing of their core performance indicators in accordance with the auditing requirements of the <i>National Performance Framework</i>. Action Plan provided to Council following review of your LWU's 2-page Performance Report (water, sewerage). Statement of Compliance to be submitted to DWE prior to payment of dividend from surplus (including Dividend Payment Form, Statement of Financial Performance of Business Activities, a Compliance Audit Report and an unqualified independent Financial Audit Report). 	Ref 3 Appendix E	COAG, NCP and NWI Page 31 of Ref 14, page 15 of Ref 15 and page 1 of Ref 16.
6 Integrated Water Cycle Management (IWCM)	<p>Sound IWCM implemented.</p>	<ul style="list-style-type: none"> Completion of Integrated Water Cycle Management Evaluation by June 2007. Completion of Integrated Water Cycle Management Strategy by June 2008. Implementation of Integrated Water Cycle Management in accordance with the Strategy by June 2008. 	Ref 8 Appendix F	COAG, NCP and NWI Page 43 of Ref 14. WMA 2000.



References for Table 1

1. *Strategic Business Plans for Water Supply and Sewerage: Guidelines for Preparation*, Public Works, NSW, 1993.
2. *NSW Financial Planning Model (FINMOD) – Overview of Financial Planning, How FINMOD Works, User Manual*, Department of Land and Water Conservation, NSW, 2000.
3. *2005/06 NSW Water Supply and Sewerage Performance Monitoring Report*, Department of Water and Energy/Local Government Association and Shires Association, NSW.
4. *Water Supply, Sewerage and Trade Waste Pricing Guidelines*, Department of Land and Water Conservation, NSW, 2002
5. *Liquid Trade Waste Management Guidelines*, Department of Energy, Utilities and Sustainability, NSW, March 2005.
6. *Developer Charges Guidelines for Water Supply, Sewerage and Stormwater*, Department of Land and Water Conservation, NSW, 2002.
7. *Environmental Management Systems – Specification with guidelines for use*, International Standard ISO 14001.
8. *Integrated Water Cycle Management Guidelines for NSW Local Water Utilities*, Department of Energy, Utilities and sustainability, NSW, October 2004.
9. *Wise Water Management – A Demand Management Manual for Local Water Utilities*, Water Services Association of Australia, 1998.
10. *Planning Community Involvement in Water and Sewerage Projects*, Public Works, NSW, 1995.
11. *Occupational Health and Safety Act 2000 and Occupational Health and Safety Regulation 2001*.
12. *Asset Management Guidelines for Water Supply and Sewerage*, Public Works, NSW, 1991.
13. *Protection of the Environment Operations Act*, 1997.
14. *The 2003 National Competition Policy Assessment Framework for Water Reform*, National Competition Council, February 2003.
15. *Intergovernmental Agreement on a National Water Initiative*, Council of Australian Governments, June 2004.
16. *National Performance Framework – 2006-07 Urban Performance Reporting Indicators and Definitions*, National Water Commission/Water Services Association of Australia, May 2007.
17. *NSW Reference Rates Manual for Valuation of Water Supply, Sewerage and Stormwater Assets*, Ministry of Energy and Utilities, NSW, June 2003.
18. *Australian Drinking Water Guidelines*, National Health and Medical Research Council/National Resource Management Ministerial Council, 2004.
19. *Drought Management Guidelines*, NSW Local Government Water Directorate, December 2003



Blank Page



6 Payment of Dividend

6.1 Eligibility for Payment

Check lists have been prepared to provide guidance for LWUs in addressing best-practice management (refer to Appendices A to F). It is NOT necessary to address the issues in Appendices B to F to be eligible for payment of a dividend. LWUs are required to demonstrate achievement of the required outcome for each criterion in column (3) of Table 1 (page 22) in order to be eligible for payment of a dividend from the surplus.

LWUs must also complete all the boxes in Item 1 of Attachment 1 (pages 32 and 33).

6.2 Statement of Compliance

To be eligible for payment of a dividend from the surplus, LWUs must complete the Statement of Compliance shown in Attachment 1 (page 34), and append a compliance audit report and an unqualified independent financial audit report.

6.3 Amount of Dividend

If your LWU is eligible to pay a dividend from the surplus, determine the maximum dividend payable from the surplus (Item 3 in pages 32 and 33 of Attachment 1).

6.4 Public Disclosure

For each of water supply and sewerage, prior to paying a dividend from the surplus, an LWU must resolve in a council meeting open to the public that it has achieved the required outcome for each criterion set out in Table 1 of these guidelines.

6.5 Reporting to Minister

LWUs that are eligible to pay a dividend from the surplus and elect to do so, must complete the Dividend Payment form shown in Attachment 1 (page 34) and forward the Statement of Compliance, the Dividend Payment form and the Statement of Financial Performance of Business Activities (page 18), together with a compliance audit report (page 15) and an unqualified independent financial audit report (page 15) to the Department of Water and Energy prior to payment of the dividend. The Department will advise the LWU whether it may pay the proposed dividend from the surplus within 5 working days. The Department will also audit LWU compliance with these guidelines and will report to the Minister for Water Utilities.



Blank Page



ATTACHMENT 1 – PAYMENT OF A DIVIDEND

As all LWUs must pay a dividend for tax-equivalents (Item 2 overleaf), the total dividend paid for each of water supply and sewerage must be not less than the dividend for tax equivalents.

You can check your LWU's eligibility for payment of a dividend from the surplus by completing boxes (1) to (6) in Item 1 overleaf for water supply and boxes (1) to (4) on page 33 for sewerage. If your LWU is eligible to pay a dividend from the surplus, determine the maximum dividend payable from the surplus (Item 3 overleaf).

Prior to the payment of a dividend from the surplus, the LWU must obtain an independent compliance audit report (page 15) and an unqualified independent financial audit report (page 15).

If your LWU has elected to pay a dividend from the surplus, complete the Statement of Compliance (page 34), the Dividend Payment Form (page 34) and the Statement of Financial Performance of Business Activities (page 18). Forward these, together with the independent compliance audit report and the unqualified independent financial audit report to the Department of Water and Energy prior to payment of the dividend.

The Department will advise the LWU whether it may pay the proposed dividend from the surplus within 5 working days. The Department will also audit LWU compliance with these guidelines and will report to the Minister for Water Utilities.



Note to Special Purpose Financial Report

Water Supply – Payment of Dividend for 2006/07

1. Required Outcomes for 6 Criteria^a

	Yes	No
(1) Complete Strategic Business Plan (including Financial Plan)	<input type="checkbox"/>	<input type="checkbox"/>
(2) Pricing with full cost-recovery, without significant cross subsidies (Item 2(a) in Table1)	<input type="checkbox"/>	<input type="checkbox"/>
Complying charges		
(a) Residential (Item 2(b) in Table1)	<input type="checkbox"/>	<input type="checkbox"/>
(b) Residential Revenue* from Usage Charges at least 50% in 2006/07 (LWUs with under 4,000 connected properties don't need to recover more than 50% from usage charges) 60% in 2007/08 75% in 2008/09	<input type="checkbox"/>	<input type="checkbox"/>
(c) Non-residential (Item 2(b) in Table1)	<input type="checkbox"/>	<input type="checkbox"/>
DSP with Commercial Developer Charges (Item 2(e) in Table1)	<input type="checkbox"/>	<input type="checkbox"/>
(3) Complete Performance Reporting Form by 15 September each year	<input type="checkbox"/>	<input type="checkbox"/>
(4) Sound Water Conservation implemented	<input type="checkbox"/>	<input type="checkbox"/>
(5) Sound Drought Management implemented	<input type="checkbox"/>	<input type="checkbox"/>
(6) Integrated Water Cycle Management Strategy (by June 2008)	<input type="checkbox"/>	<input type="checkbox"/>

2. Dividend for Tax-Equivalents^b

(1) Calculated Tax-Equivalents (TE)	<input type="text"/>
(2) No. of assessments multiplied by \$3/assessment	<input type="text"/>
Dividend for TE^c (lesser of (1) and (2))	<input type="text"/>

3. Dividend from Surplus^c

(1) 50% of 'Surplus before Dividends' (from <i>Special Purpose Financial Report</i> – Statement of Financial Performance of Water Supply Business Activities).	<input type="text"/>
(2) No. of assessments multiplied by \$30/assessment, less Dividend for TE	<input type="text"/>
(3) Cumulative 'Surplus before Dividends' for the 3 years to 30 June 2006, less the cumulative Dividends Paid for the 2 years to 30 June 2005 (from above Statement of Financial Performance of Water Supply Business Activities).	<input type="text"/>
Maximum Dividend from Surplus (least of (1), (2) and (3))	<input type="text"/>

^a For a Local Water Utility (LWU) to be eligible for payment of a dividend from the surplus of its water supply business, it must be able to answer "yes" for each of items (1) to (5) above. Achievement of (6) is required by 30 June 2008.

^b All local government LWUs must pay this dividend for tax-equivalents.

^c The maximum dividend from surplus is the maximum dividend payable by an LWU which has demonstrated its achievement of the outcomes required in Table 1 of the *Guidelines for Best-Practice Management of Water Supply and Sewerage*. LWUs should also address the considerations in section 3.2 of the Guidelines.

* As an alternative to consideration of the council's total projected residential revenue, council has the option of basing this calculation on its typical residential bill (ie. for a customer using the council's average annual residential consumption per connected property).



Note to Special Purpose Financial Report

COUNCIL OF/COUNCIL OF THE CITY OF

STATEMENT OF COMPLIANCE^a
for the year ended 30th June 2007

	YES	NO
WATER SUPPLY		
Council's Water Supply Business has demonstrated achievement of each of the outcomes in column (3) of Table1 of the <i>Best-Practice Management of Water Supply and Sewerage Guidelines^b</i> .	<input type="checkbox"/>	<input type="checkbox"/>
Council has resolved in a council meeting open to the public that it has complied with the <i>Best-Practice Management Guidelines^b</i> for its Water Supply business.	<input type="checkbox"/>	<input type="checkbox"/>
SEWERAGE		
Council's Sewerage Business has demonstrated achievement of each of the outcomes in column (3) of Table1 of the <i>Best-Practice Management of Water Supply and Sewerage Guidelines^b</i> .	<input type="checkbox"/>	<input type="checkbox"/>
Council has resolved in a council meeting open to the public that it has complied with the <i>Best-Practice Management Guidelines^b</i> for its Sewerage business.	<input type="checkbox"/>	<input type="checkbox"/>
AUDIT REPORTS		
Council has received and attached an independent compliance audit report verifying that the LWU has demonstrated achievement of the required outcomes in Table1 of the <i>Best-Practice Management Guidelines^b</i> .	<input type="checkbox"/>	<input type="checkbox"/>
Council has received and attached an unqualified independent financial audit report of its water supply/sewerage Special Purpose Financial Reports.	<input type="checkbox"/>	<input type="checkbox"/>

COUNCIL OF/COUNCIL OF THE CITY OF

STATEMENT OF DIVIDEND PAYMENT
for the year ended 30th June 2007

	2007
WATER SUPPLY	
Dividend paid for tax-equivalents	<input type="text"/>
Dividend paid from surplus	<input type="text"/>
Total Dividend Paid for Water Supply Business	<input type="text"/>
SEWERAGE	
Dividend paid for tax-equivalents	<input type="text"/>
Dividend paid from surplus	<input type="text"/>
Total Dividend Paid for Sewerage Business	<input type="text"/>

^a The Statement of Compliance and the Dividend Payment Form should only be forwarded to the Department of Water and Energy if Council has resolved to pay a dividend from the surplus.

^b *Guidelines for Best-Practice Management of Water Supply and Sewerage*, Department of Water and Energy, NSW, June 2007.



ATTACHMENT 2 – INTEGRATED WATER PRICING

1 Introduction

As appropriate pricing is fundamental to the effective and sustainable management of water utility businesses, the NSW Government will be working to remove the present impediment to use of integrated water pricing for water supply and sewerage services in the *Local Government Act, 1993*. Such an amendment will provide Local Water Utilities (LWUs) with the option of using integrated water pricing for their water supply and sewerage services.

There is no requirement for LWUs to implement integrated water pricing. However, an LWU which implements integrated water pricing in accordance with this attachment will meet the water supply and sewerage pricing requirements in elements 2(a), 2(b) and 2(c) in Table 1 of the *Best-Practice Management Guidelines*.

Integrated water pricing is a valuable tool for LWUs as it provides better pricing signals for residential customers to encourage demand management, water efficiency and better use of our valuable water resources.

2 The Integrated Water Pricing Concept

Integrated water pricing has the two components of best-practice pricing. That is, an appropriate usage charge/kL and an appropriate access charge as discussed below.

2.1 Usage Charge

The usage charge is the key element of pay-for-use pricing and should be broadly based on the long-run marginal cost of the water supply and sewerage systems. The usage charge would be calculated using equation (1) below:

$$UC = [1.4 \times W_{OMA}] + [1.5 \times S_{OMA} \times SDF] \quad \text{Equation (1)}$$

Where:

UC	Usage charge (\$/kL)
1.4 and 1.5	Indicative estimate of the long-run marginal cost of the LWU's water supply (140%) and sewerage (150%)
W_{OMA}	Water supply operation, maintenance and administration (OMA) cost (\$/kL) LWUs should estimate their future OMA cost per kilolitre for each of water supply and sewerage, taking into account new assets proposed in the LWU's strategic business plan and capital works program.
S_{OMA}	Sewerage operation, maintenance and administration (OMA) cost (\$/kL)
SDF	Residential sewer discharge factor. That is, the ratio of residential indoor water consumption to the total residential water consumption. A typical value for NSW is $SDF = 0.6$. LWUs with sound recent studies of SDF for their residential customers should use their local SDF in equation (1) above.



2.2 Access Charge

The remainder of the revenue required for the financial sustainability of the water supply and sewerage businesses is obtained through an annual access charge which is independent of the level of consumption. The access charge is determined relative to the customer's capacity requirements, eg. proportional to the square of the size of the customer's water supply service connection as shown in equations (2) and (3) below.

$$AC_{\phi 20} = AC (W) + AC (S) \times SDF \quad \text{Equation (2)}$$

$$AC = AC_{\phi 20} \times [D^2 / 400] \quad \text{Equation (3)}$$

Where:

AC (W)	Water component of access charge (\$)
AC (S)	Sewerage component of access charge (\$)
AC _{φ20}	Annual access charge for a 20mm water supply service connection (\$)
AC	Annual access charge for a service connection larger than 20mm (\$)
D	Nominal diameter of customer's water supply service connection (mm)

LWUs may elect to adopt a nil access charge, in which case, the annual income would be generated from the usage charge, except for very low water users¹.

3 Total Annual Bill

The total annual bill will be the sum of the annual access charge and the usage charge multiplied by the annual water consumption expressed in kilolitres.

$$B = AC + [UC \times C] \quad \text{Equation (4)}$$

Where:

B	Annual bill (\$)
C	Annual water consumption (kL)

Example 1 – Residential

$$W_{OMA} = \$1.072/\text{kL}$$

$$S_{OMA} = \$1.00/\text{kL}$$

$$AC (W) = \$100$$

$$AC (S) = \$200$$

$$SDF = 0.6$$

$$\text{Minimum Bill} = \$400$$

From Equation (1)

$$\begin{aligned} UC &= [1.4 \times 1.072] + [1.5 \times 1.0 \times 0.6] \\ &= 1.5 + 0.9 \\ &= \$2.4/\text{kL} \end{aligned}$$

$$\begin{aligned} AC_{\phi 20} &= \$100 + \$200 \times 0.6 \\ &= \$220 \end{aligned}$$

¹ Very low water users would be required to pay the minimum bill, which may be about 50% of the typical residential bill.



For annual residential water consumptions of 200 kL/a, from Equation (4), the annual residential bill is:

$$\begin{aligned} B &= \$220 + 2.4 \times 200 \\ &= \$700 \end{aligned}$$

Similarly, for residential consumptions of 20 kL/a, 100 kL/a and 300 kL/a, the annual residential bills would be \$400 (minimum bill, calculated value is \$268 (220 + 2.4 x 20)), \$460 (220 + 2.4 x 100) and \$940 (220 + 2.4 x 300) respectively.

4 Non-Residential Customers

The usage charge and access charge for non-residential customers would be determined using equations (1), (2) and (3) and the customer's sewer discharge factor and service connection size.

Example 2 – Non-Residential

Non-residential charges are examined below for the utility in Example 1 above.

(A) $D = 20\text{mm}$
 $SDF = 0.6$
Water consumption = 200kL

From Equation (1)
 $UC = [1.4 \times 1.072] + [1.5 \times 1.0 \times 0.6]$
 $= 1.5 + 0.9$
 $= \$2.4/\text{kL}$

From Equation (2)
 $AC_{\phi_{20}} = 100 + 200 \times 0.6$
 $= \$220$

From Equation (4)
 $B = 220 + 2.4 \times 200$
 $= \$700$

(B) As for (A), but water consumption = 20kL

From Equation (4)
 $B = 220 + 2.4 \times 20$
 $= \$268$

As this is less than the minimum bill of \$400, the minimum bill will apply.

(C) As for (A), but $D = 40\text{mm}$

From Equation (3)
 $AC = 220 \times (40^2/400)$
 $= \$880$

From Equation (4)
 $B = 880 + 2.4 \times 200$
 $= \$1,360$

(D) As for (C), but water consumption = 1,000kL

From Equation (4)
 $B = 880 + 2.4 \times 1000$
 $= \$3,280$



(E) As for (D), but SDF = 0.95

$$\begin{aligned} &\text{From Equation (1)} \\ \text{UC} &= [1.4 \times 1.072] + [1.5 \times 1.0 \times 0.95] \\ &= \$2.925/\text{kL} \end{aligned}$$

$$\begin{aligned} &\text{From Equation (2)} \\ \text{AC}_{\phi_{20}} &= \$100 + \$200 \times 0.95 \\ &= \$290 \end{aligned}$$

$$\begin{aligned} &\text{From Equation (3)} \\ \text{AC} &= 290 \times (40^2/400) \\ &= \$1,160 \end{aligned}$$

$$\begin{aligned} &\text{From Equation (4)} \\ \text{B} &= \$1,160 + 2.925 \times 1000 \\ &= \$4,085 \end{aligned}$$

LWUs will still be required to have appropriate trade waste fees and charges for all liquid trade waste dischargers, a trade waste usage charge for dischargers with prescribed pre-treatment, excess mass charges for large dischargers and industrial waste and a trade waste policy and approval for each liquid trade waste discharger in accordance with the *Liquid Trade Waste Management Guidelines, March 2005*.

5 Implementation

LWUs which elect to adopt integrated water pricing will also need to comply with the following outcomes for best-practice. These are based on elements 2(a) and 2(b) of Criterion 2 in Table 1 of the *Best-Practice Management Guidelines*, but exclude the requirement for step pricing for residential customers, ie:

- Appropriate tariffs without significant cross subsidies;
- The projected total annual income should be consistent with above financial plan. This generally results in a positive economic real rate of return (ERRR) and generates sufficient income to fund recurrent expenditures and capital investment;
- The total annual income received from access and usage charges is to be shared between the water supply and sewerage businesses in accordance with the percentage determined in the financial plan.
- Appropriate usage charge/kL based on long-run marginal cost;
- Access charge relative to a customer's capacity requirements;
- No land value based charges (ie. rates) and no "free" or "pre-paid" water allowance;
- LWUs with 4,000 or more connected properties to have at least 75% of residential revenue generated through usage charges;
- LWUs with less than 4,000 connected properties to have at least 50% of residential revenue generated through usage charges.



6 Transfer of Funds between Water Supply and Sewerage Businesses

An LWU which has implemented integrated water pricing will be permitted to transfer funds between its water supply and sewerage businesses subject to demonstrating, to the satisfaction of the Minister for Water Utilities, that both its water supply and sewerage businesses will remain financially sustainable.



Blank Page



Appendix A - Water Supply and Sewerage: Strategic Business Planning & Financial Planning Check List – August 2007

The strategic business plan is a Local Water Utility's (LWU's) principal planning tool for its water supply and sewerage businesses.

This check list is essentially a road map and has been prepared to assist LWUs to quickly address the issues in a sound business plan as well as a number of more recent developments in strategic business planning.

A current strategic business plan and financial plan is one which has been prepared or updated within the last 3 years. Each LWU should update its financial plans annually.

Strategic Business Plan – Check List

Topic	Outcome Achieved
1. Executive Summary	<input type="checkbox"/> Covers all major issues, main actions, price path. <input type="checkbox"/> Includes a plan of the system.
2. Operating Environment Review	<input type="checkbox"/> All principal issues identified are addressed in the SBP.
3. Performance Indicators	<input type="checkbox"/> LWU's latest TBL Performance Report included. <input type="checkbox"/> Review of LWU's latest TBL Performance Report included, together with proposed corrective actions (refer to example on page 47 of Ref 3). This review should be consistent with the SBP.
4. Levels of Service (LOS)	<input type="checkbox"/> Are clear, meaningful and measurable . <input type="checkbox"/> A compliance monitoring and reporting system is in place. <input type="checkbox"/> Target LOS have been identified.
5. Service delivery	<input type="checkbox"/> Options examined and conclusions reported.
6. Customer Service Plan 6.1 Unserviced areas	<input type="checkbox"/> Business objectives developed for each key result area. <input type="checkbox"/> All serviced and unserviced towns and villages listed showing the population and whether the present facilities are satisfactory. <input type="checkbox"/> Proposals for serving unserviced towns are included and discussed in the business plan and financial plan.



Strategic Business Plan – Check List

Topic	Outcome Achieved
6.2 Pricing, Developer Charges, Trade Waste	
A. Full Cost Recovery	<input type="checkbox"/> Full cost recovery for each of the water supply and sewerage businesses (Ref 4, page 7). The total annual income should be consistent with the financial plan in Item 10. This generally results in a positive economic real rate return (ERRR).
B. Water Supply: Residential	<input type="checkbox"/> Pay-for-use: appropriate water usage charge/kL with no water allowance; independent of land value. Significant increase in the water usage charge/kL (50% to 100%) for discretionary consumption (Item 2b of Table 1 of these guidelines).
C. Sewerage: Residential	<input type="checkbox"/> Uniform annual sewerage bill per residential property, independent of land value (Ref 4, page 28).
D. Water Supply: Non-Residential	<input type="checkbox"/> Two-part tariff with appropriate water usage charge/kL and access charge.
E. Sewerage: Non-Residential	<input type="checkbox"/> Two-part tariff with appropriate sewer usage charge/kL and sewer discharge factor. Access charge reflective of the cost of providing these sewerage services.
F. Liquid Trade Waste Pricing	<input type="checkbox"/> Appropriate trade waste fees and charges for <u>all</u> liquid trade waste dischargers (Ref 4, page 30). <input type="checkbox"/> Trade waste usage charge for dischargers with prescribed pre-treatment (Ref 4, page 34). <input type="checkbox"/> Excess mass charges for large dischargers and industrial waste (Ref 4, page 36).
G. Liquid Trade Waste Policy and Approvals	<input type="checkbox"/> Trade Waste Policy in accordance with Ref 5 adopted. Trade waste approval issued to <u>each</u> liquid trade waste discharger (Ref 5).
H. Developer Charges	<input type="checkbox"/> Development Servicing Plan ⁺ with commercial developer charges; disclosure of any cross-subsidies (Ref 6, page iv). + LWUs with a growth of under 5 lots/a exempted.
I. Dual Water Supplies	<input type="checkbox"/> LWUs with a dual water supply ie. a potable reticulated water supply for indoor uses and a separate non-potable supply reticulated for outdoor uses to over 50% of their residential customers need to comply with element 2(g) of Criterion 2 in Table 1 on page 25 of these guidelines.
6.3 Environmental Management	<input type="checkbox"/> Summary of LWU's Environmental Management achievements is included.
6.4 Integrated Water Cycle Management	<input type="checkbox"/> Summary of integrated water cycle management is included.



Strategic Business Plan – Check List

Topic	Outcome Achieved
6.5 Demand Management	<input type="checkbox"/> Summary of LWU's demand management is included.
6.6 Drought Management	<input type="checkbox"/> Summary of LWU's drought management is included.
6.7 Community Consultation	<input type="checkbox"/> Summary of community consultation is included.
6.8 Occupational Health & Safety	<input type="checkbox"/> Summary of LWU's occupational health and safety achievements is included.
7. Asset Management Plan	<input type="checkbox"/> Summary of changes required to O & M procedures (eg. to operate new facilities) are reported, including impact on OMA expenditures. <input type="checkbox"/> Asset register completed (Ref 13). <input type="checkbox"/> Summary of best-practice operation plan is included (Ref 13). <input type="checkbox"/> Summary of best-practice maintenance plan is included. Also report your LWU's implementation of any DWE section 61 recommendations for corrective action with respect to water and sewage treatment works and dams. <input type="checkbox"/> Capital works program included showing a tabulation of proposed annual expenditure for each project, including cost-effective asset renewals. Capital works program is integrated with the strategic business plan to meet the target levels of service. <i>Template is available from DWE.</i> <input type="checkbox"/> All major projects in the capital works program are discussed in the SBP and are consistent with the business objectives.
8. Human Resources Plan	<input type="checkbox"/> Organisation Chart is included.
9. Action Plan	<input type="checkbox"/> Actions listed and show the person responsible, completion time and estimated cost. <input type="checkbox"/> The costs of the actions are included in the capital works program or in OMA expenditures.



Financial Plan – Check List

Topic	Outcome Achieved
10. Objective	<input type="checkbox"/> The financial plan includes all foreseeable costs and income and achieves <i>the lowest uniform level of stable typical residential bills</i> (in Year 1\$) to meet the levels of service negotiated with the community. <input type="checkbox"/> Long-term <i>financial sustainability is demonstrated</i> to comply with National Competition Policy and the National Water Initiative.
11. Financial Model	<input type="checkbox"/> LWUs using the FINMOD software for their financial plan have used the latest version (FINMOD 2.1 or FINMOD 4.0).
12. Timeframe	<input type="checkbox"/> The financial plan covers a period of at least 20 years .
13. Growth and Number of Assessments	<input type="checkbox"/> Input accurate numbers of existing residential and non-residential assessments. <input type="checkbox"/> New assessments for backlog water supply or sewerage projects are included in the growth projections. <input type="checkbox"/> Growth projections input into your LWU's financial planning are consistent with the SBP document.
14. Rates	<input type="checkbox"/> Appropriate values have been used. Such rates in June 2007 were: Inflation 2.5% pa Investment 5.5% pa Borrowing 6.5% pa
15. Grants	<input type="checkbox"/> No capital works grants are assumed after about 2015/16.



Financial Plan – Check List

Topic	Outcome Achieved
16. Forecast Data	<p><input type="checkbox"/> Forecast data, such as future operation, maintenance and administration (OMA) costs and the revenue split (between annual residential income and annual non-residential income), have been carefully considered as part of the LWU's asset management planning.</p> <p>Common errors are</p> <ul style="list-style-type: none"> ● Neglecting to include increases in operation and maintenance costs associated with proposed capital works such as backlog sewerage or new water and sewage treatment works. ● Neglecting to make appropriate provision for dividend and tax-equivalent payments (excluding income tax). ● Neglecting to include future increases in non-residential water supply and sewerage income as a result of removing existing cross-subsidies. ● Neglecting to include future increases in trade waste income from introducing appropriate trade waste fees and charges for <u>all</u> liquid trade waste dischargers. ● Neglecting to include future commercial developer charges. ● Neglecting to include the cost of actions in the SBP. <p><input type="checkbox"/> Increases or reductions to OMA costs have been discussed in the SBP document.</p>
17. Residential Bills and Developer Charges	<p><input type="checkbox"/> The financial plan has balanced typical residential bills and developer charges.</p>
18. Results	<p><input type="checkbox"/> The input data, key output graphs and the full projected results and financial statements (ie. Statement of Financial Performance, Statement of Financial Position and Cash Flow Statement) are included for the preferred case. Results are presented in Year 1\$ (ie. not inflated \$).</p>



Financial Plan – Check List

Topic	Outcome Achieved
19. Sensitivity Analysis	<input type="checkbox"/> Sensitivity Analysis has been carried out and results are included. <input type="checkbox"/> A description of the cases analysed, and the reasons for their selection have been included in the SBP document.
20. Price Path	<input type="checkbox"/> Price path adopted for the typical residential bill over the next 5 years in Year 1\$. This provides some price certainty to the LWU's customers.

REFERENCES

1. *Strategic Business Plans for Water Supply and Sewerage: Guidelines for Preparation*, Public Works, NSW, 1993.
2. *NSW Financial Planning Model (FINMOD) – Overview of Financial Planning, How FINMOD Works, User Manual*, Department of Land and Water Conservation, NSW, 2000.
3. *2005/06 NSW Water Supply and Sewerage Performance Monitoring Report*, Department of Water and Energy/Local Government Association and Shires Association, NSW.
4. *Water Supply, Sewerage and Trade Waste Pricing Guidelines*, Department of Land and Water Conservation, NSW, 2002.
5. *Liquid Trade Waste Management Guidelines*, Department of Energy, Utilities and Sustainability, NSW, March 2005.
6. *Developer Charges Guidelines for Water Supply, Sewerage and Stormwater*, Department of Land and Water Conservation, NSW, 2002.
7. *Environmental Management Systems – Specification with guidelines for use*, International Standard ISO 14001.
8. *Integrated Water Cycle Management Guidelines for NSW Local Water Utilities*, Department of Energy, Utilities and Sustainability, NSW, October 2004.
9. *Wise Water Management – A Demand Management Manual for Local Water Utilities*, Water Services Association of Australia, 1998.
10. *Water Supply and Sewerage Management Guidelines*, NSW Government, 1991.
11. *Planning Community Involvement in Water and Sewerage Projects*, Public Works, NSW, 1995.
12. *Occupational Health and Safety Act 2000 and Occupational Health and Safety Regulation 2001*.



13. *Asset Management Guidelines for Water Supply and Sewerage*, Public Works, NSW, 1991.

NOTES

1. Full achievement of the required outcome for Item 6.2G is required for meeting the liquid trade waste policy and approvals requirements in Table 1 on page 24 of the *Best-Practice Management Guidelines*.
2. LWUs with a dual water supply need to comply with '1' of Item 6.2 in order to meet the requirements in element 2(g) of Criterion 2 in Table 1 on page 25 of the *Best-Practice Management Guidelines*.
3. For further information, assistance and copies of the reference documents, please contact Sam Samra, Senior Manager Water Utility Performance on 8281 7435 or Sam.Samra@dwe.nsw.gov.au
4. LWUs should continue to forward a copy of their completed strategic business plan and financial plan to DWE:

Senior Manager Water Utility Performance
Department of Water and Energy
Level 18
227 Elizabeth Street
Sydney NSW 2000



Blank Page



Appendix B – Pricing and Developer Charges

Section 1: Water Supply, Sewerage and Trade Waste Pricing

Check List – August 2007

Best-practice pricing of Local Water Utility (LWU) water supply, sewerage and liquid trade waste services is fundamental to effective management of water supply and sewerage businesses. Appropriate tariffs ensure fair pricing of services, removal of significant cross-subsidies and protection of our valuable water resources and environment.

The main reference for the implementation of best-practice pricing is Ref 1 – *Water Supply, Sewerage and Trade Waste Pricing Guidelines*.

To comply with the *COAG Strategic Framework for Water Reform, National Competition Policy* and the *National Water Initiative*, each LWU needs to achieve:

- Full cost-recovery for its water supply business and for its sewerage business (Ref 1, page 7).
- Appropriate water supply tariff with appropriate water usage/kL, no land value (ie. rates) in charges, no water allowance.
- Appropriate sewerage tariff with a uniform annual sewerage bill per residential property (Ref 1, page 28), two-part tariff with appropriate sewer usage charge/kL for non-residential customers (Ref 1, page 29, 31) and no land value (ie. rates) in sewerage charges (Ref 1, page 31).
- Annual trade waste fee for all liquid trade waste dischargers (Ref 6, page 208), trade waste usage charges for dischargers with prescribed pre-treatment (Ref 6, page 209) and excess mass charges for large dischargers of industrial waste (Ref 6, pages 209 to 212).

The NSW Water Supply Pricing software and the NSW Sewerage and Trade Waste Pricing Software will simplify development and analysis of tariff options. In addition, the Typical Residential Bill (TRB) and the total annual income should be on the basis of a sound financial plan.

This check list is essentially a road map to assist LWUs to quickly address the issues in Ref 1 and Ref 6. It also highlights common deficiencies in tariffs. Each LWU should use the check list to ensure that it has addressed the necessary issues. Each LWU should also annually review its tariffs to ensure they are raising the required income for its water supply and sewerage businesses.



Water Supply Pricing – Check List

Topic	Outcome Achieved
1. Tariff	<p>A. <input type="checkbox"/> Two-part tariff with an appropriate water usage charge/kL based on the long-run marginal cost.</p> <p>B. <input type="checkbox"/> To encourage water conservation, high water consuming residential customers should be subjected to a step price increase of at least 50% for incremental usage above a specified threshold. This threshold should not exceed 450 kL/a per household, except for LWUs outside the DWE Coastal and Tablelands Zone with a high incidence of evaporative air coolers, where a threshold of up to 600kL/a per household may be used (refer to page 9 of these Guidelines).</p> <p>C. <input type="checkbox"/> Does <u>not</u> involve a water allowance, land value based charges (rates) or a declining block tariff (Ref 1, page 12).</p> <p>D. <input type="checkbox"/> Raises required income to ensure full cost-recovery, the long-term financial sustainability of the water supply business and minimising of customer bills (Ref 1, page 7).</p> <p>E. <input type="checkbox"/> Except for LWUs with under 4,000 connected properties, residential water use charges should recover at least 75% of residential revenue (refer to page 8 of these Guidelines). LWUs with under 4,000 connected properties will need to recover at least 50% of residential revenue from usage charges.</p>
2. Access charge	<p><input type="checkbox"/> Annual access charges reflective of customer's demands on the system.</p>
3. Residential Units	<p>A. <input type="checkbox"/> Each strata title unit treated as a single residential assessment with a 20mm service connection (Ref 1, page 14). Pensioners can thus receive the \$87.50 pensioner rebate from their bill (sections 501, 502 and 575 (3) (b) of <i>Local Government Act 1993</i>).</p> <p>B. <input type="checkbox"/> Similarly, a block of say 4 Torrens Title residential units are to be treated as 4 single residential assessments, each with a 20mm service connection.</p> <p>C. <input type="checkbox"/> Company or community title units treated as a single non-residential customer under a two-part tariff. However, under an inclining block tariff such properties must be disaggregated into the appropriate number of units and treated as described above for strata title units (Ref 1, page 14).</p>



Water Supply Pricing – Check List

Topic	Outcome Achieved
4. Tariff implementation	<p>A. <input type="checkbox"/> Examined impact of new tariff on the bills for representative customers (Ref 1, page 20).</p> <p>B. <input type="checkbox"/> Undertaken community consultation.</p> <p>C. <input type="checkbox"/> Any phasing-in of charges should be on the basis of the adopted best-practice tariff.</p> <p>D. <input type="checkbox"/> Phased-in increases over 5 years for non-residential customers facing large increases (Ref 1, page 21).</p> <p>E. <input type="checkbox"/> LWUs should include both water access charges and water usage charges in each bill to customers. In addition, LWUs should move to comply with forthcoming national recommendations on the layout and content of customer bills under Item 66(iv) of the National Water Initiative².</p>
5. Data Management	<p><input type="checkbox"/> Appropriate customer data compiled, including customer identifier, metered annual water consumption, service connection size and customer category (Ref 1, page 52).</p>

² National Guidelines for Residential Customers' Water Accounts 2006, Natural Resource Management Ministerial Council.



Sewerage and Trade Waste Pricing – Check List

Topic	Outcomes Achieved
6. Sewerage Tariff	<p>A. <input type="checkbox"/> Uniform annual sewerage bill per residential property (Ref 1, page 28).</p> <p>B. <input type="checkbox"/> Two-part sewerage tariff for non-residential customers (Ref 1, page 29).</p> <p>C. <input type="checkbox"/> Does <u>not</u> involve land value based tariffs (rates), uniform annual charges or declining block tariffs (Ref 1, page 27).</p> <p>D. <input type="checkbox"/> Raises required income to ensure full cost-recovery, the long-term financial sustainability of the sewerage business and minimising of customer bills (Ref 1, page 7).</p>
7. Sewer Usage Charge	<input type="checkbox"/> Sewer usage charge/kL reflects the long-run marginal cost of sewerage business (Ref 1, page 29).
8. Sewerage Access Charge	<input type="checkbox"/> Annual non-residential sewerage access charge reflective of customer's peak load on the system (Ref 1, page 31).
9. Residential Units	<p>A. <input type="checkbox"/> Each strata title residential unit or flat treated as a residential assessment (ie. no distinction between houses and flats)</p> <p>B. <input type="checkbox"/> Similarly, a block of say 4 Torrens Title residential units are to be treated as 4 residential assessments.</p> <p>C. <input type="checkbox"/> A block of company or community title units or flats treated as a single non-residential assessment.</p>
10. Sewer Discharge Factor	<input type="checkbox"/> The volume of sewage discharged to the sewerage system may be estimated using a sewer discharge factor times the metered water consumption (Ref 1, pages 29 and 93).
11. Trade Waste Tariffs	<p>A. <input type="checkbox"/> All liquid trade waste dischargers requiring nil or minimal pre-treatment pay an annual trade waste fee and a re-inspection fee, where required (Ref 1, page 33).</p> <p>B. <input type="checkbox"/> All liquid trade waste dischargers with prescribed pre-treatment pay an annual trade waste fee and a re-inspection fee (where required) together with an appropriate trade waste usage charge/kL for all liquid trade waste discharged to the sewerage system (Ref 1, page 34).</p>



Sewerage and Trade Waste Pricing – Check List

Topic	Outcomes Achieved
	<p>C. <input type="checkbox"/> All large liquid trade waste dischargers (over 20kL/d) and dischargers of industrial waste pay an annual trade waste fee and re-inspection fee (where required) together with an excess mass charge/kg of pollutants discharged (Ref 1, page 36, Ref 6, pages 209 to 211).</p>
<p>12. Trade Waste Dischargers with Prescribed Pre-treatment</p>	<p>A. <input type="checkbox"/> An appropriate trade waste usage charge levied for such dischargers with appropriately sized and maintained pre-treatment facilities (Ref 1, page 35).</p> <p>B. <input type="checkbox"/> A much higher trade waste usage charge levied for such dischargers without appropriately sized and maintained pre-treatment facilities (Ref 1, page 35).</p>
<p>14. Excess Mass Charges for Large Trade Waste Dischargers and Industrial Waste</p>	<p>A. <input type="checkbox"/> Appropriate excess mass charges apply for all such dischargers exceeding the concentration of pollutants in domestic sewage (ie. BOD 300mg/L; SS 300mg/L; Oil/Grease 50mg/L; Ammonia (as N) 35mg/L; N (as TKN) 50mg/L; P 10mg/L; TDS 1000mg/L) (Ref 1, pages 37, 97 and 98, Ref 6, pages 209 to 211).</p> <p>B. <input type="checkbox"/> Non-compliance excess mass charges to apply for dischargers which fail to meet the LWU's approval conditions (Ref 6, pages 211 and 212).</p>
<p>14. Trade Waste Discharge Factor</p>	<p><input type="checkbox"/> The volume of liquid trade waste discharged to the sewerage system may be estimated using a trade waste discharge factor times the metered water consumption (Ref 1, pages 35 and 93).</p>
<p>15. Tariff Implementation</p>	<p>A. <input type="checkbox"/> Examined impact of new tariff options on the sewerage and trade waste bills for representative customers (Ref 1, page 40).</p> <p>B. <input type="checkbox"/> Undertaken community consultation.</p> <p>C. <input type="checkbox"/> Any phasing-in of charges should be on the basis of the sewer usage charge and trade waste fees and charges in the adopted best-practice tariff (Ref 1, page 43).</p> <p>D. <input type="checkbox"/> Any large increase in non-residential sewerage customer bills phased-in over 5 years (Ref 1, page 43). Similarly, any large increases in trade waste fees and charges phased-in over a period of up to 3 years (Ref 6, page 206).</p>



Sewerage and Trade Waste Pricing – Check List

Topic	Outcomes Achieved
16. Data Management	<input type="checkbox"/> Appropriate customer data compiled including customer identifier, metered annual water consumption, water service connection size, customer category, business type, sewer discharge factor, trade waste customer category and trade waste discharge factor (Ref 1, page 52).

REFERENCES

1. *Water Supply Sewerage and Trade Waste Pricing Guidelines*, Department of Land and Water Conservation, NSW, 2002.
2. *NSW Financial Planning Model (FINMOD) – Overview of Financial Planning, How FINMOD Works, User Manual*, Department of Land and Water Conservation, NSW, 2000.
3. *2004/05 NSW Water Supply and Sewerage Performance Monitoring Report*, Department of Water and Energy/Local Government Association and Shires Association, NSW.
4. *Wise Water Management – A Demand Management Manual for Local Water Utilities*, Water Services Association of Australia, 1998.
5. *Planning Community Involvement in Water and Sewerage Projects*, Public Works, NSW, 1995.
6. *Liquid Trade Waste Management Guidelines*, Department of Energy, Utilities and Sustainability, NSW, March 2005.

NOTES

1. For further information, assistance and copies of the pricing software and reference documents, please contact Scott Chapman, Manager Best Practice on 8281 7335 or Scott.Chapman@dwe.nsw.gov.au



Section 2 - Water Supply and Sewerage Developer Charges

Developer charges have two related functions:

1. they provide a source of funding for infrastructure required for new urban development, and
2. they provide signals regarding the cost of urban development and thus encourage less costly forms and areas of development.

Local Water Utilities (LWUs) should use this check list as a road map to ensure they have addressed the necessary issues.

The main reference for the implementation of Developer Charges is Ref 1 - *Developer Charges Guidelines for Water Supply, Sewerage and Stormwater*.

This check list has been prepared to assist LWUs to quickly address the issues in developer charges for water supply and sewerage and comprises the main elements of Ref 1. It also highlights common errors in developer charges calculations and Development Servicing Plans (DSPs).

Water Supply and Sewerage Developer Charges Check List		Common Errors
Topic	Outcome Achieved	
1. Procedure	<p>LWUs:</p> <p><input type="checkbox"/> Establish whether your LWU is to prepare (Ref 1, pages 7, 8):</p> <p style="padding-left: 40px;">(a) DSP</p> <p style="padding-left: 40px;">(b) Policy document³, or</p> <p style="padding-left: 40px;">(c) Exemption document⁴.</p> <p>Note: An LWU must prepare either a DSP with commercial developer charges or an exemption document in order to comply with the <i>Best-Practice Management Guidelines</i> (refer to Note 1 on page 59).</p>	<ul style="list-style-type: none"> ▪ An LWU which does not wish to levy Developer Charges for water supply and sewerage is required to prepare a formal policy document³ or an exemption document⁴.
2. Timing	<p><input type="checkbox"/> DSP (or other documents) for water supply and sewerage need to be implemented and registered with Department of Water and Energy (Ref 1, page 7).</p>	<ul style="list-style-type: none"> ▪ Under-estimating the time required to prepare, exhibit and adopt DSPs.

³ For an LWU with growth of 5 or more lots/a. An LWU which prepares a policy document will not comply with the *Best-Practice Management Guidelines*.

⁴ For an LWU with growth of under 5 lots/a.



Water Supply and Sewerage Developer Charges Check List		Common Errors
Topic	Outcomes Achieved	
3. Service Area	<input type="checkbox"/> Determine service areas and the capital cost for each service area. A service area typically comprises the area serviced by a separate water supply distribution system, sewage treatment works, small towns/villages or a development area of >500 lots (Ref 1, page 19).	<ul style="list-style-type: none"> ▪ Too many service areas. ▪ Parts of the town are not covered by a service area.
4. The Capital Charge	<p>A. <input type="checkbox"/> Calculate the capital cost for each service area (Ref 1, page 19).</p> <p>B. <input type="checkbox"/> Include all existing or new assets required, or likely to be required to serve a development area (Ref 1, page 15).</p> <p>C. <input type="checkbox"/> Do not reduce capital cost for any government subsidy or similar payment (Ref 1, page 59).</p> <p>D. <input type="checkbox"/> Ensure capital works program is comprehensive, with sufficient infrastructure to serve the projected development (Ref 1, page 15).</p> <p>E. <input type="checkbox"/> Exclude reticulation and future renewals. Also exclude out-of-sequence development, where the full capital cost of the assets has been met by the developer (Ref 1, page 15).</p> <p>F. <input type="checkbox"/> Value existing assets on the basis of MEERA* cost (Ref 1, page 18, Ref 7).</p> <p>G. <input type="checkbox"/> Add Return on Investment (ROI) to the Capital cost, using either the ROI factor or spreadsheet approach (Ref 1, page 21).</p> <p>H. <input type="checkbox"/> LWUs must carefully estimate their future annual water demand per ET and peak day demand per ET on the basis of appropriate water supply pricing (Ref 2, page 9), demand management and recorded water consumption per connected residential property.</p> <p>I. <input type="checkbox"/> Calculate Capital Cost/Capital Charge per ET by dividing the cost of assets by the capacity (Ref 1, pages 20, 21).</p> <p>J. <input type="checkbox"/> Agglomerate service areas where the capital charge is within 30% of the highest to minimise the number of DSPs (Ref 1, Page 19).</p> <p>K. <input type="checkbox"/> Calculate the weighted average capital charge and the capital charge for each DSP area (Ref 1, pages 19, 94).</p>	<ul style="list-style-type: none"> ▪ Failure to include all assets eg. future sewage transport systems. ▪ Failure to include assets beyond 5 years, that are clearly serving development (eg. a future water treatment works). ▪ Failure to include pre-1970 water supply headworks. ▪ Failure to use 1996 as the effective year of commissioning for pre-1996 assets. ▪ Over-estimation of demand per ET. ▪ Failure to agglomerate service areas in accordance with Ref 1, page 19.

* MEERA – Modern Engineering Equivalent Replacement Asset



Water Supply and Sewerage Developer Charges Check List		Common Errors
Topic	Outcomes Achieved	
5. The Reduction Amount	<input type="checkbox"/> Select method to be used (Ref 1, page 33): <ul style="list-style-type: none"> ▪ NPV of annual charges (to be used where a robust 30-year financial plan is available), or ▪ Direct NPV, or ▪ Under 2000 assessments (small LWU, low growth). <input type="checkbox"/> Calculate one reduction amount using one of the methods only (Ref 1, page 34).	<ul style="list-style-type: none"> ▪ Choosing inappropriate method. ▪ Using more than one method.
6. The Reduction Amount: <i>NPV of Annual Charges</i>	<p>A. <input type="checkbox"/> Ensure you have at least a 30-year financial plan and capital works program (Ref 1, page 34).</p> <p>B. <input type="checkbox"/> Base operating costs on the most efficient and lowest cost means of providing the service (Ref 1, page 35).</p> <p>C. <input type="checkbox"/> Following the input of developer charges into your financial model (eg. FINMOD), alter the TRB (to reflect the new reduction amount) and copy the new revenue into the calculator spreadsheet.</p> <p>D. <input type="checkbox"/> Typically the calculation should require approximately 3 iterations. Suggested initial estimate of reduction amount: (projected TRB – Operating cost/assessment) x 10</p>	<ul style="list-style-type: none"> ▪ Financial plan incomplete, or too short ▪ Inconsistent data used in the DSP and financial plan (eg. growth projections, capital works).
7. The Reduction Amount: <i>Direct NPV</i>	<input type="checkbox"/> This method may be used in the absence of a financial plan (Ref 1, page 33). <input type="checkbox"/> Ensure you have a 30-year capital works program with new works divided into works to improve levels of service and works for growth, together with 50-year renewals program (Ref 1, page 40).	<ul style="list-style-type: none"> ▪ Inconsistent data input.
8. The Reduction Amount: <i>Under 2000 Assessments</i>	<input type="checkbox"/> Use only for LWUs with under 2000 assessments for water supply or sewerage, with low growth (Ref 1, page 46). <input type="checkbox"/> Use for LWUs with a number of tariff areas (each tariff area with under 2000 assessments – Ref 1, page 45).	<ul style="list-style-type: none"> ▪ Using this method where high growth is expected.



Water Supply and Sewerage Developer Charges Check List		Common Errors
Topic	Outcome Achieved	
9. The Developer Charge	<p>A. <input type="checkbox"/> Subtract the reduction amount from the capital charge for each DSP area to obtain the <u>maximum developer charge for the DSP</u> (Ref 1, page 47). LWUs may <u>not</u> charge higher developer charges than the maximum calculated value for each DSP area (Ref 1, page 47).</p> <p>B. <input type="checkbox"/> Adjust for areas with different OMA cost or different tariff (Ref 1, page 45).</p> <p>C. <input type="checkbox"/> Adopt a commercial developer charge based on social, financial and environmental considerations (Ref 1, page 47). Disclose any cross-subsidies in DSP, Annual Report and in communication materials for consultation with stakeholders.</p> <p>D. <input type="checkbox"/> Where lower developer charges are to be levied, consider conveying locational signals by maintaining relativity between DSPs (Ref 1, page 1).</p>	<ul style="list-style-type: none"> ▪ Adopting developer charge that is the weighted average of two or more DSP areas. This leads to some DSP areas being incorrectly charged higher than the calculated maximum developer charge. ▪ Failure to understand the full financial and social impacts of levying a lower developer charge than the calculated maximum. ▪ Failure to clearly disclose cross-subsidies.
10. Documentation	<p>A. <input type="checkbox"/> LWUs may use the Model Development Servicing Plan (Ref 1, pages 111 to 126) as the framework for their DSP. An electronic version of the model plan is available to assist LWUs (see note 2 overleaf).</p> <p>B. <input type="checkbox"/> DSP contents in accordance with the guidelines (Ref 1, page 9).</p> <p>C. <input type="checkbox"/> Background document(s) identified and referred to in the DSP (Ref 1, page 9).</p> <p>D. <input type="checkbox"/> A separate DSP is required for each DSP area, and for each of water supply and sewerage (Ref 1, page 10). LWUs may elect to bind the DSPs as one document.</p>	<ul style="list-style-type: none"> ▪ DSP lacks clarity and has insufficient information. ▪ A single DSP covers more than one DSP area or covers water supply and sewerage. ▪ Cross-subsidies not disclosed.
11. Exhibition	<p>A. <input type="checkbox"/> Exhibit for at least 30 working days (Ref 1, page 10).</p> <p>B. <input type="checkbox"/> Inform industry bodies and developers (Ref 1, page 10).</p> <p>C. <input type="checkbox"/> Consider submissions on the draft DSPs (Ref 1, page 11).</p>	<ul style="list-style-type: none"> ▪ Short exhibition period. ▪ Insufficient consideration of submissions received.



Water Supply and Sewerage Developer Charges Check List		Common Errors
Topic	Outcome Achieved	
12. Adopt DSP A. <input type="checkbox"/> LWU formally adopts DSP (Ref 1, page 10). B. <input type="checkbox"/> Foreshadow in Management Plan that Council is preparing new DSPs for water supply, sewerage and/or stormwater and that developer charges will be in accordance with the DSPs. C. <input type="checkbox"/> Register DSP with Department (Ref 1, page 10).	<ul style="list-style-type: none"> ▪ No reference in Management Plan. 	

REFERENCES

1. *Developer Charges Guidelines for Water Supply, Sewerage and Stormwater*, Department of Land and Water Conservation, NSW, 2002.
2. *Water Supply, Sewerage and Trade Waste Pricing Guidelines*, Department of Land and Water Conservation, NSW, 2002.
3. *Wise Water Management – A Demand Management Manual for Local Water Utilities*, Water Services Association Australia, 1998.
4. *2005/06 NSW Water Supply and Sewerage Performance Monitoring Report*, Department of Water and Energy/Local Government Association and Shires Association, NSW.
5. *NSW Financial Planning Model (FINMOD) – Overview of Financial Planning, How FINMOD Works, User Manual*, Department of Land and Water Conservation, NSW, 2000.
6. *Planning Community Involvement in Water and Sewerage Projects*, Public Works, NSW, 1995.
7. *NSW Reference Rates Manual for Valuation of Water Supply, Sewerage and Stormwater Assets*, Ministry of Energy and Utilities, NSW, 2003.

NOTES

1. Unless the LWU is eligible to prepare an exemption document (Item 1), achievement of Item 9C is essential for meeting the developer charges requirements in Table 1 on Page 24 (criterion 2) of the *Best-Practice Management Guidelines*.
2. For further information, assistance and copies of the reference documents, please contact Scott Chapman, Manager Best Practice on 8281 7335 or Scott.Chapman@dwe.nsw.gov.au



Blank Page



Appendix C – Water Conservation

Check List – August 2007

Best-practice water conservation and demand management are essential for efficient management of a Local Water Utility's (LWU's) water supply business and for efficient use of water resources. Cost-effective demand management measures deliver significant environmental and social benefits and help minimise customer water supply bills through lower capital and operating costs.

A permanent reduction in demand achieved through demand management serves the same purpose as an increase in supply capacity – such as building new treatment or storage facilities. LWUs have often found many demand management actions to be more cost-effective than increasing supply capacity. When demand is reduced, benefits accrue through deferral and downsizing of the capacity of new capital works and lower treatment and transfer costs.

A key part of managing demand is understanding how and when water is used. A demand management program therefore requires metering of all customers supplied, together with demand analysis.

Demand management measures that should be examined as part of a demand management program include:

- Implementation of permanent water saving measures to minimise wastage, in accordance with Item 91 (iii) of the National Water Initiative⁵
- Active intervention – appropriate retrofit, rebate and building code programs
- Water pricing reform
- Community education
- Effluent and stormwater re-use.

LWUs should also pursue active programs to identify and reduce system water loss through leakage reduction.

This check list is essentially a road map to assist LWUs to quickly implement sound demand management measures. Each LWU should also review its demand management measures every 2 years to ensure that it has an appropriate balance between demand and supply-side investment.

Water Conservation and Demand Management – Check List

Topic	Outcome Achieved
1. Demand Monitoring	<p>A. <input type="checkbox"/> Bulk water production metered and recorded on a daily basis.</p> <p>B. <input type="checkbox"/> All new free standing and multi-unit residential developments (both strata and non-strata) approved after 1 July 2004 must be separately metered.</p>

⁵ Review the effectiveness of temporary water restrictions and associated public education strategies, and assess the scope for extending low level restrictions as standard practice.



Water Conservation and Demand Management – Check List

Topic	Outcome Achieved
	<p>C. <input type="checkbox"/> All free standing residential premises must be separately metered by 1 July 2007.</p> <p>D. <input type="checkbox"/> LWUs should encourage separate metering of existing multi-unit residential developments, where cost-effective.</p> <p>E. <input type="checkbox"/> Customer water consumption billed <u>at least</u> three times a year (and preferably quarterly).</p> <p>F. <input type="checkbox"/> Customers classified in accordance with the categories defined in the latest <i>NSW Water Supply and Sewerage Performance Monitoring Report</i> and consumptions reported annually.</p> <p>G. <input type="checkbox"/> If facing augmentation of the peak day capacity of your system, monitor and record service reservoir levels on a daily basis in high demand periods.</p>
2. Demand Forecasting	<p>A. <input type="checkbox"/> Historical records corrected for influence of climate.</p> <p>B. <input type="checkbox"/> Data records screened for errors.</p> <p>C. <input type="checkbox"/> Demand forecasts prepared for each customer category as well as for leakage and unaccounted for water (UFW).</p>
3. Demand Management Planning	<p>A. <input type="checkbox"/> Examined a range of long-term demand management measures including:</p> <ul style="list-style-type: none"> - retrofit programs - rebates for water efficient appliances - rebates for rainwater tanks - rebates for garden mulch - effluent and stormwater re-use programs. <p>B. <input type="checkbox"/> Completed benefit/cost analysis of demand management measures that includes benefits from reduced capital works and lower operating costs.</p> <p>C. <input type="checkbox"/> Completed investment schedule/plan for implementing cost-effective demand management measures.</p>
4. Implementation	<p>A. <input type="checkbox"/> Subsidised and promoted at least two of the identified demand management initiatives, referred to in 3. above.</p> <p>B. <input type="checkbox"/> Examined the implementation of permanent water saving measures to minimise wastage, in accordance with Item 91 (iii) of the National Water Initiative.</p> <p>C. <input type="checkbox"/> Implemented a cost-effective leakage reduction program to reduce system water losses.</p> <p>D. <input type="checkbox"/> Ongoing customer education campaign focussing on the importance of conserving our valuable water resources.</p>



Water Conservation and Demand Management – Check List

Topic	Outcome Achieved
	E. <input type="checkbox"/> If average residential water use per property exceeds that for the median NSW utility (290 kL/a in 2002/03) by over 20%, the LWU must show progress towards achieving a reduction in average residential use by 1 July 2007.
	F. <input type="checkbox"/> Monitoring program for reviewing the effectiveness of the implemented demand management measures.

REFERENCES

1. *2005/06 NSW Water Supply and Sewerage Performance Monitoring Report*, Department of Water and Energy/Local Government Association and Shires Association, NSW.
2. *Water Demand Trend Tracking & Climate Correction – User manual*, Department of Land and Water Conservation, NSW, 2002.
3. *Demand Management Decision Support System – User Manual*, Department of Land and Water Conservation, NSW, 2002.

For further information, assistance and copies of the reference documents, please contact George Freeman, Manager Integrated Water Cycle Management on 8281 7341 or George.Freeman@dwe.nsw.gov.au



Blank Page



Appendix D - Drought Management

Check List – August 2007

A comprehensive drought management plan details the demand and supply issues to be addressed during drought conditions and includes adoption of a schedule of trigger points for the timely implementation of appropriate water restrictions. Appropriate drought management planning will ensure that town water supplies with significant storage do not fail in times of drought.

Drought management planning includes documenting basic data on water demands, rainfall, evaporation, records of past droughts, the existing water supply system, and its water resources, and strategies to achieve the objective of having sufficient water to satisfy the basic needs of the community.

This check list is essentially a road map to assist LWUs to quickly implement sound drought management planning. LWUs should have a sound drought management plan in place and be ready to implement their plan when drought conditions arise.

Drought Management – Check List

Topic	Outcome Achieved
1. Executive Summary	<input type="checkbox"/> Covers all major issues, objectives, planning, strategies and monitoring for existing essential supplies of water to the service area(s). <input type="checkbox"/> Includes a summary of the drought management plan and an adopted schedule of trigger points for timely implementation of appropriate water restrictions.
2. Background	A. <input type="checkbox"/> Includes the existing water supply system(s) in the service area(s) and a locality map. B. <input type="checkbox"/> Includes history of past droughts. C. <input type="checkbox"/> Includes information on the impact of past droughts on water services, eg. restrictions, effect of restrictions on demands, any emergency sources identified, etc.
3. Objectives	A. <input type="checkbox"/> Identifies key objectives required to maintain a basic/restricted supply to all users. There is a need to consider social and environmental impacts. B. <input type="checkbox"/> Tailor strategies relevant to the service areas. C. <input type="checkbox"/> Endorse and implement a plan that minimises the risk of the community running out of water.



Drought Management – Check List

Topic	Outcome Achieved
4. Data	<p>A. <input type="checkbox"/> Identification of all communities served by the LWU's reticulated water supply, those with private reticulated water services and those with no reticulated water services within the service area(s).</p> <p>B. <input type="checkbox"/> Identification of any properties, businesses, other LWUs etc. that may seek water in times of drought.</p> <p>C. <input type="checkbox"/> Identification of all water requirements. Identify the normal and minimum potable and non-potable water requirements.</p> <p>D. <input type="checkbox"/> Identify water dependent industry/businesses, any fire fighting requirements and opportunities for recycled water use.</p> <p>E. <input type="checkbox"/> Includes a description and plan of all water supply schemes in the service area(s).</p> <p>F. <input type="checkbox"/> Includes height/storage volume and height/surface area graphs for all water supply dams and weirs.</p> <p>G. <input type="checkbox"/> Historical performance of rivers, dams, weirs and bores in previous droughts.</p> <p>H. <input type="checkbox"/> Includes the average rainfall figures and evaporation rates.</p>
<p>Note: All data to be specified on a daily basis.</p>	
5. Plan	<p>A. <input type="checkbox"/> Demand management options.</p> <p>B. <input type="checkbox"/> Restriction strategies including means and methods for the enforcement of restrictions and the expected results of imposing restrictions.</p> <p>C. <input type="checkbox"/> Adopted schedule of trigger points for the timely implementation of appropriate water restrictions in order to minimise the risk of failure in times of drought.</p> <p>D. <input type="checkbox"/> Availability of alternative water sources (including estimated costs and times to implement).</p> <p>E. <input type="checkbox"/> Water cartage options.</p> <p>F. <input type="checkbox"/> Identify legislation, local laws and council policies affecting the contingency arrangements.</p> <p>G. <input type="checkbox"/> Links to water sharing plans/committees, water management plans/committees, irrigators, etc.</p>



Drought Management – Check List

Topic	Outcome Achieved
	<p>H. <input type="checkbox"/> Impact of extraction on downstream stakeholders.</p> <p>I. <input type="checkbox"/> Impact of reduced flows in watercourses.</p> <p>J. <input type="checkbox"/> Level of prediction and intervention.</p> <p>K. <input type="checkbox"/> Identify human resource requirements.</p>
6. Monitoring During Drought	<p>A. <input type="checkbox"/> Daily monitoring of demands.</p> <p>B. <input type="checkbox"/> Daily monitoring of water supply sources (dams, bores and streams).</p> <p>C. <input type="checkbox"/> Monitoring impact of restrictions on consumption</p> <p>D. <input type="checkbox"/> Monitoring the electrical conductivity, alkalinity and algae levels in the water sources.</p>
7. Consultation	<p><input type="checkbox"/> Comprehensive media strategy and public consultation.</p> <p><input type="checkbox"/> Regular consultation with appropriate government agencies (DWE, DECC, NSW Health etc).</p>
8. Operation of Drought Management Plan (DMP)	<p>A. <input type="checkbox"/> DMP should discuss, analyse and identify any impact on other regions and localities ie. upstream, downstream or conjunctive water users.</p> <p>B. <input type="checkbox"/> DMP should demonstrate a sustainable strategy that considers all other stakeholders.</p> <p>C. <input type="checkbox"/> DMP documents an agreed procedure for progressive implementation of water restrictions.</p>

REFERENCE

Drought Management Guidelines, NSW Local Government Water Directorate, December 2003.

For further information and assistance, please contact Stephen Palmer, Manager Planning on 8281 7331 or Stephen.Palmer@dwe.nsw.gov.au



Blank Page



Appendix E - Water Supply and Sewerage Performance Reporting

Check List – August 2007

Performance reporting and monitoring provide valuable data for enabling each Local Water Utility (LWU) to review and improve its performance. By examining trends in its performance indicators and benchmarking its performance against other similar utilities, an LWU can identify and rectify any areas of under-performance.

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.

Annual performance reporting and monitoring are required under National Competition Policy and the National Water Initiative, are important for public accountability and have been strongly endorsed by the NSW Government, the Independent Pricing and Regulatory Tribunal, the Local Government Association and the Shires Association.

This check list is essentially a road map to assist LWUs to quickly address the issues in their annual water supply and sewerage performance reporting and comprises the main elements of Reference 1 on page 72. It also highlights common errors in the preparation of these reports.

To achieve the required outcome for Water Supply and Sewerage reporting, LWUs must provide their completed annual water supply and sewerage performance reports and a draft of Special Schedules 3 to 6 and Notes 2 and 3 of their Special Purpose Financial Reports to the Department of Water and Energy by 15 September each year.

Water Supply and Sewerage Performance Reporting - Check List

Topic	Activity	Common Errors
1. Population (Q1)	<input type="checkbox"/> Population Served (Q1a)	<ul style="list-style-type: none"> Population is generally not well reported by LWUs. It is often inconsistent from year to year and does not correlate well with the number of assessments and the number of connected properties.
2. Assessments (Q4)	<input type="checkbox"/> Assessments (Q4)	<ul style="list-style-type: none"> Consider this element carefully as it is a key parameter which forms the basis for many performance indicators.
3. Assets Employed (Q8 to Q11)	<input type="checkbox"/> Length of Mains (Q10)	
4. Sewage Collected (Sewerage Report Q12 to Q13)	<input type="checkbox"/> Volumes of Sewage Collected (Q12)	<ul style="list-style-type: none"> LWUs should provide a breakdown of volumes of sewage collected, particularly the residential and non-residential components.



Water Supply and Sewerage Performance Reporting - Check List

Topic	Activity	Common Errors
5. Water Consumption and Water Resources (Water Report Q12 to Q17)	<input type="checkbox"/> Annual Consumption and Water Losses (Q12)	<ul style="list-style-type: none"> ▪ LWUs should provide a breakdown of potable water consumption for each category of water use. ▪ The sum of Q12a to Q12h should equal Q12i. System water loss (Q12k) is part of Q12h. LWUs should identify the fate of all water produced as shown in Figure 5.1 on page 71.
6. Drinking Water Quality (Water Report Q42)	<input type="checkbox"/> Compliance with 2004 Australian Drinking Water Guidelines (ADWG)	<ul style="list-style-type: none"> ▪ In addition to reporting the required results, this involves compliance with the NSW Health Drinking Water Monitoring Program, including collecting the required number of samples and investigating and appropriately responding to any non-compliance.
7. Special Schedules Nos 3 and 5 of Annual Financial Statements	<input type="checkbox"/> Financial Data	<ul style="list-style-type: none"> ▪ LWUs should ensure they report the breakdown of revenue into residential and non-residential (Items 6 and 7 respectively). ▪ LWUs should be careful to exclude administration and engineering costs associated with the development of capital works projects from the LWU's management expenses reported in Item A1 of the Special Schedule Nos 3 and 5.
8. 2-page Performance Reports	<input type="checkbox"/> Review your LWU's latest 2-page TBL Performance Report and provide an Action Plan to Council. The Action Plan is to address any areas of under performance identified in the 2-page Reports which are provided to Council for each of water supply and sewerage (refer to example in page 47 of Ref 1). <input type="checkbox"/> Action Plan to include the key actions in LWU's Strategic Business Plan that are to be completed in the next financial year.	



Water Supply and Sewerage Performance Reporting - Check List

Topic	Activity	Common Errors
9. Auditing of Indicators	<input type="checkbox"/> LWUs with over 10,000 connected properties to arrange auditing of their core performance indicators in accordance with the auditing requirements of the National Performance Framework (Ref 2 and Ref 3). Audit of the 2006/07 data is required.	

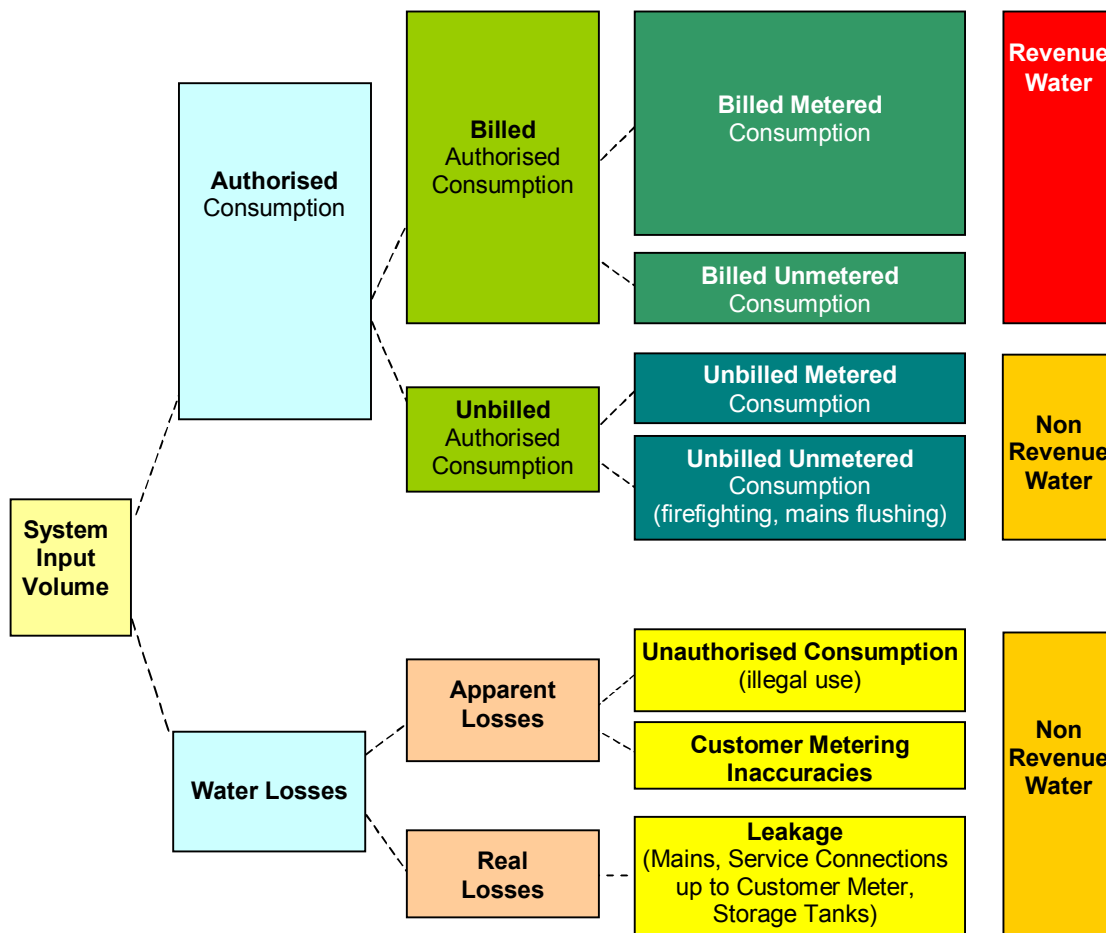


Figure 5.1 – Full Water Balance

Note that the International Water Association now defines unbilled, unmetered consumption (firefighting, mains flushing etc.) as authorised consumption and not as a water loss as previously defined (see Ref 4 overleaf).



REFERENCES

1. *2005/06 NSW Water Supply and Sewerage Performance Monitoring Report*, Department of Water and Energy and Local Government Association and Shires Association, NSW. An electronic copy of this report is available from the Department's website (www.deus.nsw.gov.au/water)
2. *National Performance Framework – 2006-07 Urban Performance Reporting Indicators and Definitions*, National Water Commission/Water Services Association of Australia, May 2007.
3. *National Performance Framework – Auditing Requirements*, National Water Commission, November 2006.
4. *Losses from Water Supply Systems: Standard Terminology and Recommended Performance Measures*, International Water Association, October 2000.

NOTES

1. Achievement of Items 8 and 9 are essential for meeting the performance reporting requirements in Table 1 on page 26 (criterion 5) of the *Best-Practice Management Guidelines*.
2. For further information, assistance and copies of the reference documents, please contact Graham Whyte, Manager Performance Reporting on 8281 7432 or Graham.Whyte@dwe.nsw.gov.au



Appendix F - Integrated Water Cycle Management

Check List – August 2007

Integrated Water Cycle Management (IWCM) is a means for Local Water Utilities (LWUs) to manage their water systems to maximize benefits. It involves the integration of the LWU's three main services – water supply, sewerage and stormwater – so that water is used optimally. It also involves the integration with other services (eg. roads and drainage and waste collection) and with various external requirements, particularly the NSW Water Reforms.

IWCM Strategies should be prepared in accordance with the guideline document *Integrated Water Cycle Management for NSW Water Utilities*, Department of Energy, Utilities and Sustainability, October 2004, or as updated.

This check list comprises the main activities that need to be included in the IWCM process.

Integrated Water Cycle Management – Check List

Topic	Outcome Achieved
1. Minimum of a 30 year planning period	<input type="checkbox"/> Includes regional planning strategies for development, water sharing and resource planning. <input type="checkbox"/> Adequate consideration of long term aspect of service provision including: funding, population projection, demographics, new development release areas, capital works needs for growth, improved levels of service and renewals.
2. Integrated assessment of all urban water services, ie. water supply, sewerage and stormwater	<input type="checkbox"/> Effective integration of solutions across the urban water service to optimise benefits. <input type="checkbox"/> Integrated planning within Council / LWU areas of operations.
3. Listing of all requirements and obligations for the LWU	<input type="checkbox"/> Clear description of all requirements for the LWU including: <ul style="list-style-type: none"> ▪ Legislative (health requirements, OH&S) ▪ Licences (extraction and discharge) ▪ Levels of service (agreements with customers) ▪ Legal (contractual) ▪ Best-practice management (ie. the other 5 criteria)



Integrated Water Cycle Management – Check List

Topic	Outcome Achieved
4. Information collection across catchment, water resources, urban water services and water industry	<input type="checkbox"/> Comprehensive list of all relevant and available information and data. <input type="checkbox"/> Identification of issues and any data gaps. <input type="checkbox"/> Comparison of LWU against others (using DWE Best Practice requirements and Performance Reports).
5. Issue description	<input type="checkbox"/> Accurate and comprehensive listing of all existing and foreseen issues relevant to the LWU. <input type="checkbox"/> Definition of issues using data or information which confirms failures to meet requirements and obligations. <input type="checkbox"/> Signoff from DWE of draft list of IWCM issues.
6. Stakeholder consultation	<input type="checkbox"/> Discussion, including issue identification and solution development with: <ul style="list-style-type: none"> ▪ Relevant water users ▪ Customers ▪ Consent authorities (eg. DECC, DWE) ▪ Government agencies (eg. Health, DWE) ▪ Community
7. Integrated solution	<input type="checkbox"/> Integrated solution of identified issues across all urban water services. <input type="checkbox"/> Increased sustainability and cost effectiveness. <input type="checkbox"/> Full scenario development only where warranted ^{1,2} . <input type="checkbox"/> Clear identification of assumptions.
8. Implementation process	<input type="checkbox"/> Formal adoption by LWU. <input type="checkbox"/> Inclusion in Council's planning process, policies and budgets.
9. Monitoring and review at least each 6 years	<input type="checkbox"/> Clear timeframe for agreed actions and review and updating the IWCM Evaluation or IWCM Strategy within 6 years. <input type="checkbox"/> Clear monitoring process.



Integrated Water Cycle Management – Check List

Topic	Outcome Achieved
10. DWE signoff	<input type="checkbox"/> Achievement of Government objectives on water reforms and water industry reforms. <input type="checkbox"/> Economies of scale across the state.

NOTES

1. Where an LWU requires little capital works over the next 10 years, full scenario development is not warranted. Such an LWU is required to complete an IWCM Evaluation by June 2007.
2. Where an LWU requires significant capital works over the next 10 years, full scenario development is required. Such an LWU is required to complete an IWCM Strategy by June 2008. The LWU is also required to implement IWCM in accordance with its Strategy by June 2008.
3. For further information, assistance and copies of the reference document, please contact George Freeman, Manager Integrated Water Cycle Management on 8281 7341 or George.Freeman@dwe.nsw.gov.au



Blank Page