FIFTH ANNUAL REPORT TO THE NATIONAL COMPETITION COUNCIL

VOLUME TWO: WATER

1. EXECUTIVE SUMMARY

1. The Year 2000 was a landmark year in the implementation of water reforms in Queensland. A number of very major milestones have now been achieved in the Queensland water industry.

2. On 13 September 2000, the *Water Act 2000* was enacted. The *Water Act 2000* represents the most fundamental change in water laws in Queensland since the early 1900s. The *Water Act 2000* provides a framework for the allocation, management and regulation of the State's water resources, including overland flows. The *Water Act 2000* provides the legislative framework for the separation of water entitlements from land title, provides formal recognition of water for the environment and provides a legislative basis for the permanent transfer of water allocations.

   The *Water Act 2000* also provides a formal regulatory framework to ensure the ongoing continuity of water supply by the State's water service providers, with all water service providers subject to a new asset management, dam safety and customer standards of service framework.

   The Act also provides new corporate governance arrangements for Queensland's rural water boards and urban water boards constituted as State statutory authorities.

3. On 1 October 2000, SunWater (formerly a commercialised arm of the Department of Natural Resources and Mines, State Water Projects) was corporatised. SunWater is the largest water service provider, by volume in Queensland, providing nearly 50% of all water consumed in the State. SunWater has a Board of Directors and a commercial mandate, and has been developing a system of customer councils for the schemes throughout Queensland.

4. On 17 March 2000 the South East Queensland Water Company Limited (trading as SEQWater) purchased the South East Queensland Water Board. SEQWater is a Corporations Law Company jointly owned by the State and twelve South East Queensland Local Governments. SEQWater has a commercial charter to provide bulk water to the South East Queensland Region.

5. On 1 October 2000, the Gladstone Area Water Board and Mount Isa Water Board were commercialised as Category 1 Water Authorities under the Water Act 2000. Both Boards have a commercial mandate to improve the operation of their businesses to ensure long term financial sustainability. Commercialisation arrangements were implemented in close consultation with affected local governments.

6. On 1 October 2000, 5-year rural water price paths were implemented for State owned irrigation schemes, to ensure irrigation water prices in Queensland are consistent with the ongoing financial viability of the rural water industry. The rural water price paths were developed after an extensive benchmarking process and based on efficient costs of service provision. The price paths also take account of the particular circumstances facing industries and regions.

7. In September 2000, the Queensland Government released *Guidelines for Financial and Economic Assessment of New Water Infrastructure in Queensland*. These guidelines clearly outlined the Queensland Government's policy framework for the development of new water infrastructure where economically viable. The guidelines also signal the intention of the Queensland Government to develop new water supply infrastructure under competitive arrangements, where practical.

8. During 2000, Water Resource Plans (WRPs) were finalised for Cooper Creek, the Burnett Basin and Boyne Basin. In addition, draft WRPs were released for the Condamine-Balonne, Moonie and Warrego/Paroo/Bulloo/Nebine catchments. The development of draft Plans in the Barron, Pioneer, Logan and Border Rivers catchments was progressed. The collection of hydrological information for future WRPs is ongoing. Resource Operations Plans are currently being drafted for the Fitzroy Basin and Boyne River.

9. In September 2000, declaration and referral of the Gladstone Area Water Board for monopoly prices oversight occurred and a prices oversight investigation by the Queensland Competition Authority (QCA) commenced. Declaration of SunWater, the Mount Isa Water Board and Queensland's largest 18 local government water service providers is being progressed and is anticipated to be completed by mid 2001.

10. In February 2001, the Queensland Competition Authority submitted its annual progress report to the Queensland Government outlining the progress of reform by local governments. The QCA's report indicates "Notable progress continues to be made on COAG water reforms. … Most large councils are well advanced in their implementation of consumption based charging using two part tariffs, full cost pricing and in the identification and pricing of CSOs".

11. In addition, numerous local governments outside the largest 18 local governments have completed two part tariff assessment reports, with a further 12 local governments indicating they will implement two part tariff reforms. A further 17 local governments have resolved to implemented or have already implemented full cost pricing arrangements.

2.0 WATER PRICING AND COST RECOVERY

2.1 Water Pricing and Cost Recovery – Local Government

COAG Water Resource Policy requirements

3(a) In general

(i) to the adoption of pricing regimes based on the principles of consumption-based pricing, full-cost recovery and desirably the removal of cross-subsidies which are not consistent with efficient and effective service, use and provision. Where cross-subsidies continue to exist, they be made transparent,

> *Queensland, South Australia and Tasmania endorsed these pricing principles but have concerns on the detail of the recommendations;*

(ii) that where service providers are required to provide water services to classes of customer at less than full cost, the cost of this be fully disclosed and ideally be paid to the service deliverer as a community service obligation.

3(b) Urban water services

(i) to the adoption by no later than 1998 of charging arrangements for water services comprising an access or connection component together with an additional component or components to reflect usage where this is cost-effective.

(ii) in order to assist jurisdictions to adopt the aforementioned pricing arrangements, an expert group, on which all jurisdictions are to be represented, report to COAG at its first meeting in 1995 on asset valuation methods and cost recovery definitions; and

(iii) that supplying organisations, where they are publicly owned, aim to earn a real rate of return on the written-down replacement cost of their assets, commensurate with the equity arrangements for their public ownership.

2.1.1 Overall Approach

The Queensland Government made amendments to the *Local Government Act 1993* in 1996 and 1997 to outline a framework for the implementation of competitive neutrality reforms and COAG water reforms by Queensland local governments. The *Local Government Act 1993* outlines a three-tiered approach to NCP reform implementation by defining Type 1 and Type 2 and other councils. Type 1 and Type 2 councils collectively account for 80% of current expenditure on water and sewerage in Queensland. The remaining councils account for 20% of current expenditure on water and sewerage.

The expenditure thresholds to identify Type 1 and Type 2 business activities were carefully considered to capture the majority of the Queensland population and water businesses and to give the maximum reform benefits given the nature (size, scope and function) of local government in Queensland. Further, the Type 1 and Type 2 activities include an expenditure threshold to catch water and sewerage operations as they increase in size over time.

The *Local Government Act 1993* requires local governments with Type 1 and Type 2 water and sewerage businesses to complete public benefit assessments regarding the implementation of full cost pricing and two part-tariffs and make resolutions regarding the recommendations of these assessments. The remaining 107 local governments are not legislatively required to complete these assessments, although the adoption of COAG water pricing and tariff reforms is strongly encouraged through the voluntary Code of Conduct and the *Local Government NCP Financial Incentive Package*. Completion of assessments is also supported through substantial training and assistance provided to councils by the Queensland Government and Local Government Association of Queensland.

This approach for the introduction of water reforms in Queensland has been established since early 1997 and builds on the competitive neutrality policy approach outlined in the policy statement *National Competition Policy and Local Government (1996)*. In Queensland's discussion paper *COAG Urban Water Resource Policy Reform, February 1997,* the policy position proposed involved Type 1 and Type 2 (the then *big 17*) local governments to be required to consider the implementation of COAG water reforms. It also indicated all other local governments would be encouraged to adopt the reforms and thereby be given the opportunity to share in the competition payments made to the State Government.

The Queensland Government committed $150 million of its total $756 million in Competition Payments (in 1994-95 prices) as an incentive package for local government to implement NCP reforms. The financial incentive package, combined with the annual NCP assessment process by the Queensland Competition Authority (QCA) (in a similar manner to the assessment process by the NCC), reflects the commitment of the Queensland Government to encourage reform by local government. Further, the provision of the financial assistance to local governments is to be paid over five years, rather than nine years as is the case with the State's Competition Payments, to encourage the adoption of the water reforms by the 107 local governments over a short timeframe.

The task of assessing whether local governments have achieved a satisfactory level of reform has been delegated to the QCA. The QCA undertakes an independent and objective annual assessment of local government performance in implementing all NCP reforms, including COAG Water Reforms.

The Queensland Government is firmly of the view adoption of the COAG Water cost reforms and pricing by local governments should be a decision of individual local governments, taking account of the circumstances of their own communities and only where implementation of the reforms has a clear public benefit.

2.1.2 Application by *"Big 18"* Local Government Water and Sewerage Businesses

Local government water reforms in Queensland have concentrated on the big 18 local government water service businesses as revenue from the big 18 local governments' water supply and sewerage services equates to approximately 85% of total annual revenue from local government water activities and 80% of water connections in Queensland.

The *big 18* local governments have made significant progress in the implementation of two part tariffs and full cost pricing. The QCA's February 2001 *Local Government NCP Financial Incentive Payments Scheme Report* notes for COAG Water:

> *"Notable progress continues to be made on COAG water reforms. ... Most large councils are well advanced in their implementation of consumption based charging using two part tariffs, full cost pricing and in the identification and pricing of CSOs".*

13 of the *big 18* local governments in Queensland have implemented two part tariffs. The Mackay City Council had resolved to implement two part tariffs on 1 July 2000, although this date has been delayed to March 2001. Collectively these 13 local governments account for 70% of total water connections in Queensland.

The Townsville City Council, Pine Rivers Shire Council and Rockhampton City Council have all undertaken to complete a further assessment of two part tariff prior to 30 June 2001. The Queensland Government will advise the NCC of the results of these assessments when the assessments are concluded.

The Bundaberg City Council has completed a two part tariff assessment but is yet to make a resolution on implementation of the recommendations of the report. A new assessment is currently being undertaken.

The tariff structures of all *big 18* local governments are included as Attachment 1.

Thirteen of the *big 18* local governments have implemented commercialisation (which is a higher level of competitive neutrality reform than full cost pricing), and the five remaining local governments have implemented full cost pricing. The pricing requirements of commercialisation and full cost pricing under the *Local Government Finance Standard 1994* equate to the ARMCANZ Upper Bound[1].

Local Government Finance Standard 1994 – Full Cost Pricing

Full cost pricing – councils must ensure the projected total revenue from carrying on the activity is enough to cover the projected total costs of carrying on the activity for the council's financial year. This means all relevant costs must be appropriately identified and prices set in a manner which covers all of these costs.

Asset valuation – non-current assets must be valued at deprival value by 30 June 1999.

Asset consumption – depreciation of an asset used in carrying on an activity must be based on the deprival value of the asset allocated over its useful life. Nonetheless a local government may decide not to base depreciation of an asset on its deprival value allocated over its useful life, but to use an amount decided by the local government to be appropriate in the circumstances (eg. consumption based depreciation, renewals annuity).

[1] The Agricultural and Resource Management Council of Australian and New Zealand. (ARMCANZ) Upper Bound prices are defined as the recovery of not more than the operational, maintenance and administration coats, externalities, taxes or (tax equivalents) TERs, provision of asset consumption and cost of capital, the latter being calculated by Weighted Average Cost of Capital (WACC). (Externalities are defined as attributable and incurred environmental and resource management costs).

The ARMCANZ Lower Bound prices are defined as not less than the operational, maintenance and administrative costs, externalities, taxes or tax equivalents (TERs), actual interest costs, dividends (if any) and make provision for future asset refurbishment/replacement. Dividends should be set to a level which reflects commercial realities and simulates a competitive market outcome.

Rates of return – a return on capital comparable to a private sector entity carrying on a similar activity must be included in pricing.

Debt – local governments must have regard to the split between equity and loan capital and the return appropriate on each. This includes consideration on an appropriate debt neutrality fee.

Taxation – taxes which would be payable if the business was not carried out by a local government should be accounted for by an amount equivalent to the tax.

Further information regarding application of full cost pricing is provided in *Full Cost Pricing in Queensland Local Government- A Practical Guide and Technical Appendices* (April 2000).

The *Water Act 2000* requires all water service providers who operate bulk infrastructure eg. dams, to comply with a Resource Operations Licence (ROL) which will outline, amongst other things, the environmental requirements associated with the operation of bulk infrastructure. The costs of complying with the operational requirement of the ROL are to be met by the water service providers (and hence included as a cost item in water prices). Prior to the implementation of Water Resource Plans, Interim Resource Operations Licences (IROLs) are being allocated to water service providers.

The QCA's Report indicates the Authority is largely satisfied with the progress made by the *big 18* local governments on full cost pricing. Financial information for the *big 18* local governments is included in Attachment 2.

Under the *Local Government Act 1993* the *big 18* local governments are required to cost and identify community service obligations (CSOs). CSOs must be funded in a transparent manner. Details are included in Attachment 3.

Under the *Local Government Act 1993* the *big 18* local governments were required to identify cross-subsidies from 30 June 2000. *Guidelines for Identification and Measurement of Cross Subsidies (1997)* provide the basis for identification of cross-subsidies. Cross-subsidies for the *big 18* local governments are included in Attachment 4.

2.1.3 Application by Local Governments Outside the "Big 18"

Queensland Approach

All local governments outside the *big 18* local governments have been encouraged to adopt water reforms (the Code of Competitive Conduct (full cost pricing) and the implementation of two part tariffs) via access to the *Financial Incentive Package*. Nonetheless, the decision to undertake reviews of these reform options is voluntary, rather than mandatory, unlike for the *big 18* where the requirement to complete reviews is mandatory.

Local governments outside the *big 18* local governments are not required to consider the application of competitive neutrality reforms as they are not considered to be significant business activities, as defined by the policy statement *National Competition Policy and Local*

Government (1996). For this reason, when considering the ARMCANZ pricing principles, the competitive neutrality elements of pricing (eg. TER liabilities and debt neutrality costs) will be equal to zero.

All information provided in this report regarding local governments outside the *big 18* is to demonstrate the commitment of individual councils to consider improvements to the operation of their own water and sewerage businesses. It does not indicate support by the Queensland Government for the position the NCC has taken on local governments outside the *big 18*.

Local Governments with water connections greater than 5000

Ten local governments in Queensland have water connections greater than 5000 but are not included in the *big 18*.

In relation to the two part tariffs arrangements for these local governments: -

- Warwick already has two part tariffs;
- Beaudesert, Burdekin, Livingstone and Redcliffe are working on an implementation date for two part tariffs of 1 July 2001;
- Cooloola and Johnstone have resolved to undertake a fresh two part tariff review;
- Gladstone has resolved to implement two part tariffs on 1 July 2002; and
- Maryborough and Mount Isa undertook a two part tariff assessment, although the assessment showed the implementation of two part tariffs would not be cost effective.

Information regarding the tariff structures for these local governments is outlined in Attachment 5.

In relation to full cost pricing for these ten local governments:-

- Mount Isa implemented full cost pricing on 1 July 2000, and Warwick is phasing in the implementation of full cost pricing;
- Beaudesert and Livingstone will implement full cost pricing by 1 July 2001;
- Redcliffe is completing a fresh assessment of the application of full cost pricing;
- Gladstone, Maryborough and Johnstone have resolved not to implement full cost pricing; and
- Burdekin and Cooloola have yet to make a decision regarding the application of full cost pricing.

Information regarding the cost recovery positions for each of these local governments is outlined in Attachment 6. Current pricing arrangements for these local governments approximates to the ARMCANZ Lower Bound for Pricing.

Local Governments with water connections greater than 1000

Of the 42 councils with 1,000 to 5,000 water connections:-

- 16 local governments already have a two part tariff in place;
- 19 local governments undertook a two part tariff assessment, of which:-

  - 6 have indicated they will implement two part tariffs;
  - 3 are undertaking further investigations regarding the implementation of two part tariffs;
  - 7 local governments found the implementation of two part tariffs would not be cost effective;
  - 3 resolved not to implement two part tariffs; and
- 7 local governments will continue with their current arrangements.

Information regarding the tariff structures for the above local governments is outlined in Attachment 7.

In respect of full cost pricing:-

- 2 local governments have already implemented full cost pricing;
- 11 have resolved to implement full cost pricing/full cost recovery, using a phased-in approach in some cases;
- 7 local governments are currently reviewing the implementation of full cost pricing;
- 3 local governments are considering the implementation of full cost pricing for 2002-03
- 13 have yet to make a decision regarding full cost pricing; and
- 7 have decided to remain under their existing arrangements.

A survey of these local governments undertaken by the Department of Local Government and Planning indicated many local governments, while not formally resolving to implement the Code of Competitive Conduct, already have the following elements of full cost pricing in their current pricing arrangements:-

- identification and recovery of indirect and direct costs;
- allocation of administrative and overhead costs;
- valuation and depreciation of assets on written down replacement cost;
- a rate of return on capital; and
- some identification of community service obligations.

Information regarding the cost recovery positions for each of these local governments is outlined in Attachment 8. Current pricing arrangements for these local governments approximates to the ARMCANZ Lower Bound for Pricing.

2.1.4 Other information

The Queensland Government provides a subsidy to alleviate the impact of local government rates and charges on pensioners. The subsidy is paid by the Queensland Government to the local government to be passed on to approved pensioner ratepayers.

The rebate for each approved pensioner is 20% of the gross rates and charges up to a maximum of $180 per annum. The bulk of the rebate is towards local government rates, while pensioners whose total charges are less than $900 per annum also receive a rebate towards their water and sewerage charges. The total expenditure for the State subsidy under the scheme in 1999/2000 was $38.267M.

The Queensland Government, through the Department of Local Government and Planning provides funds to local governments under the Local Governing Bodies' Capital Works Subsidy Scheme in the form of direct subsidy payments for approved capital works. A standard percentage rate of subsidy is paid on the capital cost of the following works undertaken by local governments:-

- water supply (source of supply and treatment) 40%;
- sewerage or Common Effluent Drainage (CED) (treatment and post treatment disposal) 40%;
- wastewater re-use (post treatment costs) 50% (although this is not to subsidise re-use for private or commercial gain);
- public toilets and amenity blocks 20%;
- swimming pools 10%; and
- flood mitigation 20%.

The stated aim of the Local Governing Bodies Capital Works Subsidy Scheme is to provide appropriate assistance towards the establishment and extension of public works in all areas of the State. Other objectives include to:-

- provide financial assistance to bodies in a fair and equitable manner to secure capital infrastructure necessary for the welfare of the community and economic development;
- provide assistance to bodies towards upgrading water supply and sewerage infrastructure to meet higher environmental standards;
- encourage the beneficial re-use of wastewaters;
- provide a greater incentive for councils to construct new water and sewerage infrastructure, while keeping payment required from ratepayers to a minimum; and
- allow for greater local employment opportunities, while providing a service to people using high standards of environmental protection.

Funds under the subsidy scheme are available on a competitively neutral basis for all providers (local government or otherwise) which provide water or wastewater services for urban areas. For a non-local government service provider to qualify for funds from the subsidy scheme the provider must demonstrate the service is to be used for an urban areas (or a percentage is to be used in an urban area) and have a long term contract for the supply of services with the relevant local government.

Since 1996, much of the 40% subsidy has been allocated to assist local governments facing large capital expenditure to upgrade existing sewerage treatment facilities to meet nitrogen phosphorous removal standards under the *Environmental Protection (Water) Policy 1997*. Reducing nitrogen phosphorus levels in treated effluent is particularly an issue for local governments along the Queensland coastline, as many impact on the Great Barrier Reef.

Since 1996-97, $104.89M has been paid from the 40% water and sewerage subsidy, and $9.46M from the 50% re-use subsidy. The current subsidy scheme is due to expire in 2005-06.

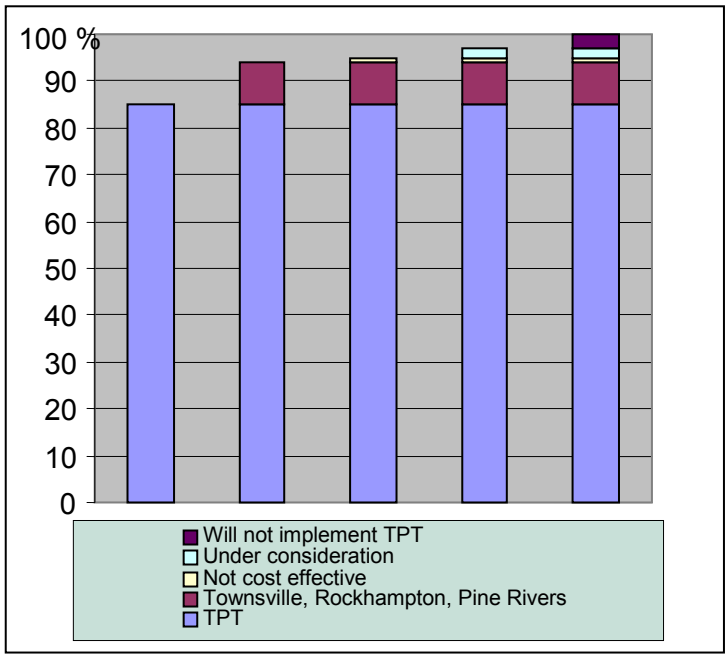
2.1.5 Summary

The *big 18* have made good progress in the application of COAG water reforms, particularly in the areas of full cost pricing, two part tariffs (4 local governments have to complete a send two part tariff report) and the identification of community service obligations.

In relation to two part tariffs, for all local governments with water connections greater than 1000, including the *big 18*:

- by 1 July 2001, 86% of water connections will either be charging for water on the basis of a two part tariff or will have found the implementation of two part tariff is not cost effective;
- Townsville, Pine Rivers, Rockhampton and Bundaberg account for 9% of water connections in the State and are still to advise as to the way in which tariffs will be implemented;
- a further 2% of water connections are receiving further consideration of two part tariffs;
- 3% of water connections will not have a two part tariff applied.

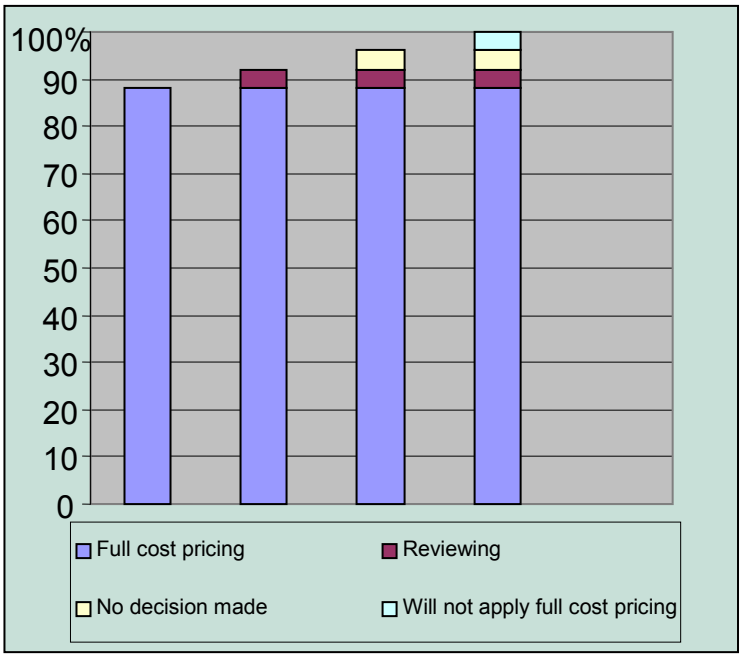
Figure: Two part tariff implementation as a percentage of water connections



In relation to full cost pricing for all local governments with water connections greater than 1000, including the *big 18*:

- by 1 July 2001, 88% of water connections will be operating under full cost pricing arrangements, or have council resolutions to implement full cost pricing on a phased in basis;
- 4% of water connections are being reviewed for full cost pricing;
- 4% of water connections have had no decision made to date;
- 4% of water connections will not have full cost pricing applied.

Figure: Two part tariff implementation as a percentage of water connections



2.2 Water Pricing and Cost Recovery – Urban Water Boards

COAG Water Resource Policy requirements

3(a) In general

(i) to the adoption of pricing regimes based on the principles of consumption-based pricing, full-cost recovery and desirably the removal of cross-subsidies which are not consistent with efficient and effective service, use and provision. Where cross-subsidies continue to exist, they be made transparent,

> *Queensland, South Australia and Tasmania endorsed these pricing principles but have concerns on the detail of the recommendations;*

(ii) that where service providers are required to provide water services to classes of customer at less than full cost, the cost of this be fully disclosed and ideally be paid to the service deliverer as a community service obligation.

3(c) Metropolitan Bulk Water Suppliers

(i) to charging on a volumetric basis to recover all costs and earn a positive real rate of return on the written-down replacement cost of assets.

2.2.1 Full Cost Pricing

Queensland has four urban water boards, the South East Queensland Water Corporation (SEQWater, formerly the South East Queensland Water Board), the Gladstone Area Water Board (GAWB), the Townsville-Thuringowa Water Supply Board (TTWSB), and the Mount Isa Water Board (MIWB).

SEQWater is a *Corporations Law* company. SEQWater acquired the South East Queensland Water Board on 17 March 2000 and commenced operations. As a *Corporations Law* company, SEQWater pays commercial interest rates and is a Commonwealth taxpayer. In addition SEQWater will pay dividends to 13 shareholders (12 local governments and the Queensland Government) in accordance with normal commercial practice.

On 1 October 2000, the GAWB and MIWB were commercialised as Category 1 Water Authorities under the *Water Act 2000*. Under the *Water Act 2000*, the GAWB and MIWB are required to operate on a commercial basis (which includes pricing in a commercial manner), pay tax equivalents, dividends and a debt neutrality fee. The two Boards agree an annual Performance Plan with the Minister for Natural Resources and Mines which, amongst other things, includes financial and non-financial performance targets. Category 1 Water Authorities must make CSOs and cross-subsidies transparent.

The TTWSB is planned to be commercialised from 1 July 2001, subject to passage of amendments to the *Local Government Act 1993*. As a commercialised entity, the TTWSB will be required to earn a commercial rate of return on assets and pay tax equivalents, dividends and debt neutrality fees consistent with the requirements of the *Local Government Finance Standard 1994*.

Financial results for the four urban water boards for the 1999-00 are outlined in the table below. Except for SEQWater, all results are prior to the implementation of commercialisation arrangements and hence do not show competitive neutrality adjustments (ie. TERs, dividends etc).

Urban Water Boards Operating Results - 1999-00

	Total Revenue $M	**Expenses $M**	**EBIT $M**	**Interest $M**	**Tax/ TERs $M**	**Divid-ends $M**	**Assets $M**	**ROR %**
SEQWater [2]	7.730	4.453	3.277	3.927	-0.479	-	397	N/A
GAWB	12.672	10.434	2.238	2.208	-	-	165	1.36
TTWSB	17.252	13.257	3.995	0.407	-	-	178	2.24
MIWB	5.422	4.679	0.743	-	-	-	65	1.14

2.2.2. Volumetric charging

All four urban water boards charge for water consistent with the principles of volumetric charging:-

SEQWB	Local government customers are charged on the basis of a single volumetric tariff in accordance with a formula contained in Bulk Water Supply Agreements which commenced in 1996.
GAWB	80% of water provided by GAWB is to industrial customers under long term contracts. Water charges included in contracts are volumetrically based, and include a "take or pay" arrangement. Local government customers are charged on a per ML basis.
TTWSB	Local government customers (95% of total water supply) are charged a single volumetric charge
MIWB	The MIWB charges for water on the basis of a two part tariff arrangement.

Brisbane Water tradewaste charges are made up of charges for the quantity of tradewaste output and additional charges may also be charged according to the quality of the tradewaste.

The quantity charge is applicable to traders with discharge in excess of 250 kilolitres each year. Traders with discharge of under 250 kilolitres are charged a fixed charge of $193 each year. For other traders the tradewaste charge is between ($0.76/kilolitre and $0.39/kilolitre) depending on total volume. Solids are charged per kilogram.

2.2.3 Community Service Obligations

No community service obligations have been identified as being provided by the urban water boards.

[2] For final period 18 March 2000 to 30 June 2000

2.3 Water Pricing and Cost Recovery – Rural Water Supply

COAG Water Resource Policy Requirements

3(a) In general

(i) to the adoption of pricing regimes based on the principles of consumption-based pricing, full-cost recovery and desirably the removal of cross-subsidies which are not consistent with efficient and effective service, use and provision. Where cross-subsidies continue to exist, they be made transparent,

> *Queensland, South Australia and Tasmania endorsed these pricing principles but have concerns on the detail of the recommendations;*

(ii) that where service providers are required to provide water services to classes of customer at less than full cost, the cost of this be fully disclosed and ideally be paid to the service deliverer as a community service obligation.

3(d) Rural water supply

(i) where charges do not currently fully cover the costs of supplying water to users, agree that charges and costs be progressively reviewed so that no later than 2001 they comply with the principle of full-cost recovery with any subsidies made transparent consistent with 3(a)(ii) above;

(ii) to achieve positive real rates of return on the written down replacement costs of assets in rural water supply by 2001, wherever practicable;

(v) where it is not currently the case, to the setting aside of funds for future asset refurbishment and/or the upgrading of government-supplied water infrastructure;

2.3.1 Rural Water Price Paths

SunWater (formerly State Water Projects) supplies the majority of rural water supplied in Queensland. As a Government Owned Corporation, SunWater has the commercial autonomy to set prices for all goods and services supplied, subject to price paths set by the Queensland Government or directives from shareholding Ministers to set prices at less than a commercial price. Where shareholding Ministers direct goods or services to be provided at less than a commercial price, or pricing is subject to a price path, this is recognised as a transparent CSO.

On 1 October 2000, rural water price paths spanning 5 years were implemented for State-owned irrigation schemes controlled by SunWater.

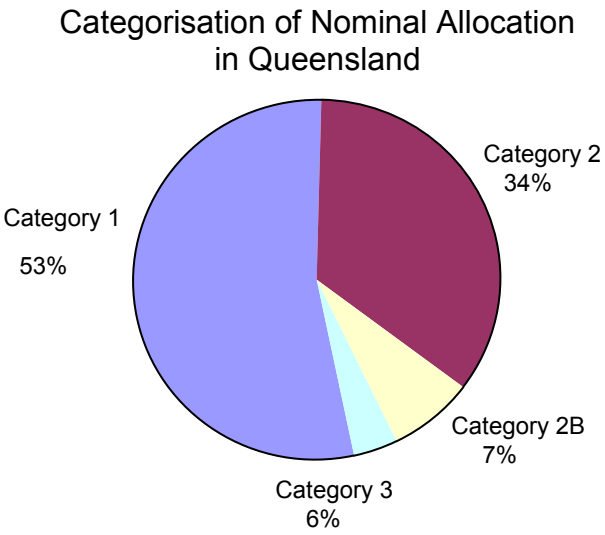
The rural water price paths were developed after a number of years of intensive work by the Queensland Water Reform Unit (WRU) to:-

- accurately identify the Lower Bound costs of providing irrigation water services on a scheme-by-scheme basis;

- benchmark the costs of provision against other service providers to determine efficient cost;
- categorise individual irrigation schemes having regard to current levels of cost recovery and assessment of the financial capabilities of individual schemes to absorb water price increases;
- clearly identify the community service obligation payment being made to SunWater for its provision of irrigation water services.

The rural water price paths were developed for each irrigation project based on efficient costs. Rural water prices are set to recover operating, maintenance, administration, renewals/ refurbishment, taxes, interest and resource management costs.

53% of nominal allocation in Queensland is delivered in Category 1 schemes, 34% in Category 2 schemes, 7% in Category 2B schemes (outlined in greater detail in Section 3) and 6% in Category 3 schemes[3].



An annual Rural Water CSO is paid to SunWater. The Rural Water CSO is calculated as the difference between the benchmarked efficient costs of service delivery on a scheme by scheme basis and price path revenue. The 5 year price paths will result in the reduction of annual subsidies to irrigation users of about $8.0 million over 5 years. Subsidies worth approximately $1.5 million for Category 3 schemes will remain after 2004. SunWater's Charter and Statement of Corporate Intent require the Rural Water Subsidy to be reported on a scheme by scheme basis.

Cost recovery will be achieved by a parallel decline in the SunWater costs as water prices rise. In this respect, SunWater will be required to find efficiency improvements in its operation of schemes, with a reduction in cost of 15% required by 2004.

[3] Category 1 – schemes which currently cover all lower bound costs or recovery in excess of 80% of lower bound costs. In a number of these schemes cost recovery is achieved through a rebalancing of the existing tariff structure and no overall change to the total per ML water price;

Category 2 – schemes which currently recover between 50 and 80% of lower bound costs. In a number of schemes cost recovery is achieved prior to 2004;

Category 2B – schemes which would have been classified as Category 3 schemes but which can achieve cost recovery over a slightly prolonged period of time, compared to the Category 2 schemes, as well as some dairy and sugar schemes which are experiencing financial hardship and which have been given a "soft-start" to the price paths; and

Category 3 – schemes which are current recovering under 50% of lower bound costs and which are unlikely to achieve cost recovery without extreme financial hardship. Category 3 schemes have been set the target of at least reaching 50% cost recovery by 2004.

Irrigation water from SunWater's schemes is charged on a volumetric basis. Irrigators pay a fixed charge for each ML of nominal allocation held, and a usage charge for each ML of water used. A key feature of the price paths is the adoption of a two part tariff structure with, in most cases, a fixed charge generating 70% of scheme revenue. The 70% fixed charge reflects, on average, the estimated split between fixed and variable costs in Queensland irrigation schemes, and is of the same order as benchmarks adopted by the New South Wales Independent Pricing and Regulatory Tribunal.

Detailed information regarding the construction of the rural water price paths and scheme categorisation is included as Attachment 9.

2.3.2 Water Prices for Local Governments

SunWater's Corporatisation Charter states prices for local government water users are to be set at fully commercial rates covering the operating, maintenance, renewals and refurbishment, tax and interest costs as well as including a commercially based return on the capital invested in the scheme. New prices are to be negotiated once existing contractual arrangements expire.

In negotiating new contracts, SunWater and local governments are to give regard to the following principles under the SunWater Corporatisation Charter:

- prices are to be based on efficient costs of service delivery recognising the balance between service standards and prices;
- prices are to reflect a commercial rate of return on assets which are to be valued according to the optimised depreciated replacement cost (ODRC);
- revenues received from local government in schemes where assets are shared are not to cross-subsidise non-urban users;
- prices are to recognise the existence of contributed assets so there is no double counting of the asset returns;
- in keeping with irrigated agricultural pricing, arrangements to transition existing contracts into fully commercial pricing including a return on capital are to take no more than 5 years; and
- the SunWater Board must seek the approval of Shareholding Ministers to extend the transition period beyond 5 years, including seeking any continuing CSO for supply to Local Government where a case for hardship is made; and
- the Queensland Competition Authority is to be the independent arbiter in cases of any dispute in the negotiation process.

2.3.3 Water Prices for Industrial Customers

Industrial, mining and electricity customers have traditionally paid "commercial" rates for water supply from State schemes, although this varies from customer and contract to contract. SunWater's Corporatisation Charter states existing contracts will be honoured. There will be no changes to these contracts as a result of corporatisation. Nonetheless SunWater is to renegotiate contracts in accordance with full commercial practice where the opportunity to do so presents itself. All new contracts with industrial, mining and electricity customers will be based on commercial pricing.

2.4 Water Pricing and Cost Recovery – New Rural Schemes

COAG Water Resource Policy requirements

(3)(a)

(i) to the adoption of pricing regimes based on the principles of consumption-based pricing, full-cost recovery and desirably the removal of cross-subsidies which are not consistent with efficient and effective service, use and provision. Where cross-subsidies continue to exist, they be made transparent,

> *Queensland, South Australia and Tasmania endorsed these pricing principles but have concerns on the detail of the recommendations;*

(ii) that where service providers are required to provide water services to classes of customer at less than full cost, the cost of this be fully disclosed and ideally be paid to the service deliverer as a community service obligation.

3(d)

(iii) that future investment in new schemes or extensions to existing schemes be undertaken only after appraisal indicates it is economically viable and ecologically sustainable.

2.4.1 Overall Framework

Guidelines for the Financial and Economic Evaluation of New Water Infrastructure.

In September 2000, the Queensland Government released *Guidelines for the Financial and Economic Evaluation of New Water Infrastructure.* The guidelines clarify the relationship between financial and economic evaluation of new water infrastructure. The guidelines indicate new projects will only be developed where demonstrated to be economically viable, and as a minimum, water prices must be able to meet the ARMCANZ Lower Bound pricing requirements.

The guidelines build on existing Government guidelines including:-

- *Project Evaluation Guidelines*;
- *Community Service Obligations: A Policy Framework*; and
- *Private Sector Involvement in Public Infrastructure and Service Delivery.*

Ecological Assessment

All major water infrastructure projects in Queensland must complete an Impact Assessment Statement (IAS). The IAS, which takes account of, amongst other things, environmental, economic, cultural and social impacts must be prepared in accordance with the information requirements and administrative provisions of relevant Queensland and, where applicable, Commonwealth legislation, including:-

- *Environmental Protection Act 1994;*
- *Environmental Protection and Biodiversity Conservation Act 1999 (Comm);*
- *Water Act 2000;*
- *Integrated Planning Act 1997; and*
- *State Development and Public Works Organisation Act 1971.*

Draft IAS's are made available for public scrutiny and comment prior to Queensland Government consideration.

The Environmental Protection Agency is responsible for approving the proposed development is consistent with the environmental requirements of the *Environmental Protection Act 1994*. The Department of Natural Resources and Mines is responsible for ensuring the volume of water allocated to the new water infrastructure development is consistent with environmental sustainability principles and other objectives of the *Water Act 2000*.

2.4.2 New and Proposed Water Infrastructure Developments

Nathan Dam

The Nathan Dam Project proposes the construction, by private sector consortium SUDAW Developments, of a major dam on the Dawson River downstream from Taroom.

SUDAW has a Project Development Agreement with the Queensland Government to investigate the feasibility of developing the dam. SUDAW has been undertaking feasibility investigations for some time and has undertaken detailed marketing surveys to determine the demand for water in the region. SUDAW has also commenced implementation of the Environmental Management Plan for the dam and has commenced an Impact Assessment Study for the Duaringa Weir, a key component of the Nathan Dam Project.

The progress of the Project was delayed due to the absence of legislation enabling a private sector entity to build, own and operate a major dam in Queensland. The passage of the *Water Act 2000* in September 2000 provided the statutory basis to allow SUDAW to undertake the development of the Nathan Dam and market water allocations to irrigators and other customers.

SUDAW is continuing work aimed at establishing the commercial viability of the Nathan Dam Project and is expected to be in a position to make a decision on the Project in the near future.

Bedford Weir Stage II

A copy of the impact assessment statement for the Bedford Weir Stage II had previously been provided to the Council.

Bedford Weir is situated in the Fitzroy Basin and covered by the *Fitzroy Basin Water Resource Plan (1999)*.

The estimated cost of the capital project was $4.73M and funding from the Commonwealth was $2M. An auction of water resource allocations realised $11.1M, with the higher prices attributable to the fact purchasers were generally established farmers who were seeking to purchase marginal water and hence were able to utilise the additional water without incurring any additional capital expenditure on infrastructure.

Bingegang Weir Stage II

Bingegang Weir is situated in the Fitzroy Basin and covered by the *Fitzroy Basin Water Resource Plan (1999)*.

The capital costs for Bingegang Weir Stage II were $3.6M. Sale of water from Bingegang Weir II has yet to occur. Water prices at auction are anticipated to will reach the same levels as for Bedford Weir II. The cost of the project has been funded by the State, but should be recouped through sale of allocation. Bedford and Bingegang should be considered as a single project.

Dumbelton Weir Stage III

Dumbelton Weir Stage III involved a relatively minor addition to an existing weir by way of the installation of an inflatable rubber crest. The project was developed under the Sugar Industry Infrastructure Package (SIIP). An Economic Analysis concluded the project was economically viable.

The Pioneer Valley Water Board (PVWB), constituted under Part 4 of the *Water Act 2000*, manages the project within the Pioneer River System. Water prices for the project cover all annual operating costs and recovery of the industry capital contribution ($1.04M). The PVWB receives no ongoing subsidy from the Queensland Government.

Awoonga Dam

The Gladstone Area Water Board (GAWB) has received environmental and resource management approvals to raise the Awoonga Dam to 40 metres.

The GAWB supplies water for the Gladstone and Calliope Councils and major industrial customers in the Gladstone region including CS Energy and Queensland Alumina Limited. The current annual demand for water from Lake Awoonga is approximately 42,000ML. The commissioning of two new power generating units at Callide Power Station will increase the water demand in the area to 55,000ML, exceeding existing supplies levels by almost 10%. In addition, a number of large industrial companies, including Comalco and Stuart Oil Shale Project are considering locating new facilities in Gladstone which would further increase projected demand in the area.

Raising of the Awoonga Dam and associated works (including infrastructure relocation) is estimated to cost $85M. The Awoonga Dam raising will be progressed on a fully commercial basis by the GAWB.

Water for the raising of the Awoonga Dam was allocated in the *Boyne Water Resource Plan (2000).*

Paradise Dam

In January 2001, the Queensland Premier announced plans to proceed with the design of a dam at Paradise, near Bundaberg. The Premier stated the dam will have a capacity of 300,000 ML, and an annual yield of up to 130,000ML.

The Queensland Premier also announced plans for the construction of a 10,000ML Eidsvold Weir on Burnett River, and plans to raise the Jones Weir and Walla Weir.

Preliminary economic analysis has indicated positive economic benefits from the development of additional water infrastructure in the Burnett catchment. The estimated cost of infrastructure development in the Burnett is $200M. Detailed design, environmental, economic and financial analyses of the dam are still to be undertaken.

It should be noted Paradise dam and the other Burnett River projects are yet to receive formal Government approval.

3. INSTITUTIONAL REFORM

3.1 Institutional Reform – Institutional Role Separation

COAG Water Resource Policy Requirements

6(c) to the principle that, as far as possible, the roles of water resource management, standard setting and regulatory enforcement and service provision be separate institutionally;

(d) that this occur, where appropriate, as soon as practicable, but certainly no later than 1998.

3.1.1 Agencies responsible for regulation of water service providers

There are four main agencies with regulatory responsibilities relating to water service providers in Queensland:-

- the Department of Natural Resources and Mines (DNRM) – responsible for water allocation and management (see Chapter 4) and water service provider regulation (see 3.1.2);
- the Environmental Protection Agency (EPA) – responsible for regulation of water quality (with the exception of drinking water) and environmental protection (see 2.4.1 and 5.2).
- the Department of Health (see 3.1.3); and
- the Queensland Competition Authority (see 3.1.4).

3.1.2 Water service provider regulation

Under the *Water Act 2000*, the Chief Executive of DNRM is the water industry regulator. All water service providers in Queensland must be registered, with registration attaching a series of regulatory obligations which must be met. It is an offence to supply water or sewerage services with being registered.

Strategic asset management plans

All water service providers must have an approved strategic asset management plan approved by the regulator. Strategic asset management plans must identify specific standards for key performance for infrastructure and services being provided and document an operation, maintenance and renewals strategy to ensure the standards are beng met. A registered professional engineer must certify the strategic asset management plan before it is submitted to the regulator.

Water service providers must regularly review their strategic asset management plans and arrange for regular audit reports to be completed about their Plan and compliance with the Plan. In addition, the regulator may require a spot audit report be completed if there is concern a provider is not complying with their Plan or the Plan is no longer adequate. The cost of the spot audit may be recovered from the service provider.

Customer service standards

The *Water Act 2000* requires water service providers to prepare customer service standards to ensure all customers not covered by a contract with the service provider are adequately protected. The *Water Act 2000* specifies the issues to be covered by the contracts. Water service providers must comply with their customer standards of service.

The Ombudsman has responsibility for dealing with all complaints made against water service providers under its jurisdiction (ie. local government water service providers, Category 1 Water Authorities). The regulator has jurisdiction over complaints against other water service providers (ie. private providers, SEQWater).

Annual Reports

At the end of each financial year, water service providers are required to prepare and submit an annual report for the regulator addressing:-

- performance for the year for services covered by the strategic asset management plan;
- actions to implement the strategic asset management plan, including the application of funds to support the plan;
- any reviews of the strategic asset management plan and how any matters raised by the review have been addressed;
- a summary of findings and any recommendations from audit reports;
- measures of the service providers performance against customer standards of service.

Small Water Service Providers

The water service provider regulatory arrangements apply to all water service providers. The *Water Act 2000* allows the regulator to exempt small providers from compliance with the framework if the cost of complying with the framework outweighs the benefits to customers.

3.1.3 Drinking water quality regulation

The Department of Health is responsible for the regulation of drinking water quality in the State. The *Health Act 1937* provides Queensland Health with powers to deal with health-related problems arising from contaminated drinking water, and powers to take any necessary action in the event of an emergency. Arrangements for regulation of drinking water are being reviewed as part of the review of the *Health Act 1937*.

3.1.4 Prices oversight

The Queensland Competition Authority (QCA) is responsible for prices oversight of the water industry. As at 31 March 2001, SEQWCo and the GAWB had been declared for prices oversight. The QCA is currently investigating the pricing practices of the GAWB. In addition, the QCA has also completed an assessment which indicates SunWater and the MIWB are monopoly business activities. Declaration of these two entities for monopoly prices oversight is currently being considered by the Premier and Treasurer.

In addition, the *big 18* local governments have been consulted regarding the declaration of their water and sewerage businesses for monopoly prices oversight.

3.1.5 Corporatisation of SunWater

Corporate requirements for SunWater

On 1 October 2000, SunWater (formerly a commercialised business unit within DNR) was corporatised under the *Government Owned Corporations Act 1993*.

SunWater has a commercial Board of seven directors and is responsible to its shareholding Ministers, the Treasurer and Minister for Natural Resources and Mines. As a Government Owned Corporation (GOC), SunWater is required to, amongst other things:-

- be established with a Corporatisation Charter, and prepare an annual Statement of Corporate Intent and Corporate Plan;
- act in a commercial manner, within the bounds of competitive neutrality requirements and the duties and liabilities of the Board of Directors;
- be accountable to its shareholders for performance. SunWater is required to submit quarterly performance reports to its shareholding Ministers.

Shareholder responsibilities for SunWater

Ongoing monitoring of SunWater is undertaken by Queensland Treasury and DNRM for the shareholding Ministers.

The shareholder functions within Queensland Treasury are performed by the Office of Government Owned Corporations (OGOC). OGOC is responsible for:

- negotiating Statement of Corporate Intent and Corporate Plan outcomes with GOC Boards;
- rigorous and independent performance monitoring of all GOCs;
- commercial assessment on behalf of the shareholder of all major investment proposals;
- administration of the *Government Owned Corporations Act 1993;*

OGOC is responsible for ensuring GOCs are cognisant of and act in accordance with all relevant Government policies, whilst also ensuring the fundamental integrity of the commercial accountability regime established under the GOC Act is maintained.

The shareholder function within DNRM resides in the Office of the Director-General, separated from the regulatory functions of the Department.

3.2 Institutional Reform – Performance monitoring and best practice

COAG Water Resource Policy

6(e) the need for water services to be delivered as efficiently as possible and that ARMCANZ, in conjunction with the Steering Committee on National Performance Monitoring of Government Trading Enterprises, further develop its comparisons of inter-agency performance, with service providers seeking to achieve international best practice.

3.2.1 Queensland involvement in performance monitoring

Queensland has 35 participants in the Water Services Association of Australia (WSAA) performance monitoring and benchmarking of Non-Major Urban Water Service providers, including the *big 18* local governments and the three large urban water boards, is SEQWCO, GAWB and TTWSB.

Two rural water boards and 14 of SunWater's irrigation schemes (including the largest 8) are participants in the Australian National Committee on Irrigation and Drainage (ANCID) benchmarking for rural water service providers.

3.3 Institutional Reform – Commercial focus

COAG Water Resource Policy Requirements

6(f) that the arrangements in respect of service delivery organisation in metropolitan area in particular should have a commercial focus, and whether achieved by contracting out, corporatised entities or privatised bodies this be a matter for each jurisdiction to determine in the light of its own circumstances.

Queensland Achievements

3.3.1 SEQWater

SEQWater was incorporated as a *Corporations Law* company on 20 September 1999. South East Queensland local governments are 80% shareholders of SEQWater and the Queensland Government is the remaining 20% shareholder. SEQWater is governed by a Board of Directors and operated as a strictly commercial entity. SEQWater is subject to the *Corporations Law* and other legislation applicable to private sector companies. SEQWater pays income tax as a full Commonwealth tax payer.

On 20 September 1999, SEQWater entered into a Sale of Business Agreement to acquire the assets and business of the South East Queensland Water Board (SEQWB). On 17 March 2000, following an extensive due diligence process, SEQWater completed the purchase of SEQWB as a business in an "arms-length-transaction", with the purchase price of the business guided by an independent valuation.

3.3.2 Gladstone Area Water Board and Mount Isa Water Board

On 1 October 2000, the Gladstone Area Water Board and the Mount Isa Water Board were commercialised as Category 1 Water Authorities under the *Water Act 2000*. The Category 1 Water Authority provisions of the *Water Act 2000* are based on the corporate governance provisions of the *Government Owned Corporations Act 1993*.

The *Water Act 2000* sets out the key commercialisation principles for the Boards, specifically:-

- the Boards are to have clear, non-conflicting objectives;
- specific financial and non-financial targets are to be set for the commercial activities of the Boards and stated in their performance plans;
- any costs are to be clearly identified, costed, funded and have performance targets attached;
- the Boards have autonomy in their day-to-day activities and the water authority will operate at "arms length" to the State;
- any government directions to the Boards must be transparent;
- boards must pay tax equivalents, debt guarantee fees and be treated on an equal regulatory footing as through they are a comparative private sector business.

The Boards may be established with a Commercialisation Charter and are required to prepare an annual Performance Plan and Corporate Plan.

The Minister for Natural Resources and Mines is the Minister responsible for the GAWB and MIWB.

3.3.3 Townsville Thuringowa Water Supply Board

In November 2000, legislation to facilitate the conversion of the Townsville Thuringowa Water Supply Board to a joint local government authority under the *Local Government Act 1993* was tabled in the previous Parliament. As a joint local government, the Townsville Thuringowa Water Supply Board will be required to comply with the commercialisation requirements of the *Local Government Act 1993*. The amending legislation will need to be re-introduced to the new Parliament, with the target date for the conversion of TTWSB to a local government body of 1 July 2001.

3.3.4 Brisbane Water

Brisbane Water is a commercialised business unit operating under a Franchise Agreement with the Brisbane City Council. As a commercialised entity, Brisbane Water is governed by the *Local Government Act 1993*.

3.4 Water Pricing and Cost Recovery – Local Management

COAG Water Resource Policy requirements

6(g) to the principle that constituents be given a greater degree of responsibility in the management of irrigation areas. For example, through operational responsibility being devolved to local bodies subject to appropriate regulatory frameworks being established.

3.4.1 Customer Councils

SunWater's Corporatisation Charter required Customer Councils to be established to ensure the water users as a group have input to decision making affecting them.

To initiate this process, one or more Board members and the CEO travelled to key centres in Queensland late last year and addressed meetings of customers called to consider the issue. The proposal put to customers was:

Role

- *The role of Customer Councils is two fold:*
  - *To work with SunWater from a customer's perspective, on strategic direction and on matters affecting customers; and*
  - *To act as an effective communication link between SunWater and its customers as a group – this does not, however, take away from the individual relationship between SunWater and each customer.*
- *Those areas of strategy and direction on which a Customer Council might offer advice include:*
  - *The direction of longer term planning for a water supply scheme or for schemes in an area;*
  - *The establishment and monitoring of performance against agreed standards of service including options for variation of service standard linked to a variation of price;*
  - *Input into the priorities for asset investment and refurbishment plans;*
  - *The monitoring and review of irrigation customer contracts in the light of changing needs and performance standards; and*
  - *Other area wide issues that might be raised by either customers or SunWater, eg metering, billing, access to customer data, use of chemicals in the water supply, requirements of the regulators, etc.*
- *In the communication role, the Council could help create an effective communication plan between SunWater and its customers and help ensure that relevant information about the relationship and business issues are promulgated to the customers.*

Structure and Administration

- *The membership of a Customer Council would be determined by the customers. This may be through area representation or other arrangements providing all customers (irrigation, urban and industrial) have a reasonable opportunity to influence who will be appointed.*

- *SunWater would be represented by the Regional Business Manager and the local Customer Service Manager but they would not be office holders.*

- *Each Customer Council would elect its own office bearers and they would arrange meetings and agenda items and manage the business of the Council.*

- *SunWater will provide some financial assistance to the Council including reimbursement of outgoing costs and insurance coverage.*

The customer meetings then decided the scheme coverage which they thought was most appropriate and as a result processes are in place to formalise 14 Councils, specifically:-

- Mareeba
- Ayr
- Proserpine
- Mackay – 2 schemes
- Emerald
- Dawson
- Callide
- Bundaberg
- Upper Burnett – 6 schemes
- Lower Mary
- Upper Mary
- Ipswich area – 4 schemes
- Condamine/Macintyre Brook – 3 schemes
- St George

Whilst most of the Councils will relate to an individual water supply scheme, some are regional groups to provide a more strategic focus to advisory groups of small schemes.

In accordance with the principle these are user led groups, the process of final establishment of the Councils is underway at different speeds in different locations. To date, four Councils have met and further meetings are planned.

3.4.2 Further Local Management Options

In addition to the establishment of Customer Councils, SunWater's Corporatisation Charter indicated:-

> "The Board must provide the option for local management during the first nine months after corporatisation. Thereafter the opportunity cannot be revisited until 12 months before the end of the five year price regulation period, at which time, user

management groups may make a submission to Shareholding Ministers which complies with the conditions outlined above and any new or changed conditions agreed by the Shareholding Ministers."

Local management of schemes by local users will occur only where the following conditions are met:

- there will be a clear and unequivocal improvement in the long term financial viability of the scheme;
- user management of individual irrigation schemes will have no adverse financial impacts for the State Government;
- the user managers accept responsibility for asset maintenance and refurbishment;
- the user managers accept they are responsible to comply fully with the regulatory framework for the water industry including but not limited to:
  - Water Resource Plans, Resource Operations Plans and other resource management regulatory instruments;
  - Works approvals and control through the *Integrated Planning Act 1997*;
  - Service provider obligations including Strategic Asset Management Plans, customer service standards and, where relevant, dam safety provisions.
- User managers must provide sufficient information to Shareholding Ministers to demonstrate water prices under user management are to be at levels which achieve, at least, minimum financial viability.

The SunWater Corporatisation Charter allows the Board to present a case for the retention of any scheme under the same terms and conditions available to user managers. The final decision for user management rests with the Shareholding Ministers who would take account of the conditions above, as well as wider community, regional, financial, economic, social and environmental considerations and the strategic interests of the State. The terms and conditions (including financial consideration where relevant) of any local management proposals will be considered on a case-by-case basis.

4. WATER ALLOCATIONS AND TRADING

4.1 Comprehensive system of water allocations

COAG Water Resource Policy requirements

4(a) the State government members of the Council, would implement comprehensive systems of water allocations or entitlements backed by separation of water property rights from land title and clear specification of entitlements in terms of ownership, volume, reliability, transferability and, if appropriate, quality;

4.1.1 Water Act 2000

On 13 September 2000, the *Water Act 2000* was passed. The *Water Act 2000* provides the framework for allocation, management and regulation of water resources in Queensland, including groundwater and overland flows. Information regarding the system for implementation of the new framework for catchments is outlined below.

4.1.2 Water Resource Plans

Water Resource Plans (WRPs) are the principal water planning tool under the *Water Act 2000*. A WRP may be prepared for any purpose, including to:-

- define the amount of water available for consumptive use and the water required for natural ecosystems;
- provide a framework for the establishment of water allocations through the conversion of water licences or other entitlements or the granting of new water allocations;
- provide a framework for the allocation and taking of water, for example to put limits on the issue of water licences;
- identify strategies for priorities for meeting future water requirements, for example, by issuing further water entitlements through the purchase, transfer and conversion of existing entitlements; and
- provide a framework, where practicable, for reversing the degradation of natural ecosystems, where the cause of such degradation related to water allocation and management.

WRPs may regulate the taking of groundwater and overland flows if there is a risk the use of those waters may impact on the outcomes of a WRP, or affects the availability of water to existing water users, or impacts on the water requirements for natural ecosystems.

The *Water Act 2000* requires a WRP must state:-

- environmental flow provisions;
- water allocation security objectives;
- performance indicators for environmental flow objectives and water allocation security objectives; and
- priority areas for the conversion to or granting of water allocations.

The process for preparing a WRP is managed by the DNRM, with advice on community views and aspirations provided by a Community Reference Panel. Technical assessments are also performed, usually by an independent Technical Advisory Panel appointed to provide the Minister for Natural Resources and Mines with the best scientific information available on the water requirements of natural ecosystems.

WRPs require a sustainable balance to be established between water consumptive use and water for the environment. To achieve the objective, the Minister for Natural Resources and Mines must consider a range of matters outlined in Section 47 of the *Water Act 2000* when preparing a draft WRP, including:-

- national, State and regional objectives and priorities for promoting sustainable development;
- the duration, frequency, size and timing of water flows necessary to support natural ecosystems as assessed using the best scientific information available;
- cultural, economic and social values;
- environmental values established under the *Environmental Protection (Water) Policy 1997*; and
- the public interest.

In preparing a WRP, the Minister for Natural Resources and Mines must make both an information report and the draft WRP available for public consultation. Following consultation on the draft WRP, the Minister must make public a report detailing a summary of issues raised during the consultation process and how the issues have been dealt with.

A WRP is effective for 10 years unless, as a result of a review (see below), a new plan is prepared and approved. The taking of water contrary to a WRP is an offence.

Sections 53 and 54 of the *Water Act 2000* require periodic reports to be prepared for each WRP. The report must include, amongst other things:-

- an assessment of the effectiveness of the implementation of the WRP in meeting the WRP's objectives (including environmental objectives);
- an assessment of whether the plan's objectives, having regard to any new information available about water covered by the plan, continue to promote the purposes of the *Water Act 2000*; and
- information about any non-compliance with the plan and the Resource Operations Plan (ROP).

The Minister for Natural Resources and Mines must amend a WRP or prepare a new WRP if satisfied a periodic report is showing a WRP's environmental flow objectives or water allocation security objectives are no longer appropriate for the plan area. In these circumstances the Minister must act before the existing WRP expires.

As at 31 March 2001, WRPs had been completed for the following areas:- Fitzroy River Basin, Cooper Creek Basin, Boyne River Basin, Burnett River Basin and draft WRPs have

been released for the Condamine Balonne, Moonie and Warrego/Paroo/Bulloo/Nebine. The current timetable for completion of WRPs in Queensland and a map of WRP coverage is included as Attachment 10.

There will remain a small number of catchments in the State which are not covered by WRPs eg. much of the Cape York Peninsula and small coastal streams. Consideration will be given to preparing WRPs in those regions if water demand in these areas increases or if required to address particular ecological issues.

4.1.3 Resource Operations Plans

Under the *Water Act 2000*, Resource Operations Plans (ROPs) are developed to implement WRPs. A ROP must include details of:

- the area to which it will apply[4];
- any water infrastructure to which the plan applies,
- how the Chief Executive will sustainably manage water to which the ROP applies; and
- the water and natural ecosystem monitoring practices which will apply.

In addition, to achieve the objectives outlined in the relevant WRP, a ROP may include any of the following:

- environmental management rules, seasonal water assignment rules and water sharing rules;
- a process for granting, reserving or otherwise dealing with unallocated water;
- a process for meeting future water requirements;
- details of any changes to be made to water entitlements;
- a minimum share of overland flow water which each owner of land in the ROP area may take (if the ROP provides for the regulation of overland flows);
- the rules for and details of any proposed conversions of existing water licences and interim water allocations to water allocations; and
- water allocation transfer rules.

In respect of water allocation transfer rules, a ROP may also contain limits on the volume of water which may be transferred between locations, whether in or outside Queensland, or for different purposes. The intent of this section is to ensure transfers which could cause significant social or economic impacts on an area do not occur without prior assessment of whether the proposal is in the public interest.

A draft ROP must be made available for public consultation. The Chief Executive of DNRM must have regard to all properly made submissions in preparing the final draft ROP.

[4] The ROP will not necessarily provide for water trading in all parts of the area covered by the WRP. For instance, existing licences in areas of a WRP with low levels of water demand and low environmental impacts may not be converted into tradeable water allocations by the ROP. The *Water Act 2000* makes provision for a ROP to be amended if required to allow for progressive implementation of trading in a WRP area.

Draft ROPs for the Fitzroy River Basin and Boyne River Basin are currently being prepared.

4.1.4 Resource Operations Licences

Resource Operations Licences (ROLs) are granted under the *Water Act 2000* to water infrastructure operators (eg. SunWater, local governments, private water providers).

A ROL outlines:- the details of the licence holder; the ROP to which the licence applies; any water infrastructure to which the licence applies; and any considerations the holder must comply with, including any operating arrangements and the supply requirements of the ROP which relate to the holder.

A condition of a ROL may be to prohibit the holder from changing, replacing or operating any water infrastructure if the changes to the water infrastructure are incompatible with environmental flow objectives or water allocation security objectives.

As at 31 March 2000, Interim Resource Operations Licences (IROLs) had been issued to SunWater for its 27 Water Supply Schemes and are publicly available on the DNRM Website.

Water Allocations

The *Water Act 2000* provides the legislative basis for the establishment of water allocations in Queensland. Water allocations are separated from land title and clearly specified in terms of ownership, volume and location of take. Water allocations supplied by a ROL holder also detail the water allocation priority group. If the water allocation is not managed under a ROL, the flow conditions under which water may be taken and the maximum rate at which water may be taken are also specified. The WRP defines the Water Allocation Security Objectives (measures of reliability) and the ROP details the rules under which the water allocation may be traded.

As outlined above, water allocations will be progressively implemented throughout Queensland as ROPs are implemented. Water allocations will be implemented in a ROP area on the day a ROP has effect. (Water licences not converted by a ROP will continue to have effect (see below)).

Water allocations in Queensland will be separated from land title and must be registered on Queensland's Water Allocations Register. Section 127 (1) of the *Water Act 2000* requires the following information to be included on the register:

(a) details of the person who holds, and how the person holds, the allocation;

(b) a volume of water for the allocation;

(c) the location from which the water may be taken;

(d) the purpose, including for example, agriculture, industrial or urban, for which the water may be taken;

(e) the resource operations plan under which the water allocation is managed; and

(f) other matters prescribed under a regulation.

Water allocations under the *Water Act 2000* have all the features of a long term lease, with ownership interests clearly registered and ownership enforceable.

The balance between the need for certainty for water allocation holders and environmental requirements is to be achieved through the ongoing monitoring process for WRPs. Monitoring reports will be made public. In the event amendments to water allocations are required to meet the needs of the environment, amendments will only occur following a transparent process, and must be supported by scientific evidence and will be subject to consultation. Further, any amendments made to individual water allocations during the currency of a WRP are subject to the compensation provisions of the *Water Act 2000*.

Section 121 of the *Water Act 2000* provides for the recording of interests which existed in relation to land to which licences for water were attached prior to their conversion to a water allocation. The Water Allocations Register will record, amongst other things, the interests of financiers under the terms of a loan agreement and related security documentation. The Water Allocations Register will be operated as a module of the Queensland Land Titling System.

4.1.5 Water licences

Under the *Water Act 2000*, there will continue to be a system of water licences. Water licences will continue to exist in those parts of the State where a WRP and ROP have not been prepared or in areas where the ROP does not provide for the establishment of water allocations.

Water licences under the *Water Act 2000* are similar to those under the previous *Water Resources Act 1989,* except they will describe a water entitlement rather than works which may be used for taking water. Licences which currently describe the water entitlement in terms of an area which may be irrigated will progressively be amended to describe the water entitlement in volumetric terms. Under a water licence, the water remains tied to the land title.

On implementation of WRPs currently in progress, water licences will account for no more than 20% of all water used for irrigation, urban and industrial purposes, excluding stock and domestic water.

4.2 Provision of water for the environment

COAG Water Resource Policy requirements

4(b) where they have not already done so, States, would give priority to formally determining allocations or entitlements to water, including allocations for the environment as a legitimate user of water;

(c) in allocating water to the environment, member governments would have regard to the work undertaken by ARMCANZ and ANZECC in this area;

(d) that the environmental requirements, wherever possible, will be determined on the best scientific information available and have regard to the inter-temporal and inter-spatial water needs required to maintain the health and viability of river systems and groundwater basins. In cases where river systems have been over-allocated, or are deemed to be stressed, arrangements will be instituted and substantial progress made by 1998 to provide a better balance in water resource use including appropriate allocations to the environment in order to enhance/restore the health river systems;

(e) in undertaking this work, jurisdictions would consider establishing environmental contingency allocations which provide for a review of the allocations five years after they have been determined; and

(f) where significant future irrigation activity or dam construction is contemplated, appropriate assessments would be undertaken to, inter alia, allow natural resource managers to satisfy themselves that the environmental requirements of the river systems would be adequately met before any harvesting of the water resource occurs.

4.2.1 Water Act 2000

Chapter 2 of the *Water Act 2000* governs the allocation and sustainable management of water resources in Queensland. The purpose of the *Water Act 2000* is to promote sustainable management of water and other resources and is consistent with the *National Principles for the Provision of Water for Ecosystems (ARMCANZ/ANZECC 1996).* The purpose of Chapter 2 is summarised in the table below.

Water Act 2000 – Summary of Chapter 2

(1) The purpose of this chapter is to advance sustainable management and efficient use of water and other resources by establishing a system for the planning, allocation and use of water.

(2) For subsection (1), **"sustainable management"** is management which –

- (a) allows for the allocation and use of water for the physical, economy and social well being of the people of Queensland and Australia within limits which can be sustained indefinitely; and
- (b) protects the biological diversity and health of natural ecosystems; and
- (c) contributes to the following;-
  - (i) improving planning confidence for water users now and in the future regarding the availability and security of water entitlements;
  - (ii) the economic development of Queensland in accordance with the principles of ecologically sustainable development;
  - (iii) maintaining or improving the quality of naturally occurring water and other resources which benefit the natural resources of the State;
  - (iv) protecting water, watercourses, lakes, springs, aquifers, natural ecosystems and other resources from degradation and, if practicable, reversing degradation which has occurred;
  - (v) recognising the interests of Aboriginal people and Torres Strait Islanders and their connection with the landscape in water planning;
  - (vi) providing for the fair, orderly and efficient allocation of water to meet community needs;
  - (vii) increasing community understanding of the need to use and manage water in a suitable and cost efficient way;
  - (viii) encouraging the community to take an active part in planning the allocation and management of water; and
  - (ix) integrating, as far as practicable, the administration of this Act and other legislation dealing with natural resources.

(3) For subsection (1), **"efficient use"** of water –

- (a) Incorporates demand management measures which achieve permanent and reliable reductions in the demand for water;
- (b) Promotes water conservation and appropriate water quality objectives for intended use of water; and promotes water recycling, including, for example, water reuse within a particular enterprise to gain the maximum benefit from available supply; and
- (c) Takes into consideration the volume and quality of water leaving a particular application or destination, including, for example, release into the environment.

As outlined in the previous section, WRPs are the tool for identifying the needs of the environment and the specification of water for the environment. Assessments of river health are carried out during the development of draft WRPs.

4.2.2 Environmental Flow Assessment

In all WRP processes undertaken to date, Technical Advisory Panels (TAPs) have been appointed to provide the scientific information required as input into the development of the WRP. Under the *Water Act 2000* the WRP must be prepared based on best scientific information available.

To date, environmental flow assessments for WRPs have been based primarily on a process of benchmarking. Benchmarking involves determining relationships between levels of departure from the natural flow regime and environmental condition. These relationships are determined from assessment of a range of benchmark sites subject to varying degrees of flow modification. Levels of departure from the natural flow regime are quantified in terms of key hydrological indicators.

The environmental flows benchmarking technique provides a framework for the analysis of existing and predicted future environmental conditions and the river's environmental flow requirements. This technique was endorsed by the Cooperative Research Centre for Freshwater Ecology (CRCFE) in its review of Queensland's environmental flow assessment methodology in February 2000.

The output of the benchmarking process is a relationship between river health and key flow statistics and is generally presented using risk assessment diagrams. These diagrams have been used to give a graphical representation of the likely extent of ecological change as a result of changes from natural in a particular flow statistic. Flow statistics and condition assessments for benchmark sites are used to indicate the likely degree of environmental impact which would result from a given change to a particular flow statistic. In this manner, an indication can be given as to the level of ecological risk which would be associated with various levels of water resource allocation or different management scenarios. Flow statistics for existing developments are also shown plotted on the risk assessment diagrams.

4.2.3 Status of WRPs

WRPs and draft WRPs for the following catchments have been provided to the NCC:

- Fitzroy Basin;
- Cooper Creek;
- Boyne;
- Burnett;
- draft Condamine Balonne;
- draft Moonie; and
- draft Warrego/Paroo/Bulloo/Nebine.

4.2.4 Strategies for addressing over allocation of water resources

Unlike the south-eastern States, most of Queensland's rivers have relatively low levels of water resource allocation. In those catchments/rivers where water resource planning has occurred or is underway, consumptive use has typically been assessed as reducing end-of-

system mean annual flow by between 1% and 25% (ie between 75% to 99% of mean annual natural flows are being sustained at the catchment mouths). The notable exceptions to this are the Condamine-Balonne system, where end-of-system flows have been reduced by up to 55% (ie 45% flows remain) and Border Rivers where end-of-system flows have been reduced by up to 40% (ie 60% flows remain). In these catchments, moratoriums now in place under the *Water Act 2000* not only prevent the issue of new licences to extract water, but also restrict the construction of any new works likely to lead to an increase in water diversions.

The draft WRP for the Condamine-Balonne noted in its Overview "the existing ecologic condition and environmental flow assessments have raised serious concerns regarding the long-term ecologic sustainability of the basin's flow regime". Possible management strategies raised in the draft Condamine-Balonne WRP Overview Report to address this problem included progressively restricting access to certain river flows by water users as well as introducing other access constraints (such as volumetric limits) on water diversions.

4.2.5 Ongoing refinement of process for undertaking environmental flow assessments

The Fitzroy WRP, draft Burnett WRP and draft Condamine-Balonne WRP used Environmental Flow Limits (EFLs) and Planned Development Limits (PDLs) in describing environmental flow provisions. EFLs were defined as "the levels of change beyond which there is considered to be an increased risk of environmental degradation". PDLs were defined as "the level of impact against environmental flow indicators to accommodate existing and future water development".

As part of Queensland's commitment to using best available scientific information to underpin the WRP process, the Cooperative Centre for Freshwater Research (CRCFE) was commissioned by the Department of Natural Resources and Mines to review Queensland's environmental flow assessment methodology. Specifically, the CRCFE was requested to review issues relating to the definition, measurement and reporting of Ecologically Sustainable Management within the context of Queensland's current WRP process. A report, entitled Development of Relationships between Flow Regime and River Health (October 2000) was subsequently prepared. A copy of this report has previously been provided to the National Competition Council.

One of the findings of the CRCFE indicated "the term Environmental Flow Limit (EFL) is misleading and should be removed on the basis that the term implies a level of certainty that, given our current knowledge, does not exist". The report further went on to recommend, "there is a need to explicitly state ecological outcomes in each WRP as the size and nature of environmental impacts predicted by the risk assessment are not well defined".

In response to the recommendations contained in the CRCFE's report of October 2000, the final Burnett WRP did not contain the environmental flow limit terminology. Instead, the Burnett WRP details minimum environmental performance standards plus desired environmental performance targets within the Plan's specification of Environmental Flow Objectives (EFOs). The Plan also provided more explicit details of the Plan's intended ecological outcomes. The new performance standards will provide a more rigorous basis for monitoring the outcomes of WRPs. It will also provide a more meaningful basis for the public to understand the levels of impact associated with the preferred water allocation scenario.

This approach for determining environmental flow requirements is consistent with the purpose of Chapter 2 of the *Water Act 2000* and will be utilised for the WRPs currently in preparation.

DNRM is undertaking scientific investigations to improve knowledge of how changes in both land use and flow regime affect the ecological health of Queensland's rivers. The assessments will examine how various indicators of ecological health respond to various changes in environmental conditions. This will enable identification of the most suitable indicators for measuring the impacts of a particular environmental change. Ultimately, this will allow the separation of the impacts resulting from flow changes from those impacts associated with land use changes. This work is intended to further build on and strengthen the scientific basis for designing and applying environmental flow requirements in Queensland river systems.

4.2.6 Ongoing Monitoring of WRPs

Sections 53 and 54 of the *Water Act 2000* require periodic reports to be prepared for each WRP. The report must include, amongst other things:

- an assessment of the effectiveness of the implementation of the WRP in meeting the WRP's objectives (including environmental objectives);
- an assessment of whether the plan's objectives, having regard to any new information available about water covered by the plan is consistent with the objectives of the *Water Act 2000*; and
- information about any non-compliance with the plan and the Resource Operations Plan (ROP).

The Minister for Natural Resources and Mines must amend a WRP or prepare a new WRP if satisfied a periodic report is showing a WRP's environmental flow objectives or water allocation security objectives are no longer appropriate for the plan area. In these circumstances the Minister must act before the existing WRP expires.

4.2.7 Sustainable water use

In addition to the provision of water for the environment through WRPs, the Queensland Government is implementing a range of other measures to ensure sustainable water use.

Water Use Plans (WUPs) are statutory plans prepared under the *Water Act 2000* which provide for the regulation of water use in areas where there is a risk of land and water degradation. The types of land and water degradation which a WUP would seek to address or prevent include:

- rising water levels;
- increased salinisation;
- deteriorating water quality;
- water logging of soils;
- destabilisation of bed and banks of watercourses;
- damage to the riverine environment;
- increasing soil erosion.

Land and Water Management Plans (LWMPs) have similar objectives to WUPs; although, a LWMP generally applies to a single property whereas a WUP is intended to apply to a much larger area (e.g. a sub-catchment, floodplain, etc).

A WUP sets the standards for water use in the Plan area and details objectives for water use efficiency, water reuse and water quality. A LWMP details the water use and land management practices which will be applied on the property for which the LWMP has been prepared.

The Queensland Government also is funding the Rural Water Use Efficiency Initiative (RWUE). RWUE is a partnership between industry and government to improve the use and management of available irrigation water, and subsequently improve the competitiveness, profitability, and environmental sustainability of Queensland's rural industries.

Adoption programs have been established to help farmers achieve best practice in irrigation water management on their properties. The programs are managed by various rural industry organisations. A range of fact sheets are available from DNRM to provide information on techniques for improving on-farm water use.

The Queensland Water Recycling Strategy is a State Government initiative to encourage water recycling which is safe, environmentally sustainable and cost-effective. This initiative will develop the best and most effective ways to manage municipal, industrial and agricultural effluents and urban stormwater as a resource rather than as a waste. As part of the strategy, the Queensland Government has established a State-of-the-Art test facility to research the best methods for treatment of water for various types of reuse.

4.3 Water trading

4(a) that water be used to maximise its contribution to national income and welfare, within the social, physical and ecological constraints of catchments;

(b) where it is not already the case, that trading arrangements in water allocations or entitlements be instituted once the entitlement arrangements have been settled. This should occur no later than 1998;

(c) where cross-border trading is possible, that the trading arrangements be consistent and facilitate cross-border sales where this is socially, physically and ecologically sustainable; and

(d) that individual jurisdictions would develop, where they do not already exist, the necessary institutional arrangements, from a natural resource management perspective, to facilitate trade in water, with the provision that in the Murray-Darling Basin the Murray-Darling Basin Commission be satisfied as to the sustainability of transactions.

4.3.1 Current trading arrangements

Temporary water transfers have been available in Queensland for at least 10 years under the *Water Resources Act 1989*. Temporary transfers are available for a one-year period, with no restriction on the number of consecutive periods for which water may be transferred. In 1999-00, 69,385ML were traded on a temporary basis, representing 4.88% of nominal allocation.

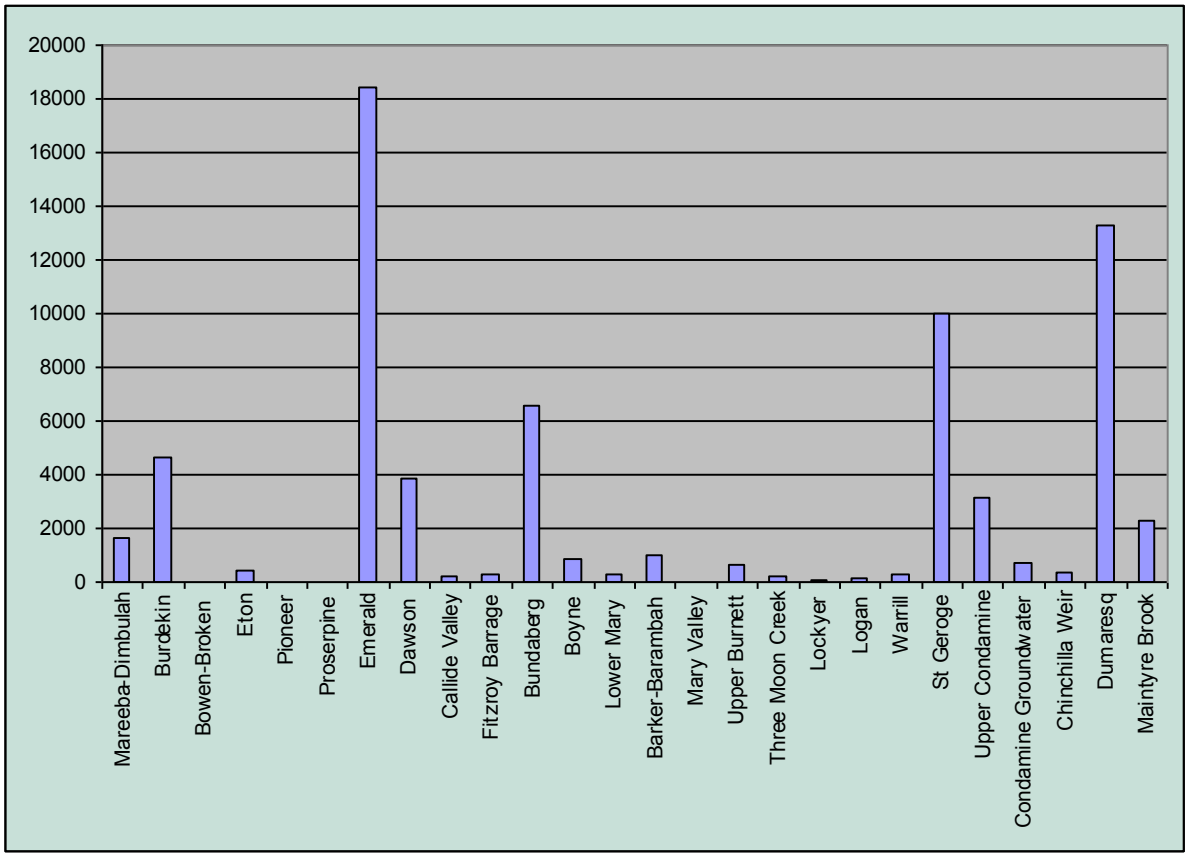


Figure: Temporary Transfers by Irrigation Scheme 1999-00

4.3.2 Arrangements for implementation of permanent water trading

Permanent transfers of water allocations are provided for under the *Water Act 2000*. Permanent transfers require existing entitlements to be converted to water allocations, which occurs on the day a ROP is created in the relevant catchment. A ROP is currently being developed for the Fitzroy Basin.

Water allocation transfer rules will be established through the development of ROPs. Water allocation transfer rules will address environmental issues and ensure where amendments are made to a water allocation as the result of a transfer, the overall take of water does not increase.

In respect of water allocation transfer rules, a ROP may also contain limits on the volume of water which may be transferred between locations, whether in or outside Queensland, or for different purposes. The intent of this section is to ensure transfers which could cause significant social or economic impacts on an area do not occur without prior assessment of whether the proposal is in the public interest.

A pilot program for permanent trading of existing water licences commenced in the Mareeba Dimbulah Irrigation area on 1 July 1999. After an initial period where potential buyers and sellers were somewhat hesitant, there is now considerable interest. In 1999-00, 4 permanent trades totalling 164ML occurred.

Section 222 of the *Water Act 2000* provides for licences to apply to the Chief Executive of DNRM to transfer the licence to another owner of the land to which the licence attached. Section 223 of the *Water Act 2000* allows licensees to apply to the Chief Executive of DNRM to transfer all or part of a licence to another piece of land.

5. ENVIRONMENT AND WATER QUALITY

5.1 Environment and Water Quality – Integrated Resource and Catchment Management

COAG Water Resource Policy

Jurisdictions agreed:-

6(a) that where they have not already done so, government would develop administrative arrangements and decision-making to processes to ensure an integrated approach to natural resource management;

(b) to the adoption, where this is not already practiced, of an integrated catchment management approach to water resource management and set in place arrangements to consult with the representatives of local government and the wider community in individual catchments.

8(b) to support ARMCANZ and ANZECC in their development of the National Water Quality Management Strategy, through the adoption of a range of market-based and regulatory measures, including the establishment of appropriate water quality monitoring and catchment management policies and community consultation and awareness.

(c) to support consideration being given to establishment of landcare practices that protect areas of river which have a high environmental value or are sensitive for other reasons.

5.1.1 Integrated Catchment Management Arrangements

In 1997, the Landcare and Catchment Management Council (LCMC) was established to replace the Queensland Landcare Council and the Catchment Management Coordinating Committee. The LCMC provides strategic advice to the then Minister for Natural Resources on landcare and catchment management in Queensland, and provides a link between community organisations and government. It coordinates community and government partnership action in natural resources and biodiversity management. It is also responsible for providing advice and strategic direction for the operation, management, administration, monitoring and evaluation of the Natural Heritage Trust (NHT) in Queensland.

Terms of Reference for the Landcare and Catchment Management Council

- Provide advice to the Minister for Natural Resources and Mines, either directly or through the Ministerial Resource Management Advisory Council or the Ministerial Natural Heritage Committee, on landcare, catchment management and NHT issues.
- As part of the advisory role, identify Statewide priorities and develop policies, strategies and guidelines for the implementation of natural resource management, biodiversity conservation and sustainable production at a state and regional level in accordance with the principles of environmentally sustainable development.

- Maintain communication with landcare and catchment management groups and encourage and support landholders and community groups in carrying out landcare and catchment coordination activities.
- Develop the framework and provide strategic direction for the operation, management and administration of the NHT in Queensland.
- Foster coordination and integration between government agencies, industry and professional and community organisations, including appropriate national bodies, in resource management and NHT programs.
- Coordinate the implementation of state-wide public awareness and education campaigns aimed at achieving an ethic of sustainable resource management in the community and widespread support for landcare, catchment management and NHT.
- Coordinate development of regional resource management strategies and provide guidelines for their preparation and endorsement; ensuring they incorporate and advance the implementation of national and state strategies and plans and other relevant regional and State planning studies.
- Endorse regional boundaries for the efficient management of regional strategy development and project assessment and endorse regional/catchment strategies.
- Develop guidelines for the membership and endorsement of Regional Strategy Groups (RSG), Regional Assessment Panels (RAP) and the State Assessment Panel (SAP), including the process and principles for selection of State and Regional Assessment Panels.

The LCMC has an independent Chair and Deputy Chair appointed by the Minister for Natural Resources and Mines, and 20 members, being:

- 2 members nominated by the Queensland Conservation Council, one with expertise in and the ability to represent the interests of in-stream freshwater or marine habitat conservation;
- 1 member nominated by Greening Australia - Queensland;
- members nominated by the Qld Farmers' Federation to represent extensive agriculture, intensive agriculture and grazing industries;
- 1 member nominated by fishing interests;
- 1 member nominated by the water industries;
- 1 Indigenous representative
- 1 member nominated by Local Government Association of Qld; and
- Government Department representatives
- Community members, one elected from each of the State's geographic regions.

5.1.2 Progress in Regional and Integrated Catchment Strategies and Planning

Queensland's thirteen Regional Strategy Groups have made considerable progress in developing natural resource and biodiversity management strategies in the past year. Eight of the regional strategy groups have received interim or full endorsement from the Queensland Committee of Natural Heritage Ministers and a further four have developed draft regional strategy documents, which are currently receiving community input. The Burnett-Mary group has commenced developing the strategy for its region. Six strategies were endorsed

and six were progress in 1999.

Progress in Regional and Integrated Catchment Strategies and Planning

Regional Strategy Group	Status	Regional Strategy Group	Status
Cape York	*Endorsed	South West Strategy	Interim
Fitzroy	Endorsed	Burdekin	Draft
Mackay Whitsunday	Endorsed	Lake Eyre	Draft
Murray Darling	Endorsed	Northern Gulf	Draft
South East	Endorsed	Southern Gulf	Draft
Wet Tropics	Endorsed	Burnett Mary	In Progress
Desert Uplands	Interim		

* Endorsed means "Government approved as official guidance"

Catchment strategy development by the 38 Catchment Management Coordinating Committees (CMCCs) has continued with the more easterly catchments achieving endorsement and moving into the strategy implementation stage. 27 CMCCs have received endorsement (interim or full) for their catchment strategies; another six have commenced preparation of a strategy or have completed a draft document. Of the remaining five CMCCs, two have commenced strategy development, while the remaining three are still to commence. The table below outlines their current status of catchment strategy development. 16 catchment strategies were endorsed and 13 were in progress in 1999.

Table: Status of Catchment Strategy Development

Catchment	Status	Catchment	Status
Albatross Bay	Endorsed	Mossman Daintree	Interim
Border Rivers	Endorsed	Noosa	Interim
Burnett	Endorsed	Oxley	Interim
Condamine	Endorsed	Pumicestone	Interim
Dawson	Endorsed	Sarina	Interim
Gilbert	Endorsed	Townsville Coastal Plains	Interim
Herbert	Endorsed	Tully Murray	Interim
Johnstone	Endorsed	Whitsunday	Interim
Maranoa Balonne	Endorsed	Baffle Creek	Draft
Maroochy/Mooloolah	Endorsed	Cooper Creek	Draft
Mary	Endorsed	Georgina/Diamantina	Draft
Pioneer	Endorsed	Pine Rivers	Draft
Russell Mulgrave	Endorsed	Bulloo	In progress
Barron	Interim	Calliope Boyne	In progress
Bowen Burdekin Floodplain	Interim	Annan-Endeavour	Due to commence
Bremer	Interim	Bloomfield Yelangi	Due to commence
Burdekin Rangelands	Interim	Fitzroy	Not scheduled
Lockyer	Interim	Southern Gulf	Not scheduled
Mitchell	Interim	Warrego Paroo	Not scheduled

All of the State now has a finalised or, in progress, regional NRM strategy while approximately 80% of the state (by area) is now covered by a catchment strategy. Evidence of the impact and use of Regional or Catchment Strategies lies in their impact on funding which can be sourced to assist with the development and implementation of NRM and biodiversity activity. In 2000-01, 85% of NHT proposals were able to document how the proposal was an integral component of delivering an NRM or biodiversity strategy.

In addition to aligning project proposals to the strategic directions outlined in these strategies, considerable progress has been made in better coordinating and integrating strategic NRM and biodiversity conservation information and actions into other planning mechanisms. DLGP and DNRM have jointly run workshops advancing the opportunities for progressing this integration with the primary focus being placed on local government planning schemes as the vehicle for advancing better natural resource planning and management outcomes.

Work has continued on progressing the conceptual, practical and on ground aspects of building relationships and outcomes between the regional strategy groups and catchment groups throughout the state. For example, the Northern Gulf and Mackay Whitsunday regions have undertaken cooperative strategy development at the catchment and regional level culminating in joint launches and the development of joint projects to deliver mutually beneficial outcomes.

5.1.3 Statutory Basis for Integrated Catchment Management

There is no direct statutory or legislative basis for the Integrated Catchment Management framework in Queensland, although individual aspects of catchment management are covered by some 20 Acts of Parliament administered by DNRM. Both the *Vegetation Management Act 1999* and the *Water Act 2000* place responsibility for local regionally based community participation planning processes. These are to utilise catchment or regional ecosystem based areas for their planning and resource management. It is feasible and logical regional/ catchment NRM and vegetation and water resource planning will coalesce into similar regional and common community partnership planning bodies. These above two Acts and the *Integrated Planning Act 1997* provide sufficient head of power at this stage to cover enforcement of actions if the need arises.

5.1.4 Framework to Review Effectiveness of Catchment Management Process

In 1999, DNRM released "*Guidelines for Developing Regional Strategies on Natural Resources Management and Biodiversity Conservation*". These have been utilised in drawing up and preparing strategies by the regional strategy groups and catchment committees. To achieve endorsement by the Minister, the strategy documents need to meet standards set out in the guidelines, and the proposed strategies are progressively reviewed against the guidelines by an independent committee/working group which reports to the LCMC. To receive endorsement, the group which prepared the strategy had to meet criteria of broad stakeholder representation, to use a client consultative approach including documentary evidence of support and commitment by key stakeholder (including local governments). Each strategy will need to already have developed its internal reporting monitoring review and evaluation process in order to achieve endorsement.

5.1.5 Future Actions

The recently released National Action Plan (NAP) on Salinity and Water Quality will become a major driver in the further development of integrated natural resource management and integrated catchment management in Queensland. The Queensland Government is currently considering additional integration and planning arrangements to progress the objectives of the NAP.

5.2 Environment and Water Quality – National Water Quality Management Strategy

COAG Water Resource Policy

(8)(b) to support ARMCANZ and ANZECC in their development of the National Water Quality Management Strategy, through the adoption of a range of market-based and regulatory measures, including the establishment of appropriate water quality monitoring and catchment management policies and community consultation and awareness.

(d) to request ARMCANZ and ANZECC, in their development of the National Water Quality Management Strategy, to undertake an early review of current approaches to town wastewater and sewerage disposal to sensitive environments, noting that action is underway to reduce accessions to water courses from key centres on the Darling River system. (It is noted that the National Water Quality Management Strategy is yet to be finalised and endorsed by governments).

5.2.1 Framework for National Water Quality Management Strategy

The policies and principles of the National Water Quality Management Strategy (NWQMS) are incorporated into Queensland legislation, in particular the *Environmental Protection (Water) Policy 1997* (the EPP (Water)), subordinate legislation to the *Environmental Protection Act 1994*. The EPP (Water) in effect delivers the NWQMS. The EPP (Water) provides a decision pathway for setting and formalising environmental values and water quality objectives for a specific waterway in accordance with the NWQMS. It also provides for development and implementation of local government plans for urban stormwater quality management, sewage management, trade waste management and water conservation.

The Environmental Protection Agency (EPA) has commenced a program to develop specific environmental values and water quality objectives with the involvement of local communities. This program is initially focusing on South East Queensland and will be progressively extended across the remainder of the State.

The draft State Coastal Management Plan (and subsequent regional coastal management plans) prepared under the *Coastal Protection and Management Act 1995* will recognise, support and seek to assist the implementation of the EPP (Water) in coastal areas. The draft State Coastal Management Plan also includes policies dealing with waste water discharges into coastal waters (sewage treatment plants, industrial discharges) and waste disposal facilities (including waste from boating and slipway facilities).

In South East Queensland, the implementation of the principles contained in the NWQMS is being undertaken through the use of a regional water quality management strategy. The Queensland Government, in collaboration with local government and community and industry groups, is progressively developing and implementing a regional water quality management strategy (the SEQRWQMS). The development of the SEQRWQMS is based on the principles contained in the NWQMS approach in which stakeholders determine environmental values, water quality objectives and management actions.

The Queensland Government has taken a lead role in the co-ordination and development of the SEQRWQMS and has made clear public commitment to implementing the strategy. The SEQRWQMS has adopted the scientific framework outlined in the Australian Water Quality Guidelines for Fresh and Marine Waters (ANZECC 1992) and is consistent with the overarching state-wide approach to water quality management.

5.2.2 Implementation of National Water Quality Management Strategy

The implementation of the main elements of the NWQMS is outlined below.

Australian and New Zealand Water Quality Guidelines for Fresh and Marine Waters: The EPP (Water) adopts the national guideline for use in deciding environmental values of water, water quality objectives to protect the environmental values of water and protocols to be used in sampling, measurement, analysis and reporting. The EPA is developing Queensland Water Quality Guidelines based on the scientific framework outlined in the national Guideline. The second draft of the Queensland Water Quality Guidelines is expected to be released in the first half of 2001. In the absence of site-specific local studies, the national Guidelines are considered in setting licence conditions for polluting activities.

Australian Drinking Water Guidelines: The Drinking Water Guidelines are incorporated into the Department of Natural Resources' "Guidelines for Planning and Design of Water Supply Schemes" as the basis of practice in Queensland. Drinking water standards are monitored by Queensland Department of Health.

Guidelines for Groundwater Protection in Australia: The EPP (Water) requires the development and implementation of environmental plans about protecting ground waters. The national guideline identifies vulnerability mapping, aquifer classification systems and wellhead protection as critical issues. These must be considered under the EPP (Water). DNRM is the lead agency with respect to implementation of these plans.

Guidelines for Sewerage Systems (Effluent Management, Trade Waste): The document "Total Management Planning for Urban Water-related Services" published by the Department of Natural Resources sets out a NWQMS-compliant management framework for local governments. The Queensland Government has also produced guidelines for the planning and design of sewerage schemes, and a model trade waste environmental management plan as required under the EPP Water.

As part of the *Standard Sewerage Law* an "Interim Code of Practice for On-site Sewerage Facilities" sets out performance requirements and criteria for the management of on-site sewerage facilities with the aim of ensuring effluent quality, operation and maintenance objectives are met and environmental values are not compromised.

Strategy for reusing sewage effluent and urban stormwater: Development of the Queensland Water Recycling Strategy began in July 1997 with the objective of maximising water recycling throughout the State. The Strategy is expected to assist in defining Government policy, legislative changes, monitoring and funding protocols; best practice guidelines; and developing education programs. The final Strategy, nearing completion after public consultation, will provide a framework to guide further development of water recycling.

Urban stormwater management: The EPA has produced model urban stormwater quality management plans and guidelines for use by local governments, in accordance with the EPP (Water).

6. PUBLIC EDUCATION AND CONSULTATION

COAG Water Resource Policy requirements

7(a) to the principle of public consultation by government agencies and service delivers where changes and/or new initiatives are contemplated involving water resources;

(b) that where public consultation process are not already in relation to recommendations (3)(b), (3)(d), (4) and (5) in particular, such processes will be embarked upon;

(c) that jurisdictions individually and jointly develop public eduction programs in relation to water use and need for, and benefits from reform;

(d) that responsible agencies work with eduction authorities to develop a more extensive range of resource materials on water resources for use in schools; and

(e) that water agencies should develop individually and jointly public eduction programs illustrating the cause and effect relationship between infrastructure performance, standards of service and related costs, with a view to promoting levels of service that represent the best value for money to the community.

6.1 Implementation of Water Reforms

The Queensland Government has engaged in an extensive community consultation and public education throughout implementation of the water reform process. In developing the Water Act 2000, the DNRM released for consultation a number of policy papers and a draft Bill. These included:

- *Improving the Water Allocation and Management System in Queensland (December 1998);*
- *Exposure Draft Bill and Explanatory Material - Water (Allocation and Management) Bill (November 1999);*
- *Governance Requirements for Public Sector Water Service Providers (April 1999);*
- *A Regulatory Framework for the Provision of Water Services in Queensland (April 1999);*
- *Water Supply Planning for Queensland (October 1999);*
- *Water Reform Implications for Local Government (November 1999); and*
- *Institutional Reform of State Water Projects (March 2000).*

In addition, a number of brochures have been prepared on a variety of topics to assist water users to understand the broad issues surrounding water reform. Brochures produced to date include:

- *Permanent Trading in Water (June 99)* – a guide to trial permanent water trading in the Mareeba-Dimbulah Irrigation Area;
- *New Arrangements for Irrigation Water Pricing (June 99)* – an explanation of the need for cost-recovery pricing to ensure the sustainability of irrigation schemes;

- *Queensland Irrigation Schemes – Price Path Process (August 99)* – an outline of the process established by WRU for determining future price paths for the State's irrigation schemes.
- *Securing the Future for Water (August 99)* – a broad overview of the water reform process and what it will mean for water users.

Consultation has included regular briefing sessions with the Water Industry Peak Consultative Committee which has the following industry groups represented:

- Canegrowers
- Queensland Irrigators Council
- Queensland Farmers Federation
- Cotton Australia
- AgForce
- Queensland Conservation Council
- Queensland Fruit and Vegetable Growers
- Local Government Association of Queensland
- Environmental Defenders Office
- Australian Conservation Foundation

Regional information sessions and briefings for stakeholders have been undertaken throughout the State on all major water reform initiatives, with a particular emphasis on the *Water Act 2000* and local government and water reform.

6.1.2 Rural Water Pricing

Detailed consultation was undertaken with users by the WRU over an 18 month period. Price paths have been developed in close consultation with the irrigation community at a number of levels:-

- the Water Industry Peak Consultation Committee (comprising representatives from industry groups, the Local Government Association of Queensland, environmental groups, water boards and central Government agencies) was regularly updated of water industry policy issues and the ongoing development of the price paths;

- a High Level Policy Advisory Committee comprising representatives from the main irrigation industries and the Queensland Farmers Federation provided input into the pricing process;

- at the scheme level consultation occurred through local Interim Local Management Committees which typically comprise up to 15 irrigators from each scheme. In all, 200 irrigators had direct input into the policy process. The WRU visited all 30 schemes at least 3 times over the 18 month period to discuss scheme operating costs, pricing options and related issues

6.1.3 Water Resource Plans

The *Water Act 2000* provides a statutory basis to ensure all stakeholders are consulted during the development of WRPs and ROPs for catchment areas. In addition, the *Water Act 2000* requires the formal establishment of a community reference panel to provide community input into the development of WRPs.

6.1.4 Rural Water Use Efficiency

DNRM has developed the Rural Water Use Efficiency Initiative in consultation with key industry groups specifically through the Rural Water Use Efficiency Industry Advisory Committee. The initiative aims to promote best practice irrigation water management through community education, research and with development and direct rural industry organisation involvement. The Rural Water Use Efficiency Unit has undertaken a program of raising community awareness regarding water use efficiency including, development of a web page, distribution of *Improving Queensland's Rural Water Use Efficiency – The Facts* and other promotional materials.

6.1.5 Waterwise

The Queensland Government continues to be a major sponsor of Waterwise. Waterwise aims to create an awareness of the true value of water across all parts of the community and encourages active involvement by all Queenslanders in conserving and managing water resources. A key objective of Waterwise to delay the need for costly new water and wastewater infrastructure through the implementation of water conservation and demand management strategies.

6.1.6 Other Educational Material

DNRM provides a range of educational material to water users to improve the operation and quality of:

- drainage;
- farm dams;
- groundwater;
- irrigation;
- pumping;
- stockwater;
- land and water management;
- water quality; and
- water weeds.

ATTACHMENT 1: TWO PART TARIFFS TO TYPE 1 AND 2 WATER AND SEWERAGE BUSINESS ACTIVITIES 2000-01

Council	Category	Tariff	Tariff Details		Sewerage
			Annual Access Charge	Consumption Charge ($/c per kL)	Per Pedestal
Brisbane	domestic	two-part tariff	$100	80c/kL	$273.04
	com/ind	two-part tariff	30% of consumption charge with minimum charge of $100	87c/kL	$418.44 first pedestal >1 pedestals from $122.28
Bundaberg	domestic	unit/ excess		$293 for 600kL; excess 66c/kL	$325.94
	com/ind	unit/ excess		$293 for 366kL; excess 80c/kL	$325.94 first pedestal >1 pedestals from $135.81
Caboolture	domestic	two-part tariff	$234	Tiered consumption charges $143.50 for 350kL which equals 41c/kL. If less than 350kL is used a rebate is given the next year. 95c/kL over 350kL	$374.00
	com/ind	two-part tariff	$112	Tiered consumption charges $143.50 for 350kL which equals 41c/kL. If less than 350kL is used a rebate is given the next year. 95c/kL over 350kL	$374.00 first pedestal additional pedestals $224.00
Cairns	domestic	two-part tariff	$116	51c/kL	$340.20
	com/ind	two-part tariff	$116	68c/kL	$340.20
Caloundra	domestic	two-part tariff	$80	75c/kL	$361.00
	com/ind	two-part tariff	$80	75c/kL	$361.00 first pedestal additional pedestals $270.75
Gold Coast	domestic	2pt tariff/excess	$238	16c/kL for 290kL; >290kL $1.50 kL	$374.00
	com/ind	2pt tariff/excess	$270	16c/kL for 290kL; >290kL $1.50 kL	$374.00 first pedestal additional pedestals $337.00
Hervey Bay	domestic	two-part tariff	$166.40	85c/kL	$375.60
	com/ind	two-part tariff	$166.40	85c/kL	$375.60 first pedestal additional pedestals $375.60
Ipswich	metered domestic (87%)	two-part tariff	$148	0-400kL/45c; 400-550kL/81c; >550kL/$1.28	$372.00
	com/ind	two-part tariff	$148	0-400kL/45c; 400-550kL/81c; >550kL/$1.28	$372.00
Logan	metered - domestic	two-part tariff	$140	75c/kL	$303.00
	metered – com/ind	two-part tariff	$160	75c/kL	$303.00 first pedestal additional pedestals $227.25
Mackay	Domestic	fixed charge/ excess	$241 for 300kL (factor 1)	tiered excess charges 45c/kL 301-1500kL 63c/kL >1500kL	$315.00
	com/ind	two-part tariff	$148for 300kL; medium sized business with 1,500m² is $148 x 5 = $7,404	tiered excess charges 45c/kL 301-1500kL 63c/kL >1500kL	$315.00
Maroochy	domestic	two-part tariff	$152.90	87c/kL	$447.20
	com/ind	two-part tariff	$152.90	87c/kL	$447.20

Council	Category	Tariff	Tariff Details		Sewerage
			Annual Access Charge	Consumption Charge ($/c per kL)	Per Pedestal
Noosa	domestic	two-part tariff	$125	67c/kL	**$377.00**
	com/ind	two-part tariff	$125 - $7,500	67c/kL	**$377.00 first and second pedestal. additional pedestals $333.00**
Pine Rivers	domestic A	fixed/excess		$342 for 450kL; 450kL-1200kL 76c kL 1200kL-2400kL 78c kL >2400kL 80c kL	$313.00
	domestic B	fixed/excess		$266 for 350kL 350kL-1200kL 76c kL; 1200kL-2400kL 78c kL; >2400kL 80c kL	$313.00
	Industrial/Commercial A	fixed/excess		$380 for 500kL; 500kL-1200kL 76c kL; 1200kL-2400kL 78c kL >2400kL 80c kL	$313.00
	Industrial/Commercial B	fixed/excess		$266 for 350kL 350kL-1200kL 76c kL; 1200kL-2400kL 78c kL >2400kL 80c kL	
Redland	domestic	two-part tariff	$176.50	0-980kL/26.5c/Kl; >980kL/69c/Kl	$391.75
	com/ind	two-part tariff	$266-$7,950	0-980kL/26.5c/Kl; >980kL/69c/Kl	$391.75 first pedestal. additional pedestals $313.40
Rockhampton	domestic	fixed charge	$441.00	No consumption charge	$225.90
	com/ind	fixed charge	Various. based on building floor size from $8.66 per unit <400 units; $8.44 per unit >400 units		$225.90
Thuringowa	The Standard Plan domestic	fixed/excess		$405 for 768kL excess $1.02 kL	$377.00
	The WaterWatcher Plan domestic	two-part tariff	$275	50c kL up to 1200kL; >1200kL $1.02 kL	$377.00
	The Standard Plan Commercial/Industrial	fixed/excess	Various fixed charges	from $318 for 522kL excess $1.06 kL to$3531 for 3000kL excess $1.06 kL	$377.00
	The WaterWatcher Plan Commercial/Industrial	two-part tariff	Various pipe sizes 20mm $500 up to 200mm $50,000	20mm 50c kL up to 1200kL excess $1.02 200mm $1.50kL no excess	$377.00
Toowoomba	Domestic	two-part tariff	$267	50c/kL to 324kL; >324kL/$1.05/kL	$178.50
	Com/ind	two-part tariff	Varies by pipe size from $408 to $14,672	50c/kL to 324kL; >324kL/$1.05/kL	$178.50 first pedestal, additional pedestals $178.50

Council	Category	Tariff	Tariff Details		Sewerage
			Annual Access Charge	Consumption Charge ($/c per kL)	Per Pedestal
Townsville	domestic	fixed charge/excess		$372.92 for 776kL; excess $1.13/kL	$290.97
	com/ind	fixed charge/excess		$372.92 for 776kL excess $1.13/kL Schools, charitable institutions, sporting fields vary from 39c/kL to $1.99kL and large private enterprise commercial consumers $$2.00/kL for first 100,000kL, 50c/kL next 100,000kL; $1/kL for next 100,000kL	$ 300.21 Tenant & Tourist accommodation. $327.83 other businesses.

ATTACHMENT 2: BIG 18 LOCAL GOVERNMENTS FULL COST PRICING FOR WATER AND SEWERAGE – 1999-00

		Total Revenue	Operating costs	Dep'n/ Renewals	EBIT	Interest	Income TERs	Dividends	Assets	Rate of Return on Assets
Bundaberg	Water	4,367,163	2,639,608	1,597,116	130,439	376,085			49,630,369	0.26%
	Sewerage	6,363,897	2,821,077	3,401,622	141,198	605,140			92,462,845	0.15%
Brisbane	Water	176,449,364	149,889,940	945,166	25,614,258		10,122,162	12,230,642	2,302,279,860	4.60%
	Sewerage	172,695,077	150,855,306	678,702	21,161,069		7,321,527		2,347,463,940	6.30%
Caboolture	Water	27,034,487	6,048,310	4,525,289	16,460,888	88,965	5,893,892	5,793,734	121,133,303	8.65%
	Sewerage	26,231,209	7,474,423	3,930,260	14,826,526	43,603	5,321,852	2,213,109	109,376,542	8.65%
Cairns	Water	24,155,028	7,975,955	12,649,033	3,530,040	2,318,480	1,270,814		283,987,078	1.24%
	Sewerage	20,190,213	6,328,289	10,175,493	3,686,431	3,843,650	1,327,115		192,923,050	1.91%
Caloundra	Water	10,620,413	6,138,980	2,279,392	2,202,041	133,112		2,041,630	80,909,423	2.56%
	Sewerage	12,727,716	4,865,312	2,401,595	5,460,809	1,204,865		221,627	123,980,996	3.40%
Gold Coast	Water	84,380,000	22,174,000	3,397,000	58,809,000	3,715,000	9,257,000	23,445,000	759,502,000	7.74%
	Sewerage	93,432,000	27,009,000	4,561,000	61,862,000	5,785,000	9,414,000	23,445,000	765,398,000	8.08%
Hervey Bay	Water	9,002,486	3,834,245	3,136,950	2,031,291	698,234		2,105,000	105,648,789	1.20%
	Sewerage	7,739,124	4,100,397	1,576,238	2,062,489	611,015		595,000	65,581,470	2.10%
Ipswich	Water	21,466,083	12,833,554	4,429,934	4,202,595	805,635		4,392,874	142,817,765	2.65%
	Sewerage	19,569,999	11,570,882	6,205,712	1,793,405	1,602,662		1,796,507	150,491,824	2.15%
Logan	Water	28,022,033	18,203,814	4,066,470	5,751,749	1,385,912	2,037,470	2,013,158	144,582,801	1.39%
	Sewerage	24,492,343	8,368,143	6,466,579	9,657,621	2,407,640	3,421,066	2,668,604	278,283,967	0.96%
Mackay	Water	12,029,838	4,447,010	2,675,276	4,907,552	779,291	314,996	1,424,996	103,340,280	4.75%
	Sewerage	11,404,836	3,646,575	2,316,132	5,442,129	1,027,463	346,000	992,004	85,276,803	6.38%
Maroochy	Water	25,830,000	6,068,000	3,243,000	16,519,000	2,953,000	3,143,000	3,696,000	127,887,000	12.92%
	Sewerage	35,331,000	11,269,000	6,556,000	17,506,000	5,905,000	1,015,000	895,000	272,761,000	6.42%

		Total Revenue	Operating costs	Dep'n/ Renewals	EBIT	Interest	Income TERs	Dividends	Assets	Rate of Return on Assets
Noosa	Water	7,659,296	4,072,751	1,905,788	1,680,757				118,318,127	3.40%
	Sewerage	7,118,536	3,570,980	2,157,385	1,390,171	773,807			86,779,507	1.60%
Pine Rivers	Water	15,384,000	9,480,000	2,086,000	3,818,000	874,000	391,832	1,261,168	82,730,000	4.62%
	Sewerage	14,044,000	7,296,000	2,725,000	4,023,000	2,343,000	357,506	742,494	107,800,000	3.73%
Redland	Water	26,811,955	13,601,551	5,392,433	7,817,971	1,962,564	2,665,044	3,408,766	160,472,712	5.36%
	Sewerage	21,431,326	7,041,703	4,338,585	10,051,038	1,993,912	2,902,045	3,499,586	141,213,551	7.08%
Rockhampton	Water	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	Sewerage	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Thuringowa	Water	11,484,451	5,630,527	1,288,937	4,564,987		251,000	2,409,221	44,470,837	5.40%
	Sewerage	6,180,071	2,153,559	1,786,629	2,239,883		258,000	1,364,579	60,436,398	2.25%
Toowoomba	Water	15,190,643	4,852,514	4,148,145	6,189,984	2,003,251		4,876,253	178,581,950	6.87%
	Sewerage	9,352,207	4,521,900	3,237,564	1,592,743	1,040,227		2,332,058	92,561,696	7.12%
Townsville	Water	27,843,500	18,384,301	3,174,000	6,285,199	88,056	2,230,971	3,715,084	79,827,958	7.87%
	Sewerage	17,467,544	6,667,778	4,397,000	6,402,766	220,800	2,225,508	3,705,986	100,903,306	6.35%

ATTACHMENT 3: CSOs PROVIDED BY BIG 18 LOCAL GOVERNMENTS 1999-00

Local Government	Value	CSOs Provided
Bundaberg	N/A	Bundaberg is a new Type 2 activity. CSOs will be provided from in 2000-01
Brisbane	$3,677,256 (W) $4,460,315 (S)	Pensioner remissions Pensioner remissions, remissions to universities
Caboolture (2000-01)	$197,241 (W) $$1,039,136 (S)	Fire hydrants, Waterwise, extension of uneconomical water supply to outlaying community Raising sewer manholes, extension of uneconomical sewerage to outlaying community, price and supply concessions, reuse water (environmental considerations)
Cairns	$715,105 (W) $666,133 (S)	Service locations (eg. Telstra); fire hydrants; special needs groups; rebates to community groups; Council consumption; Service locations (eg. Telstra); rebates to community groups; council use; council properties eg. public toilets.
Caloundra	$172,201 (W) $73,175 (S)	Fire hydrants; supply to beach showers & ramps, supply to parks Maintenance of private pump stations; subsidised holding tank collections & disposals
Gold Coast	$3,682,000 (W) $3,157,000 (S)	State and Council pensioner subsidies and remissions, concessions to community and sporting groups State and Council pensioner subsidies and remissions, concessions to community and sporting groups
Hervey Bay	$7,272 (W) $41,429 (S)	Grants to community and sporting organisations Grants to community and sporting organisations
Ipswich	$18,596 (W) $50,434 (S)	Water for fire fighting, uneconomic water supply extensions Cleaning, repairing/replacing combined house drains, uneconomic reticulation extensions, concessions to community groups
Logan	$170,000	Pensioner discounts
Mackay	$462,004 (W) $509,996 (S)	Revenue supplement to offset tax equivalents
Maroochy	$5,080,000 (W&S)	Fire hydrants, Waterwise program, extension of water and sewerage to unserviced/uneconomical areas, effluent re-use, rating concessions, pensioner discounts, raising of sewer manholes less than 600mm above-ground free of charge, riparian releases – Wappa & Coolloolabin Dams
Noosa	$180,200 (W) $53,500 (S)	Pension rebates, rebates to community and sporting organisations; council toilets and showers, median strips and parks Pension rebates, rebates to community and sporting organisations
Pine Rivers	$714,000 (W) $749,000 (S)	Pensioner and general discount; water supply and sewerage to Council swimming pools, buildings and parks/gardens median strips; fire fighting; drinking water supply tankered to rural areas; services to community groups; sewer manhole raising; tap timers for pensioners; rebates to residents to connect to Council funded sewerage schemes; free advice to residents with sewer blockage.
Redland	$103,772 (W) $72,156 (S)	Community/sporting group concessions Community/sporting group concessions

Local Government	Value	CSOs Provided
Rockhampton	$325,254 (W) $186,888 (S)	Pensioner Discounts; operations and maintenance of fish ladder; waterwise campaign; water allocation to jockey club and golf club; water allocations to clubs and associations; water usage on sporting fileds; show grounds discount. Pensionner discounts; combined line charges; houseline blockages; showground discount
Thuringowa	$193,000 (W)	Discounted/free water provided to community organisations
Toowoomba	$425,321 (W) $260,679 (S)	Pension rebates Pension rebates
Townsville	$1,942,418 (W S)	Subsidised water and sewerage for sporting and charitable organisation, rate concessions.

ATTACHMENT 4: CROSS SUBSIDIES IDENTIFIED BY THE BIG 18 LOCAL GOVERNMENTS 1999-00

Local Government	Cross-Subsidies Identified
Bundaberg	Bundaberg is a new Type 2 activity. Cross-subsidies will be identified from in 2000-01
Brisbane	No customers are paying below the long run marginal cost for water of wastewater and consequently 'no cross-subsidies" exist. However, some price discrimination does exist.[1]
Caboolture	There are no cross-subsidies between consumer types. On a locality basis, no cross-subsidies exist in the supply of water services. For sewerage services, it has been identified within one particular community that commercial users, other users and vacant land are subsidising domestic users.
Cairns	Cairns will have cross-subsidies identified by 30 June 2001.
Caloundra	No cross-subsidies identified.
Gold Coast	All customers pay less than LRMC, therefore no-cross-subsidies present. The Gold Coast City Council notes that the methodology ignores the fixed costs recovered in the access and base charges, which vary between customers in accordance with the applicable pricing policies.
Hervey Bay	No cross-subsidies identified.
Ipswich	There were no cross-subsidies applying for the 1999-00 financial year. All consumer classes paid the same unit price for water and sewerage services. The per kilolitre cost for water paid by domestic consumers was in the order of prices paid by consumers in other categories.
Logan	For the 1999-00 financial year, cross-subsidies were identified between user groups for the water service component of the two-part tariff. The service charges for a base flow capacity factor of 1 were as follows:- residential $135, non-residential $200. This cross-subsidy has been reduced in the 2000-01 financial year to the following:- residential $140, non-residential $160.
Mackay	Mackay still to undertake cross-subsidy identification process.
Maroochy[2]	Water – No customer group or system is receiving a cross-subsidy. There is price discrimination between customer groups (ie. between residential and non-residential customers) with non-residential customers paying a higher markup than residential groups. Sewerage – No customer group or system is receiving a cross-subsidy, although there is price discrimination between customer groups. Price discrimination is more dramatic for sewerage than for water for non-residential customers with a mark up actor for non-residential customers being 430%.
Noosa	Noosa is currently commercialising its water and sewerage activity. The consultants engaged to assist in the commercialisation have also been engaged to identify cross-subsidies.
Pine Rivers	Pine Rivers has identified cross-subsidies across user groups totalling $1.44M.

[1] Report completed by Marsden Jacob Associates
[2] "Cross-Subsidies Report" (November 2000), Marsden Jacob Associates

Local Government	Cross-Subsidies Identified
Redland[3]	No cross subsidies identified for water or sewerage
Rockhampton	Cross-subsidies are currently being identified by the Rockhampton City Council. Identification to be completed by end March 2001
Thuringowa	Council's 2000-01 budget identifies transfers and cross-subsidies of $14,727,716. Thuringowa Water was commercialised on 1 July 2000 and two part tariffs are being progressively introduced.
Toowoomba	There are no cross-subsidies.
Townsville	Commercial and industrial customers pay increased water charges in order to allow residents to maintain green lawns and footpaths, and to pay increased costs in servicing commercial/industrial properties. The cross subsidy in water charges is estimated at $3,000,000.

[3] Independent consultants report

ATTACHMMENT 5: WATER SUPPLY AND SEWERAGE TARIFFS, WATER CONNECTIONS GREATER THAN 5000

Summary of Local Government Progress on Two Part Tariffs

Councils with two part tariffs	Completed a two part tariff assessment			Resolved not to implement	Remain under current arrangements
	Will adopt two part tariff	Will consider further	Not cost effective		
	Greater than 5000 water connections				
Warwick	Beaudesert Burdekin Gladstone (02-03) Livingstone Redcliffe	Johnstone (completing fresh assessment) Cooloola	Maryborough Mount Isa		

Summary of Local Government Tariff Arrangements (2000-01)

Council	Category	Tariff	Tariff Details	
			Annual Access Charge	Consumption Charge ($/c per kL)	Sewerage
Beaudesert	domestic	unit/excess 2 schemes		2 schemes $456 for 350kL; excess 75c/kL and $435.00 for 350kL; excess 75c/kL	$285.00
	com/ind	unit/excess 2 schemes		2 schemes $72/350kL to $10,450 for 350kL; excess 75c/kL	$285.00 first pedestal, additional $228.00
Burdekin	domestic	fixed charge/excess		$306 for 1040kL tiered excess fees for 2 schemes Scheme 1 0-1000kL - 70c/kL; 1001kL- 10,000kL - 80c/kL; >10,000 – 85c/kL Scheme 2 0 – 500kL70c/kL; 501kL – 1,000kL – 80c/kL; >1,000kL – 85c/kL Scheme 3 $377.00 for 840kL excess 0-150kL – 70c/kL; 150kL – 300kL 80c/kL; >300kL/85c/kL	$404.00
	com/ind	fixed charge/excess		Same as for domestic	$404.00
Cooloola	domestic	unit/excess		5 schemes $249.00 to $267.40 for 290kL; excess from 76c/kL to $1/kL	4 schemes $287.80 to $295.60
	com/ind	unit/excess		various by scheme $62.70 - $3636.60 for 750kL; excess 76c/kLabove 72,500 litres to $1/kL above 24,166 litres	4 schemes $287.80 to $295.60
Gladstone	domestic	fixed charge/excess		$301.80 for 500kL; excess 73.6c/kL	$273.70
	com/ind	fixed charge/excess		various from $276/387kL to $141,680.00 >192,501kL; excess 73.6c/kL	$273.70 first pedestal; additional $171.00

Council	Category	Tariff	Annual Access Charge	Tariff Details Consumption Charge ($/c per kL)	Sewerage
Johnstone	domestic com/ind	unit/excess unit/excess		$250 for 584kL; excess 70c $250 for 584kL; excess 70c	$370.08 $370.08
Livingstone	domestic com/ind	fixed charge/excess fixed charge/excess		3 schemes $394.80 unlimited supply; $390 for 390kL, excess $1/kL and $330 for 520kL, excess 60c/kL from $390 for 390kL to $185,625.00 for 292,500kL, excess varies with scheme from 60c/kL to $1/kL	$403.20 $403.20 first pedestal, additional $352.80
Maryborough	domestic com/ind	unit Unit/excess		$335.66 unlimited water unit/excess Varies from $464.76/216kL to $2,582.00/1200kL Excess from 44c/kL to 73c/kL	$206.00 $257.50
Mount Isa	domestic Com/ind	unit/excess 2 schemes unit/excess		2 schemes$476 for 1000kL; excess 53c/kL Mt. Isa; $439.00 unlimited supply for Camooweal $476 for 1000kL; excess 53c/kL Mt. Isa; $439.00 unlimited supply for Camooweal	2 schemes $223.83 Mt Isa and Camooweal $59.22 $223.83 first pedestal, additional $174.90 for Mt. Isa; $59.22 first pedestal, additional $46.06 at Camooweal
Redcliffe	domestic Com/ind	unit/excess unit/excess		$215.26 for 365kL; excess 73c/kL from $215.26 for 365kL to $1,845.12 for 3,129kL; excess 73c/kL	$174.70 first 3 pedestals; additional $66.80 $174.70 first 3 pedestals; additional $66.80
Warwick	domestic Com/ind	two-part tariff two-part tariff	$213.30 $213.30/20mm; $331.80/25mm; $478.40/30mm; $592.85/40mm or larger	55c/kL 55c/kL	$244.80

ATTACHMENT 6: COST RECOVERY FOR COUNCILS WITH WATER CONNECTIONS GREATER THAN 5000 (1999-00)

Council		Operating Revenue	Other Revenue	Total Revenue	Operating Costs	Depreciation	Operating Profit	Interest	TERs	Adnormals	Operating Profit After Interest & Tax	Dividends
Beaudesert	Water	3,470,685		3,470,685	1,265,290	768,392	1,437,003	131,776			1,305,227	1,107,964
	Sewerage	1,318,184	337,593	1,655,777	658,135	225,203	772,439	131,322			641,117	
Burdekin	Water	1,959,217	164,917	2,124,134	1,590,505	326,698	206,931	68,052		1,844,302	-1,705,423	
	Sewerage	2,504,641	209,508	2,714,149	1,657,615	570,950	485,584	99,130		2,086,789	-1,700,335	
Cooloola	Water	3,383,044	122,617	3,505,661	1,829,779	766,966	908,916	35,353		2,289,434	-1,415,871	
	Sewerage	2,935,456	202,664	3,138,120	1,310,061	547,603	1,280,456	1		-94,414	1,374,869	
Gladstone	Water	6,175,000	713,000	6,888,000	5,427,000	650,000	811,000	162,000			649,000	
	Sewerage	3,769,000	591,000	4,360,000	2,484,000	950,000	926,000	517,000			409,000	
Johnstone	Water	2,087,000	12,000	2,099,000	1,034,000	1,229,000	-164,000	182,000			-346,000	
	Sewerage	1,880,000	71,000	1,951,000	732,000	487,000	732,000	114,000			618,000	
Livingstone	Water	4,135,042		4,135,042	1,893,910	841,034	1,400,098	316,865			1,083,233	
	Sewerage	2,937,833		2,937,833	1,092,907	405,547	1,439,379	419,915			1,019,464	
Maryborough	Water	3,746,746		3,746,746	1,779,809	929,381	1,037,556	317,792		-928,260	1,648,024	
	Sewerage	2,545,344		2,545,344	1,594,206	726,936	224,202	215,183			9,019	
Mount Isa	Water	3,900,004		3,900,004	2,773,537	670,203	456,264	565,536		-16,854	-92,418	
	Sewerage	1,701,329		1,701,329	1,190,535	632,022	-121,228	451,123		-33,086	-539,265	
Redcliffe	Water	4,940,250		4,940,250	3,888,783	1,438,191	-386,724				-386,724	
	Sewerage	4,290,050		4,290,050	2,960,744	1,840,284	-510,978				-510,978	
Warwick	Water	2,529,100	210,700	2,739,800	1,610,200	713,100	416,500				416,500	
	Sewerage	1,564,200	37,400	1,601,600	878,300	514,600	208,700	84,000			124,700	

ATTACHMENT 7: WATER SUPPLY AND SEWERAGE TARIFFS, WATER CONNECTIONS GREATER THAN 1000

Summary of Local Government Progress on Two Part Tariffs

Councils with two part tariffs	Completed a two part tariff assessment				
	Will adopt two part tariff	Will consider further	Not cost effective	Resolved not to implement	Remain under current arrangements
Greater than 1000 water connections					
Boonah	Balonne	Atherton	Cardwell	Banana	Belyando
Calliope	Burnett	Charters Towers	Cloncurry	Bowen[5]	Broadsound
Chinchilla	Dalby[4]	Mareeba	Duringa	Nanango	Douglas
Crows Nest	Esk	Eacham	Goondawindi		Herberton
Emerald	Rosalie		Paroo		Longreach
Fitzroy	Wondai		Peak Downs		Roma
Gatton			Whitsunday		Sarina
Hinchinbrook					
Isis					
Jondaryan					
Kingaroy					
Laidley					
Murgon					
Pittsworth					
Stanthorpe					

Summary of Local Government Tariff Arrangements (2000-01)

Council	Category	Tariff	Tariff Details	
			Annual Access Charge	Consumption Charge ($/c per kL)	Sewerage
Atherton	domestic	unit/excess		$241/250kL; excess 53c/kL	$389.00
	com/ind	unit/excess		$241/250kL; excess 53c/kL	$389.00
Balonne	domestic	unit/excess 2 schemes		$570.36 for 980kL; excess from 25c/kL (borewater) to 62c/kL	$276.42
	com/ind	unit/excess 2 schemes		varies from $74.21 for 150kL to $2997.30 for 5,150kL excess from 25c/kL (borewater) to 62c/kL	$276.42 first pedestal. additional pedestals from $115.18 to $184.28

[4] Will implement over longer time period
[5] Marginal benefits indicated by two part tariff assessment

Council	Category	Tariff	Annual Access Charge	Tariff Details Consumption Charge ($/c per kL)	Sewerage
Banana	domestic	unit/excess 3 schemes		various by town from $312.00/600kL to $375.00/625kL to $492.00/600kL; excess varies by town from 60c/kL to $1.20/kL	3schemes $137.86 to $276.08 first pedestal; additional from $103.40 to $207.06.
	com/ind	unit/excess 3 schemes		various by town from $312.00/600kL to $375.00/625kL to $492.00/600kL; excess varies by town from 60c/kL to $1.20/kL	3schemes $137.86 to $276.08 first pedestal; additional from $103.40 to $207.06.
Belyando	domestic com/ind	unit/excess unit/excess		2 schemes: from $358.08 excess 64c/kL to $466.08 for 660kL excess 74c/kL 2 schemes: from $328.24 for 728kL to $1,641.20 3,643kL; excess 64c/kL; from $388.40 for 550kL to $4,699.64/6,655kL excess 74c/kL	$303.00 $303.00 first pedestal, additional pedestals from $156.90 to $171.70
Boonah	domestic com/ind	two-part tariff	$195.00 32-50mm meters $300.00 >50mm meters $500	80c/kL 80c/kL	$112.50 $112.00 first pedestal; additional $56.25
Bowen	domestic	fixed charge/excess 2 schemes		Bowen $628 for 750kL; excess 75c/kL Collinsville $285 for 750kL excess 70c/kL	Bowen $450.00 Collinsville $160.00
	com/ind	fixed charge/excess 2 schemes		Bowen $628 for 750kL; excess 75c/kL Collinsville $285 for 750kL excess 70c/kL	Bowen $450.00 Collinsville $160.00
Broadsound	domestic	unit/excess		4 schemes from $364 to $485.84 for 125kL to 360kL excess for each scheme 40c/kL	Dysart $351.60 Middlemount $300.40
	com/ind	unit/excess		4 schemes from $182.00 to $7,287.60 125kL to 360kL excess for each scheme 40c/kL	Dysart $351.60 Middlemount $300.40
Burnett	domestic com/ind	unit/excess unit/excess		$432.50 for 450kL; excess 85c/kL from $84 - $21,625 per 450kL; excess 85c/kL	$390.00 $390.00
Calliope	domestic	two-part tariff	from $144	2 schemes (1) 44c/kL (2) 27c/kL	2 schemes Tannum Sands $280 Calliope: $380
	com/ind	two-part tariff	from $230 to $8,120	2 schemes (1) 44c/kL (2) 27c/kL	2 schemes Tannum Sands $280 Calliope: $380
Cardwell	domestic com/ind	unit/excess unit/excess		$270 for 600 kL; 60c to 800kL, $1 thereafter varies from $54 to $8,100 for 60kL; thereafter $1.	$293.50 $293.50

Council	Category	Tariff	Tariff Details Annual Access Charge	Tariff Details Consumption Charge ($/c per kL)	Sewerage
Charters Towers	domestic com/ind	unit./excess unit/excess		$336 for 900kL; excess 84c/kL $336 - $1,680 for 900kL; excess 84ckL	$316.00
Chinchilla	domestic - Chinchilla com/ind - Chinchilla	two-part tariff two-part tariff	$178 $178	49c for 400kL; $1 thereafter 49c for 400kL; $1 thereafter	$110.00 $110.00 each pedestal
Crows Nest	domestic com/ind	two-part tariff two-part tariff	access charge 3 schemes $94.00, $140 & $153 access charge 3 schemes $94.00, $140 & $153	45c/kL – 52c/kL to 280 kL; >280kL/$1.29kL 45c/kL – 52c/kL to 280 kL; >280kL/$1.29kL	2 schemes $280 & $300 2 schemes $280 & $300
Dalby	domestic com/ind	fixed charge/excess fixed charge/excess		$304 for 365kL; excess 75c/kL from $304 for 365kL to $1520 for 1825kL; excess 75c/kL	$224.00 from $56.00 to $224.00 per pedestal
Douglas	domestic com/ind	unit/excess unit/excess		$286 for 656kL; excess 50c/kL from $171.60 - $28,600 for 656kL; excess 50c/kL	$444.00 from $444.00 to $44,400.00
Duaringa	domestic com/ind	fixed charge/excess fixed charge/excess		6 schemes from $100 to $128 for 637kL excess first 218kL 16.49c/kL; next 250kL 22c/kL; from 468kL 44c/kL 6 schemes from $100 to $128 for 637kL excess first 218kL 16.49c/kL; next 250kL 22c/kL; from 468kL 44c/kL	$155.00 $155.00
Eacham	domestic com/ind	fixed charge/excess fixed charge/excess		$256 for 640kL; excess 65c/kL $256 for 640kL; excess 65c/kL	$300.00 $300 first pedestal, additional $240.00
Emerald	domestic com/ind	two-part tariff two-part tariff	Access charge $206.00 Access charge $206.00	5 schemes 38c/kL; rural water 68c/kL; Comet water 75c/kL first 650kL; excess $1.08c/kL; Anakie Water 65c/kL; excess $1.08c/kL Gemfields water $370/250kL; excess $1.10c/kL 5 schemes 38c/kL; rural water 68c/kL; Comet water 75c/kL first 650kL; excess $1.08c/kL; Anakie Water 65c/kL; excess $1.08c/kL Gemfields water $370/250kL; excess $1.10c/kL	$270.00 $270.00 first pedestal, additional $246.00
Esk	domestic com/ind	unit/excess unit/excess		$430 for 285kL; >285<400kL/$1; >400kL/$1.20 varies from $215 to $9,030 for 142.5kL – 5,985kL; excess - $1.20	$388.00 varies from $194 to $613.04
Fitzroy	domestic com/ind	two-part tariff two-part tariff	$150 From $150 to $8,400	45c/kL 45c/kL	$353.00 $353.00

Council	Category	Tariff	Tariff Details Annual Access Charge	Tariff Details Consumption Charge ($/c per kL)	Sewerage
Gatton	domestic	two-part tariff	Gatton $385 Preston $110	Gatton 35ckL <200kL; >200kL-<400kL 45c/kL; >400kL $1/kL Preston 50ckL <400kL; 60ckL >400kL	$310.00
	com/ind	two-part tariff	Gatton $435 Preston $430	45ckL <200kL; 65ckL/>200-<400kL; $1kL next 5000kL; thereafter 65ckL Preston 45ckL <200kL; 65ckL/>200-<400kL; $1kL next 5000kL; thereafter 65ckL	$310.00 first pedestal; additional $270.00
Goondiwindi	domestic com/ind	unit/excess unit/excess		$313.80 for 400kL; 37c/kL to 800kL, 74c/kL thereafter from $313.80 for 400kL with excess 74ckL to $3,530.25 for 4500kL; excess is 1st 4,500kL excess/37ckL; next 4,500kL excess is 74ckL	$350.40 $350.40
Herberton	domestic com/ind	unit/excess unit/excess		$408.50 for 700kL; excess 75ckL Varies from $204.25/175kL to $5,106.25/4,375kL; excess 75c/kL	$236.50 from $236.50 to $2,885.30
Hinchinbrook	domestic com/ind	two-part tariff two-part tariff	$205 Access charge varies with size of meter from $205 for 20mm meter to $12,095 for 150mm meter	35c/kL 35c/kL	$340.20 $243.00
Isis	domestic com/ind	two-part tariff two-part tariff	$353 $353 - $5,648; 20mm to 80mm service	70c 70c	$278.00 $278.00 first pedestal; additional $237.00
Jondaryan	domestic	two-part tariff	various by scheme $194 - $240 - $261	50c – 90c/kL to 324; >324 from 60c - $1.40 57c/300kL; 300-400kL/$1.20; >400kL/$1.80	$233.00
	com/ind	two-part tariff	various by scheme $194 - $240	50c – 90c/kL to 324; >324 from 60c - $1.40 57c/300kL; 300-400kL/$1.20; >400kL/$1.80	$233.00 first pedestal, additional $140.00
Kingaroy	domestic	two-part tariff	3 schemes $24, $95 & $105	$24 access and $1.10 per kL; $95 access and$1.50 per kL; $105 access and 88c per kL	$132.00
	com/ind	two-part tariff	3 schemes $24, $95 & $105	$24 access and $1.10 per kL; $95 access and$1.50 per kL; $105 access and 88c per kL	
Laidley	domestic	two-part tariff	three schemes $260-335	43c to 350kL, 86c to 700kL, $1.72 thereafter	$310.00
	com/ind	two-part tariff	three schemes $235-335	43c to 350kL, 86c to 700kL, $1.72 thereafter	

Council	Category	Tariff	Annual Access Charge	Tariff Details Consumption Charge ($/c per kL)	Sewerage
Longreach	domestic com/ind	unit/excess unit/excess		$440.00 for 1200kL;excess first 0-300kL/45c/kL; thereafter 60c/kL from $110.00 for 300kL to $5,500 for 15,000kL; excess from 45c/kL for first 300kL, thereafter 60c/kL	$166.00 $166.00 first pedestal; additional $110.00
Mareeba	domestic	fixed charge/excess		various – all excess 33c/kL Chillagoe $228.60/500kL Dimbulah $150.00/645kL Mareeba $259.95/750kL Kuranda Area $310.50/600kL Mt. Molloy $272.70/700kL	$270.00
	com/ind	fixed charge/excess		various – all excess 33c/kL Chillagoe $228.60/500kL Dimbulah $150.00/645kL Mareeba $259.95/750kL Kuranda Area $310.50/600kL Mt. Molloy $272.70/700kL	$270
Murgon	domestic Com	two-part tariff two-part tariff	$130 Commercial $130. Industrial $170	49c 49c 60c/kL for major industry	$292.00 $292.00 first pedestal, additional $252.00
		unit/excess		2 schemes from $131.80/320kL to $183.12/320kL; excess 70ckL and $189.04/320kL to $233.52/320kL; excess 70ckL	
Nanango	domestic	unit/excess		2 schemes $261.60 for 320kL; excess 85c/kL and $357.60 for 320kL; excess 85c/kL	$200.40 & $255.60
	com/ind	unit/excess		2 schemes from $130.80 for 320kL to $245.25 for 320kL; excess 85c/kL and from $202.64 for 320kL to $335.25 for 320kL; excess 85c/kL	$200.00 first pedestal, additional $20.04; $290.40 first pedestal; additional $29.04
Paroo	domestic Com/ind	unit/excess unit/excess		$216 for 1500kL; excess 50c/kL from $72 for 500kL to $1,800 for 12,500kL; excess 50c/kL	$158.40 $158.40
Peak Downs	domestic	unit/excess		2 schemes: $357.00 for 600kL; excess $1.25/kL $652.50 for 900kL; excess $1.25/kL	2 schemes - $349.80 $432.75
	Com/ind	unit/excess		2 schemes: from $70 per 100kL to $4,200 per 6000kL; excess $1.25 from $326.25 per 450kL to $6,525 per 6000kL; excess $1.25	2 schemes - $349.80 $432.75

Council	Category	Tariff	Tariff Details Annual Access Charge	Tariff Details Consumption Charge ($/c per kL)	Sewerage
Pittsworth	domestic Com/ind	two-part tariff two-part tariff	$156.55 varies from $257.55 for 32mm to $626.20 for 50mm	45c 45c	$400.00 $400.00 first 2 pedestals, additional $50.00
Roma	domestic Com/ind	fixed charge/excess fixed charge/excess		$384 for 750kL; excess 50c/kL $384 for 750kL to $1,344.00 for 2,625kL; excess 50c/kL	$358.00 $358.00 first pedestal; additional $201.00; 3rd $182.00
Rosalie	domestic Com/ind	unit/excess & two-part tariff unit/excess & two-part tariff	from $182 to $248 from $182 to $248	5 schemes - various by scheme$258 & $351; and 0>300kL/40c – 85c/kL; 300 - 400kL is $1.20/kL; >400kL/$1.80 5 schemes- various by scheme and pipe size from $291.20 to $396.80 for 20mm 0>300kL/40c – 85c/kL; 300 - 400kL is $1.20/kL; >400kL/$1.80; to 50mm pipe from $1261.00 to $1612.00 costs are 0>1950kL/40c – 85c/kL; 1950-2600 is $1.20/kL; >2600kL/$1.80c/kL	$259.00 $259.00 first pedestal, additional $74.00
Sarina	domestic Com/ind	fixed charge/excess fixed charge/excess		2 schemes $471 for 409kL; excess $1.07; $305 for 463kL, excess $1.61 per 4.5kL from $235 for 409kL to $28,260 for 2045kL; excess $1.07; $152.50 for 364kL to $1220.00 for 1638kL; excess $1.61 per 4.5kL.	$299.50 $299.50 first pedestal, additional $228.00
Stanthorpe	domestic Com/ind	two-part tariff two-part tariff	2 schemes $170 and $190 2 schemes from $170- $190/20mm to $3200 -$4750/100mm	54c/kL 54c/kL	$228.60
Whitsunday	domestic Com/ind	fixed charge/excess fixed charge/excess		2 schemes $285/366kL; excess 78c/kL 2 schemes from $285/366kL to $2,280/732kL; excess 78c/kL	2 schemes $230.00 and $250.00 2 schemes $230.00 and $250.00

ATTACHMENT 8: COST RECOVERY FOR COUNCILS WITH WATER CONNECTIONS GREATER THAN 1000 (1999-00)

Councils with full cost pricing	Will implement FCP	Reviewing	Further consideration	No decision made	Remain under current arrangements
Calliope	Bowen	Atherton	Mareeba (2002-03)	Balonne	Banana
Dalby (commenced 1999-00, phasing in)	Charters Towers	Broadsound	Douglas (2002-03)	Cardwell	Belyando
	Chinchilla (1 Sept 2001)	Eachman		Cloncurry	Boonah
	Crows Nest	Emerald		Hinchinbrook	Burnett
	Duaringa (phase in over 5-10 years)	Goodiwindi (2001-02)		Isis	Eacham (Unknown)
		Herberton		Johndaryan	Roma
	Esk	Kingaroy		Laidley	
	Gatton (full cost recovery over 2 years)	Sarina		Longreach	
				Nanango	
	Murgon (trial implemented)			Paroo	
	Peak Downs			Pittsworth	
	Rosalie			Stanthorpe	
	Wondai			Whitsunday	

Council		Total Revenue	Operating Costs	Depreciationn	Operating Profit	Interest	TERs	Dividends	Assets	Rate of Return on Assets
Atherton	Water	1,271,100.00	662,600.00	197,400.00	411,100.00	28,400.00			21,405,481.00	4.98%
	Sewerage	1,159,100.00	314,700.00	189,800.00	654,600.00	86,600.00				
Balonne	Water	881,484.00	593,736.00	288,454.00	-706.00	63,258.00			6,093,461.00	-0.01%
	Sewerage	461,960.00	318,651.00	114,104.00	29,205.00	31,043.00			2,373,214.00	1.23%
Banana	Water	1,725,192.00	1,653,311.00	550,989.00	-479,108.00				16,834,587.00	-2.85%
	Sewerage	619,258.00	526,882.00	251,676.00	-159,300.00				5,124,093.00	-3.11%
Belyando	Water/ Sewerage	3,046,674.00	1,891,816.00	1,395,950.00	-241,092.00	17,594.00			37,810,899.00	-0.64%
Boonah	Water	632,000.00	393,000.00	174,000.00	65,000.00				6,557,000.00	0.99%
	Sewerage	333,000.00	195,000.00	63,000.00	75,000.00				3,188,000.00	2.35%
Bowen	Water	3,259,000.00	1,323,000.00	790,000.00	1,146,000.00	812,000.00			25,183,000.00	4.55%
	Sewerage	2,399,000.00	1,060,000.00	493,000.00	847,000.00	378,000.00			13,773,000.00	6.15%

Council		Total Revenue	Operating Costs	Depreciationn	Operating Profit	Interest	TERs	Dividends	Assets	Rate of Return on Assets
Broadsound	Water	864,948.00	842,861.00	247,761.00	-225,674.00				7,659,000.00	-2.95%
	Sewerage	727,006.00	377,233.00	220,394.00	129,379.00				5,610,252.00	2.31%
Burnett	Water	2,958,730.00	1,170,494.00	481,368.00	1,306,868.00	362,624.00			19,269,031.00	6.78%
	Sewerage	1,038,508.00	627,124.00	288,699.00	122,685.00	74,526.00			9,527,672.00	1.29%
Calliope	Water	3,067,000.00	2,131,000.00	297,000.00	639,000.00		51,000.00	150,000.00	11,153,000.00	5.73%
	Sewerage	1,594,000.00	728,000.00	447,000.00	419,000.00		35,000.00	78,000.00	14,106,000.00	2.97%
Cardwell	Water	1,481,000.00	729,000.00	545,000.00	207,000.00	141,000.00			17,930,000.00	1.15%
	Sewerage	343,000.00	237,000.00	79,000.00	27,000.00	20,000.00			1,421,000.00	1.90%
Charters	Water	1,842,669.00	1,145,727.00	499,543.00	197,399.00				21,023,868.00	0.94%
Towers	Sewerage	1,177,016.00	508,694.00	548,512.00	119,810.00				15,035,016.00	0.80%
Chinchilla	Water	790,318.00	552,574.00	161,185.00	76,559.00	15,940.00			4,925,269.00	1.55%
	Sewerage	170,894.00	258,968.00	122,288.00	-210,362.00	3,816.00			1,947,943.00	-10.80%
Cloncurry	Water	1,032,184.00	576,920.00	340,394.00	114,870.00	114,273.00			13,699,863.00	0.84%
	Sewerage	236,121.00	182,066.00	173,506.00	-119,451.00	21,103.00			4,301,671.00	-2.78%
Crows Nest	Water	1,280,859.00	774,342.00	177,941.00	328,576.00				5,607,914.00	5.86%
	Sewerage	697,620.00	73,171.00	24,782.00	599,667.00		66,522.00		2,261,401.00	26.52%
Dalby	Water	1,678,795.00	836,790.00	405,541.00	436,464.00	253,750.00	72,253.00		13,102,772.00	3.33%
	Sewerage	1,259,679.00	633,417.00	400,069.00	226,193.00	108,949.00	46,416.00		9,844,537.00	2.30%
Douglas	Water	2,060,474.00	795,253.00	382,007.00	883,214.00	334,642.00			25,269,965.00	3.50%
	Sewerage	1,997,754.00	1,022,798.00	261,881.00	713,075.00	512,712.00				
Duaringa	Water	1,393,410.00	1,061,994.00	303,342.00	28,074.00	56,811.00			10,901,576.00	0.26%
	Sewerage	480,165.00	290,131.00	267,082.00	-77,048.00	68,539.00			9,866,985.00	-0.78%
Eacham	Water/ Sewerage	N/A	N/A	N/A	N/A	N/A			N/A	N/A
Emerald	Water	1,871,733.00	1,129,170.00	535,648.00	206,915.00	810.00			16,578,636.00	1.25%
	Sewerage	1,241,204.00	450,626.00	294,020.00	496,558.00	7,002.00			12,314,098.00	4.03%
Esk	Water	1,434,000.00	731,000.00	334,000.00	369,000.00	148,000.00			15,926,000.00	2.32%
	Sewerage	618,000.00	360,000.00	221,000.00	37,000.00	57,000.00			6,553,000.00	0.56%

Council		Total Revenue	Operating Costs	Depreciationn	Operating Profit	Interest	TERs	Dividends	Assets	Rate of Return on Assets
Fitzroy	Water/ Sewerage	1,107,631.00	747,607.00	250,964.00	109,060.00				3,626,540.00	3.01%
Gatton	Water	1,768,049.00	1,177,623.00	233,577.00	356,849.00	103,436.00			12,508,924.00	2.85%
	Sewerage	970,447.00	451,345.00	270,431.00	248,671.00	101,164.00			8,462,549.00	2.94%
Goondiwindi	Water	733,057.00	429,681.00	108,915.00	194,461.00	63,228.00			5,820,528.00	3.34%
	Sewerage									
Herberton	Water	795,450.00	317,553.00	184,145.00	293,752.00	33,710.00			5,702,597.00	5.15%
	Sewerage	187,176.00	62,873.00	38,933.00	85,370.00	6,364.00			825,115.00	10.35%
Hinchinbrook	Water	1,507,846.00	785,168.00	302,010.00	420,668.00	21,583.00			9,487,940.00	4.43%
	Sewerage	958,815.00	447,543.00	229,083.00	282,189.00	16,021.00			11,148,356.00	2.53%
Isis	Water	899,213.00	389,039.00	250,458.00	259,716.00	104,977.00			9,610,909.00	2.70%
	Sewerage	227,546.00	110,582.00	100,507.00	16,457.00	23,590.00			3,402,420.00	0.48%
Jondaryan	Water	2,265,991.00	1,028,113.00	532,126.00	705,752.00	18,167.00			18,747,942.00	3.76%
	Sewerage	386,348.00	150,479.00	206,211.00	29,658.00	15,410.00			3,765,574.00	0.79%
Kingaroy	Water/ Sewerage	1,700,416.00	1,780,270.00	-63,199.00	-16,655.00	181,190.00			43,366,207.00	-0.04%
Laidley	Water	1,363,809.00	601,773.00	72,481.00	689,555.00	52,430.00		1,979,323.00	2,521,469.00	27.35%
	Sewerage	385,949.00	191,034.00	13,038.00	181,877.00	103,762.00		157,115.00	681,586.00	26.68%
Longreach	Water	861,567.00	513,499.00	237,756.00	110,312.00	2,164.00			18,716,051.00	0.59%
	Sewerage	376,114.00	191,591.00	175,326.00	9,197.00				11,013,426.00	0.08%
Mareeba	Water	1,937,000.00	1,184,000.00	457,000.00	296,000.00	100,000.00			6,004,000.00	4.93%
	Sewerage	1,150,000.00	608,000.00	248,000.00	294,000.00	25,000.00			4,410,000.00	6.67%
Murgon	Water	665,280.00	158,412.00	121,970.00	384,898.00	3,218.00			3,268,373.00	11.78%
	Sewerage	532,541.00	239,193.00	146,170.00	147,178.00	4,965.00			3,460,542.00	4.25%
Nanango	Water	476,573.00	217,162.00	196,727.00	62,684.00	434.00			5,214,798.00	1.20%
	Sewerage	345,299.00	150,945.00	130,029.00	64,325.00	5,553.00			4,471,048.00	1.44%
Paroo	Water/ Sewerage	333,553.00	360,334.00	98,883.00	-125,664.00	393.00			2,263,734.00	-5.55%

Council		Total Revenue	Operating Costs	Depreciationn	Operating Profit	Interest	TERs	Dividends	Assets	Rate of Return on Assets
Peak Downs	Water	550,614.00	570,494.00	121,439.00	-141,319.00				3,939,364.00	-3.59%
	Sewerage	289,685.00	231,613.00	105,512.00	-47,440.00				3,339,679.00	-1.42%
Pittsworth	Water	348,530.00	109,443.00	158,223.00	80,864.00	9,179.00			4,199,974.00	1.93%
	Sewerage	369,485.00	78,207.00	159,959.00	131,319.00	131,319.00			2,487,782.00	5.28%
Roma	Water/ Sewerage	N/A	N/A	N/A	N/A	N/A			N/A	N/A
Rosalie	Water	487,628.00	550,373.00	118,200.00	-180,945.00	32,341.00			5,684,206.00	-3.18%
	Sewerage	100,651.00	59,773.00	49,314.00	-8,436.00	3,169.00			2,178,795.00	-0.39%
Sarina	Water	1,673,852.00	1,260,259.00	323,449.00	90,144.00				15,715,118.00	0.57%
	Sewerage	1,366,314.00	1,180,118.00	124,043.00	62,153.00				3,957,294.00	1.57%
Stanthorpe	Water	945,243.00	324,164.00	10,445.00	610,634.00	6,009.00			7,347,793.00	8.31%
	Sewerage	724,524.00	209,495.00	12,869.00	502,160.00	10,194.00			5,240,643.00	9.58%
Whitsunday	Water/ Sewerage	4,879,747.00	1,641,012.00	974,995.00	2,263,740.00	579,463.00			35,189,586.00	6.43%
Wondai	Water	566,683.00	458,854.00	699,902.00	-592,073.00				31,776,727.00	-1.86%
	Sewerage	158,273.00	68,888.00	96,718.00	-7,333.00		49,074.00		6,259,444.00	-0.12%

Attachment 9: 5 Year Rural Water Price Paths for State-Owned Irrigation Schemes

1. Methodology for Development of Rural Water Price Paths

The WRU undertook a 12-month intensive analysis of State Water Project's (SWP) business to derive a 5-year price path for each scheme. This policy process was complex, but can be distilled into four main work streams:-

1. a full analysis of the cost of irrigation water service provision, incorporating an independent determination of efficient costs based on benchmarking assessments;

2. the projection of scheme revenues based on estimated future water use and tariff structure scenarios;

3. an analysis of the economic impacts of alternative price paths of irrigator businesses; and

4. consultation covering Government, industry, peak bodies and irrigators at the local level.

Each stage is detailed in greater detail below.

Analysis of Costs of Service Delivery

The WRU undertook a cost review in two parts. The first was a full independent verification of SWP's actual cost and revenue information. The purpose of this exercise was to identify and remove any cost allocation and accounting errors which became evident in the information. The second part of the review was an independent benchmarking exercise to compare SWP to other water service organisations and to identify any cost inefficiencies which could lead to an overstating of cost recovery requirements.

Independent cost review

The independent cost review was performed by auditing staff from Arthur Andersen consulting accountants. The cost review examined material cost flows and identified examples of double-counting and omitted costs as well as cases where non-scheme costs were being passed through to irrigators. The result of this review was an accurate set of 1997-98 and 1998-99 actual cost data which could be used as a basis for establishing efficient costs.

These actual costs were expressed at scheme level, with joint costs such as central overhead costs being allocated to schemes on the basis of each scheme's share of total and operating and maintenance costs, less 90% of electricity costs[1]. This approach is consistent with approaches adopted in other jurisdictions and has been accepted by irrigators.

The independent cost review was a particularly extensive review which was successful in satisfying irrigators of the validity of the cost data. In particular, the independent review was effective in mitigating the risk of errors in the cost data which could have undermined the credibility of the price paths.

[1] Only 10% of electricity costs were used for central overhead apportionment as electricity costs are a highly variable external cost would skew the apportionment of results.

Efficient costs

Ernst & Young were engaged to review corporate overhead costs and compare these with two other irrigation based organisations: Goulbourn Murray Water (GMW) and Southern Rural Water (SWR). While geographic dispersion and size economies explained some difference in SWP's costs, there was clearly some scope for cost savings. Ernst & Young found SWP should be able to reduce the corporate overhead costs attributable to customers from $8.5 million to $5.7 million.

Operating and maintenance costs, asset development and asset management costs were benchmarked by GHD, a recognised engineering services firm and Ernst & Young, who determined SWP would be able to deliver the operation and maintenance services at an efficient cost of $24.7 million compared to the present (1999-00 budget) cost of $32.9 million. Similarly, the Water Business Management activities should achieve a reduction from $9.4 million to $8.1 million.

Other Costs

There were also a number of lower bound cost intents which did not appear in SWP's costs but were added by the WRU in order to comply with COAG requirements. These cost items included:

- a refurbishment allowance or renewals annuity;
- insurance costs;
- interest costs;
- taxes or tax equivalents; and
- resource management compliance costs.

The most significant of these additional costs was the renewals annuity, which is a derived, condition-based depreciation estimate to replace the normal accounting-based depreciation for the purpose of the pricing analysis. The renewals annuity is calculated on a rolling 30-year annuity basis so sufficient funds are set aside each year to meet the costs of major asset refurbishment. Annuity contributions accumulate in a reserve until required for capital replacement works. For schemes as a whole the annuity is estimated at $9.33 million.

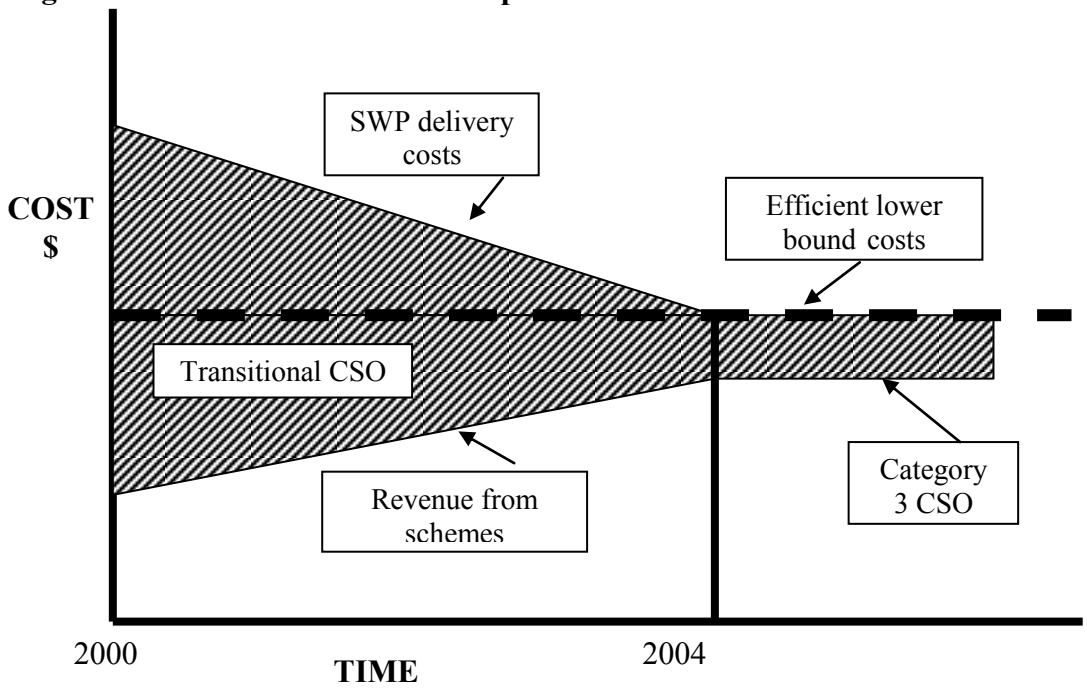
WRU's Lower Bound costs includes the expected compliance costs for SWP of meeting its obligations under the resource planning and management process as contained in the *Water Act 2000.* The estimated resource management costs are $900,000 per annum.

A further cost component in SWP's business is the cost of servicing recreational facilities (picnic areas, boat ramps, access roads etc) at the dam sites, a total of around $1 million per annum. For the duration of the price path, a total cost of $100,000 is to be passed through to water users, in recognition of a minimum level of dam-site costs which are obligatory regardless of the recreational use. In the meantime, SWP will investigate options for future funding of these services and will meet the recreational costs as a act of a "good corporate citizen".

Overall, the WRU recommended SWP be set a realistic 'cost savings' target of 15% over the price path period, after allowing for additional costs such as insurance and taxes. The cost

savings target should be achieved without any detrimental effect on service standards. Accordingly, the rural water price path and 'cost savings path' will converge over the 5-year period of the price paths as illustrated in Figure 1.

Figure 1. The Cost and Revenue Gap



Revenue Analysis and Tariff Structures

In determining the rural water price paths, the WRU undertook a full review of water demand and use in each scheme. Water use forecasts have been based on historical average water use, but also take into account the impact of changes such as water trading, sales of additional allocation and changes in cropping patterns. WRU projected an increase in the water use ratio in many schemes. Across the State, water use varies between 40% and 90% of nominal allocation. Water use forecasts were provided to industry groups for comment and subsequent adjustments were made as a result of these consultations.

WRU also examined the potential response in water use to increases in price. At the price ranges being considered it was found any decreases in water use would be minimal. Consistent with irrigation industries worldwide, Queensland irrigators have a low elasticity of demand with respect to water price. Tariff structures comprising higher fixed charges would also ensure water use did not decline significantly.

Revenue determination depends critically on the tariff structure. SWP had an existing two part tariff in most schemes, implemented in 1997-98, although the fixed component of the tariff comprised a small charge of $1 to $3/ML. The existing two part tariff structure did not provide a stable revenue base for the typical scheme. The pricing increase approved by Cabinet in July 1999 applied in the majority of schemes to the fixed charge in an attempt to begin to address the problem of the fixed charge being set too low to recover the fixed costs of each scheme.

A review of scheme service costs revealed approximately 75% of costs are fixed and 25% are variable. For most schemes, the new price path tariffs structures are designed to deliver 70% of required revenues from the fixed or allocation charge, with 30% being delivered from the water use charge in an average water use year from each scheme. The tariff structures are to be 'rebalanced' through the life of the price paths.

Economic Studies

In deriving the price paths, careful consideration was also given to industry economic conditions and the potential impacts on irrigators of pricing changes. For those schemes where a significant price increase is required, the WRU undertook economic studies, which provided effective 'speed limits' on the rate of increase in prices. In addition, the economic studies have provided justification for categorisation of schemes, particularly in identifying Category 3 schemes.

Economic studies were based on farm financial survey data collected from several schemes:- Bundaberg; Eton; Dawson; Lower Mary; St George; Upper Condamine; Mareeba and Dumaresq/Macintyre. In all, a sample of 270 irrigators was taken from these schemes. The survey provided the WRU with representative data on farm financial performance for these schemes and was able to be broken down into three farm size groupings where necessary.

Surveys were not practical and were too expensive to be conducted in all schemes. Consequently, a total of 22 case studies was taken from five of the smaller schemes – Three Moon Creek, Lower Lockyer, Central Lockyer, Logan River and Warrill Valley. These case studies provided actual farm scenarios and could be used to produce average farm financial results, if required.

Based on the information collected from the surveys and case studies, the WRU developed farm financial performance models to cover the price path period. Hence, farm revenues were based on average crop yields (historical averages) and long-term commodity price forecasts. Forecasts for crops such as cotton, dairy and grains were sourced from the Australian Bureau of Agricultural and Resource Economics (ABARE) and sugar price forecasts were based on the International Sugar Organisation's observations for sugar world markets.

Some general conclusions from the economic studies were:

- Water costs are a small percentage of total farm costs and price increases will have at most a marginal impact on farm cash position in most schemes. In some cases (eg. Dawson Channel, Lower Lockyer, Central Lockyer, Bowen-Broken) the magnitude of price increase required for cost recovery would have a significant effect making these schemes clear Category 3 schemes.

- The sugar industry is facing a severe downturn in 2000-01 before an anticipated gradual recovery through the price path period. The 2000-01 price is expected to be only $225/t sugar, compared to $357/t in 1998-99. A recovery to $266/t in 2001-02 and $307/t in 2002-03 is forecast. The 2000-01 prices are below costs of production for many cane growers, particularly in schemes such as Bundaberg and Lower Mary. Cane growers do

not have the ability to quickly switch to other crops due to the typical 4-year production cycle in cane.

- Cotton prices are below recent peaks but should remain near current levels through to 2004-05. The WRU does not foresee cotton irrigators having any difficulty meeting cost recovery except for the Dawson Channel and Upper Condamine schemes.

- The dairy industry will face a period of adjustment over the medium term as the regulatory environment changes on two levels. First, support for manufacturing milk delivered under the current Domestic Market Support scheme was phased out in June 2000. Second, all States have reviewed their legislation governing the pricing and supply of market milk. The effect is likely to be a 20% drop in market milk prices and the long-term viability of some dairy areas will be subject to competitive pressures.

- Horticultural producers are not seriously affected by water price increase due to the insignificance of water costs in their total costs. For horticultural producers, the annual variations in commodity prices are of greater significance than water price increases.

Consultation

Detailed consultation was undertaken with users by the WRU over an 18 month period. Price paths have been developed in close consultation with the irrigation community at a number of levels:-

(a) the Water Industry Peak Consultation Committee (comprising representatives from industry groups, the Local Government Association of Queensland, environmental groups, water boards and central Government agencies) was regularly updated of water industry policy issues and the ongoing development of the price paths;

(b) a High Level Policy Advisory Committee comprising representatives from the main irrigation industries and the Queensland Farmers Federation provided input into the pricing process;

(c) at the scheme level consultation occurred through local Interim Local Management Committees which typically comprise up to 15 irrigators from each scheme. In all, 200 irrigators had direct input into the policy process. The WRU visited all 30 schemes at least 3 times over the 18 month period to discuss scheme operating costs, pricing options and related issues.

2. Scheme Categorisation

Rural water price paths have been developed consistent with the 1999 Tripartite Agreement, to allow the phased implementation of water price increases. In this regard,

Category 1 – Projects which will reach cost recovery by 2001;

Category 2 – Projects which will reach cost recovery by 2004; and

Category 3 – Projects which will require ongoing Government support beyond 2004.

A small number of projects have been categorised as Category 2B and given a price path until 2005 or 2006 to achieve cost recovery. These projects are either projects which would otherwise have be classified as Category 3 or are areas where the price paths are sympathetic to the impacts of dairy industry deregulation and the downturn in sugar prices in affected schemes. The rationale for categorisation of projects as 2B and 3 is outlined later. The categorisation of irrigation schemes is as follows:

	Scheme/Project	**% Nominal Allocation**
Category 1	Emerald Irrigation Area St George River Dumaresq River Cunnamulla Bundaberg River Lower Mary River Mareeba River Proserpine Burdekin Irrigation Area	53%
Category 2	Chinchilla Weir St George Channel Barker Barambah Dawson River Mary Valley Upper Burnett Eton Mareeba Channel Bundaberg Channel**	34%
Category 2B	Logan River Warrill Valley Boyne Upper Condamine John Goleby Weir Lower Mary Channel Macintyre Brook	7%
Category 3	Dawson Channel Central Lockyer & Mortonvale Pie Creek Three Moon Creek Maranoa Lower Lockyer	6%

** Special interim arrangements are to apply to the two segments of the Bundaberg Irrigation Area until announced allocations in the scheme return to 100% of nominal allocation. When this occurs, the Bundaberg Irrigation Area segments will take their place in the price path as indicated in the table.

General principles for scheme categorisation

The WRU adopted the following approach in the categorisation of schemes for the purposes of the rural water price paths:-

> Category 1 – schemes which currently cover all lower bound costs or recovery in excess of 80% of lower bound costs. In a number of these schemes, cost recovery is achieved through a rebalancing of the existing tariff structure and no overall change to the total per ML water price;
>
> Category 2 – schemes which currently recover between 50% and 80% of lower bound costs. In a number of schemes cost recovery is achieved prior to 2004;
>
> Category 2B – schemes which would have been classified as Category 3 schemes but which can achieve cost recovery over a slightly prolonged period of time, compared to the Category 2 schemes, as well as some dairy and sugar schemes which are experiencing financial hardship and which have been given a "soft-start" to the price paths; and
>
> Category 3 – schemes which are current recovering under 50% of lower bound costs and which are unlikely to achieve cost recovery without extreme financial hardship. Category 3 schemes have been set the target of at least reaching 50% cost recovery by 2004.

Rationale for categorisation of individual schemes

Category 2B Schemes and Projects

<u>Boyne River Irrigation Project – Category 2B</u>

The Boyne River Irrigation Project has a nominal allocation of 12,734ML for irrigation (0.90% of nominal allocation for irrigation) and is served by Boondooma Dam.

- There is a declining area of relatively low valued cereal and fodder crops (15% for the area) which are grown in the area.
- Other crops grown in the region include citrus, mangos, table grapes, stone fruits, asparagus, macadamia nuts and avocados. Horticultural crops are expanding at the expense of lower valued cereals and fodder crops.
- Irrigators compete with industrial users through a capacity sharing arrangements – 74% for power, 26% to irrigators.

The Boyne River Irrigation Project is currently achieving 35% cost recovery. Nonetheless, the WRU is of the view the irrigation project has the capacity to achieve cost recovery as increased crop diversification. The irrigation project has a price path to 2006 to achieve 100% cost recovery.

John Golbey Weir – Category 2B

John Golbey Weir is one of Queensland's smallest projects with a nominal allocation of 1560 for irrigation (0.11% of total nominal allocation for irrigation). The John Golbey Weir supplies water to customers on the Upper Burnett River and with reliable water supplies.

- Citrus is the major industry supplied by the scheme.

The John Golbey Weir currently recovers 28% of cost but it is considered the project can achieve full cost recovery by 2005.

Logan Irrigation Project – Category 2B

Logan Irrigation Project has a nominal allocation of 13,676ML for irrigation (0.96% of total nominal allocation for irrigation) and is served by Maroon Dam. Water supplies are very reliable. Water harvesting can account for 10% of total water use.

- Dairy is the major industry supported by the scheme. A small part of the area produces fodder crops such as lucerne independent of dairying activity.

Categorised as 2B to alleviate some of the impacts of dairy deregulation in 2000-01.

Lower Mary Channel – Category 2B

The Lower Mary Channel has a nominal allocation of 9,941Ml used for irrigation (0.70% of total nominal allocation for irrigation) and is served by two weirs and two barrages. The system has a very reliable supply of water.

- The majority of the area is planted with sugar cane. The farms are small and relatively inefficient by industry standards. Although the long-term viability of the area as a cane-growing area has been called into question, the mill has been innovative in improving efficiency and total production. The sugar industry seems assured of a strong future in the scheme.
- A significant part of the Irrigation Area is used for fodder cropping.
- Only a very small area is used for horticulture and 'other crops'.

Categorised as 2B to alleviate some of the financial difficulties currently being experienced by this sugar producing area.

Macintyre Brook Irrigation Project – Category 2B

The Macintyre Brook Irrigation Project has a nominal allocation of just over 23,242ML for irrigation (1.67% of total nominal allocation for irrigation) and is served by Coolmunda Dam and five weirs. Water supplies can be varied and announced allocation has averaged 80% of nominal allocation over recent years.

- Cereal and fodder crops dominate the project.
- Small areas of horticulture and 'other crops' are also planted. A new olive industry is being developed which will require significant water allocations on a more reliable basis.

This irrigation project currently achieves 39% cost recovery. The irrigation project has a price path to 2005 to achieve 100% cost recovery.

Upper Condamine Project – Category 2B

The Upper Condamine Project has a nominal allocation of 22,230ML for irrigation (1.57% of total nominal allocation for irrigation). The scheme is served by Leslie Dam with three weirs regulating its releases. Supplies are somewhat variable and usage varies from 40% to 90% of allocation. Water harvesting accounts for 30% to 40% of total use.

- Cotton is the major crop grown in the region and is the larger user of water.
- Significant areas of cereal and fodder crops are also planted. The main crops are wheat and maize.
- Only small areas are used for horticulture and 'other crops'.

This irrigation project currently achieves 37% cost recovery. The irrigation project has a price path to 2005 to achieve 100% cost recovery.

Warrill Valley Irrigation Project – Category 2B

The Warrill Valley Irrigation Project has a nominal allocation of 20,758ML for irrigation (1.46% of total nominal allocation for irrigation) and is served by Moogerah Dam. Water supplies are unreliable with announced allocations ranging from 60% to 100% of nominal allocations.

- The majority of the area is planted to a combination of horticulture, fodder and dairy crops.
- A significant and expanding area is used for horticulture crops.
- No high valued 'other crops' are grown in the area.

Categorised as 2B to alleviate some of the impacts of dairy deregulation in 2000-01.

Category 3 Schemes and Projects

Dawson Channel – Category 3

The Dawson Valley Irrigation Area has a nominal allocation of around 15,982ML for irrigation (1.12% of total nominal allocation for irrigation). The scheme is served by a series of weirs. The Dawson Channel requires a large amount of refurbishment expenditure. Even with additional capital works the scheme is still very expensive to operate, with the full Lower Bound Cost of $93/ML (Burdekin Irrigation Area approximately $35/ML). Supplies are reliable but usage is typically 50 to 70% of the nominal allocation. Water harvesting can be a significant proportion of total water usage.

- Cotton is the major crop for the region with lesser areas of cereals and fodder also planted.
- A small area is used to grow 'other crops'.

- There is a move towards the amalgamation of small farms within the Irrigation Area. There is scope, over time, for more efficient use of water and a move to increased areas of cotton.

The Dawson Channel is currently at 23% cost recovery. The target is to achieve 50% cost recovery by 2004, which will see a total per ML price of $50.

Lower Lockyer Irrigation Project – Category 3

The Lower Lockyer Irrigation Area has a nominal allocation of 11,600ML for irrigation (0.82% of total nominal allocation for irrigation) on 15 farms and is served by Atkinson Dam. Water supplies are variable and in some seasons there is insufficient water.

- The dominant cropping activity within the project is horticulture, typically small crops, such as potatoes, pumpkins, cauliflower, cabbage, etc.
- A significant area of the project is used to grow cereal and fodder crops. Cereals include maize and sorgum, usually on a small scale. Lucerne is widely produced as a cash crop.
- A small part of the scheme is used for dairying.

The Lower Lockyer currently achieves 17% cost recovery. The target is to achieve 38% cost recovery by 2004. Economic studies prepared by the WRU showed full cost recovery would lead to serious financial hardship in this scheme.

Maranoa – Category 3

Maranoa is Queensland's smallest project supplying just four customers from the Neil Turner Weir with 798ML for irrigation (0.06% of total nominal allocation for irrigation).

Maranoa currently recovers 13% of its costs and will achieve 50% cost recovery by 2004.

Mortonvale and Central Lockyer – Category 3

The Mortonvale Irrigation Project has a nominal allocation of around 10,554ML for irrigation (0.74% of total nominal allocation for irrigation). The Bill Gunn Dam and Lake Clarendon supply the scheme. There are also a large group of users who do not have nominal allocation. Supplies are highly variable.

- A significant part of the scheme is devoted to fodder and horticulture crops.
- The area also supplies a small number of dairy farmers.

Mortonvale and the Central Lockyer currently achieve 14% cost recovery and are price pathed to achieve 50% cost recovery by 2004. As with the Lower Lockyer, the WRU economic studies showed the Central Lockyer would experience serious financial difficulties at full cost recovery.

Pie Creek – Category 3

Pie Creek Channel has a nominal allocation of 852ML for irrigation (0.06% of total nominal allocation for irrigation) and is supplied by pumping from the Mary River. Supplies are reliable but use has averaged only 50% to 60% of allocation.

- The majority of the area is utilised for fodder crops with a number of hobby farms.
- A minor area is used for growing horticulture crops.

Pie Creek is an extremely high cost scheme to operate and at water prices of $55/ML currently recovers only 12% of lower bound costs. Full cost recovery would require water prices of approximately $120/ML. The price paths recommend a rebalancing of the current tariff structure to achieve a 19% level of cost recovery by 2004. SunWater has been charged with seeking alternative options for managing the schemes or innovative tariff arrangements to improve cost recovery.

Three Moon Creek Project – Category 3

Three Moon Creek Irrigation Project has a nominal allocation of 14,709ML for irrigation (1.03% of total nominal allocation for irrigation) and is served by Cania Dam and groundwater. Supplies are variable but usage averages at 75% of allocation.

- Pasture and cereal crops dominate the scheme.
- Most water comes from groundwater sources and the price paid for this water is low. The scheme has low announced allocations and low groundwater levels.
- There is an absence of horticulture and 'other crops' in the region.

Three Moon Creek currently achieves 23% cost recovery and will achieve 50% cost recovery by 2004. The WRU economic studies identified Three Moon Creek as an area which would experience serious financial hardship at prices which reflected the full lower bound costs.

Special Arrangements

Bundaberg Irrigation Area

A specific process has been adopted for the price path for the Bundaberg Irrigation Area. The recommended price path for the Bundaberg Irrigation Area results initially in the Channel scheme being a Category 3 scheme with ongoing Government subsidy. This is due to the current low availability of supply in the area which has persisted over recent years.

As both the channel and river irrigators are affected by the current low availability of supply, the price path shown below is recommended to apply until such time as SunWater is able to reach 100% announced allocation. Should SunWater announce 100% allocation at the beginning of any year water, the tariff paid by users is recommended to be equal to the previous year's tariff of the full cost recovery price path. The full cost recovery price path is shown in the table below. These price paths would then be the ongoing pricing arrangements and the Channel scheme would then be a Category 2 Scheme.

Bundaberg River Interim Price Path (Category 1)							
Bundaberg River (Interim)	Part A	5.16	5.16	5.16	5.16	5.16	5.16
	Part B	9.20	9.20	9.20	9.20	9.20	9.20
	Total	14.36	14.36	14.36	14.36	14.36	14.36
	Cost Recovery %	140	159	160	161	162	165
	Revenue	438,579	438,579	438,579	438,579	438,579	438,579

Bundaberg Channel Interim Price Path (Category 3)							
Bundaberg Channel (Interim)	Part A	5.16	5.16	5.16	5.16	5.16	5.16
	Part B	36.40	36.80	37.80	39.60	41.50	44.00
	Total	41.56	41.96	42.96	44.76	46.66	49.16
	Cost Recovery %	58	66	68	71	75	80
	Drainage Levies Revenue	16,346	16,346	16,346	16,346	16,346	16,346
	Total Revenue	4,509,547	4,466,215	4,565,679	4,744,714	4,933,696	5,182,356

Bundaberg Channel Full Cost Recovery Price Path (Category 2)							
Bundaberg Channel Full Cost Recovery	Part A	5.16	9.76	15.00	26.84	28.00	29.60
	Part B	36.40	30.70	27.40	17.10	18.60	19.50
	Total	41.56	40.46	42.40	43.94	46.60	49.10
	Cost Recovery %	58	68	75	87	93	100
	Drainage Levies Revenue	16,346	16,346	16,346	16,346	16,346	16,346
	Total Revenue	4,426,429	4,563,386	5,036,990	5,824,291	6,150,992	6,485,345

Bundaberg River Full Cost Recovery Price Path (Category 1)							
Bundaberg River Full Cost Recovery	Part A	5.16	8.40	8.40	8.40	8.40	8.40
	Part B	9.20	4.85	4.85	4.85	4.85	4.85
	Total	14.36	13.25	13.25	13.25	13.25	13.25
	Cost Recovery %	140	160	160	161	163	166
	Total Revenue	438,579	439,349	439,349	439,349	439,349	439,349

Bowen Broken Irrigation Project and Callide Irrigation Project

The rural water price paths implemented on 1 October 2000 do not include the Bowen Broken Irrigation Project or the Callide Irrigation Project (which account for 5786ML (0.41%) and 19921ML (1.4%) of nominal allocation respectively). These two schemes were excluded from the price paths on the basis further work is required prior to setting defensible price paths.

In the case of the Bowen Broken Irrigation Project, difficulty has been experienced in bringing the relatively small group of irrigators together for adequate consultation. At a meeting held on 23 August 2000, irrigators were concerned the cost figures used to set the proposed prices were excessive and asked for their validity to be re-examined. Once this work has been satisfactorily completed, a price path will be recommended. The Bowen Broken Irrigation Project has been designated as a Category 3 scheme.

In the Callide Valley it is not yet possible to set an equitable cost recovery pathway because groundwater recharge weirs perform variably and recharge characteristics and aquifer performance is not adequately understood. Whereas in most schemes, SWP can supply water to customers within known parameters, in the Callide Valley this cannot be achieved with any degree of uniformity. An improved understanding of the acquifer and its performance is essential so the prices accurately reflect supply service and cost. In addition, a management plan based on defined sustainable yield and management needs is necessary. For this reason, the Callide Valley has been excluded from the current price paths until improved information can be attained. The scheme has been categorised Category 2B/3.

Category 1 Projects							
		1999-00	**2000-01**	**2001-02**	**2002-03**	**2003-04**	**2004-05**
Emerald Channel	Part A	5.00	15.20	16.60	16.60	16.60	16.60
	Part B	20.85	10.70	8.90	8.90	8.90	8.90
	Total	25.85	25.90	25.50	25.50	25.50	25.50
	Cost Recovery %	83	100	100	101	102	103
	Revenue	2,408,165	2,597,070	2,593,438	2,593,438	2,593,438	2,593,438
Emerald IA Regulated Section	Part A	3.00	6.16	6.16	6.16	6.16	6.16
	Part B	8.30	3.75	3.75	3.75	3.75	3.75
	Total	11.30	9.91	9.91	9.91	9.91	9.91
	Cost Recovery %	114	126	127	128	129	131
	Revenue	686,879	684,931	684,931	684,931	684,931	684,931
St George IA Regulated Section	Part A – Thuraggi	6.00	7.28	7.28	7.28	7.28	7.28
	Part B – Thuraggi	8.75	6.20	6.20	6.20	6.20	6.20
	Total – Thuraggi	14.75	13.48	13.48	13.48	13.48	13.48
	Part A – Balonne	5.00	7.28	7.28	7.28	7.28	7.28
	Part B – Balonne	9.75	6.20	6.20	6.20	6.20	6.20
	Total - Balonne	14.75	13.48	13.48	13.48	13.48	13.48
	Cost Recovery %	87	100	101	102	104	107
	Revenue	243,156	246,642	246,642	246,642	246,642	246,642
Dumaresq River	Part A	5.00	6.80	6.80	6.80	6.80	6.80
	Part B	8.60	8.35	8.35	8.35	8.35	8.35
	Total	13.60	15.15	15.15	15.15	15.15	15.15
	Cost Recovery %	92	105	102	101	100	100
	Revenue	616,421	748,208	748,208	748,208	748,208	748,208
Cunnamulla	Part A	2.52	9.60	10.50	10.50	10.50	10.50
	Part B	9.00	4.55	5.00	5.00	5.00	5.00
	Total	11.52	14.15	15.50	15.50	15.50	15.50
	Cost Recovery %	54	92	100	100	100	103
	Revenue	20,827	30,785	33,719	33,719	33,719	33,719
Lower Mary River (Barrage)	Part A	6.88	7.40	7.40	7.40	7.40	7.40
	Part B	7.50	6.90	6.90	6.90	6.90	6.90
	Total	14.38	14.30	14.30	14.30	14.30	14.30
Lower Mary (Tinana and Teddington)	Part A	7.88	8.72	8.72	8.72	8.72	8.72
	Part B	14.00	8.10	8.10	8.10	8.10	8.10
	Total	21.88	16.82	16.82	16.82	16.82	16.82
	Cost Recovery %	88	100	101	103	103	105
	Revenue	161,629	160,774	162,688	164,601	164,601	164,601

Category 1 Schemes							
		1999-00	**2000-01**	**2001-02**	**2002-03**	**2003-04**	**2004-05**
Mareeba River	Part A – Tinaroo/Barron	7.30	7.00	7.00	6.80	6.80	6.80
	Part B – Tinaroo/Barron	7.40	7.50	7.50	7.50	7.30	7.30
	Total – Tinaroo/Barron	14.70	14.50	14.50	14.30	14.10	14.10
	Part A – General	12.16	11.70	11.60	11.40	11.20	11.00
	Part B – General	10.00	10.10	10.10	10.10	10.00	10.00
	Total – General	22.16	21.80	21.70	21.50	21.20	21.00
	Cost Recovery %	110	123	126	128	129	133
	Access Charge Revenue	147,926	147,926	147,926	147,926	147,926	147,926
	Total Revenue	739,073	740,423	743,485	742,440	739,528	742,176
Proserpine	Part A	3.81	8.20	8.20	8.20	8.20	8.20
	Part B	8.70	4.35	4.35	4.35	4.35	4.35
	Total	12.51	12.55	12.55	12.55	12.55	12.55
	Cost Recovery %	195	254	250	247	244	246
	Revenue	360,415	419,915	419,915	419,915	419,915	419,915
Burdekin Channel	Part A	5.60	24.00	24.00	23.40	23.00	23.00
	Part B	33.50	12.00	12.00	11.60	11.40	11.40
	Total	39.10	36.00	36.00	35.00	34.40	34.40
	Cost Recovery %	112	132	132	134	136	138
	Drainage Levy Revenue	445,363	445,363	445,363	445,363	445,363	445,363
	Total Revenue	11,329,648	11,448,715	11,448,715	11,480,132	11,487,847	11,487,847
Burdekin River	Part A	3.60	7.60	7.60	7.60	7.60	7.60
	Part B	8.80	4.10	4.10	4.10	4.10	4.10
	Total	12.40	11.70	11.70	11.70	11.70	11.70
	Cost Recovery %	157	191	192	194	196	200
	Revenue	332,928	348,432	348,432	348,432	348,432	348,432

Note: Burdekin, Bundaberg, St George and Dawson Valley Channel projects generate drainage levies revenue. The total revenue provided includes drainage levy revenue as well as price path revenue.

Category 2 Projects							
		1999-00	**2000-01**	**2001-02**	**2002-03**	**2003-04**	**2004-05**
Chinchilla Weir	Part A	4.00	8.40	10.20	12.00	13.80	14.50
	Part B	10.40	6.10	7.20	8.60	9.80	10.40
	Total	14.40	14.50	17.40	20.60	23.60	24.90
	Cost Recovery %	44	58	69	82	94	100
	Revenue	29,202	34,394	41,410	48,939	56,125	59,148
St George Channel	Part A	6.00	15.00	16.00	17.00	18.00	19.00
	Part B	20.45	9.50	10.00	10.50	10.75	11.20
	Total	26.45	24.50	26.00	27.50	28.75	30.20
	Cost Recovery %	66	79	83	89	94	100
	Drainage Levies and Water harvesting Revenue	189,915	273,893	273,893	273,893	273,893	273,893
	Total Revenue	1,374,499	1,442,897	1,515,089	1,587,281	1,648,708	1,718,746
Barker Barambah	Part A – Regulated	3.00	5.60	8.00	9.20	11.00	11.00
	Part B - Regulated	8.65	8.00	8.00	8.00	8.00	8.00
	Total - Regulated	11.65	13.60	16.00	17.20	19.00	19.00
	Part A – Redgate Relift	3.00	7.10	9.00	10.00	11.00	11.00
	Part B – Redgate Relift	21.15	17.25	17.25	17.25	17.25	17.25
	Total – Redgate Relift	24.15	24.35	26.25	27.25	28.25	28.25
	Cost Recovery %	43	62	76	89	100	101
	Revenue	242,249	310,671	381,639	444,313	496,137	496,137
Dawson IA Regulated Section	Part A	5.00	6.20	6.60	7.00	7.40	7.60
	Part B	9.40	7.20	7.40	7.75	7.80	7.80
	Total	14.40	13.40	14.00	14.75	15.20	15.40
	Cost Recovery %	68	80	85	91	96	100
	Revenue	326,581	338,127	356,476	377,158	393,264	401,226
Mary Valley	Part A	4.00	4.40	5.40	6.20	7.20	8.00
	Part B	7.50	6.00	6.00	6.00	6.00	6.00
	Total	11.50	10.40	11.40	12.20	13.20	14.00
	Cost Recovery %	51	60	70	80	91	101
	Revenue	146,989	155,800	180,191	200,364	221,455	238,328

Category 2 Projects							
		1999-00	**2000-01**	**2001-02**	**2002-03**	**2003-04**	**2004-05**
Upper Burnett	Part A	3.00	4.50	6.00	7.50	8.50	8.50
	Part B	7.70	7.70	7.70	7.70	7.70	7.70
	Total	10.70	12.20	13.70	15.20	16.20	16.20
	Cost Recovery %	40	58	72	88	100	104
	Revenue	224,959	261,797	298,636	335,474	360,033	360,033

Category 2 Schemes							
		1999-00	2000-01	2001-02	2002-03	2003-04	2004-05
Eton	Part A	10.44	13.00	16.00	20.00	24.00	26.80
	Part B	29.90	24.00	20.80	18.40	18.05	17.75
	Total	40.34	37.00	36.80	38.40	42.05	44.55
	Cost Recovery %	55	63	67	77	89	100
	Revenue	1,285,218	1,276,988	1,367,837	1,560,577	1,804,612	1,986,343
Mareeba Channel	Part A - Relift	18.00	18.00	18.20	18.30	18.50	19.00
	Part B - Relift	24.00	24.00	24.00	24.00	24.00	25.00
	Total	42.00	42.00	42.20	42.30	42.50	44.00
	Part A – Outside up to 100ML	16.00	16.00	17.40	18.00	18.10	20.50
	Part B – Outside up to 100ML	15.50	15.50	16.20	16.40	16.70	18.00
	Total Outside up to 100ML	31.50	31.50	33.60	34.40	34.80	38.50
	Part A – Outside 100-500ML	11.00	11.00	12.00	12.20	12.20	14.00
	Part B – Outside 100-500ML	13.50	13.50	14.25	14.40	14.70	16.00
	Total outside 100-500ML	24.50	24.50	26.25	26.60	26.90	30.00
	Part A – Outside over 500ML	11.00	11.00	12.00	12.20	12.20	13.80
	Part B – Outside over 500ML	10.00	10.00	10.50	10.70	10.90	11.50
	Total outside over 500ML	21.00	21.00	22.50	22.90	23.10	25.30
	Cost Recovery %	62	71	80	84	88	100
	Access Charge Revenue	201,211	201,211	201,211	201,211	201,211	201,211
	Total Revenue	2,788,176	2,869,034	3,176,692	3,281,275	3,366,918	3,734,477

Note: Burdekin, Bundaberg, St George and Dawson Valley Channel schemes generate drainage levies revenue. The total revenue provided includes drainage levy revenue as well as price path revenue.
Note: Macintyre Brook scheme total revenue includes revenue generated from the sale of 6,400ML of allocation to the Dumaresq scheme.

Category 2B Projects									
		1999-00	**2000-01**	**2001-02**	**2002-03**	**2003-04**	**2004-05**	**2005-06**	**2006-07**
Logan River	Part A	5.00	9.80	9.80	12.00	14.30	16.40	18.50	20.40
	Part B	11.95	7.10	7.10	8.60	10.20	11.70	13.10	14.55
	Total	16.95	16.90	16.90	20.60	24.50	28.10	31.60	34.95
	Cost Recovery %	39	51	50	60	71	81	91	100
	Revenue	166,442	192,287	192,287	234,684	279,268	320,297	360,505	398,388
Warrill Valley Combined Supplemented Regulated Section	Part A	5.00	8.00	8.00	11.50	13.60	15.40	17.30	17.90
	Part B	9.43	6.50	6.50	7.60	8.90	10.20	11.45	11.80
	Total	14.43	14.50	14.50	19.10	22.50	25.60	28.75	29.70
	Cost Recovery %	40	49	48	64	75	86	96	100
	Revenue	230,962	253,769	253,769	341,276	402,397	457,302	513,608	530,786
Boyne River	Part A	4.00	5.00	7.40	9.20	11.00	13.20	14.90	15.40
	Part B	9.00	9.00	9.00	9.00	9.00	9.00	9.00	9.00
	Total	13.00	14.00	16.40	18.20	20.00	22.20	23.90	24.40
	Cost Recovery %	35	48	58	65	73	84	94	100
	Revenue	108,239	140,170	170,732	193,653	216,574	244,589	266,237	272,604
Upper Condamine (Sandy Creek)	Part A	4.00	10.00	12.75	14.10	15.40	17.00	19.00	
	Part B	10.40	4.90	5.45	6.05	6.60	7.20	8.80	
	Total	14.40	14.90	18.20	20.15	22.00	24.20	27.80	
Upper Condamine (North Branch)	Part A	4.00	10.00	12.75	14.10	15.40	17.00	19.00	
	Part B	17.40	11.90	12.45	13.05	13.60	14.20	15.80	
	Total	21.40	21.90	25.20	27.15	29.00	31.20	34.80	
	Cost Recovery %	47	59	69	75	80	88	100	
	Revenue	339,358	381,208	451,795	491,971	530,194	575,950	647,374	
John Goleby Weir	Part A	3.00	9.60	12.00	15.00	16.00	17.00	18.80	
	Part B	7.70	4.40	5.55	6.35	7.80	8.05	9.00	
	Total	10.70	14.00	17.50	21.35	23.80	25.05	27.80	
	Cost Recovery %	28	40	51	64	73	85	100	
	Revenue	15,491	21,154	26,442	32,315	35,911	37,822	41,964	

Category 2B Projects									
		1999-00	**2000-01**	**2001-02**	**2002-03**	**2003-04**	**2004-05**	**2005-06**	**2006-07**
Lower Mary Channel	Part A	8.88	10.40	18.00	20.40	25.40	25.40	29.00	
	Part B	36.60	20.00	20.00	20.00	20.00	20.00	20.00	
	Total	45.48	30.40	38.00	40.40	45.40	45.40	49.00	
	Cost Recovery %	48	52	62	72	82	92	100	
	Revenue	350,186	302,046	388,998	452,856	515,061	569,901	618,289	
Macintyre Brook	Part A	4.00	6.00	8.00	9.00	10.00	11.00	11.80	
	Part B	10.15	7.15	8.15	9.15	10.15	10.90	11.00	
	Total	14.15	13.15	16.15	18.15	20.15	21.90	22.80	
	Cost Recovery %	39	52	66	75	84	94	100	
	Total Revenue	223,061	232,685	292,789	329,151	365,513	398,720	418,976	

Note: Price paths for the Upper Condamine are subject to a review, pending the outcome of the Condamine Balonne WAMP process.

Category 3 Projects								
		1999-00	2000-01	2001-02	2002-03	2003-04	2004-05	2005-06
Dawson Channel (See also below)	Part A	6.00	19.50	24.00	26.75	29.00	31.00	
	Part B	24.30	13.50	14.50	16.50	17.50	19.00	
	Total	30.30	33.00	38.50	43.25	46.50	50.00	
	Cost Recovery %	23	29	36	41	45	50	
	Drainage Levies Revenue	7,589	7,589	7,589	7,589	7,589	7,589	
	Revenue	375,325	471,059	555,094	622,647	671,022	721,265	
Central Lockyer	Part A	0.00	6.00	8.00	10.00	12.00	13.00	
	Part B	12.00	4.30	5.00	5.65	6.35	9.90	
	Total	12.00	10.30	13.00	15.65	18.35	22.90	
Mortonvale								
	Part A	0	6.00	8.00	10.00	12.00	13.00	
	Part B	22.00	14.30	15.00	15.65	16.35	19.90	
	Total	22.00	20.30	23.00	25.65	28.35	32.90	
	Cost Recovery %	14	24	29	35	41	50	
	Revenue	122,282	184,065	227,155	269,497	312,587	381,994	
Pie Creek	Part A	10.00	20.00	30.00	40.00	40.00	40.00	
	Part B	45.00	40.00	30.00	20.00	20.00	20.00	
	Total	55.00	60.00	60.00	60.00	60.00	60.00	
	Cost Recovery %	12	17	18	20	19	19	
	Revenue	29,625	35,800	39,630	43,460	43,460	43,460	
Three Moon Creek River	Part A	3.00	6.40	9.00	10.60	12.20	13.72	
	Part B	8.90	6.50	6.50	6.50	6.50	6.50	
	Total	11.90	12.90	15.50	17.10	18.70	20.22	
	Cost Recovery %	23	30	36	40	45	50	
	Revenue	16,342	18,182	22,040	24,414	26,789	29,044	
Three Moon Creek Groundwater	Part A	2.00	3.20	4.20	5.20	5.80	6.50	
	Part B	4.45	3.70	3.70	3.70	3.70	3.70	
	Total	6.45	6.90	7.90	8.90	9.50	10.20	
	Cost Recovery %	24	30	36	41	45	50	
	Revenue	70,590	79,020	92,245	105,470	113,405	122,663	

Category 3 Projects								
		1999-00	**2000-01**	**2001-02**	**2002-03**	**2003-04**	**2004-05**	**2005-06**
Maranoa	Part A	2.00	6.00	8.00	9.00	10.00	12.00	
	Part B	9.65	9.65	8.50	10.00	11.50	12.00	
	Total	11.65	15.65	16.50	19.00	21.50	24.00	
	Cost Recovery %	13	27	33	38	42	50	
	Revenue	3,526	6,718	8,084	9,182	10,280	11,976	
Lower Lockyer	Part A	4.00	6.00	8.00	10.00	12.00	14.00	
	Part B	10.30	11.20	12.30	13.30	14.30	15.30	
	Total	14.30	17.20	20.30	23.30	26.30	29.30	
	Cost Recovery %	17	23	27	31	34	38	
	Revenue	118,088	147,552	178,408	208,568	238,728	268,888	

Note: Burdekin, Bundaberg, St George and Dawson Valley Channel schemes generate drainage levies revenue. The total revenue indicated includes drainage levy revenue as well as price path revenue.

Specific Issue
A process is proposed for resolving the price path for the Bundaberg Irrigation Area.

The recommended price path for the Bundaberg Irrigation Area results initially in the Channel scheme being a Category 3 scheme with ongoing Government subsidy. This is due to the current low availability of supply in the area which has persisted over recent years. As both the channel and river irrigators are affected by the current low availability of supply, the price path shown below is recommended to apply until such time as SWP is able to reach 100% announced allocation. Should SWP announce 100% allocation at the beginning of any year water (y), the tariff paid by users is recommended to be equal to the previous year (y-1) tariff of the **full cost recovery** price path. The full cost recovery price path is shown in the table below. These price paths would then be the ongoing pricing arrangements and the Channel scheme would then be a Category 2 Scheme.

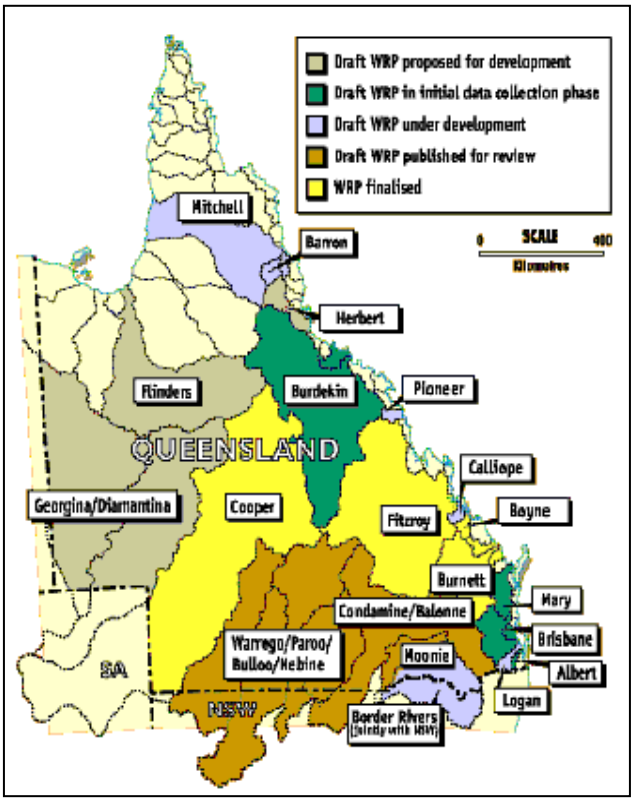
Bundaberg River Interim Price Path (Category 1)							
Bundaberg River (Interim)	Part A	5.16	5.16	5.16	5.16	5.16	5.16
	Part B	9.20	9.20	9.20	9.20	9.20	9.20
	Total	14.36	14.36	14.36	14.36	14.36	14.36
	Cost Recovery %	140	159	160	161	162	165
	Revenue	438,579	438,579	438,579	438,579	438,579	438,579

Bundaberg Channel Interim Price Path (Category 3)							
Bundaberg Channel (Interim)	Part A	5.16	5.16	5.16	5.16	5.16	5.16
	Part B	36.40	36.80	37.80	39.60	41.50	44.00
	Total	41.56	41.96	42.96	44.76	46.66	49.16
	Cost Recovery %	58	66	68	71	75	80
	Drainage Levies Revenue	16,346	16,346	16,346	16,346	16,346	16,346
	Total Revenue	4,509,547	4,466,215	4,565,679	4,744,714	4,933,696	5,182,356

Bundaberg Channel Full Cost Recovery Price Path (Category 2)							
Bundaberg Channel Full Cost Recovery	Part A	5.16	9.76	15.00	26.84	28.00	29.60
	Part B	36.40	30.70	27.40	17.10	18.60	19.50
	Total	41.56	40.46	42.40	43.94	46.60	49.10
	Cost Recovery %	58	68	75	87	93	100
	Drainage Levies Revenue	16,346	16,346	16,346	16,346	16,346	16,346
	Total Revenue	4,426,429	4,563,386	5,036,990	5,824,291	6,150,992	6,485,345

Bundaberg River Full Cost Recovery Price Path (Category 1)							
Bundaberg River Full Cost Recovery	Part A	5.16	8.40	8.40	8.40	8.40	8.40
	Part B	9.20	4.85	4.85	4.85	4.85	4.85
	Total	14.36	13.25	13.25	13.25	13.25	13.25
	Cost Recovery %	140	160	160	161	163	166
	Total Revenue	438,579	439,349	439,349	439,349	439,349	439,349

Attachment 10: Status and timetable for Water Resource Plan Implementation



	1999/2000	2000/2001	2001/2002	2002/2003
Develop draft WRP	Burnett Logan Barron Condamine/ Balonne	Border Rivers Bundaberg Groundwater Burdekin Groundwater Burdekin Mary River Pioneer	Brisbane Pioneer Groundwater	
Release Draft WRP	Burnett Condamine/ Balonne Moonie River Warrego/Paroo/ Bulloo/Nebine	Barron Logan River Pioneer Basin Border Rivers Calliope River Atherton Groundwater[1]	Bundaberg Groundwater Burdekin Groundwater Burdekin Mary River Pioneer Groundwater Albert River Herbert River Mitchell River	Brisbane Flinders River Georgina/ Diamantina Basin
Final WRP	Fitzroy Basin Cooper Creek	Burnett Condamine/ Balonne Boyne Calliope Moonie River Warrego/Paroo/ Bulloo/Nebine	Barron Border Rivers Burdekin Logan Pioneer Albert River Herbert River Mitchell River	Brisbane Bundaberg Groundwater Burdekin Groundwater Mary River Pioneer Groundwater Flinders River Georgina/ Diamantina Basin

[1] Included in Barron WRP.