

## 10.6 WATER REFORM, South Australia

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**Abbreviations**

ANZECC	Australian and New Zealand Environment and Conservation Council
ARMCANZ	Agriculture and Resource Management Council of Australia and New Zealand
BOT	Build Operate and Transfer
COAG	Council of Australian Governments
CPA	Competition Principles Agreement
CSO	Community Service Obligation
DEHAA	Department for Environment, Heritage and Aboriginal Affairs
EPA	Environmental Protection Authority
GL	Gigalitre
IPART	Independent Pricing and Regulatory Tribunal
kL	Kilolitre
ML	Megalitre
NCC	National Competition Council
NMU	Non-Metropolitan Urban
NWQMS	National Water Quality Management Strategy
TER	Tax Equivalent Regime
WACC	Weighted Average Cost of Capital
WSAA	Water Services Association of Australia

# B10 Water Reform

## B10.6 South Australia

### B10.6.1 EXECUTIVE SUMMARY

This is an assessment of South Australia's performance against the strategic framework for water reform. The assessment provides an overview of the reforms implemented and measurement of the reforms against specific commitments in the strategic framework. The assessment considers both legislation and policy initiatives and the application of the initiatives in specific circumstances.

### PROGRESS ON REFORMS

#### *Cost reform and pricing*

- The South Australian Water Corporation (SA Water) is South Australia's primary provider of water and wastewater services and is currently operating on a full cost recovery basis once community service obligations (CSOs) are taken into account.
- South Australia has introduced two part tariffs to urban water supply. However, commercial water prices (which represent around 4 per cent of SA Water's customer base) still contain a free water allowance and are based on property values as are wastewater charges. Volumetric charges have not been introduced to bulk water supply.
- Current pricing arrangements would appear to provide scope for potentially substantial cross-subsidies in some areas.
- Transparent, separately funded, CSO payments are made to SA Water for a number of purposes the most significant of which is to implement the State's uniform price policy for urban water and wastewater services.
- SA Water earns a positive rate of return once CSOs are taken into account.
- South Australia has a process for devolving operational responsibility for the management of irrigation areas. The Council will consider devolution in more detail in its third tranche assessment.
- New investments are subject to appraisals of economic viability and ecological sustainability.

Therefore, South Australia has achieved progress with pricing reform but the Council is concerned with the inclusion of free water allowances and property values in commercial water prices. South Australia has undertaken to announce its position in relation to this matter by December 1999. The Council will revisit this matter in light of the State's announced position. The Council is also concerned at the use of property values to set wastewater charges and the fact that that bulk water charges

have also not been developed. However, South Australia has undertaken to take action in relation to each of these issues.

### ***Institutional reform***

- Council is satisfied that current South Australian arrangements provide sufficient institutional separation between the roles of water resource management, standard setting and regulatory enforcement and service provision.
- Water and wastewater activities have a commercial focus consistent with Council of Australian Governments (COAG) commitments.
- South Australian water businesses are participating in benchmarking and performance monitoring programs.

Therefore, the Council is satisfied with progress as regards institutional separation commercial focus, benchmarking and performance monitoring.

### ***Allocations and trading***

- South Australia has developed a legislative framework that will promote the establishment of a comprehensive system of water entitlements backed by separation of water property rights from land title and a clear specification of entitlements in terms of volume, reliability or transferability.
- Arrangements have been put in place that will ensure that environmental requirements are identified and protected.
- The Council has agreed to the implementation program for allocations as outlined in Attachment 1. In doing so, the Council notes that the implementation programs may change over time provided there is agreement between South Australia and the Council.
- South Australia has removed all impediments to intrastate trade and is participating in a trial of interstate trade being coordinated by the Murray Darling Basin Commission.

The Council is satisfied that South Australia has complied with tranche two requirements but will look for continued progress in its third tranche assessment.

### ***Environment and water quality***

- South Australia has established integrated resource management structures, policies and practices that satisfy tranche two commitments.
- South Australia has made progress in implementing National Water Quality Management Strategy Guidelines.

The Council is satisfied that South Australia has complied with this aspect of the framework for the purposes of tranche two.

***Public consultation and education***

The Council is satisfied that South Australia has engaged in appropriate public consultation and education regarding water reform.

**Assessment**

The Council is satisfied that South Australia has complied with most of its tranche two water reform commitments. However, while sound progress has been achieved in many areas of pricing reform a number of outstanding issues remain, although South Australia has identified a possible way forward on each of these matters. Consequently, the Council will revisit the issue of commercial water pricing in December 1999 following the release of the State's retail water policy. The Council will also review progress in relation to bulk water charges, commercial and wastewater pricing as part of a supplementary assessment in June 2000.

## **10.6.2 REFORM COMMITMENT: COST REFORM AND PRICING**

### **Major Urbans and Non-Metropolitan Urbans**

#### **10.6.2.1 Drawing on the advice of the Expert Group and complying with the ARMCANZ full cost recovery guidelines, jurisdictions are to implement full cost recovery.**

Water businesses must price between a floor price which allows for the continuing commercial viability of the system and a ceiling price which incorporates asset values and a rate of return but does not include monopoly profits.

- the floor price includes provision for future asset refurbishment or replacement using an annuity approach where service delivery is to be maintained
- the ceiling price includes provision for asset consumption and cost of capital calculated using a weighted average cost of capital (WACC).

Within the band, a water business should not recover more than operational, maintenance and administrative costs, externalities, taxes or tax equivalent regimes (TERs), the interest costs on debt, and dividends (if any) set at a level that reflects commercial realities and simulates a competitive market outcome.

The level of revenue should be based on efficient resource pricing and business costs. In determining prices, community service obligations (CSOs), contributed assets, the opening value of assets, externalities including resource management costs, and TERs should be transparent. The deprival value methodology should be used for asset valuation unless a specific circumstance justifies another method.

#### **South Australian arrangements**

The South Australian Water Corporation (SA Water) provides much of the State's urban water and wastewater services. Local governments are responsible for urban stormwater and over 90 septic tank effluent disposal schemes in country towns. Those not covered by the above services must rely on private arrangements such as rainwater tanks, bores, septic tanks etc.

The *South Australian Water Corporation Act 1994* lists the main functions of the Corporation as:

- the supply of water by means of reticulated systems;
- the storage, treatment and supply of bulk water; and
- the removal and treatment of wastewater by means of sewerage systems.

SA Water provides water and sewerage services to both metropolitan Adelaide and country customers. The latest report by the Steering Committee for the Performance Monitoring of Government Trading Enterprises states that SA Water supplied 442 000 metropolitan properties approximately 172 000 ML of water in 1996-97. SA Water also supplied wastewater services to 420 000 metropolitan properties and treated

90 000 ML of sewage. In addition, SA Water supplied 168 000 country properties a total of 76 000 ML, while 56 000 properties were supplied with wastewater services which resulted in treatment of 11 000 ML of sewage.

Over the last ten years property values and water allowances have been phased out of the prices charged to residential and non-commercial water customers. Prices for this group are now based on a fixed charge together with a two tier usage charge. However, prices charged to commercial customers are still based on property values as are all sewerage charges. It is also government policy that both metropolitan and country residential users pay the same price for water services.

The SA Water's 1998 Annual Report states that for the year ended 30 June 1998 after tax profits were \$116.5 million. This figure includes operational, maintenance and administration costs, and interest costs on debt. Also included is a dividend to the South Australian government of almost \$106 million. *WSAA facts '98* reported SA Water provided a dividend payout of around 90 per cent in 1997-98, the fifth highest of the 17 utilities reporting an after tax profit. When SA Water's total contributions to government (around \$116 million) are considered their ranking increases to third. CSOs totaling more than \$74 million are also included in the above profit calculation as is expenditure on behalf of government of almost \$4 million.

South Australia's 1999 Annual Report to the Council notes that in 1995 a water resources charge was introduced to SA Water customers and River Murray users under an amendment to the *Water Resources Act 1990*. Provision for the charge was also included in the *Water Resources Act 1997* that repealed the 1990 Act. A 10 per cent environmental levy is included in sewer rates as is a 1.5 per cent levy to assist the work done by the Environmental Protection Authority.

Asset values for land, building and infrastructure assets were reported at their optimised deprival values. Plant and equipment and other assets are reported at cost but represent only a small proportion of the reported total value of assets.

South Australia's second tranche report notes that SA Water uses straight line depreciation rather than an annuity to make provision for asset consumption. South Australia states that this approach is consistent with commercial practice and yields a rate of return within the band provided by the ARMCANZ pricing guidelines.

In its second tranche report, South Australia projected a 1998-99 rate of return on assets equal to 4.7 per cent. South Australia's annual report also estimated a WACC of 8 per cent and noted SA Water's medium term target real rate on metropolitan assets of 6 per cent.

Supplementary information provided to Council by South Australian shows that while SA Water is currently recovering costs overall there is significant variation in the contributions of the Corporation's business areas (see Table 10.6.1). Significant factors behind this are the State Government's uniform price policy and differences in pricing methodologies.<sup>376</sup> The Council understands that, put simply, the uniform price is based on the metropolitan full cost recovery price with any short fall in

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<sup>376</sup> Some prices are based on property values while others are consumption based.



revenues arising from the greater costs of supplying country customers being made up through a government funded CSO.

**Table 10.6.1: Financial performance by business segment, 1997-98**

	Metro Water (\$m)	C'ntry Water (\$m)	Metro Sewer (\$m)	C'ntry Sewer (\$m)	Other (\$m)	TOTAL (\$m)
<b>Operating Revenue</b>						
Rates and charges	169.6	69.1	156.3	18.5		413.5
Community Service Obligations	1.7	61.4	1.6	9.7		74.4
Other revenue	9.5	6.4	7.4	1.9	17.0	42.2
Total Operating Revenue <sup>1</sup>	180.8	136.9	165.3	30.1	17.0	530.1
<b>Operating Expenses</b>						
Operations and services	65.6	42.8	39.6	9.5	21.5	179.0
Depreciation and amortisation	32.9	31.6	28.2	5.9		98.6
Interest	29.4	30.7	25.9	4.8		90.8
Total Operating Expenses	127.9	105.1	93.7	20.2	21.5	368.4
Expenditure on behalf of State Government	1.7	0.8			1.5	4.0
Total expenditure	129.6	105.8	93.7	20.2	23.0	372.3
Operating Profit before Income Tax	51.2	31.0	71.6	9.9	(5.9)	157.8
Assets	1824	1763	1584	297	44	5512
EBIT	80.4	61.7	97.5	14.7	(5.9)	248.4
Return on Assets	4.4%	3.5%	6.2%	4.9%		4.5%

<sup>1</sup> Revenues exclude contributed assets

Source: SA Water unpublished.

The above table suggests that metropolitan water supply services earn a significantly greater rate of return than country services but once CSOs are taken into account both earn a positive rate of return on assets.

The above table also shows that while there is a significant difference between the returns earned from metropolitan and country sewerage services both are positive and all costs are recovered. Returns earned on metropolitan sewerage services are significantly greater than those earned elsewhere but are less than SA Water's estimated WACC of 8 per cent.

## COUNCIL COMMENT

The available information suggests that SA Water overall earns a return within the bounds of commercial viability and monopoly profits as defined by the ARMCANZ pricing guidelines. Also, SA Water in its performance agreement with the Government, has set itself a target for moving closer towards a commercial rate of return in the medium term. The Council has not been advised of the time path that SA Water will adopt to achieve this target.

Attention is drawn to the fact that in 1997-98 SA Water undertook almost \$4 million worth of expenditure on behalf of the government. The Council notes that some of this expenditure may be justifiably paid by SA Water (for example the \$2.5 million contribution to the Murray River Catchment Board given that SA Water is a major user of the river). However, while the remainder is transparently reported, consideration should be given to funding these non-commercial activities through a separately funded CSO.

In response to the above issues South Australia note that the *Public Corporations Act 1994* provides for an annual review of public corporations' charter and performance agreement. It also notes that, to this end, further advice on SA Water's business targets will be available by the end of the year, and a review of CSO arrangements is expected to address the \$4 million on behalf of other agencies as an input to the 2000-01 budget process.

The returns earned by the metropolitan and country water and sewerage services vary significantly and in the country water prices are not commercially viable as defined by the ARMCANZ guidelines. However, this short fall is made up through a transparent and separately funded CSO. Consequently, the Council is satisfied that South Australia has met its tranche two requirements with regard to this element of the agreed framework.

**10.6.2.2 Jurisdictions must implement consumption based pricing. Two-part tariffs are to be put in place by 1998 where cost effective. Metropolitan bulk water and wastewater suppliers should charge on a volumetric basis.**

Jurisdictions are to apply two-part tariffs to surface and groundwater comprising a fixed cost of access component and a volumetric cost component.

Metropolitan bulk water and wastewater suppliers must establish internal and external charges to include a volumetric component or a two-part tariff with an emphasis on the volumetric component to recover costs and earn a positive real rate of return.

### **South Australian Arrangements**

#### **Metropolitan and NMU water**

For many years residential water prices were made up of a supply charge and a water use charge, however the composition of these two charges has been reformed over time (see Table 10.6.2). Today, property values and free water allowances have been removed from residential price calculations to see prices based on a fixed charge together with an inclining usage charge.

**Table 10.6.2: Residential water pricing, 1988-89 to 1997-98**

Year	Supply charge	Water use charges	
		Allowance kL	Usage charge
1988-89	\$96 plus \$1.88 per \$1000 property value above \$51 000	Supply charge / 71c/kL	71c/kL
1989-90	\$102 plus \$174 per \$1000 property value above \$58 600	Supply charge / 75c/kL	Supply charge / 75c/kL
1990-91	\$110 plus \$1.68 per \$1000 property value above \$65 400	Supply charge / 80c/kL	Supply charge / 8/Kl
1991-92	\$116 plus \$0.80 per \$1000 property value above \$117 000	136 kL	85c/kL
1992-93	\$120 plus \$0.80 per \$1000 property value above \$140 000	136 kL	88c/kL
1993-94	\$120	136 kL	88c/kL
1994-95	\$120	136 kL	88c/kL
1995-96	\$113	NA	0-136 kL at 20c/kL 137-500 kL at 88c/kL > 500 kL at 90c/kL
1996-97	\$118	NA	0-125 kL at 20c/kL 126-400 kL at 89c/kL 400 kL at 91c/kL
1997-98	\$131	NA	0-125 kL at 25c/kL 126-400 kL at 90c/kL > 400 kL at 92c/kL
1998-99	\$119		0-125 kL at 36 c/kL > 125 kL at 89 c/kL

Source: Water and Sewerage Pricing for SA Water Corporation.

The South Australian Competition Commissioner's 1997 report into SA Water's pricing policies noted that, over the five years to 1995-96, metropolitan water consumption has decreased by 14 per cent due to the move to usage based charging for residential customers and greater awareness of the water resource. Consumption by country areas remained relatively stable over the period.

In making his 1997 report the South Australian Competition Commissioner recommended that the three tier volumetric component converge to a single rate that approximates long run marginal cost and that the access charge would reflect residual costs once usage based costs had been taken into account. South Australia's second tranche report notes that over the period 1996-97 to 1998-99 the gap between the first and top-step water prices has narrowed consistent with a converging to a single water price approximating long run marginal cost in the medium term. However, no indication is given as to when and how convergence will occur.

While progress has been made in reforming most water prices, property values are still included in the calculation of the fixed component of commercial water charges. In 1997 the South Australian Competition Commissioner reported that this led to a significant imbalance in average costs where the average cost for commercial users is

over \$2/kL and less than \$1/kL for other users. The resulting cross-subsidy is estimated to be around \$10 million. South Australia's 1999 annual report to the Council noted that commercial water charges have been reduced by 2.5 per cent as a first step towards removing the cross subsidy paid by commercial customers.

### **Sewerage**

Sewage charges consist of a fixed access charge calculated by applying a rate per dollar to property values subject to a minimum charge. The rate for country towns includes a 25 per cent loading over the metropolitan area to compensate for the differences in property values. The same rate is applied to residential and non-residential properties.

The April 1997 report by the Competition Commissioner noted that current arrangements are likely to see commercial users subsidise other users as well as cross-subsidies within customer groups. The Competition Commissioner's report also noted that the efficient pricing of sewerage services should reflect the marginal costs of wastewater collection, treatment and disposal, and that there is no correlation between property values and these costs.

However, given the practical difficulties of applying this approach to the household sector, a common approach has been to adopt a uniform access charge which the Independent Pricing and Regulatory Tribunal (IPART) have concluded is an administratively efficient and equitable means of charging for sewerage services in the same service area. Other approaches include assuming there is a relationship between the amount of water used by a household and the amount returned to the sewerage system (as adopted by Hunter Water Corporation), and an annual access charge plus an additional charge based on the number of pedestals more than two (ACT Electricity and Water).

In South Australia industrial sewerage customers are treated the same as residential and commercial customers. In all other major cities industrial users must pay a trade waste charge. In responding to the Competition Commissioner's 1997 recommendations the South Australian Government agreed to consider introducing trade waste charging but did not indicate when it would make a decision.

### **Bulk water**

SA Water is divided into wholesale, distribution and retail divisions. The Council understands that bulk water pricing arrangements are yet to be determined. The 1999 South Australian report to the Council stated that when completed, bulk water prices are likely to be comprised of a two-part tariff with an appropriate emphasis on the consumptive component. Water transportation services are currently being provided by SA Water to a small number of clients with the prices for these services reflecting costs with respect to the pipelines and ancillary services used.

### **COUNCIL COMMENT**

South Australia has reformed much of its urban water supply pricing. However, it is the Council's view that while commercial customers make up only around 4 per cent of SA Water's customer base, free water allowances and using property values as a

basis for water charges is not consistent with the intent of the COAG framework. The Council does not have sufficient evidence to be convinced that the current arrangements do not lead to non-transparent cross-subsidies. The Council notes that South Australia's retail water pricing policy to be announced in December will address the future of commercial free water allowances and property based charges.

The Council notes, with some concern, the South Australian Government's rejection of the Competition Commissioner's recommendation that property values should be removed from sewerage price calculations. As noted above the Council is of the view that property values are not an appropriate basis for prices. Further, if the Government wishes to provide assistance to a sector of the community this would be more appropriately provided through alternative means, such as a separately funded CSO, rather than through the non transparent cross subsidy arising from prices based on property values.

The Council supports the South Australian Government's decision to consider introducing a trade waste charge for industrial sewerage services and notes that this matter will be considered as part of a review of wastewater charges. The Council will look for this review to be completed and a course of action determined before the Council conducts its supplementary assessment in June 2000.

South Australia has not met its commitment with respect to volumetric pricing of bulk water services. However, the Council understands that the process of identifying regional charges is underway and that an internal trial of bulk water pricing will be undertaken over 1999-00 with a view to finalising the pricing structure in 2000-01. Even though SA Water is a vertically integrated provider, the Council suggests that identifying the costs associated with different regions and separating bulk water costs from reticulation and retail costs will promote greater transparency, accountability and efficient provision of water services.

Overall South Australia has achieved progress towards its second tranche commitments with respect to water pricing reform. Given that commercial water customers represent only a small proportion of total water users, the Council concludes that appropriate two-part tariffs have been applied to virtually all urban water customers. South Australia has demonstrated a commitment to continue to address areas where the requirements of the second tranche have not yet been met. Consequently, in relation to outstanding issues the Council will:

- revisit commercial water pricing in December 1999 following the announcement the Government's of the retail water policy; and
- review progress in relation to bulk water, commercial and wastewater pricing as part of a June 2000 supplementary assessment.

#### **10.6.2.3 Jurisdictions are to remove cross-subsidies, with any remaining cross-subsidies made transparent (published).**

For the purposes of the framework a cross subsidy exists where a customer pays less than the long run marginal cost and this is being paid for by other customers. An economic measure which looks at cross-subsidies outside of a Baumol band, which sets prices between incremental and stand alone cost, is consistent with the COAG

objective of achieving economically efficient water usage, pricing and investment outcomes. To achieve the COAG objective, potential cross-subsidies must be made transparent by ensuring the cost of providing water services to customers at less than long run marginal costs is met:

- as a subsidy, a grant or CSO;
- from a source other than other customer classes.

### **South Australian arrangements**

SA Water engages in a significant amount of differential pricing. For example, different pricing regimes are used for commercial and non-commercial water customers which results in commercial customers making a more than proportionate contribution to total revenues. In 1995-96 commercial users contributed 4 per cent of water sales but 9 per cent of revenues. High residential users also subsidise low use customers as a result of the three-tiered volumetric component in non-commercial prices.

However, the South Australian second tranche report notes that the amount of differential pricing has decreased in each of the above cases. Commercial water prices have been reduced by 2.5 per cent and the difference between the first and the top-step prices for non-commercial customers has been reduced.

The Competition Commissioner's April 1997 report noted that consumers of untreated, as opposed to treated, water are also likely to pay more than the costs of the services they receive. The April 1997 report also noted that commercial and other high property value users are likely to be subsidising other users of sewerage services.

The adoption of uniform rate for metropolitan and country users sees country water customers overall pay less than the cost of those services. In this instance the short fall is made up through a separately funded CSO rather than through charging metropolitan water users monopoly prices.

### **COUNCIL COMMENT**

The fact that SA Water engages in a significant amount of differential pricing does not necessarily mean that it also engages in high levels of cross-subsidies as defined by the agreed assessment framework. This will only occur where prices fall outside the band provided by the ARMCANZ pricing guidelines.

At the moment country water prices are assisted through a separately funded CSO and, when this is taken into account, country water services recover costs overall. The Council accepts that South Australia has also taken steps towards reducing the level of differential prices in other areas such as those between commercial and non commercial water users and between high and low volume users of water. However, as noted above, the Competition Commissioner's 1997 final report estimated that current pricing arrangements see an annual \$10 million cross subsidy paid by commercial to other water users. This potentially represents a significant distortion in consumption patterns and should be addressed as soon as practicable. The Council

understands that the State's retail water policy to be announced by December 1999 will address free water allowances and property based charges.

In some areas the Council does not have sufficient information to reach a conclusion as to whether current arrangements are outside the agreed guidelines. For example, the absence of information on bulk water costs means that cross subsidisation between SA Water's bulk and retail activities cannot be ruled out. However, the Council understands that SA Water is in the process of identifying bulk water charges.

While the Council is unable to comment on whether there is a significant cross-subsidy between wastewater customers, the basis on which wastewater prices are charged is not consistent with the intent of the COAG framework. Accurately identifying and reporting any significant cross-subsidies arising from current arrangements will be a very difficult task. Removing property values from the calculations of these prices would more closely relate prices to the cost of production and reduce any cross-subsidies that currently exist. Any potential equity concerns arising from these changes could be addressed through an appropriately funded CSO and/or through phasing their introduction over an acceptable timeframe. The Council notes that South Australia intends to review wastewater pricing and will consider progress on this matter as part of a supplementary assessment in June 2000.

**10.6.2.4 Where service deliverers are required to provide water services to classes of customers at less than full cost, this must be fully disclosed and, ideally, be paid to the service deliverer as a community service obligation.**

All CSOs and subsidies must be clearly defined and transparent. The departure from the general principle of full cost recovery must be explained. The Council will not make its own assessment of the adequacy of the justification of any individual CSO or cross-subsidy but will examine CSOs and cross-subsidies in totality to ensure they do not undermine the overall policy objectives of the strategic framework for the efficient and sustainable reform of the Australian water industry.

**South Australian arrangements**

On 16 December 1996 the South Australian Government endorsed a Community Service Obligations Policy. The objectives of the policy are to:

- ensure that the Government's public policy and welfare programs are not put at risk by the corporatisation process;
- enable rigorous performance monitoring of the commercial performance of government businesses;
- ensure that a decisions on the appropriate level and quality of CSO services are made by the Government rather than public enterprises; and
- ensure that the undertaking of CSO activities does not conflict with competitive neutrality principles and that such activities can be recognised by the Competition Commissioner in recommending prices.

SA Water's CSOs are currently being reviewed against the above framework. SA Water currently provides CSOs through explicit purchase agreements between purchasing Ministers. SA Water's latest annual report noted that in 1997-98 CSOs totalled more than \$74 million. This figure includes non-commercial activities pursuant to the Government's CSO policy such as:

- provision for a uniform price for metropolitan and country customers;
- administration of the Pensioner Remissions Scheme for water supply, sewerage, irrigation, land tax and council rates;
- rate concessions to exempt properties (churches, councils, Festival Centre Trust etc); and
- provision of free water and wastewater for emergency services.

Other non-commercial activities include those for which funding is provided by other agencies. This includes the provision of free water to the Corporation of the City of Adelaide.

SA Water also undertakes non-commercial activities that will continue to be funded by the Corporation until transferred to other agencies. These include:

- the definition and administration of standards for plumbing through out the State;
- other flood mitigation schemes undertaken at government direction;
- dredging and desnagging the Murray river; and
- Waikerie, Woolpunda and Rufus River Salt interception schemes.

### **COUNCIL COMMENT**

Based on the information provided, it is the Council's view that the State's CSO policy and arrangements for the provision of CSOs by SA Water on behalf of the Government is consistent with the intent of the COAG Framework. Therefore, while the State's uniform price policy results in prices that often do not reflect the true cost of the service, this assistance is provided through a transparent, separately funded CSO.

The Council notes that in 1998 SA Water provided expenditure on behalf of government of almost \$4 million dollars. The Council acknowledges that payments to the River Murray Catchment Board may be justified. However, the Council suggests that South Australia considers transferring responsibility for the remaining activities to non-commercial agencies or fund their provision through an appropriate CSO.

With respect to non-commercial activities undertaken by SA Water that are awaiting transfer to other agencies, South Australia has advised that the transfer of any remaining non-commercial activities will be completed by June 2000.



### **10.6.2.5 Publicly owned supply organisations should aim to earn a real rate of return on the written down replacement cost of assets for urban water and wastewater.**

Jurisdictions are to have achieved progress toward a positive real rate of return on assets used in the provision of all urban water supply and wastewater services.

#### **South Australian Arrangements**

As noted above (see Table 1), SA Water achieved an overall rate of return on assets (excluding contributed assets) of 4.5 per cent in 1998. This compares to a medium term target of 6 per cent on metropolitan services and an estimated WACC of 8 per cent. SA Water has also earned a positive rate of return which is below a monopoly rate for individual service areas, namely metropolitan and country water and wastewater services once CSOs are taken into account.

Infrastructure, land and buildings are reported at their optimised deprival value. Plant and equipment and other assets are reported at cost but represent a very small proportion of total assets.

#### **COUNCIL COMMENT**

Based on the information provided the Council is satisfied that once CSOs are taken into account, South Australia has met its commitment to ensure that urban water and wastewater providers earn a positive real rate of return. However, as noted above, the Council has a number of concerns regarding the composition of the prices on which this return is earned.

#### **Rural Water Supply and Irrigation Services**

### **10.6.2.6 Where charges do not currently cover the costs of supplying water to users (excluding private withdrawals of groundwater<sup>377</sup>), jurisdictions are to progressively review charges and costs so that they comply with the principle of full cost recovery with any subsidies made transparent.**

Jurisdictions should provide a brief status report, consistent with advice provided to ARMCANZ, on progress towards implementation of pricing and cost recovery principles for rural services.

The NCC will assess jurisdictions as having complied with the pricing principles applicable to rural water supply where jurisdictions:

- have achieved full cost recovery; or
- have established a price path to achieve full cost recovery beyond 2001 with transitional CSOs made transparent; or

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<sup>377</sup> Private withdrawals of groundwater include private providers and small co-operatives who extract water from bores for private use, but does not include large cooperative arrangements (including trusts) that act as wholesalers supplying water as a commercial venture and that are subject to control or directions by government or receive substantial government funding.

- with schemes where full cost recovery is unlikely to be achieved in the long term, that the CSO required to support the scheme is transparent; and
- cross-subsidies have been made transparent.

### South Australian arrangements

Ownership of the State's highland irrigation areas has been transferred to eight irrigation trusts on 30 June 1997. The 1999 SA Water Annual Report noted that in the Lower Murray Irrigation Areas full cost recovery of operations and maintenance costs of government-reclaimed swamps is expected by 30 June 1999.

In 'Navigating the South Australian Water Resources Act 1997', South Australia notes that the Act will enable the true costs of water management in prescribed areas, including environmental costs, to be collected directly from the major beneficiaries. Charges to water resources licensees may be attached to water allocation and/or use, via a levy set under Part 8 (Division 1). The Council understands that the levy will be set so as to recover the direct costs of managing a particular prescribed resource, as identified in the management plan of a catchment management board. Where no board is in place and management costs are significant they may be recovered through a levy set by the Minister on the basis of a report setting out the management costs of that resource.

Part 8 (Division 2) of the Act also provides for the raising of a land based levy by constituent councils on rateable properties (urban and rural) in catchment water management board areas. The rationale for this land based levy is that residents and other land users within a catchment:

- contribute to pollution loads of (and other impacts on) water resources; and
- benefit from the actions taken by a catchment water management board to improve the management of the catchment's water resources.

However, where the Act holds a person liable to pay a water based levy for water used then that person is not liable to also pay a land based levy for the property on which the water is used.

### COUNCIL COMMENT

South Australia has achieved progress towards pricing reform and cost recovery for rural water services, however the Council will consider this issue in greater detail as part of its third tranche assessment.

**10.6.2.7 Jurisdictions are to conduct robust independent appraisal processes to determine economic viability and ecological sustainability prior to investment in new rural schemes, existing schemes and dam construction. Jurisdictions are to assess the impact on the environment of river systems before harvesting water.**

Policies and procedures must be in place to robustly demonstrate economic viability and ecological sustainability of new investments in rural schemes prior to development. The economic and environmental assessment of new investment must be opened to public scrutiny.

Jurisdictions must demonstrate a strong economic justification where new investment is subsidised.

## South Australian arrangements

### Ecological sustainability

As discussed below, the *Water Resources Act 1997* states that the granting of new water licences or the transfer of existing licences is subject to Ministerial approval and must be consistent with the relevant water allocation plan. The Act also places controls on certain water affecting activities such as dam construction or other structures that will collect or divert water.

A licence is required to take water from a water resource declared as a prescribed resource under the *Water Resource Act 1997*. No licence is required to take water from other resources provided that it is taken in a manner consistent with the relevant water plan, where one exists.

The *Water Resources Act 1997* specifies that permits are required for a number of activities related to wells, for example the drilling of wells and discharging of water into a well. Permits for these well-related activities are issued by the Minister. The Act also specifies that the building or enlarging of dams in the Mount Lofty Ranges Watershed or prescribed water resources requires a permit. The permits for these activities are issued by:

- a catchment water management board where these activities take place within a board's catchment area and where a comprehensive catchment water management plan has been adopted by the Minister for the board's catchment area; or
- the Minister in any other case.

Decisions to grant a permit must not be inconsistent with the State Water Plan and any other water plan, which applies to the land on which the activity is to take place (ie catchment water management plan, water allocation plan and/or local water management plan).

In addition to these activities, the Act also allows a water plan to specify that certain water affecting activities must not be undertaken without a permit. Such activities include, for example, obstructions to a watercourse or lake, and the building or enlarging of a dam outside of the Mount Lofty Ranges Watershed or prescribed water resources. The relevant authority for issuing permits in these cases is the authority specified in the water plan.

The South Australian second tranche report notes that in an attempt to integrate and streamline regulatory requirements, permits are not required when the activity is authorised under other statutes including:

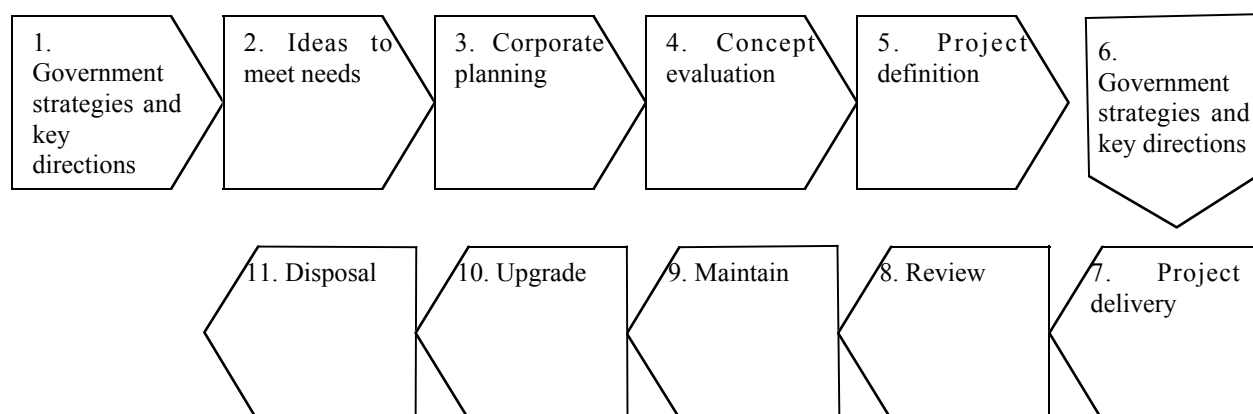
- *Development Act 1993*;
- *Environment Protection Act 1993*;

- *Pastoral Land Management and Conservation Act 1989;*
- *Soil Conservation and Land Care Act 1989;*
- *Animal and Plant Control (Agricultural Protection and Other Purposes) Act 1986;*
- *Native Vegetation Act 1991; and*
- *South Eastern Water Conservation and Drainage Act 1992.*

### **Economic viability**

The South Australian Government endorsed its Strategic Asset Management Framework in July 1995. Included as part of this is the Project Initiation Process. The South Australian Government states that this process emphasises the need for quality corporate planning and a robust evaluation prior to any firm decision being made to acquire or place assets. Key elements of the process are provided by Figure 10.6.1 below.

**Figure 10.6.1: Project Initiation Process**



In outlining the concept evaluation phase, South Australia note that the total impact on the community and government system should be evaluated and that economic evaluation should include a cost benefit analysis where the costs and benefits can be qualified, and a cost effectiveness analysis where they can not. Selection criteria also need to be identified to establish the most attractive options.

South Australia states that the benefits of the process include:

- a full needs based assessment of the proposed investment;
- a consistent process for ranking priorities on a state and agency basis; and
- consideration of innovative approaches such as market based solutions, no build strategies and ‘end use’ planing.

Under the Project Initiation Process, Cabinet approval is required for any project which has an estimated capital cost of \$4 million or more or greater than \$1 million where the expenditure is not part of a Cabinet approved budget. Information

technology projects costing more than \$500 000 also require Cabinet approval. Ministers are authorised to approve projects with an estimated capital cost of up to \$1 million and between \$1-4 million where the expenditure is part of a Cabinet approved budget. Ministers may delegate responsibility approval for projects up to \$500 000. However, while the general principles apply to all government agencies the details of the process only apply to non-residential building works of non-commercial sector agencies.

South Australia states in its 1999 annual report to the Council that SA Water is subject to commercial investment criteria for its capital expenditure program and have provided supplementary information to support this claim. The South Australian annual report also notes that it is reviewing its criteria for investment in new irrigation or rural water supply schemes, and for the extension of existing schemes. The aim of this review is ensure investments only be undertaken after thorough economic and environmental assessment.

### **COUNCIL COMMENT**

The Council understands that the *Water Resources Act 1997* facilitates prescription of resources where proposed developments may have a significant environmental impact and closer, ongoing management and monitoring is appropriate.

The Council understands that groundwater in the Dry Creek area and three tidal inlets were prescribed to ensure that Penrice Soda Products Pty Ltd has ongoing access to these resources. An exemption from the licensing and resource management requirements of the *Water Resources Act 1997* was also provided under the *Water Resources (Penrice Exemption) Regulations 1997*. The Council also understands that two prescribed groundwater resources in the State's Far North covered by the *Roxby Downs (Indenture Ratification) Act 1982* will not be subject to water allocation plans. However, in all of the above cases resource management arrangements are provided by regulations or licence conditions and include monitoring and annual reporting obligations. The impact of the Roxby Downs project on groundwater resources was considered as part of an environmental impact statement in 1983 and an amended environmental impact statement in 1995.

The Council also notes that for resources that are not prescribed, catchment water management plans and local water management plans can supplement the provisions of existing relevant legislation such as the *Development Act 1993* and the *Environment Protection Act 1993*.

The Project Initiation Process appears to provide a robust process for ensuring the economic viability for significant government expenditure by non-commercial activities. The Council notes SA Water's 6 per cent medium term rate of return target on metropolitan water assets and is satisfied with information provided on capital expenditure approval processes adopted by SA Water.

The Council also notes that South Australia's review of its criteria for ensuring the economic viability and ecological sustainability of new water investments is expected to be completed by June/July 1999. The Council is satisfied that tranche two commitments in relation to this aspect of the agreed framework have been met.

**10.6.2.8 Jurisdictions are to devolve operational responsibility for the management of irrigation areas to local bodies subject to appropriate regulatory frameworks.**

All impediments to devolution must be removed. Jurisdictions must demonstrate that they are encouraging and supporting devolution of responsibility, including through education and training.

**South Australian arrangements**

On 1 July 1997 the South Australian Government transferred ownership of the Government Highland Irrigation District, which provided irrigation distribution systems to 8 500 hectares of land, to eight self-managing irrigation trusts. These bodies in turn created the Central Irrigation Trust to provide day-to-day management and operational services for each scheme. Headworks rehabilitation of all 8 schemes will be completed in 1999.

The remaining State Government irrigation schemes are those located along the lower reaches of the Murray and cover an area of 4 920 hectares. The transfer of these areas to self management is unlikely to occur before rehabilitation of the schemes has been completed.

The transfer to self management of the Loxton Irrigation District (a Commonwealth scheme) is also expected following headworks rehabilitation. Currently, the scheme is managed under contract by the Central Irrigation Trust on behalf of the State Government, which in turn is managing this on behalf of the Commonwealth. A rehabilitation proposal has been prepared and is currently being negotiated between the State and Commonwealth Governments.

**COUNCIL COMMENT**

Based on the information provided, the Council is satisfied that South Australia has met its tranche two commitments with respect to devolving the management responsibilities of government owned irrigation schemes. The Council will however consider this issue in detail as part of its third tranche assessment.

### **10.6.3 REFORM COMMITMENT: INSTITUTIONAL REFORM**

#### **Institutional Role Separation**

**10.6.3.1 As far as possible the roles of water resource management, standard setting and regulatory enforcement and service provision should be separated institutionally by 1998.**

The NCC will look for jurisdictions, at a minimum, to separate service provision from regulation, water resource management and standard setting. Jurisdictions will need to demonstrate adequate separation of roles to minimise conflicts of interest.

#### **South Australian arrangements**

##### **Resource management**

Resource management functions were separated from service provision responsibilities in January 1994 when water resource management was transferred to the Department of Environment and Natural Resources (now the Department for Environment, Heritage and Aboriginal Affairs (DEHAA)) from the Engineering and Water Supply Department (now SA Water). With the passage of the *Water Resources Act 1997* responsibility for resource management has been devolved somewhat with local government and communities playing a greater role through the various water planning process. The Council understands that DEHAA will work with these groups to ensure that all water plans are consistent with the Act and the State Water Plan. The Council also notes that all plans must be approved by the Minister.

##### **Service provision**

SA Water is responsible for the provision of water supply and sewerage services to metropolitan and country water uses. SA Water was corporatised on 1 July 1995 and reports to the Minister for Government Enterprises.

Ownership of the State's Government Highland Irrigation Districts was transferred to eight self-managing trusts in July 1997. South Australia anticipates that ownership of the remaining State owned irrigation services will be transferred to scheme participants upon completion of headworks rehabilitation programs. In the interim, SA Water will continue to manage supply and drainage systems in collaboration with scheme participants.

##### **Price regulation**

Under the *Government Business Enterprises (Competition) Act 1996* responsibility for providing advice on prices charged by declared government businesses falls to the State's Competition Commissioner. Under the Act, a Commissioner is not subject to ministerial direction about a recommendation, finding or report. However, the Minister may require that certain facts, policies or issues be taken into account in a particular investigation. Further, responsibility for setting prices remains with the Government.

The Competition Commissioner provided his first report on SA Water pricing policies in April 1997. The South Australian Competition Commissioner is also responsible for investigating and recommending solutions to competitive neutrality complaints.

### **Environmental regulation**

The Environmental Protection Authority (EPA) was established in 1994 and is responsible for water quality issues. The EPA is currently in the process of developing an Environmental Protection (Water Quality) Policy under the *Environmental Protection Act 1993*. The Policy was initiated in response to, among other things, the absence of consistent statewide protection for all water bodies including inland waters. The policy will also strive to ensure industries operate under uniform conditions and to improve water quality and encourage better use of wastewater. To this end the Policy will set out controls and requirements, the violation of which will be enforceable offences.

Water quantity issues are addressed primarily through the water planning processes provided by the *Water Resources Act 1997* (see discussion of water allocations and trading below). In addition the Act requires that users obtain a permit or licence for certain water effecting activities. There is also potential for Ministerial intervention to limit or prohibit water use where a water resource is under threat from overuse. Failure to comply with either of these provisions can incur a financial penalty.

### **COUNCIL COMMENT**

Based on the information provided the Council is satisfied that current South Australian arrangements provide sufficient separation between the roles of water resource management, standard setting and regulatory enforcement and service provision.

However, the Council notes that in responding to the Competition Commissioner's first investigation into SA Water's pricing policies the Government stated that the report represented a 'rational economic framework to which the government will add its judgements on social or equity concerns'. Limiting the Competition Commissioner's investigations to 'purely economic findings' may constrain the relevance of the resulting recommendations.

Enabling the Competition Commissioner to consider a broader range of factors (such as the potential social and environmental implications of the Commissioner's economic analysis) may assist future recommendations to be of greater relevance and usefulness to the government in identifying the most appropriate pricing arrangements. The Council therefore suggests that future investigations enable the Commissioner to take a broader range of matters into consideration to improve the decision usefulness of the resulting report.

SA Water is the State's primary service provider but is also responsible for definition and administration of plumbing standards throughout the State, although the Council understands that the latter role is in the process of being transferred to Planning SA. South Australia has provided the following timetable for the transfer of plumbing regulation.



- Issue to be considered by Planning SA's Strategy and Policy Committee in July 1999.
- Proposed amendments to relevant legislation and regulations to be put before the South Australian Parliament in October/November 1999.
- Agreed amendments to legislation and regulations to be made in January 2000, followed by the transfer of resources from SA Water to Planning SA.

The Council will revisit this issue as part of its third tranche assessment.

#### **10.6.3.2 Metropolitan service providers must have a commercial focus, whether achieved by contracting out, corporatisation, privatisation etc, to maximise efficiency of service delivery.**

Incorporate appropriate structural and administrative responses to the CPA obligations, covering legislation review, competitive neutrality, structural reform.

#### **South Australian arrangements**

The South Australian Water Corporation was corporatised on 1 July 1995 and is thus subject to the *Public Corporations Act 1993* which requires:

- provision of a charter and Performance Statement;
- separation of the commercial and non-commercial operations; and
- implementation of competitive neutrality provisions (through tax and rate equivalents and debt guarantee fees).

The Act also contains provisions relating to the duties and liabilities of the Board of Directors, the establishment of subsidiaries and miscellaneous provisions including dividends, internal audit, accounts and annual reports.

The South Australian Water Corporation has outsourced all water supply and sewerage services in the Adelaide metropolitan region and has entered into a build operate and transfer (BOT) contract for the construction of 10 water filtration plants in country areas.

#### **COUNCIL COMMENT**

Based on the information provided, the Council is satisfied that the State's metropolitan service provider has demonstrated an appropriate commercial focus.

#### **Performance Monitoring and Best Practice**

#### **10.6.3.3 ARMCANZ is to develop further comparisons of interagency performance with service providers seeking best practice.**

Jurisdictions have established a national process to extend inter-agency comparisons and benchmarking. Benchmarking systems are to be put in place for the NMU and

rural sectors, “WSAA Facts” is to be used for major urbans, and service providers are to participate.

The NCC will accept compliance for the three sectors subject to the Productivity Commission confirming consistency with the Report of the Steering Committee on National Performance Monitoring of Government Trading Enterprises, “Government Trading Enterprises Performance Indicators” (Red Book). The Productivity Commission has already confirmed the consistency of “WSAA Facts” for the major urbans. The NCC recognises the first reports for the NMU and rural sectors are likely to be a rough cut in the initial years.

### **South Australian arrangements**

The South Australian Water Corporation participates in WSAA Facts performance monitoring process. South Australia is also participating in the development of a similar national performance monitoring process being developed for non-major urban and rural services. When completed only two South Australian water supply areas will fall within the assessment band established for this process. However, for comparison purposes it is proposed that the State will also report on ‘Outer Metropolitan’ and ‘Total Country’

### **COUNCIL COMMENT**

The Council supports South Australia’s participation in the above processes and the inclusion of the ‘Outer Metropolitan’ and ‘Total Country’. The Council is of the view that South Australia complies with its second tranche requirements in relation to performance monitoring and best practice.

## **10.6.4 REFORM COMMITMENT: ALLOCATION AND TRADING**

### **10.6.4.1 There must be comprehensive systems of water 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.**

A ‘comprehensive’ system requires that a system of establishing water allocations which recognises both consumptive and environmental needs should be in place. The system must be applicable to both surface and groundwater.

The legislative and institutional framework to enable the determination of water entitlements and trading of those entitlements should be in place. The framework should also provide a better balance in water resource use, including appropriate allocations to the environment as a legitimate user of water in order to enhance/restore the health of rivers. If legislation has not achieved final parliamentary passage, the NCC will recognise the progress towards achieving legislative change during its assessment of compliance.

#### **South Australian arrangements**

##### **Prescribed resources**

The *Water Resources Act 1997* provides a system of transferable property rights for those water resources (including water in a watercourse, groundwater, and surface run-off) that have been declared as prescribed water resources under the Act. Water resources are declared as prescribed by the Governor upon the recommendation of the Minister when the level of consumptive use and condition of the resource suggest that closer management is necessary. There are currently 23 prescribed water resources in South Australia.

Water licences are issued by the Minister and must be consistent with the relevant water allocation plan. Under the Act people may not take water from a prescribed resource, other than for stock and domestic use, unless licensed to do so or by notice published by the Minister in the Government Gazette (although the latter is generally only for a particular purpose and period of time). The right to water for stock and domestic use can be overridden by the regulation declaring the resource.

Under Part 5 of the Act, water licences are the owner’s personal property and are separated from land title. Licences also stay in force until they are terminated by or under the Act. While licences specify volume and conditions of use they do not specify reliability or quality. However, reliability and quality can be addressed through the relevant water allocation plan.

The *Water Resources Act 1997* also extends the coverage of previous legislation so that surface water flowing through an undefined channel is now treated the same as groundwater and water in a watercourse. Consequently, surface water run-off can now be included in water plans.

All diversions from the River Murray are fully licensed with irrigation being licensed for some time. Diversions by the South Australia Water Corporation for urban water

have also been recently established and comply with Murray-Darling Basin cap requirements.

### **Other water resources**

There are currently several stressed rivers that are not prescribed but are located in catchment management board areas. Although the above licence system does not apply to these resources, South Australian's 1999 Annual Report to the Council states that the needs of these systems are addressed as part of a broader catchment management plan.

For the State's remaining water resources, local councils are encouraged to prepare local water management plans which, like water allocation plans and catchment water management plans, are submitted for Ministerial approval. No licence is required for these unprescribed water resources but use should be consistent with a local water management plan where one exists. The Council understands that development of one local management plan will begin shortly with several local councils in adjacent catchments considering options for applying this process. South Australia have advised that they intend to appoint a local water management planning officer in 1999-00 to assist and promote the development of local water management plans.

### **COUNCIL COMMENT**

The Council supports the inclusion of the surface water run-off within the coverage of the *Water Resources Act 1997*. The Council believes that this will assist in achieving a more comprehensive system of water property rights.

The Council believes that the Act provides an effective legislative framework and the water allocation planning process provides an allocation system for prescribed water resources consistent with tranche two commitments.

The Council will review the effectiveness with which the State's allocation system is implemented in the lead up to its third tranche assessment. In particular, the Council will be interested in evidence of completed water plans that provide for sound management of prescribed resources based on robust assessments of environmental needs.

**10.6.4.2 Jurisdictions must develop allocations for the environment in determining allocations of water and should have regard to the relevant work of ARMCANZ and ANZECC.**

**Best available scientific information should be used and regard had to the inter-temporal and inter-spatial water needs of river systems and groundwater systems. Where river systems are overallocated or deemed stressed, there must be substantial progress by 1998 towards the development of arrangements to provide a better balance in usage and allocations for the environment.**

**Jurisdictions are to consider environmental contingency allocations, with a review of allocations five years after they have been initially determined.**

Jurisdictions must demonstrate the establishment of a sustainable balance between the environment and other uses. There must be formal water provisions for surface and

groundwater consistent with ARMCANZ/ANZECC “National Principles for the Provision of Water for Ecosystems”.

Rights to water must be determined and clearly specified. Dormant rights must be reviewed as part of this process. When issuing new entitlements, jurisdictions must clarify environmental provisions and ensure there is provision for environmental allocations.

For the second tranche, jurisdictions should submit individual implementation programs, outlining a priority list of river systems and groundwater resources, including all river systems which have been over-allocated, or are deemed to be stressed and detailed implementation actions and dates for allocations and trading to the NCC for agreement, and to Senior Officials for endorsement. This list is to be publicly available.

It is noted that for the third tranche, States and Territories will have to demonstrate substantial progress in implementing their agreed and endorsed implementation programs. Progress must include at least allocations to the environment in all river systems which have been over-allocated, or are deemed to be stressed. By 2005, allocations and trading must be substantially completed for all river systems and groundwater resources identified in the agreed and endorsed individual implementation programs.

### **South Australian arrangements**

South Australia’s March 1999 status report on the implementation of the National Policy on the Provision of Water for Ecosystems states that the *Water Resources Act 1997* provides a range of water planning processes that may be implemented depending on the different requirements of the resource in question.

### **Prescribed resources**

South Australia’s 1998 Annual Report notes that the Act provides formal recognition and protection of environmental water provisions for prescribed resources. The primary vehicles for achieving this are the relevant water allocation plans. Responsibility for preparing water allocation plans rests with either a catchment water management board as part of its catchment water management plan or, where a board does not exist, by the relevant water resources planning committee. The Act requires that boards and committees collectively have skills in natural resource management, local government and community affairs. Attachment 1 provides a list of resources for which water allocation plans are currently being developed. While some of these plans are expected to be completed early in 2000, by regulation all must be completed by 1 July 2000.

Water allocation plans or catchment water management plans will not be developed for eight prescribed resources. Of these:

- four were prescribed for to ensure access by Penrice Soda Pty Ltd to one groundwater and three salt water tidal intakes;
- two are subject to the *Roxby Downs (Indenture Ratification) Act 1982*; and

- two are likely to be de-prescribed in the near future.

Once the resource becomes prescribed there is an interim period where water can still be taken without a licence (unless restricted or prohibited by the Minister, see below). During this time the Minister must prepare an assessment of the capacity of the resource, including consideration of environmental needs. At the end of the interim period any necessary allocation changes are made.

In preparing water allocations plans the relevant committee or board must:

- assess the water needs of dependant ecosystems located either within or downstream of the prescribed resource;
- set out how water will be allocated to licensed users in the form of a property right;
- describe how water trading will apply in the area;
- provide for monitoring arrangements; and
- provide for sustainable allocation and use of the available water.

For regulated systems operating rules for storage and regulatory structures are included in catchment water management plans while for unregulated surface and groundwater resources water sharing rules are being developed as part of water allocation planning process.

South Australia anticipates that each water allocation plan will take 18 months to two years to complete due to the amount of public consultation required. There are currently 15 water allocation plans being developed. Of these, one applies to a prescribed watercourse, two others apply to areas where all water resources have been prescribed (ie groundwater, surface water and watercourse water) and the remaining 12 water allocation plans apply to prescribed groundwater resources.

As noted above, the first round of water allocation plans are required by regulation to be complete by 1 July 2000. In the interim the resources in the associate areas are covered by allocation plans developed under the *Water Resources Act 1990*. While not as sophisticated, particularly in relation of environmental flows, these plans are still designed to provide for sustainable resource use.

A range of methodologies have been adopted in estimating environmental flows and have included the use of expert panels, identifying flow percentiles and undertaking habitat assessments.

In its latest report on compliance with the 1997 cap on water diversions from the Murray Darling Basin the Independent Audit Group note that:

- South Australia's Diversions from the Murray River are within the Cap;
- the State has a reliable measurement system of urban and irrigation use (rehabilitated areas); and

- proposals to further improve the reliability of measurement in the lower Murray and in non-rehabilitated areas are being considered.

### **Other water resources**

As noted above, a number of stressed rivers are not prescribed under the Act. However, they do fall within one of State's six catchment water management boards. As a result the environmental requirements of these systems will be addressed as part of the relevant catchment water management plan. Catchment water management plans are developed in areas where there are a broad range of resource management issues and are required to:

- describe the area's water resources;
- describe the health of water dependant ecosystems;
- assess the water needs of the ecosystem;
- describe the arrangements for monitoring ecosystem health; and
- describe methods for improving the health of the ecosystem.

Catchment water management plans are also able to provide for environmental requirements through their control over 'water affecting activities' such as dams and weirs. This is significant given that farm dams and small scale direct pumping or diversion are the major form of regulation and extraction in certain areas of South Australia.

While the six catchment water management boards are currently in various stages of the planning process, most expect to complete their catchment water management plans by mid 2000. The exception to this is the South East Catchment Water Management Board which is currently preparing five water allocation plans and thus does not expect to complete its catchment water management plan until late 2000 or early 2001.

While not required under the Act, local governments have been encouraged to prepare local water management plans. This process sets out how the local government will perform its functions and exercise its powers under the Act and other relevant legislation. While, responsibility for developing water plans has been significantly devolved to local communities, the Minister assesses all plans. Once approved, local water management plans become statutory instruments. All water plans must be consistent with the broad directions provided by the State Water Plan.

The State Water Plan is currently undergoing its five yearly review. Catchment water management plans are also to be reviewed every five years. While water allocation plans can be reviewed at any time the Council understands that the revised State Water Plan will contain a requirement for water allocation plans to be reviewed at least every five years.

## Other measures

In addition to the water planning processes discussed above, the Act provides for the Minister to intervene in emergency situations where the water resource is under threat from overuse irrespective of whether or not the resource is prescribed. Under section 16 of the Act, in the case of inadequate supply or overuse, the Minister may for a period of up to two years:

- prohibit or restrict water being taken from the resource; or
- direct dams, reservoirs, embankments, walls or other structures to be modified to allow water to pass over, under or through them.

Section 16(2) states that when determining the demands on available water resources the needs for ecosystems that depend on the resource must be taken into account. Under the Act, the above restrictions take effect seven days after notice is provided in the *Gazette* and a local newspaper or immediately where notice is served on an individual. The Minister may also require removal of the means by which water is being taken from the water resource. Failure to comply with a Ministerial notice can incur a fine (\$10 000 for a body corporate and \$5 000 for an individual) and Ministerial representatives may also enter the land to take the action specified on the notice with the target of the notice liable for any costs incurred.

South Australia notes that evidence of the effective application of Section 16 provisions is provided by the Minister recently applying restrictions to:

- surface water resources in the Clare Valley for a period of two years, commencing on 3 March 1999;
- groundwater resources in the Tintinara/Coonalpyn area for a period of 12 months, commencing on 13 January 1999; and
- surface water resources, watercourse water and groundwater resources in the Marne River catchment for a period of two years, commencing on 29 April 1999.

Section 37 of the Act also provides for the Minister to reduce water allocations stipulated on water licences:

- to prevent a reduction, or further reduction, in water quality;
- to prevent damage, or further damage, to dependant ecosystems;
- because there is insufficient water to meet existing or expected future water demands; or
- because there has been, or is to be a reduction in the quality of water available pursuant to the *Murray-Darling Basin Act 1993* or the *Groundwater (Border Agreement) Act 1985*.

In the absence of an alternative scheme set out in the regulations, allocations are reduced proportionately.



## COUNCIL COMMENT

The *National Principles of the Provision of Water for Ecosystems* includes the following principles directly relevant to the Council's assessment:

***Principle 1 River regulation and/or consumptive use should be recognised as potentially impacting on ecological values.***

The Council is satisfied that South Australia's water planning process acknowledge the potential impact of river regulation and/or consumptive use.

***Principle 2 Provision of water for ecosystems should be on the basis of the best scientific information available on the water regimes necessary to sustain the ecological values of water dependent ecosystems***

The Council accepts that a portfolio of scientific methods may be most appropriate for identifying the environmental flow requirements of the State's varied water resources. The Council is also cognisant that ongoing work on environmental flows will be needed. For example, South Australia's status report on the implementation of the National Policy on the Provision of Water for Ecosystems states that the ecological understanding of environmental water requirements for seasonal, episodic and ground water dependant streams is especially poor. The report also states that these types of aquatic systems predominate in South Australia.

Given the evolving nature of the scientific inquiry in this area, the Council notes the importance of ongoing assessment of resources and periodical review of water plans, as improved analysis and data collection techniques become available.

***Principle 3 Environmental water provisions should be legally recognised.***

The environmental provisions included in water allocation plans and catchment water management plans are legally recognised. Local water management plans are also statutory instruments once approved by the Minister.

***Principle 4 In systems where there are existing users, provision of water for ecosystems should go as far as possible to meet the water regime necessary to sustain the ecological values of aquatic ecosystems whilst recognising the existing rights of other water users.***

The water planning processes adopted by South Australia appear to provide significant scope for existing users to participate in the planning process. Approval processes also appear to provide an adequate safeguard for ensuring that an appropriate balance is struck between the needs of existing users and the environment.

***Principle 5 Where environmental water requirements cannot be met due to existing uses, action (including reallocation) should be taken to meet environmental needs.***

As noted above, the Minister may prohibit or restrict the use of a water resource where it is in danger of overuse. Further, Section 37 of the Act also provides for the Minister to reduce water allocations stipulated on water licences where environmental needs are not being met.

***Principle 6 Further allocation of water for any use should only be on the basis that natural ecological processes and biodiversity are sustained.***

Under the Water Resources Act 1997, the Minister's decision to grant or vary a water licence must be consistent with the relevant water allocation plan.

Overall, the Council is of the view that the legislative framework provided by the *Water Resources Act 1997*, the various water allocation plans and the ability of the Minister to intervene when necessary provide an acceptable approach for ensuring provision for water for the environment consistent with tranche two commitments.

The Council notes that while no licensing arrangements exist for resources that are not prescribed, water use and provision for the environment is addressed through catchment management plans and local water management plans. Should a resource become stressed the Act provides for intervention by the Minister and declaration as a prescribed resource. The Council is satisfied with this approach for resources that are not in danger of becoming stressed. However, the Council believes that robust monitoring arrangements are crucial to ensuring the effectiveness of this approach. The Council supports South Australia's decision to promote the development of local water management plans by appointing a local water management planning officer.

The Council notes South Australia's decision not to prepare water allocation plans for a number of prescribed resources covered by the *Water Resources (Penrice Exemption) Regulations 1997* and the *Roxby Downs (Indenture Ratification) Act 1982*. Water management arrangements for these resources are provided by regulations or licence requirements and include annual reporting and monitoring obligations. These measures appear to be consistent with tranche two commitments.

The Council will review water allocation plans in the lead up to its third tranche assessment to ensure that they are based on a robust assessment of environmental needs.

The Council agrees to the implementation programs provided by South Australia. In doing so, it notes the following relevant matters:

- the National Land and Water Resource Audit, funded under the Natural Heritage Trust, is presently being undertaken and will provide valuable information to jurisdictions and the Council as to any relevant systems not included in the programs or that require a higher priority;
- the High Level Taskforce on Water Reform may, prior to the third tranche assessment, undertake to identify some relevant criteria for classifying stressed systems. This process may result in a modification to implementation programs; and
- the implementation programs, by their nature, may need to be amended depending on many factors including proposed new developments and other significant events.

The Council is therefore of the view that the implementation programs may change over time, provided there is agreement between South Australia and the Council.

### **10.6.4.3 Arrangements for trading in water entitlements must be in place by 1998. Water should be used to maximise its contribution to national income and welfare.**

**Where cross border trade is possible, trading arrangements must be consistent between jurisdictions and facilitate trade. Where trading across State borders could occur, relevant jurisdictions must jointly review pricing and asset valuation policies to determine whether there is any substantial distortion to interstate trade.**

Jurisdictions must establish a framework of trading rules, including developing necessary institutional arrangements from a natural resource management perspective to eliminate conflicts of interest, and remove impediments to trade. The NCC will assess the adequacy of trading rules to ensure no impediments. If legislation has not achieved final parliamentary passage, the NCC will recognise the progress towards achieving legislative change during its assessment of compliance.

As noted above, for the second tranche, jurisdictions should submit individual implementation programs, outlining a priority list of river systems and groundwater resources and detailed implementation actions and dates for allocations and trading to the NCC for agreement, and to Senior Officials for endorsement. This list is to be publicly available.

Cross border trading should be as widespread as possible. Jurisdictions are to develop proposals to further extend interstate trading in water.

#### **South Australian arrangements**

##### **Intrastate trade**

While trade in water allocations has been possible since the early 1980's South Australia's 1999 Annual Report states that the *Water Resources Act 1997* has clarified and made transparent the legal basis for water allocations and both inter and intra state trading.

Temporary and permanent transfer of property rights was first introduced to South Australia in 1983 for private diverters from the River Murray and in 1984 for groundwater allocation in the Northern Adelaide Plans. Since that time trade has taken place in 7 prescribed areas, most of which have been groundwater resources. Trading rules are developed for individual prescribed resources in consultation with the community as part of the water allocation planning process.

Amendments to the *Irrigation Act 1994* have been made to enable trade by irrigation trusts on behalf of trust members. According to South Australia these amendments have removed significant barriers to trade.

The Act requires the Minister, in deciding on whether to permit a licence transfer, to consider whether the transfer is consistent with the relevant water allocation plan, the public interest and regulations made under the Act. The Minister must also not grant a transfer without the written permission of any person listed on the register of water licences as having an interest in the licence.

Before granting a licence the Minister may, at the applicant's expense, require an assessment of the effect of granting the licence by an expert appointed or approved by the Minister. The Minister may also reduce the amount transferred. For example, where water will not be taken from the same part of the water resource following the trade an adjustment may be made to ensure that the resulting withdrawal does not prejudice other licensees by exceeding the availability of water in that part of the resource. An adjustment may also be made for evaporation.

### **Interstate trade**

South Australia has participated in an interstate trading trial coordinated by the Murray Darling Basin Commission in the Mallee area of the Murray Darling basin. The Pilot project commenced on 1 January 1998 for a period of two years or until a net volume of 10 GL has been traded on from any jurisdictions.

### **COUNCIL COMMENT**

Consistent with their tranche two commitments South Australia has removed all legal or institutional barriers to water trading in prescribed areas. However, the Council notes that greater trading in these areas is unlikely to occur until demand for water increases and the resources become fully allocated.

The Council is satisfied that South Australia has met its tranche two commitments with respect to interstate trading.

## **10.6.5 REFORM COMMITMENT: ENVIRONMENT AND WATER QUALITY**

### **10.6.5.1 Jurisdictions must have in place integrated resource management practices, including:**

- **demonstrated administrative arrangements and decision making processes to ensure an integrated approach to natural resource management and integrated catchment management;**
- **an integrated catchment management approach to water resource management including consultation with local government and the wider community in individual catchments; and**
- **consideration of landcare practices to protect rivers with high environmental values.**

The NCC will examine the programs established by jurisdictions to address areas of inadequacy. Programs would desirably address such areas as government agency coordination, community involvement, coordinated natural resource planning, legislation framework, information and monitoring systems, linkages to urban and development planning, support to natural resource management programs and landcare practices contributing to protection of rivers of high environmental value.

#### **South Australian arrangements**

The *Water Resources Act 1997* covers all sources of water namely, surface water runoff, water in water courses, ground water, stormwater and wastewater. The Act also provides a hierarchical approach to water resource management. For each prescribed area, this involves the State Water Plan, the relevant water allocation plan and, where the resource lies within the catchment area of a catchment water management board, the relevant catchment water management plan. In addition, for water resources located within the area of a local council, a local water management plan may be prepared consistent with the broad direction provided by the State Water Plan.

South Australia's 1999 Annual Report to the Council notes that the State will be developing integrated regional strategies across the State in partnership with the Commonwealth Government under the National Heritage Trust. Preparation of these strategies began in 1998 and involved relevant stakeholders from the community and State and local government.

South Australia also noted that over the period 1994-97 DEHAA, in partnership with rural community groups and the Torrens Catchment Water Management Board, developed and implemented action plans aimed at improving riparian zone management in four Mount Lofty Catchments using National Landcare Program Funds. Three of the four catchments are critical for public water supply. Similar projects were conducted for the North Para and Marne catchment in 1997-98 using funds from a local government based Catchment Management Subsidy Scheme. Riparian Zone management and environmental flow plans will be developed for a further four catchments using National Heritage Trust funds over the period 1998-2000.

## COUNCIL COMMENT

Based on the information provided the Council is satisfied that South Australia has met its second tranche commitments in relation to adopting an integrated approach to resource management.

### **10.6.5.2 Support ANZECC and ARMCANZ in developing the National Water Quality Management Strategy (NWQMS), through the adoption of market-based and regulatory measures, water quality monitoring, catchment management policies, town wastewater and sewerage disposal and community consultation and awareness.**

Jurisdictions must have finalised development of the NWQMS and initiated activities and measures to give effect to the NWQMS.

#### **South Australian arrangements**

Under the *Environmental Protection Act 1993* the EPA is preparing an Environmental Protection (Water Quality) Policy. The 1999 South Australian Annual Report to the Council stated that the Policy will be consistent with the framework provided by the National Water Quality Management Strategy. The policy will apply to all inland, estuarine and marine waters and will provide a consistent framework for protecting the quality of all water bodies and ensure that all industries operate under uniform conditions with respect to water quality. South Australia states that the Policy will seek to not only protect and improve the quality of the State's water bodies, but also to encourage better use of wastewater. The Council understands that the Policy will undergo public consultation during Spring 1999.

South Australia has established six catchment water management boards which currently cover approximately 80 per cent of the State's populated area. In May 1999, the South Australian Government announced its intention to establish a seventh catchment water management board for the Arid Areas of the State. South Australia anticipates that that the new Arid Areas Catchment Water Management Board will cover over 75 per cent of the State. A further board for the Eyre Region is also being considered.

The *Catchment Water Management Act 1995* established the State's first two catchment management boards. Under this Act, the Torrens and Patawalonga Catchment Water Management Boards focused on addressing major storm water pollution problems through the preparation and implementation of their respective catchment water management plans. The *Catchment Water Management Act 1995* has since been repealed by the *Water Resources Act 1997*, and while incorporating the 1995 Act's key principles, has significantly expanded on them. As a result, catchment water management boards now have a much broader focus and that is the sustainable and integrated management of all of each catchment's water resources, including wastewater.

Initiatives addressing urban water use have included the Spencer Region Strategic Water Management Plan and the Water Sustainability in Urban Areas project. The Bolivar–Virginia pipeline project will enable 30 000 ML of effluent (or approximately 35 per cent of Adelaide's total effluent) to be reused through irrigation. This figure could increased to 48 000 ML with surface storage and/or aquifer storage and

recovery. The Government has also approved a private sector proposal to use effluent from the Christies Beach Wastewater Treatment Plant for irrigation in the Willunga Basin. Construction of the project began in September 1998 and it is anticipated that the scheme will be fully commissioned in August 1999.

#### **COUNCIL COMMENT**

Based on the information provided the Council is satisfied that South Australia has met its second tranche assessment commitments with respect to water quality.

## **10.6.6 REFORM COMMITMENT: PUBLIC CONSULTATION, EDUCATION**

**10.6.6.1 Jurisdictions must have consulted on the significant COAG reforms (especially water pricing and cost recovery for urban and rural services, water allocations and trade in water entitlements). Education programs related to the benefits of reform should be developed.**

The Council will examine the extent and the methods of public consultation, with particular regard to pricing, allocations and trade. The Council will look for public information and formal education programs, including work with schools, in relation to water use and the benefits of reform.

### **South Australian arrangements**

The South Australian Annual Report to the Council states that extensive communication and education was undertaken in developing the *Water Resources Act 1997*. The Act itself provides for a significant amount of community involvement in water management through the water allocation, catchment water management and local water management planning processes. All three types of plans are required to adopt the same consultation process. The first stage in this process requires community consultation before and after the preparation of a proposal statement. The proposal statement outlines the proposed content of the water allocation plan, specifies the investigations required prior to preparation of the plan and any additional consultation planned beyond that required by the Act. The public must also be invited to make written submissions before and after the preparation of draft water plan, and a public meeting must be held. In practice, however, many public meetings and workshops are held. South Australia's Annual Report states that initiatives to help ensure adequate community knowledge and understanding of key issues include newsletters, public meetings and displays.

Community consultation programs are also being implemented for the Statewide policies such as the Environment Protection (Water Quality) Policy.

The *Water Resources Act 1997* also requires the Minister to compile, maintain and update information on the State's water resources, and to keep a public register of water licences and permits.

Section 11 of the *Government Business Enterprises (Competition) Act 1996* states that at the beginning of a prices oversight investigation the Competition Commissioner must give public notice inviting interested parties to make a written representation on the matter being investigated. However, in his first investigation into SA Water prices the Competition Commissioner noted that future investigations include:

*'...a greater emphasis on public consultation than has been possible within the timeframe of this review.'* (p8)

In 1996-97 the development of the State Water Archive was initiated by DEHAA. The aim of the archive is to make information on the location, quantity, quality, use, allocation and management of the State's water resources more available to the



Government, the private sector, community groups and the general public. The water archives project involves the development of:

- a water licences and permits register;
- a water information directory;
- a water web-site; and
- a water resources information database enabling integration of water information across DEHAA and other agencies.

South Australia has also developed 'Watercare – A Curriculum for Schools'. The program provides curriculum information for Reception through to Year 12. Stage three of the program is an educational web-site providing case studies for secondary school students illustrating best practice water resource management. Stage three was developed to meet the requirements of South Australian Certificate of Education but is intended to become a community resource. The program was developed jointly by DEHAA and the Department of Education, Training and Employment.

South Australia has also participated in national initiatives such as Waterwatch and National Water Week.

#### **COUNCIL COMMENT**

The Council notes the recommendation made by the South Australian Competition Commissioner, as part of his April 1997 review of SA Water prices, that future investigations include a greater emphasis on public consultation. Consequently, the Council will review as part of its third tranche assessment the level of consultation undertaken when the Competition Commissioner next reviews the pricing policies of SA Water in 1999.

The devolution of water resources management to see a greater level of consultation and participation by the community is supported by the Council. Greater community involvement can be expected to lead to positive outcomes, for example, through local communities taking ownership of significant water management issues. However, the community must have a sound understanding of the relevant issue if the potential benefits of this devolution are to be realised. Based on the information provided, it is the Council's view that the educational and consultative measures taken by South Australia are sufficient to achieve this. It is the Council's view that South Australia has met its second tranche commitments in relation to education and consultation.

## **Attachment 1: Prescribed Water Resources Areas for which water allocation plans are being prepared under the *Water Resources Act 1997***

### **Groundwater Resources**

- County Musgrave Prescribed Wells Area (located on Eyre Peninsula) ERWRPC
- Southern Basins Prescribed Wells Area (located on Eyre Peninsula) ERWRPC
- Northern Adelaide Plains Prescribed Wells Area NABCWMB
- McLaren Vale Prescribed Wells Area OCWMB
- Mallee Prescribed Wells Area MWRPC
- Noora Prescribed Wells Area RMCWMB
- Angas Bremer Prescribed Wells Area RMCWMB
- Tatiara Prescribed Wells Area (located in the Sth East) SECWMB
- Padthaway Prescribed Wells Area (located in the Sth East) SECWMB
- Naracoorte Ranges Prescribed Wells Area (located in the Sth East) SECWMB
- Comaum-Caroline Prescribed Wells Area (located in the Sth East) SECWMB
- Lacepede-Kongorong Prescribed Wells Area (located in the Sth East) SECWMB

### **Groundwater Resources, Surface Water and Watercourses**

- Barossa Valley Prescribed Water Resources Area NABCWMB
- Clare Valley Prescribed Wells Area and Watercourses - (surfacewater resources in this area are currently under section 16 restrictions and will be prescribed in mid 1999) CVWRPC

### **Watercourses**

- River Murray Prescribed Watercourse RMCWMB

All of the of the above water allocation plans are required by regulation to be completed by 1 July 2000.

#### **Key**

ERWRPC	Eyre Region Water Resources Planning Committee
NABCWMB	Northern Adelaide and Barossa Catchment Water Management Board
OCWMB	Onkaparinga Catchment Water Management Board
MWRPC	Mallee Water Resources Planning Committee
RMCWMB	River Murray Catchment Water Management Board
SECWMB	South East Catchment Water Management Board
CVWRPC	Clare Valley Water Resources Planning Committee