



# **INQUIRY INTO URBAN WATER PRICING PROCESS FINAL REPORT**

**April 2004**



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## GLOSSARY OF TERMS

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<b>ACCC</b>	Australian Competition and Consumer Commission
<b>AMP</b>	Asset Management Plan
<b>ANNUITY (APPROACH)</b>	The constant annual provision (in real cost terms) that will cover the cost of replacing/rehabilitating all assets falling due within the period of the annuity/planning period, assuming retention of earnings from any accumulated annual surpluses.
<b>APS</b>	Accounting Policy Statement
<b>ARMCANZ</b>	Agricultural and Resources Management Council of Australia and New Zealand
<b>CAPEX</b>	Capital Expenditure
<b>CoAG</b>	Council of Australian Governments
<b>CPA</b>	Competition Principles Agreement
<b>CPI</b>	Consumer Price Index
<b>CSIRO</b>	Commonwealth Science and Industry Research Organisation
<b>CSO</b>	Community Service Obligation
<b>DHS</b>	Department of Human Services (SA)
<b>DTF</b>	Department of Treasury and Finance (SA)
<b>DWLBC</b>	Department of Water, Land and Biodiversity Conservation (SA)
<b>EPA</b>	Environment Protection Authority (SA)
<b>ESCOSA</b>	Essential Services Commission of South Australia
<b>EBITDA</b>	Earnings before interest, taxes, depreciation and amortisation
<b>EXPERT GROUP</b>	The Expert Group on Asset Valuation Methods and Cost-Recovery Definitions for the Australian Water Industry
<b>IPART</b>	Independent Pricing and Regulatory Tribunal
<b>kL</b>	Kilolitre
<b>LRMC</b>	Long Run Marginal Cost
<b>NCC</b>	National Competition Council
<b>NCP</b>	National Competition Policy
<b>ODV</b>	Optimised Deprival Value
<b>OMA</b>	Operating, Maintenance and Administration
<b>NMU</b>	Non-Major Urban (water authority)
<b>PNFCs</b>	Public Non-Financial Corporations
<b>QCA</b>	Queensland Competition Authority
<b>RAB</b>	Regulatory Asset Base
<b>SAIPAR</b>	South Australian Independent Pricing and Access Regulator



<b>SA WATER</b>	South Australian Water Corporation
<b>SCARM</b>	Standing Committee on Agriculture and Resource Management
<b>TER</b>	Tax Equivalent Regime
<b>UIG</b>	Urgent Issues Group
<b>UU</b>	United Utilities
<b>UWI</b>	United Water International
<b>WACC</b>	Weighted average cost of capital
<b>WSAA</b>	Water Services Association of Australia
<b>WWTP</b>	Wastewater treatment plant

**NOTICE OF REFERRAL FOR AN INQUIRY INTO URBAN  
WATER PRICING PURSUANT TO PART 7 OF THE  
ESSENTIAL SERVICES COMMISSION ACT 2002**

**FROM:       The Hon Kevin Foley, Treasurer**

**TO:           The Essential Services Commission of South Australia**

**RE:          Urban Water Prices from 1 July 2004**

**BACKGROUND:**

1. Pursuant to section 35(1) of the Essential Services Commission Act, 2002 (the Act), the Commission must conduct an inquiry into any matter that the Minister, by written notice, refers to the Commission.
2. The Act is committed to the Treasurer by way of *Gazetta*/ notice dated 12 September 2002 (p. 3393).
3. The South Australian Government proposes to publish a Transparency Statement each year on SA Water water and sewerage prices. The Government has prepared its first Transparency Statement on 2004/05 urban water prices.
4. The Transparency Statement will link Cabinet's decision on urban water prices to CoAG pricing principles, provide information on SA Water's financial performance in the context of pricing decisions and past and future expenditures, and address details of estimates of revenues, community service obligations, capital expenditure program, profit and its distribution.
5. SA Water is to meet the reasonable costs of the Commission in undertaking the inquiry.

**REFERRAL:**

I, KEVIN FOLEY, Treasurer, refer to the Commission the matter described in paragraph (a) of the Terms of Reference for inquiry, in accordance with those matters in paragraph (b) of the Terms of Reference and subject to the Directions set out in this Notice.

**TERMS OF REFERENCE:**



The following are the Terms of Reference for the inquiry referred pursuant to section 35(1) of the Act:

- (a) The Commission is to inquire into the processes undertaken in the preparation of advice to Cabinet, resulting in Cabinet making its decision on the level and structure of SA Water's urban water prices for 2004-05, with respect to the adequacy of the application of CoAG pricing principles;
- (b) In undertaking this inquiry, the Commission is to consider the "Transparency Statement - (Part A) Urban Water Prices in South Australia 2004-05" dated January 2004;
- (c) In considering the processes undertaken for the preparation of advice to Cabinet, the Commission is to advise on the extent to which information relevant to the CoAG principles was made available to Cabinet.

## **REQUIREMENTS FOR INQUIRY:**

The following requirements are made pursuant to section 35(5) of the Act:

- (a) I require that the Commission undertake its inquiry and submit a Draft Report to both myself and the Minister for Administrative Services by no later than 24 March 2004;
- (b) I require that the Commission submit a Final Report on the inquiry to both myself and the Minister for Administrative Services by no later than 7 April 2004;
- (c) In conducting the inquiry, the Commission is not required to hold public hearings, public seminars or workshops but may receive and consider any written submissions as it thinks appropriate and it must advertise to call for written submissions to be lodged no later than 14 days from the date of publication of the Notice of Inquiry as required pursuant to section 36 of the Act;
- (d) If the Commission wishes to seek further information or guidance in relation to the conduct of this inquiry, it may contact the Director, Infrastructure, Microeconomic Reform and Infrastructure Branch, Department of Treasury and Finance.

## **DIRECTIONS:**

The following direction is made pursuant to section 35(5)(f) of the Act:



I direct that in undertaking its enquiry the Commission must preserve the confidentiality of any information, material or documentation provided by Government to enable the Commission to undertake its enquiry and stamped "Strictly Confidential".

A handwritten signature in black ink, appearing to read 'K. Foley', with a long, sweeping flourish extending to the right.

Kevin Foley MP

**TREASURER**



## **1. OVERVIEW**

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The Treasurer requested the Essential Services Commission of South Australia (the Commission) to undertake an inquiry into the processes involved in the preparation of advice to Cabinet resulting in Cabinet making its decision on the level and structure of SA Water's urban water prices for 2004-05, with respect to the adequacy of the application of CoAG pricing principles, and to advise on the extent to which information relevant to the CoAG principles was made available to Cabinet. In undertaking its Inquiry, the Commission was to consider the Transparency Statement – Part A: Urban Water Prices in South Australia 2004-05.

In undertaking its Inquiry, the Commission is, for the first time, considering the application of the CoAG pricing principles by the SA Government to SA Water's prices.

This Report indicates the extent to which information available to Cabinet did adequately set out and consider the CoAG pricing principles, and in some areas, suggests either more detailed information or a different approach which may be considered in future. In particular, the Commission considers that a more detailed analysis of the building block components should be considered, that includes an appropriate adjustment to the asset values and the use of an appropriate single cost of capital. This cost build up should be matched with the revenue collection forecast for the relevant year.

In addition, this Report suggests that as a matter of process, the Transparency Statement should be available to Cabinet prior to or at the time of making the water pricing decision (which would be prior to 7 December in any one year). If this process is adopted, the Transparency Statement could be referred to the Commission in early December, giving the Commission more time for consideration than was allocated in this current inquiry.



## 2. INTRODUCTION

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The South Australian Water Corporation (SA Water) is established under the *South Australian Water Corporation Act 1994* and is subject to the provisions of the *Public Corporations Act 1993*. SA Water provides water and wastewater services to domestic, retail and industrial customers throughout South Australia.

The South Australian state government wholly owns SA Water. The Minister for Administrative Services is responsible for setting the prices that SA Water can charge for the service level provided. In doing so, the Government is required to set prices such that they comply with the principles set by the Council of Australian Governments (CoAG).

The CoAG principles are related to the Competition Principles Agreement (CPA), which outlines a policy framework governing significant national reforms. The CoAG principles provide the framework for setting water prices (among other things) for states that are a signatory to the CPA. The South Australian government is a signatory to the CPA and is therefore committed to adopting the CoAG principles.

The CoAG principles relate to a broad range of issues, including the types of costs that are allowed to be recovered by SA Water, and specifically the application of a real rate of return that is commensurate with the equity arrangements of the entity. The CoAG principles also govern the manner by which the entity is allowed to recover its costs from consumers, including how tariffs are structured.

The National Competition Council (NCC) was established in 1995 with the agreement of all Australian governments to assess each state's progress with implementing the National Competition Policy and Related Reforms. The CoAG principles relating to water reform are part of the NCP and related reforms that South Australia is required to comply with.

### **2.1 Purpose of this paper**

The South Australian government has prepared a Transparency Statement setting out the process and the matters that have been considered by the Government in setting 2004/05 water prices. One of the purposes of the Transparency Statement is to document the extent that the Government's 2004/05 urban water pricing decision complies with the CoAG principles.

To this end, the Treasurer has referred to the Commission an inquiry into the process undertaken in the preparation of advice to Cabinet to approve the 2004/05 urban water prices. This includes assessing the extent that:

- ▲ the process resulted in Cabinet setting the 2004/05 urban water prices based on an adequate application of the CoAG principles; and

- ▲ relevant information on the CoAG principles was made available to Cabinet when it made its decision on the 2004/05 urban water prices.

This paper considers the Transparency Statement as the government's explanation of the process it followed and its justification that the current water prices comply with the CoAG principles. This paper also comments where possible, on the information that was made available to Cabinet in making its decision on 2004/05 water prices (but is restricted in its ability to comment given the confidential nature of Cabinet's consideration).

Importantly, this inquiry relates to urban water pricing only, which are the prices that apply to reticulated domestic customers in urban and rural areas throughout the state. This broadly relates to all water supplies across South Australia excluding that used for irrigation. It also does not extend to sewage operations of SA Water.

## **2.2 Conduct of the Inquiry**

The Commission received the Notice of Inquiry from the Treasurer on Thursday 26<sup>th</sup> February 2004.

The Notice of Inquiry required the Commission to:

- ▲ Advertise the Inquiry
- ▲ Provide 14 days for the lodgement of written submissions
- ▲ Provide a draft report by 24<sup>th</sup> March 2004
- ▲ Provide a Final Report by 7<sup>th</sup> April 2004.

Consistent with normal Commission procedures and as required by the terms of reference, a public consultation process was undertaken. Pursuant to Section 36 of the *Essential Services Commission Act 2004*, a Public Notice of Inquiry was placed in the Advertiser on 28<sup>th</sup> February 2004 asking for written submissions by the 15<sup>th</sup> March 2004.

The Commission received five submissions in response to the Public Notice, from the following:

- Conservation Council from South Australia
- City of Port Lincoln
- Eyre Peninsula Local Government Association
- United Utilities
- EA Giles on behalf of the North Haven Marina Strata Corporation No. 14007

In addition, the Commission received further information from the Government of South Australia.

To ensure the Commission was undertaking its assessment in the correct context, the Commission wrote to the National Competition Council (NCC) seeking confirmation of the relevant CoAG pricing principles and interpretation, and in particular that Chapter 3 of the Transparency Statement set out in totality the relevant principles and was an accurate interpretation of them. The Commission also sought the advice of the NCC as to whether there were any additional papers or materials on the proper interpretation of the principles to which the Commission should have regard in undertaking its work.

The NCC responded on 9 March 2004. The Commission's letter to the NCC and the NCC response are set out in Appendix A.

In addition, the Commission held discussions with representatives of the Micro Economic Reform and Infrastructure Branch (Department of Treasury and Finance), Cabinet Office, and SA Water in order to clarify its understanding of the processes surrounding the Cabinet approval of the 2004-05 prices.

The majority of the submissions received by the Commission dealt with issues about water pricing and the structure of water prices. The Commission appreciates the effort put into the submissions which dealt with this aspect of water pricing; however, as the Commission is not inquiring into these matters, these submissions have not been used to inform the preparation of this Report.

It was the task of the Commission only to examine the **process** used to prepare advice to Cabinet with respect to the adequacy of the application of the CoAG pricing principles and whether information relevant to the CoAG principles was made available to Cabinet when a decision on the level and structure of SA Water's 2004-05 urban water prices was made. The Commission is not inquiring into the **price** which was set by Cabinet.

The Commission observes it has been given a very tight timeframe in which to conduct its inquiry, dictated in part by the need of the Government to provide a supplementary report on its progress with the implementation of Competition reforms to the NCC by 12 April 2004.

The Commission observes later in this Report that it would be preferable for the Transparency Statement itself to be considered by Cabinet at the time of making its water price decision, rather than being prepared at a later time. If Cabinet considers the Transparency Statement at that time (which would be prior to 7 December in any year) then the Commission, if it is to examine future statements, could begin its consideration much earlier and would have more time to undertake the task.

## ***2.3 Structure of this paper***

Chapter 2 discusses the adequacy of the process that was followed for setting urban water prices for 2004/2005. This includes an assessment of the information contained in the various cabinet submissions that were considered.



Chapter 3 deals with the Transparency Statement's compliance with CoAG Pricing Principles and the extent that it has been adhered to in setting 2004/2005 prices.

Chapter 4 summarises the Commission's conclusions from this inquiry.

Attachment A includes a copy of the letter to and from the NCC.

A Case study on the annuity approach is attached in Attachment B.

Attachment C reviews some aspects of metropolitan urban cost performance review by SA Water, addressing an issue previously raised by the NCC.

The Water Resource Policy, an extract from Compendium of National Competition Policy Agreements (June 1998) is attached in Attachment D.



### 3. THE PRICE SETTING PROCESS

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Under the *Waterworks Act*, water prices to apply to most SA Water customers need to be gazetted on or before 7 December of each year. The gazetted prices apply from 1 July of the following year.

#### 3.1 Cabinet Submissions – Water Pricing 2004-05

In 2003, there were two major Cabinet submissions dealing with water pricing for 2004-05.

The business and decision making of Cabinet is completely confidential, as are all Cabinet documents and submissions. However, in order for the Commission to undertake its Inquiry, it has been provided with copies of Cabinet Submissions and agency Cabinet comments which relate to the setting of SA Water's urban water prices for 2004-05. These documents are classified "Strictly Confidential" and the Commission is required to preserve the confidentiality of such documents. The Commission has also been provided with a document called the Transparency Statement – Part A: Urban Water Prices in South Australia 2004-05. This document sets out the processes involved in the water pricing decision, documents the extent to which the Government considers its water pricing decision complied with CoAG principles, and provides greater transparency about the 2004-05 price setting processes.

As stated previously, the key consideration for the Commission is with the processes undertaken in the preparation of advice to Cabinet with respect to the adequacy of the application of the CoAG pricing principles, and to advise on the extent to which adequate and relevant information on this matter was made available to Cabinet in its water pricing decision making.

Various Cabinet submissions were considered in the process of setting urban water prices for 2004/2005. The key submissions were as follows:

CABINET MEETING DATE	AGENDA NUMBER
20 October 2003	104
24 November 2003	108
1 December 2003	208
4 December 2003	201

The Commission has been able to compare the information provided in the Cabinet submissions with the information in the Transparency Statement. It is satisfied that the Transparency Statement adequately and reliably sets out the material which was available to Cabinet on the CoAG pricing principles and can therefore be used and analysed by the Commission as a proxy for the contents of the Cabinet submissions.

For this reason this Report will refer to the Transparency Statement when setting out the particular CoAG principle and the Government's assessment of its compliance with these principles. However, it is important the Commission documents the actual process used by Cabinet to come to its 2004-05 water pricing decision. The following Table sets out the process:

### ***3.2 Preparation of the Transparency Statement***

The Commission notes that while each Cabinet Submission made reference to the fact that a Transparency Statement would be prepared, the Statement itself was not prepared until after Cabinet had made its 2004-05 water pricing decision.

The Transparency Statement was considered by Cabinet on 16 February 2004, over two months after the Cabinet decision.

The Transparency Statement Part A and the Notice of Referral of an Inquiry was received by the Commission on 26 February 2004.

The Commission's task in this Inquiry is to examine the process used to prepare advice to Cabinet and what information was available to Cabinet when it made its 2004-05 water pricing decision. The documents which tell this story are the Cabinet documents themselves, and as the Commission has stated above, these documents are properly confidential and so the Commission has used the Transparency Statement as a proxy for those documents. The Commission observes it would be useful in future for a document such as the Transparency Statement to be provided to Cabinet either prior to or at the very latest, at the time it makes its water pricing decision. The Transparency Statement should not be prepared at a later time.

## 4. COMPLIANCE WITH THE COAG PRICING PRINCIPLES

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At the commencement of the Inquiry, the Commission sought clarification from the National Competition Council (NCC) about the appropriate documents that the Commission should consider in running this inquiry. Amongst other things, the NCC stated that<sup>1</sup>:

*"Finally, the COAG strategic framework and COAG pricing principles are the key reference documents that ESCOSA should have regard to in undertaking its work."*

The Compendium of National Competition Policy Agreements (Second Edition 1998)<sup>2</sup> provides details of the National Competition Policy Agreements for the various industries, including water.

This agreement outlines the strategic framework in relation to water resource policy (see Attachment D).

Section 3 of the Strategic framework is specifically dedicated to pricing issues. However, it is a very broad pricing statement and does not provide much detail. To complement this section of the strategic framework, the Standing Committee on Agriculture and Resource Management (SCARM), through the Agriculture and Resource Management Council of Australia and New Zealand (ARMCANZ), provided a detailed set of guidelines. This detailed set of guidelines are generally referred to as "the COAG Pricing Principles"

This chapter of the report considers the "COAG Pricing Principles" and the compliance of the pricing process undertaken in the preparation of advice to Cabinet, with respect to these principles.

As mentioned previously, since the information provided to Cabinet is classified as "Strictly Confidential", that information cannot be used to assess and report on its compliance with the pricing principles. However, much of the information in these Cabinet submissions is the same as the information within the Transparency Statement. As such, the approach adopted by the Commission has been to assess the compliance of the Transparency Statement with the COAG pricing principles, comfortable that it is a credible reflection of the information actually provided to Cabinet.

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<sup>1</sup> Letter from Executive Director, Mr John Feil, NCC, to Chairperson, ESCOSA, dated 9 March 2004. See Attachment A

<sup>2</sup> This publication is available from NCC's website, <http://www.ncc.gov.au/publication.asp?publicationID=99&activityID=39>

## **4.1 Asset Values**

### **4.1.1 COAG Principles**

The Guidelines for applying Section 3 of the Strategic Framework state:

*“The deprival value methodology should be used for asset valuation, unless a specific circumstance justifies another method. “*

### **4.1.2 Transparency Statement Part A Comments**

Relating to the key building blocks for determining a return on assets (provision for the cost of capital), the Transparency Statement identified:

#### **Asset values:**

*“In accordance with the CoAG guidelines, SA Water assets were valued according to the optimised deprival value (ODV) method for the year ending June 2002. Optimisation is a process of ensuring that only the most efficient capital costs are included in the asset base and thus consumers are not charged a rate of return on obsolete or redundant assets.”*

*“The Hunter Water Corporation Pty Ltd independently reviewed SA Water’s asset valuation methodology, based on ODV, in May 2002, consistent with the triennial review process recommended by the Government Guidelines accompanying the South Australian Government Accounting Policy Statement, APS 3. The review concluded that:*

*there was, in general, a good correlation between the two organisations in terms of methodology used and the modern equivalent replacement asset types adopted (SA Water, 2002, p 46).”*

#### **Contributed assets:**

*“Contributed assets have been included in SA Water’s asset base in the 2004-05 water price setting process, and are recognised as revenue by SA Water when it gains control of the contribution, consistent with accounting standards.”*

*This treatment is consistent with accounting standards and does not contravene the CoAG guidelines; it is not, however, consistent with recent regulatory determinations interstate”.*

### **4.1.3 NCP Assessment Report 2003 Comments**

No comments were made with regard to Asset Values or Contributed Assets for the purpose of water pricing in the NCC’s assessment report 2003.

### **4.1.4 The Commission’s assessment**

#### **Asset values:**

SA Water has employed an approach consistent with the requirements of the CoAG Guidelines and has had the outcomes independently verified through (in part) comparison with outcomes for a peer water utility (Hunter Water Corporation).

**Contributed assets:**

As the inclusion of contributed assets in the asset base for pricing considerations has been made explicit, it could be considered to be in compliance with the COAG principles, although not necessarily a common regulatory practise.

The Commission recognises that it is very difficult to get an accurate picture of exactly which assets were contributed, severely complicating their exclusion from pricing considerations. However, these contributions have been taking place for a very long time and now probably constitute a considerable proportion of non-headworks water supply assets.

Given the predominantly long-lived nature of the infrastructure, the on-going inclusion of contributed assets in the quantification of both depreciation expenses and return on capital adds significantly to the opportunity to generate significant free cash-flows. This issue is explored further in the discussion on Dividends in section 4.7 below.

**4.1.5 The Commission's view on compliance with the COAG principles**

**Adequacy of information: Does the information contained in the Transparency Statement comply with COAG principles?**

Given that the Transparency Statement is explicit about the inclusion of the contributed assets in the asset value used for setting prices, it is in compliance with the COAG principles.

**Provision of information: Did Cabinet receive this information?**

The Commission is satisfied that the Cabinet submission included the necessary information that the contributed assets were included in the asset values that were used to calculate the maximum and minimum range for water prices.

**Sufficiency of information: Was the information provided sufficient to comply with the COAG principles?**

The Commission does not believe that it is sufficient to provide only the fact that the contributed assets are included in the asset base.

In the Commission's opinion, more effective compliance with the COAG principles will be achieved when the contributed assets are valued (or a best estimate is determined), and removed from the regulatory asset base that is used for deriving the maximum and minimum range for the urban water pricing decision. This may require SA Water to maintain a separate asset register for pricing purposes.

## **4.2 Operating, maintenance and administrative expenses - Efficient business costs**

Operating, maintenance and administration (OMA) costs are key components of the overall cost in delivering services and the area where the most attention has been focused in recent years.

Given the long-lived nature of the infrastructure employed in delivering water services, opportunities to improve the performance of the capital-based component of the total economic costs of service delivery can take a long time to achieve and are seldom considerations in short term management decisions. However, particularly as infrastructure assets age, there are longer-term trend cause and effect relationships between the level of OMA expenditure and the capital-based costs (reductions in service capacity).

Achievement of efficient business costs should also be assessed in terms of both outright levels of expenditure and the impact of those expenditures on levels of service and the consumption of the assets. (The consumption of assets is discussed in section 4.3 below.) It is more difficult to review some key aspects of capital efficiency, as replacement costs can be specific to particular locations. Comparison of OMA outcomes and the 'Total Cost' per service parameter used in the WSAAfacts (Total Cost = OMA + Current Cost Depreciation + (4% x Written-down replacement cost of assets))<sup>3</sup> provide a useful measure for comparison, as will relative movements in OMA outcomes and asset consumption annuities.

### **4.2.1 COAG Principles**

In relation to efficient costs, the Guidelines for the application of Section 3 of the COAG principles state that:

*"In applying (the monopoly rent test) and (business viability test), economic regulators (or equivalent) should determine the level of revenue for a water business based on efficient resource pricing and business costs."*  
(Emphasis added)

### **4.2.2 Transparency Statement Part A Comments**

The key paragraphs from Part A of the Transparency Statement are:

*"SA Water participates in industry benchmarking analysis, most notably by WSAA. WSAAfacts compares the performance of the 23 major urban waterbodies in Australia and New Zealand using a range of measures."*

*"SA Water must also comply with its Customer Service Charter and minimum water quality standards that are monitored by the Department of Human Services."*

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<sup>3</sup> WSAAfacts 2003, P 121

*“SA Water has outsourced a number of functions, including the management of water and wastewater services for the Adelaide metropolitan area and the operation of regional water treatment plants. These services were opened to competition in order to promote their economically efficient delivery.”*

*“... the competitively tendered contracts for managing the water and wastewater services suggest SA Water’s operating; maintenance and administrative costs are based on efficient operations.”*

#### **4.2.3 NCP Assessment Report 2003 Comments**

In its latest assessment report for South Australia, NCC raised some concerns with SA Government’s evidence of employing efficient business costs in its pricing considerations. It observed that:

*“The pricing principles state that the revenue target should be based on efficient resource and business costs, with prices set to achieve this target and the cost and other elements that determine the revenue target and the target’s connection with prices made clear. Water Services Association of Australia data for the period 1995-96 to 2000-01 show that SA Water’s per unit operating costs appear to have remained about constant in real terms, unlike per unit operating costs in many other comparable urban water businesses, which declined over the same period (WSAA 2001 and 2003).”*

It was also noted that:

*“The absence of service quality regulation reduces the scope for scrutiny aimed at protecting water and wastewater consumers from the potentially adverse consequences of a run down in financial viability.”*

#### **4.2.4 The Commission’s assessment**

##### **Geographic/systems coverage**

Inclusion in the WSAAfacts annual performance review is a recognised part of the Water Reform process (an outcome of Clause 6 (e) of the CoAG Water Reform Policy). Accordingly reference to the outcomes reported in WSAAfacts is relevant to any consideration of the performance of contributing utilities. However, it is noted that the data provided to WSAAfacts from SA Water refers only to Adelaide Metropolitan water supply, or more exactly, the area covered by the Facilities Management Contract between SA Water and United Water International.

The WSAAfacts data is broadly appropriate for considering the performance of SA Water in delivering services to a major metropolitan area, compared to the performance of those Utilities providing similar services to the other major metropolitan areas around Australia, principally the other Capital cities. However, it does not cover those SA Water operations outside of the Adelaide Contract area, the Country Systems, which employ a substantial proportion of total SA Water’s water supply assets (believed to be of the order of 50%, in terms of replacement value).

Further, the Country Systems are the ones that attract Community Service Obligation (CSO) payments. An underpinning principle of the South Australian Government’s 1996 CSO Policy framework is that CSOs should be contestable and promotes the concept that

CSO funding should be provided to meet “best practice costs”. An avoidable costing methodology is the recommended approach to apply to the costing of CSOs.

In the above context, the WSAAfacts data has clear limitations in terms of coverage and should ideally be augmented with additional comparative information that specifically addresses SA Water performance for the Country Systems.

One potential source, while not comprehensive, is the Performance Monitoring Report for Australian Non Major Urban Water Utilities (those serving between 10,000 and 50,000 consumers), produced by the Australian Water Association for ARMCANZ. The intention of the publication is to provide a framework for Regional water utilities similar to that provided by WSAAfacts for its members. The NMU Report covers over 60 water utilities across Australia, including Outer Adelaide, Mount Gambier and Whyalla in South Australia. While not comprehensive with respect to SA Country Systems, and currently out of production, some historical data is available and it is understood that negotiations are underway to recommence production, possibly through WSAA. SA Water also has potential access to published reports on water industry performance in Queensland, New South Wales (NSW Water Supply and Sewerage Performance Monitoring and OFWAT’s report on “*International comparison of water and sewerage service*”, December 2002) and Victoria (Victorian Water Industry Association Urban Review).

As part of discussions held during this review, the South Australian Government and SA Water identified a list of factors affecting SA Water Country-systems’ performance that complicate comparison with other water authorities. SA Water also reiterated that it was committed to competitive tendering for many of its inputs.

The Commission believes that while initial selection of some benchmarking partners may be onerous, some useful comparative data is probably available, both in terms of cost performance and service standards.

### **Use of WSAAfacts data**

The WSAAfacts data as presented in the Transparency Statement Part A raises a number of issues.

In isolation, the single year’s data presented in Table 2, relating to the operating cost per property serviced and total cost per property serviced (WSAAfacts 2001, P92 & P97) are not particularly instructive, as they incorporate the outcomes for systems across Australia with significantly differing geographical, demographical and climatic demands.

The Transparency Statement subsequently identifies the differentiating factors of geography and climate as the reason behind SA Water’s differential performance over the period 1995-96 to 2000-01, in order to counter the query by the NCC as to why SA



Water's real Operating Costs per Property had remained stable, while those of peer Utilities had fallen.

The use of trend data over the review period for not only the overall Operating Cost per Property, but also its Retail<sup>4</sup> and Wholesale (Treatment & Transmission) components, would be more constructive. An overview of this type of analysis is provided in Attachment C.

The outcome of relatively stable (real) costs for total OMA is the result of the cost reductions in Retail being off-set by cost increases in Wholesale, possibly due to increased energy costs for pumping. As part of discussions with Government held during this review, further information, was provided making similar observations on performance over the period 1997/98 to 2002/03. However, this instructive analysis was not part of the material available to Cabinet for its pricing decisions.

It is believed that analysis similar to that in Attachment C, supported by data reviewing the performance of SA Water against customer service targets, including those incorporated in its Customer Charter, would provide an appropriate basis for establishing whether efficient business costs are being achieved.

The analysis in Attachment C suggests that the outsourcing of key SA Water functions has been successful in terms of cost management. This outcome goes some way to supporting the Transparency Statement which claims that

*"the competitively tendered contracts for managing the water and wastewater services suggest SA Water's operating, maintenance and administrative costs are based on efficient operations."*

The most significant aspect of these arrangements, in terms of dollars, is the United Water International (UWI) contract covering the Adelaide water and wastewater services, commenced in 1997 and is now in its 8<sup>th</sup> year and approximately 'mid-term'. While it was a competitive contract, the industry has moved on since 1996/97. Discussions held with SA Government during this review identified that the negotiations for the second 5-year period of the United Water International contract did require that the new UWI charges to SA Water reflect competitive prices, having regard to national and industry-specific productivity trends.

### **Best practice for Country Systems**

The NMU Performance Monitoring Report 1998/99 (P 35) indicates water supply operating costs per property for Mount Gambier, Outer Adelaide and Whyalla, of around \$115, \$185 and \$470 respectively. These significant variations are, in part, the result of major variations in climate and the distance from source water of the supply areas.

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<sup>4</sup> The terms "Retail" and "Wholesale" are used in the WSAA facts. Retail covers all activities excluding Transmission and Treatment, which are defined as "Wholesale".

In the Transparency Statement Part A, there is no discussion of cost performance for Country Systems and the two related CSO payments to support statewide pricing are presented as aggregate 'whole of state' amounts. In 2003, the payments were \$64.9 million for assets as at 1999 and \$6.3 million for new country assets.

While the CSO payments are explicit, efficient costs for regional solutions are not identified in the Transparency Statement.

In discussions held during this review, SA Government submitted that work on costing systems was progressing that would enable identification of CSOs by system or geographical area, and would be of benefit for costing purposes. However, removal of state-wide pricing is not under consideration.

The Commission believes that the drivers for the development of better practices and reduction in CSOs are suppressed when the true costs of service provision to Regional South Australia are subsumed into aggregate figures. Combined with the current lack of resource charges, transparency in achieving best practice for the Country Systems still provides some challenges.

### **Levels of service**

Cost-based performance is only one of the two fundamental performance regimes, the second being levels of service.

While cost trends in the last decade have been characterised by savings, it is important to know whether these savings have been achieved at the cost of lower service levels. In addition, it is inevitable that the upward cost pressures associated with an aging asset base will need to be faced at some point in the future. Rational treatment of these issues requires consideration of the trend movements in levels of service, in order to appreciate the true cost performance of a Utility.

SA Water has a number of service level targets as part of its Customer Service Charter and more detailed targets in its Annual Performance Statement to Government. ESCOSA has sighted the Annual Performance Statement; however, the document has been classified as confidential.

To the extent that relevant data is available, through involvement in surveys such as WSAAfacts, the NMU Performance Monitoring Report and potential access to other State-based performance reports in Queensland, New South Wales and Victoria, explicit consideration should be given to trends in service levels and their implications for costs, and subsequently pricing.

In this context it should be noted that Clause 7 (e) of the COAG Water Resource Policy requires:

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

The current sole focus on cost performance does not provide the most effective basis for transparency in achieving the best balance between costs and levels of service.

#### **4.2.5 The Commission’s view on compliance with the COAG principles**

**Adequacy of information: Does the information contained in the Transparency Statement comply with COAG principles requiring prices to be based on efficient costs?**

Based on very limited benchmarking, the Transparency Statement makes assertion about SA Water’s costs being efficient. Hence, the Commission believes that the principle of efficient cost recovery has been considered in the Transparency Statement.

**Provision of information: Did Cabinet receive this information?**

Cabinet received the same information that was included in the Transparency Statement.

**Sufficiency of information: Was the information provided sufficient to comply with the COAG principles?**

The Commission considers that the information provided in the Transparency Statement is lacking in detail. As a minimum, the Commission believes that in order to comply with COAG’s pricing principles on efficient cost, the Transparency Statement should include:

- information on costs for both the Adelaide Systems (WSAAfacts) and the Country Systems;
- information on both cost performance and levels of service for these regions; and
- an analysis of the differential impact of cost drivers on the retail versus wholesale (treatment & transmission) activities.

### **4.3 Depreciation – Provision for asset consumption (maximum revenue case)**

It is vital that water utilities have the capacity to maintain service capacity through augmenting and replacing assets as needed over time. One means of ensuring a capacity to maintain services is through the depreciation expense. While strictly a return of capital to the owners (in recognition of previous investments), the funding of the depreciation expense is frequently viewed as a key source of funding for the eventual replacement of assets, or their service potential, as the need arises.

#### **4.3.1 COAG Principles**

The Guidelines for applying Section 2 of the Strategic Framework state:

*“To avoid monopoly rents, a water business should not recover more than the operational, maintenance and administrative costs, externalities, taxes or TERs [tax equivalent regime], provision for the cost of asset consumption and cost of capital, the latter being calculated using a WACC [weighted average cost of capital].” [Emphasis added]*

It is noted that the term depreciation is not used directly. However, in the Report of the Expert Group (P 23) it is stated that:

*“4.20 Notwithstanding the differences in the timing of providing for either the economic loss of service potential or when replacement investment might need to be undertaken, the Expert Group is of the view that as a matter of principle amounts should be included in charging to take account of the economic loss of service potential when this is assessed to have occurred (that is, depreciation of assets which are valued on deprival value methodology).”*

#### **4.3.2 Transparency statement Part A Comments**

Key statements from the Transparency Statement Part A are:

*“SA Water depreciates infrastructure assets, plant and equipment using the straight-line method over estimated useful lives, which range from 5 to 160 years.”*

*“This treatment is consistent with APS No 7 which indicates that the method chosen to calculate depreciation on infrastructure assets should most accurately reflect “the pattern of consumption of the asset over its estimated useful life” and that the straight-line method should be used “provided that it will not result in any material misstatement of the timing of asset consumption” (South Australia Government. 2002(b)).”*

#### **4.3.3 NCP Assessment Report 2003 Comments**

No comments were made with regard to Depreciation for the purpose of water pricing in the NCC’s assessment report 2003.

#### **4.3.4 The Commission’s assessment**

The following extracts from the Report of the Expert Group are of interest.

*“4.18 ... modelling work undertaken in the course of the Expert Group’s deliberations indicates that for the major urban water authorities the relative magnitude and timing of the predicted provisions for depreciation*

*based on assets valued on the deprival value methodology have the capacity to exceed significantly replacement requirements for some decades.”[Expert Group P 23]*

*“E.16 The Expert Group ... recommends that as a matter of urgency research be initiated under the auspices of Agricultural and Resources Management Council of Australia and New Zealand (ARMCANZ) into the process that can cause water infrastructure to lose its service delivery potential, the implications for water agency provision for the consumption of capital and the impact on economic value. The results of this research might be used to re-assess the provision that water agencies are making for the consumption of capital and the loss of service capacity.” [Expert Group P 4]*

The impact of the timing differences are more an issue for the minimum revenue case as discussed under section 4.4 below.

The Commission is not aware of any outcomes from the Expert Group recommendation for ARMCANZ sponsored research into improved depreciation treatments. Accordingly, the approach used by SA Water is not inconsistent with the requirements of the CoAG pricing principles.

#### **4.3.5 The Commission’s view on compliance with the COAG principles**

##### **Adequacy of information: Does the information contained in the Transparency Statement comply with COAG principles?**

The Transparency Statement uses a straight line depreciation methodology to calculate depreciation. This is compliant with the COAG pricing principles, which does not dictate the depreciation methodology, except to say that an amount for depreciation should be included.

##### **Provision of information: Did Cabinet receive this information?**

The Commission is satisfied that Cabinet submission included the fact that depreciation was included in the calculation of the maximum amount of revenue recovery for water.

##### **Sufficiency of information: Was the information provided sufficient to comply with the COAG principles?**

Although the Transparency Statement is consistent with the COAG principles in its treatment of depreciation, the Commission notes that the actual calculation of depreciation and the depreciation amount has not been provided in the Transparency Statement. Ideally, this information should be included in the Transparency Statement and hence to the Cabinet, when making the water pricing decision.

#### **4.4 Provision for future asset refurbishment/rehabilitation (minimum revenue case)**

In the previous section, the focus of discussion was on the determination of a cost associated with the return of capital from previous investments. As identified earlier, the depreciation expense is sometimes viewed as providing the capacity for a water business to replace assets/service capacity as assets age. However, as discussed below, the magnitude of the depreciation expense may well be in excess of the actual asset replacement funding requirements experienced by the utility, chiefly due to timing issues.

Regardless of the timing issues, the (straight-line) depreciation expense is consistent with the determination of the upper-bound of revenue that is acceptable under COAG Guidelines for an urban water supplier, acting commercially.

The CoAG framework also mandates the determination of the minimum cost to be met to ensure that assets/service capacity can be replaced as that need arises, for those services where there is an ongoing requirement. The CoAG Guidelines identify that this cost stream be estimated in terms of the annual amount that would need to be put away each year, over a period of (say) 20-30 years, to ensure that the costs of all rehabilitation/replacement needs over that period would be met, provided annual surpluses were accumulated and interest income applied. This is referred to as the “annuity approach”. The outcomes from the annuity approach are often materially less than the corresponding straight-line depreciation outcomes for the same assets.

##### **4.4.1 COAG Principles**

Guideline 3, for applying Section 3 of the Strategic Framework states that:

*“An annuity approach should be used to determine the medium to long-term cash requirements for asset replacement/refurbishment where it is desired that the service delivery capacity be maintained.”*

##### **4.4.2 Transparency statement Part A Comments**

The key arguments provided in the Transparency Statement Part A, for not using an Annuity Approach are as follows:

*“The NCC, QCA and IPART have all indicated a preference for adopting a renewals annuity approach, including the analysis of asset management plans, for assessing a service provider’s requirements for maintenance of the serviceability of the system. QCA and IPART are proposing to adopt this approach, where practicable, for determining maximum revenue targets.”*

*“Nevertheless, the QCA, in its recent Investigation of Pricing Practices of the Gladstone Area Water Board, recommended the adoption of straight-line depreciation subject to the board developing an appropriate asset management plan (QCA, 2002, p 101).”*

*“Further, IPART in its recent regulatory determinations on Sydney Water Corporation and Hunter Water Corporation calculated their capital maintenance on the basis of straight-line depreciation over the average life of the assets (70 years) (IPART, 2003a, p 61, IPART, 2003b, pp 58).”*

*“Consistent with the decision of interstate regulators, SA Water has used the forecast depreciation expense, based on the straight-line depreciation method, as a broad estimate of the expenditure required to maintain the asset base in (both the maximum and) the minimum revenue outcome. “*

However, it is also noted that SA Water has indicated that it is continuing to enhance its asset replacement forecast.

#### **4.4.3 NCP Assessment Report 2003 Comments**

No comments were made with regard to provisions for asset replacement/rehabilitation for the purpose of water pricing in the NCC’s assessment report 2003.

#### **4.4.4 The Commission’s assessment**

Understanding the difference between straight-line depreciation for the infrastructure assets supporting the provision of water supply services and the annuity approach for associated asset replacement, is crucial to understanding the ability of a water utility to maintain service capacity, reduce revenue requirements and/or make contributions to the Government as owners. In the case of SA Water, the difference between the straight-line depreciation expense and the likely ‘annuity’ figure goes to the issue of the sustainability of the water business in the face of contributions to Government in excess of 100% of after tax profits.

With respect to the two instances cited where regulators in NSW and Queensland have adopted the use of straight-line depreciation, rather than the annuity approach, it is noted that:

##### QCA – Gladstone Area Water Board

The Gladstone Area Water Board is a bulk water supplier to various customers in City of Gladstone and the Shire of Calliope. When dealing with the major Queensland water utilities the QCA has stated that its principles for the calculation of the return of capital are that<sup>5</sup>:

- *“where demand warrants continued service provision, the return of capital should be set to provided a cash flow sufficient to maintain the service potential of the relevant water asset/ network*
- *a range of methods, including forms of cost based depreciation or renewals annuity approaches, would be considered provided these can be demonstrated to meet the above objective; and*
- *where renewals annuities are adopted, an asset management plan should be established by the relevant business activity to promote transparency and a planning period adopted consistent with commercial principles (usually in the order of 20 to 30 years).”*

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<sup>5</sup> Statement of Regulatory Pricing Principles for the Water Sector, QCA, December 2003 pp49

These principles endorse the use of an annuity approach, where practical.

### IPART – Sydney Water Board

The NSW Government adopted an approach referred to as ‘the line in the sand’ when establishing the initial regulatory asset base (RAB) for the Corporation.

*“The regulatory asset base (RAB) is a measure of the financial value invested in the water businesses and bears no relationship to the value of the physical assets. It represents the value a market would place on the business if it was to be sold, given its potential to earn revenue and profits under existing prices.” (IPART Report No 4, 2003 pp65)*

In the context of the above definition, it is noted that:

*“Capital maintenance is calculated on a straight line basis, over the average life of the assets. This means that the total value of the regulatory asset base is recovered within that period which is assumed to be 70 years for water assets.” (IPART Report No 4, 2003 pp61)*

*“As the actual average asset life of these assets are likely to be well in excess of 70 years, the existing approach should amply provide for asset replacement.” (IPART Report No 4, 2003 pp63)*

*“As depreciation reflects past capital expenditure – many of which have been considered sunk costs by regulators – it need not equal current renewals capital expenditure requirements.” (IPART Report No 4, 2003 pp64)*

Given the above statement by IPART and the understanding that IPART has reviewed future CAPEX programs for the Sydney and Hunter Water Corporations, including an assessment of future asset replacement requirements, it would appear that the 70-year based depreciation life applied to the RAB is a pragmatic approximation for the purposes of establishing a maximum revenue figure, rather than a mechanism for establishing the minimum revenue requirements.

The IPART/Sydney case does not appear to be a compelling argument for adopting a straight-line depreciation figure as a proxy for the CoAG pricing principles’ annuity requirement

### **The Depreciation-Annuity ‘Gap’**

The margin between the current cost depreciation expense (if fully funded) and the annuity amount is a measure of the capacity to either reduce prices or return capital to the Government as owners.

To illustrate the potential magnitude of the mismatch/margin between short to medium term replacement needs and straight-line depreciation, a case study is provided in Attachment B. This shows that straight-line depreciation can be a poor proxy for annuity. Hence, the use of straight-line depreciation as a proxy for annuity in the Transparency Statement is not appropriate and therefore, inconsistent with the CoAG pricing principles.

Given the potential magnitude of the margin, SA Water should progress its Asset Management Plans (AMPs) to a point where an annuity can be identified, as soon as



possible. As a result of further discussions with SA Government during this review, it is anticipated that an indicative figure should be available in the near future.

#### **4.4.5 The Commission's view on compliance with the COAG principles**

**Adequacy of information: Does the information contained in the Transparency Statement comply with COAG principles?**

The Transparency Statement uses straight line depreciation as a proxy for annuity in the calculation of minimum revenue requirement. In the Commission's view, the two are likely to be significantly different in a water utility and should not be substituted. Hence, the Commission considers that the Transparency Statement does not strictly comply with the COAG Pricing Principles (although the information necessary to do this is not currently available).

**Provision of information: Did the Cabinet receive this information?**

The information received by Cabinet was based on the calculation of straight-line depreciation and not the annuity. Hence, Cabinet did not receive the relevant information in this case.

**Sufficiency of information: Was the information provided sufficient to comply with the COAG principles?**

In the Commission's view, the relevant information was not provided and hence not sufficient to strictly comply with the CoAG's principles. The Commission considers that SA Water should establish estimates for annuity-based provisions for asset replacement/rehabilitation and report this in the next Transparency Statement.

## 4.5 Externalities

While issues associated with the infrastructure and operational aspects of water service delivery dominate the text of pricing considerations, it is important to remember that water resource management is a key plank of the overall Water Reform Strategic Framework.

In the above context, it is noted that the avenue for costs associated with the availability of the water resource is, in part, through the consideration of “Externalities”.

### 4.5.1 COAG Principles

The Guidelines for applying Section 3 of the Strategic Framework state:

*“To avoid monopoly rents, a water business should not recover more than the operational, maintenance and administrative costs, externalities, taxes or TERs [tax equivalent regime], provision for the cost of asset consumption and cost of capital, the latter being calculated using a WACC [weighted average cost of capital].” [Emphasis added]*

*“In applying (the monopoly rent test) and (business viability test), economic regulators (or equivalent) should determine the level of revenue for a water business based on efficient resource pricing and business costs.”*

*“Externalities ... means environmental and natural resource management costs attributable to and incurred by the water business”*

It is also important to note that the Strategic Framework states:

*“that action needs to be taken to arrest widespread natural resource degradation in all jurisdictions occasioned, in part, by water use and that a package of measures is required to address the economic environmental and social implications of future water reform.”*

### 4.5.2 Transparency Statement Part A Comments

The key paragraphs from the Transparency Statement Part A are:

*“SA Water included externalities that have been internalised through explicit charges to SA Water in the maximum revenue outcomes. An example is payments by SA Water to the catchment water management boards, including a one-cent per kilolitre (kL) levy paid to the River Murray Catchment Water Management Board.”*

*“Water resource management in South Australia is the responsibility of DWLBC, except to the extent that SA Water retains some responsibility for administering policy on water conservation by its customers. As DWLBC is funded from consolidated revenue, water resource management costs are currently borne by the South Australian community.”*

*“The value of externalities and resource management costs attributable to SA Water as a result of providing services to urban water consumers is a complex matter that is being reviewed. These matters will also need to be considered within the context of a broader, Australian-wide resolution.”*

### 4.5.3 NCP Assessment Report 2003 Comments

While not providing any detailed comment on Externalities, the NCC did state:

*“The Council will look for evidence in the report that SA Water’s prices satisfy all CoAG pricing principles. In particular, the Council draws South Australia’s attention to the pricing principles requirements that (1) prices*

*are determined on the basis of a revenue target for the business that is based on efficient resource and business costs and (2) that the dividends paid reflect commercial reality” [Emphasis added]*

#### 4.5.4 The Commission’s assessment

It is believed that a key tenet in the Water Reform process is to ensure that the true cost of resource management is included in the pricing of water.

Further, the Expert Group recommended:

*“any ongoing costs associated with water resource management be borne by water beneficiaries/impactors, except where the broad community is identified as a beneficiary, or where the activity is clearly a government responsibility, in which situations government might pay.” (Expert Group, 1995, p 6)*

It is believed that the references to government responsibility for payment is for activities associated with recreational use of the waterways and fishing etc, rather than any significant proportion of costs incurred in the management of the water resource itself.

There is also the requirement under CoAG’s strategic framework 5(c) that:

*“where cross-border trading is possible, that the trading arrangements be consistent and facilitate cross-boarder sales where this is socially, physically and ecologically sustainable;”*

These arrangements would extend to the treatment of water resource management charges. Accordingly, it would appear that the current omission of an ‘extraction-based’<sup>6</sup> water resource charge is a temporary situation that will be resolved when current studies help resolve the intra-state and inter-state complexities. However, given the ever growing concern over water resource issues, the future implementation of charges associated with relevant DWLBC activities, must be seen as an important step towards achieving the intent of CoAG’s strategic framework.

Water resource management charges would also be an important adjunct to the costs of alternate technical solutions to providing services from different water sources. This is a situation that is likely to become more prevalent as traditional sources, such as the River Murray, become more stressed and technical advances make alternate sources, such as desalination, more cost effective/practical.

In discussions held during this review process, the SA Government officials made reference to the Guidelines definition for ‘Externalities’ (as provided in 4.4.1 above) to emphasise that the requirement is to recognise resource management costs “....*both attributable to and incurred by water businesses*”. The legitimate observation by the SA Government is that, as resource management costs are not incurred by SA Water, they should not be incorporated in the cost considerations.

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<sup>6</sup> ‘Extraction charge’ refers to a charge similar to that which exists in ACT, as determined in the *Final Report – Water abstraction charge*, ICRC, October 2003.

The correctness of the SA Government view is acknowledged, but in future it is possible that costs incurred by other agencies may be allocated to SA Water. This matter needs to be kept under review.

#### **4.5.5 The Commission's view on compliance with the COAG principles**

##### **Adequacy of information: Does the information contained in the Transparency Statement comply with COAG principles?**

The inclusion of externalities costs that are “both attributable to and incurred by” SA Water in the Transparency Statement is compliant with the CoAG Principles.

##### **Provision of information: Did Cabinet receive this information?**

The Commission is satisfied that Cabinet submission included the necessary information about externalities in their consideration of water prices.

##### **Sufficiency of information: Was the information provided sufficient to comply with the COAG principles?**

The Commission considers that further enhancement to the information included in the Transparency Statement should be made. In particular, Cabinet should be informed about the extraction-based water resource management charges and its application to all relevant beneficiaries, including SA Water. This should form part of the Transparency Statement.

The Commission further considers that the DWLBC charges be identified in terms of key catchments, and that the charges related to the supply of water to regions attracting CSOs be differentiated.

## 4.6 Return on Assets

Seeking a positive rate of return on assets employed in the provision of water services is an articulated CoAG requirement for the Urban Sector. In view of the fact that the water utilities are highly capital intensive (that is, have large amounts of sunk assets), relatively minor variations in rates of return and/or the asset values on which they are sought can make a significant difference to pricing. In addition, the inclusion or exclusion of contributed assets has a considerable impact.

The inclusion of a return on asset component in pricing considerations is, and will remain, a sensitive issue, in that there is the potential for inefficient asset costs to underpin higher prices.

The Commission understands that this requirement is to ensure that the opportunity cost is recognised in water pricing, leading to efficient economic outcomes.

The cost of capital relates to the opportunity cost of investment. It represents a risk adjusted return that investors demand on their investment.

Although, in theory, it is a fairly simple concept, it is enormously complex and controversial. The two main reasons for this are:

- (1) It is impossible to determine the “true” cost of capital for a company, and
- (2) It has one of the largest financial impacts for a regulated business.

For water utilities in Australia, the issue has been confused further due to the government ownership of these utilities. However, the ownership should have no impact in determining the cost of capital, which as mentioned, is an opportunity cost and not the true (accounting) cost of financing.

### 4.6.1 COAG Principles

The Guidelines for applying Section 3 of the Strategic Framework state:

*“To avoid monopoly rents, a water business should not recover more than the operational, maintenance and administrative costs, externalities, taxes or TERs [tax equivalent regime], provision for the cost of asset consumption and cost of capital, the latter being calculated using a WACC [weighted average cost of capital].” [Emphasis added]*

### 4.6.2 Transparency Statement Part A Comments

The Transparency Statement Part A does not derive the WACC that should be used for setting prices. It refers to a study done by consultants, which estimated a regulatory

WACC of 6%. However, it uses a range of between 6% and 8 %, pre tax, real WACC, stating that a single WACC would be defined after the completion of a review by SA Government on the ownership structure of all SA public non-financial corporations, including capital structures, dividends and CSO policies.

#### **4.6.3 NCP Assessment Report 2003 Comments**

No comments were made with regard to Asset Values, Contributed Assets or the WACC for the purpose of water pricing in the NCC's assessment report 2003.

#### **4.6.4 The Commission's assessment**

As mentioned earlier, WACC is one of the most crucial variables in setting regulated prices. This is because the revenue recovery amount is highly sensitive to the cost of capital used (in a 'building block' approach<sup>7</sup>).

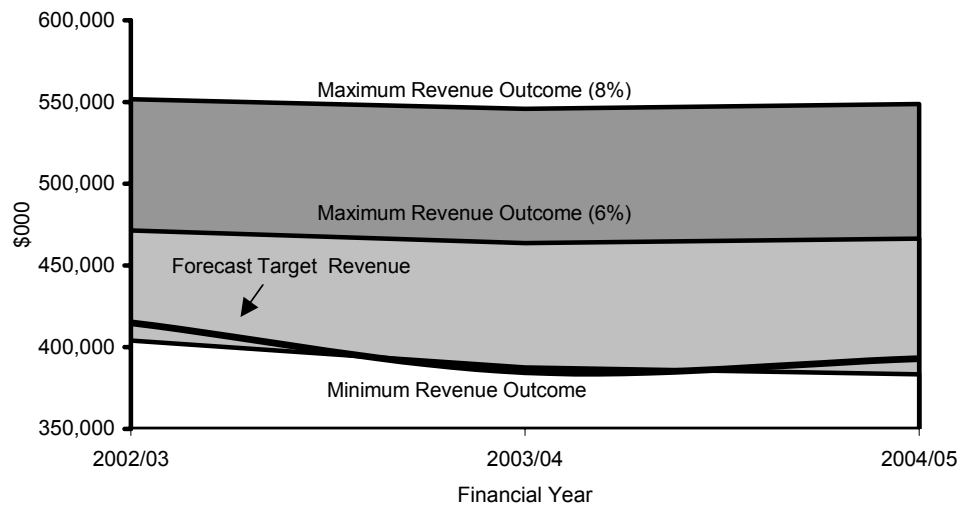
The Transparency Statement Part A states that the SA Water assets are valued at about \$6.6 bn, and the water assets at \$4.1 bn. This means that a change of 0.1% in the cost of capital applied to the assets, relates to \$6.6m annually for SA Water, as a whole, or \$4.1m annually for the water business.

A range of WACC that stretches across 2 percentage points (between 6% and 8%) reflects a range of \$82m annually for the water business. This is clearly a significant amount that, in the Commission's view, requires further consideration.

Arguably, such a broad range is used in the Transparency Statement Part A because the WACC is used only to determine the maximum revenue, and since the Transparency Statement Part A concludes that the revenue generated by SA Water is well below the maximum revenue, it does not matter whether the WACC is 6% or 8%. For illustrative purpose, Figure 2 of the Transparency Statement Part A is reproduced here:

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<sup>7</sup> The 'building block' approach relates to setting the revenue target as the sum of efficient cost, including operational & maintenance cost, depreciation and a return on assets. It may also include other incentive payments, such as an efficiency carry over amount.



Source: Transparency Statement Part A

However, although this may be true, it is based on the assumption that all other aspects of the maximum revenue are appropriate. For example, the asset valuation to which the WACC is applied may be significantly changed if contributions are removed, as discussed in section 4.1.

It may be that even after any adjustments to the asset values, the target revenue remains below the maximum revenue. Even in such a case, it is important to know by how much the target revenue is below the maximum revenue limit, since this will provide greater transparency, possible long term price path guidance and the amount of cross subsidy that may exist at the highest level.

It is unclear to the Commission why a narrower range for WACC cannot be determined as part of the Transparency Statement Part A for two reasons:

- (i) SA Water has completed a study of its WACC undertaken by consultants. The Commission has sighted this report, but since it has been classified confidential, cannot comment on it. However, the report does highlight that a much smaller range can be picked at this time.
- (ii) The reason for not picking a WACC until a review by the state government on structures, dividend policy, CSO etc is completed, is not supported. The rate of return that is used in determining the regulated revenue target is based on a benchmarked utility. Hence, changes to the abovementioned issues should have no impact on the appropriate WACC to use for pricing purposes.

#### **4.6.5 The Commission's view on compliance with the COAG principles**

##### **Adequacy of information: Does the information contained in the Transparency Statement comply with COAG principles?**

Although the opportunity cost is recognised in the Transparency Statement as required by the CoAG pricing principles, in the Commission's view, the range of WACC used is considered to be too broad. Moreover, very limited details of the WACC calculations have been included in the Transparency Statement. For example, no information on any of the input variables that were used in deriving the 6% to 8% range was provided, although some broad benchmarking of WACC was included.

##### **Provision of information: Did Cabinet receive this information?**

The information in the Transparency Statement was very limited. Although further details were provided to the Commission on "strictly confidential" terms, it did not form part of the cabinet decision making process.

##### **Sufficiency of information: Was the information provided, sufficient to comply with the COAG principles?**

The Commission believes that, although compliant with the CoAG pricing principles requirement to include an opportunity cost, the Transparency Statement does not provide sufficient information on WACC. The Commission considers that in future Transparency Statements, an appropriate WACC should be determined for setting maximum revenue, or at the very least, a much smaller range should be provided for the Cabinet to make an informed decision on water pricing.

The Commission also considers that the WACC calculation should be based on an efficient supplier's benchmark, rather than actual conditions of SA Water. For example, the capital structure of an efficient water utility should be used, rather than the actual capital structure of SA Water.



## 4.7 Dividends

Dividend Policy relates to the periodical returns made to the shareholders or owners of a business. The decision on the amount of dividends that should be paid is inextricably linked to the decision on the capital structure of the business. Retention of free cash flows (retained earnings) by the business increases the equity proportion of a business.

Due to its corporate-wide impact, dividends (per-se) cannot be allocated to business units. This is akin to allocating shares to specific parts of the business. Clearly, the sourcing of funds and their use are two different issues. Accordingly, the allocation of a contribution to dividends from the water business in the Transparency Statement (Table 11) would be more appropriate.

Dividend policy must be considered as a corporate wide issue.

### 4.7.1 COAG Principles

In relation to dividends, the guidelines for the application of the Section 3 of the COAG principles state that:

*“To be viable, a water business should recover, at least, the operational, maintenance and administrative costs, externalities, taxes or TERs (not including income tax), the interest cost on debt, dividends (if any) and make provision for future asset refurbishment/replacement (as noted in (3) above). Dividends should be set at a level that reflects commercial realities and stimulates a competitive market outcome.”*

Although the “level that reflects commercial reality” is not further explained, NCC has previously provided some clarifying remarks in its assessment framework<sup>8</sup>:

*“The Council considers that a reasonable upper bound limit for dividend distribution by government water service businesses is the Corporations Law requirement that dividends may be paid only out of profits (profits include accumulated retained profits as well as the current year’s profit). This approach would safeguard against water and wastewater service providers having insufficient financial resources to conduct business. This approach would also be consistent with competitive neutrality objectives.”*

In a report commissioned by NCC<sup>9</sup>, NECG have linked the capital structure issue closely with the dividend policy issue. The report has used benchmarking of dividend payout ratios against private sector counterparts, to evaluate the level that best describes ‘commercial reality.’ The report also uses a second criterion to assess the appropriate dividend policy, which is to consider whether the dividend payouts were likely to create financial risks for the water business.

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<sup>8</sup> The 2003 NCP Assessment Framework for Water Reform, NCC, February 2003.

<sup>9</sup> *Dividend Policy Issues for Government Business Enterprises engaged in providing water services*, Report for the National Competition Council, NECG, July 2002.

It has warned against capital restructuring by stealth, using dividend policy as a “backdoor means” of achieving the restructuring. The report stated that:

*However, the apparently common practise of using dividend policy as a backdoor means of capital restructuring lacks transparency, and is undesirable for that reason. Instead, capital restructuring of government water business should rely on measures similar to those in the corporations law.*

Based on NCC’s various comments and assessment framework, and the NECG report, ESCOSA considers that the underlying issue with regard to dividends seems to be a concern regarding long term sustainability of service standards and business viability, and ensuring competitive neutrality.

#### **4.7.2 Transparency Statement Part A Comments**

The Transparency Statement does not outline SA Water’s dividend policy on a standalone basis. However, it does state that SA Water’s dividend policy is part of the total contribution made to the government. The policy stated in the Transparency Statement Part A is to provide:

*“...a total contributions target (eg dividends and income tax equivalent) of 55% of free cash from operations, (Earnings Before Interest, Taxes, Depreciation and Amortisation) EBITDA less that level of capital expenditure agreed with the Treasurer as necessary to maintain the ongoing business operations of the Corporation.”*

The Transparency Statement acknowledges that:

*“The dividend Payout ratio might be considered high in comparison with some private sector companies.”*

#### **4.7.3 NCP Assessment Report 2003 Comments**

In its latest assessment report for South Australia, NCC raised some concerns with SA Water’s dividend policy. It stated that:

*“A dividend policy based on 55 per cent of EBITDA may result in dividends consistently in excess of 100 per cent of after tax profits, which could have unintended impacts on the business’s capital structure and financial resources.”*

It went on to say that:

*“The council considers that the dividend policy for SA Water does not sufficiently address the COAG requirement that dividends reflect commercial realities and simulate a competitive market outcome. The current target of 55 per cent of EBITDA means that dividend could exceed 100 per cent of after tax profit (which occurred in 2001-02) and potentially undermine the long term sustainability of SA Water.”*

The report suggested that:

*“Reporting by SA Water of the dividend it pays as a percentage of after tax profits would provide greater transparency.”*

It noted its concern by saying that:

*"There is a danger, however, that the ability of SA Water to provide adequate services may be compromised if it is required year after year to provide dividends in excess of 100 per cent of after tax profits."*

#### **4.7.4 The Commission's assessment**

The policy of providing a total contribution (tax and dividends) of 55% of EBITDA, less that level of capital expenditure agreed with the Treasurer as necessary to maintain the ongoing business operations of the Corporation, should be separated to whatever the tax amount is (based on tax equivalent regime) and a separate policy on dividends (see section 4.8).

In practice, the Commission understands that the policy is applied in accordance with section 30 of the *Public Corporations Act* 1993. The Commission understands that this includes the following steps:

Step1: Forecast taxes (based on TER) are calculated based on SA Water's forecast taxable income for the next 5 years, based on a Board approved budget (relevant Minister may be consulted).

Step 2: For each year of the forecast, an initial dividend amount is calculated, whereby

Initial dividend amount = (55% of forecast EBITDA) less the calculated taxes

Step 3: SA Water's Board establishes an initial proposal for the level of dividends after considering the amount of funds necessary to maintain the ongoing business operations of SA Water, and reduces the initial dividend amount (as calculated in step 2) by this amount.

Step 4: In line with the Public Corporations Act 1993 - Sect 30, the Treasurer may, after consultation with the corporation's Minister, by notice in writing to the corporation approve the boards recommendation or determine that a dividend specified by the Treasurer be paid.

The outcome of the above steps leads to a dividend amount that is determined for the next 5 years and is factored into Treasury income forecasts for the government. This is reviewed each year.

State or federal equivalent taxes are paid to the government whereas dividends are paid to the owners/shareholders. Since, in SA Water's case, the two are the same, transparency dictates that these payments should be separated out. Only then can one make a reasonable assessment of whether the dividends reflect commercial reality.

Notwithstanding the amount (or percentage of EBITDA), determination of an appropriate dividend amount that meets the CoAG principles can be difficult. Whereas SA Water

considers that the dividend policy leaves it with sufficient cash for future asset refurbishment/replacement, NCC considers that this measure can provide (and in the past, has provided) over 100% of after tax profits. This, NCC notes, could have unintended outcomes.

The Commission believes that both SA Water's and NCC's positions are valid. However, in SA Water's case, the measures used (by SA Water) and proposed (by NCC) are deceptive. This is mainly due to the asset valuation issue (discussed in some detail under asset values). The Commission believes that mainly due to the existence of contributed assets, the asset valuation is held artificially high, leading to artificially high depreciation rates.

The Commission is not in a position to determine what the impact of removal of contributed assets would be on the asset value, but envisages that it could have a significant impact on the asset values used by SA Water. Should the asset values be adjusted downwards, the depreciation amounts will consequently also reduce significantly. The significant reduction in depreciation amounts will lead to significant increases in the after tax profits. However, it will have no impact on EBITDA (since EBITDA is a before depreciation amount). Hence, the same payments that SA Water makes currently (based on EBITDA amount) would result in a much smaller proportion of after tax profit (a measure proposed by NCC). It is foreseeable that the impact of these corrections in the asset value would lead to a dividend payout ratio that is well within acceptable limits, reflecting commercial reality. Although this would lead to a larger proportion of the total payment being classified as taxes, the two should be separate issues, even when the government is the owner of the SA Water.

To illustrate this point numerically, the financial figures for 2003/04 are used in the following example. This year is selected because the financial forecast is for SA Water to pay out over 100% of profit after tax, based on its current calculation methodology – an issue of concern to NCC.

**TABLE 1: TOTAL CONTRIBUTION TO GOVERNMENT (FORECAST)**

<b>(\$' 000)</b>	<b>Base Case</b>
EBITDA	242,359
Depreciation	74,774
Interest Cost	59,837
Taxable income	107,748
(a) Income tax	31,378
Profit After Tax	76,370
(b) Dividends	79,046
<i>Dividend payout</i>	<i>104%</i>
<b>(a) + (b) Total Contribution</b>	<b>110,424</b>

The dividend payout ratio for 2003/04 was 104% of the profit after tax. NCC concerns relate to such payout ratios, which may be within the Corporations Law, but are not considered to reflect commercial reality.

For the same year, assume that the asset values are adjusted downwards to remove the customer contributions from these values. Assume (for illustrative purposes only) that the consequential effect on depreciation (a non-cash item) is a reduction of 20%. Also, assume that the total contributions to be made to the government are to remain the same (i.e. \$110 m).

Taxes are calculated at the same rate as the base case (that is, approximately 30% of taxable income).

**TABLE 2: TOTAL CONTRIBUTION TO GOVERNMENT (AFTER ASSET VALUE ADJUSTMENT)**

<b>(\$' 000)</b>	<b>Base Case</b>
EBITDA <sup>10</sup>	234,831
Depreciation	59,819
Interest Cost	59,837
Taxable income	115,175
(a) Income tax	33,541
Profit After Tax	81,634
(b) Dividends	76,883
<i>Dividend payout</i>	<i>94%</i>
(a) + (b) Total Contribution	110,424

This table shows the effect that asset value adjustment would have on the dividend payout ratio. The dividend payout ratio is reduced from 104% to 94%, which is closer to commercial reality, without having any impact on the cash flows to either SA Water or the state government.

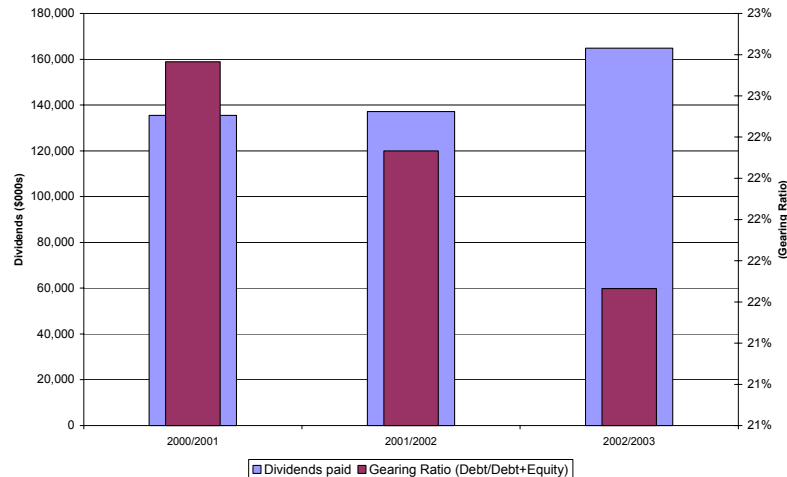
Furthermore, for reasons discussed under depreciation versus the annuity approach, SA Water's free cash flows are fairly large at this time. These large cash flows lead to large payout in the form of dividends. It is arguable that a typical company operating in a competitive environment does not have the same asset refurbishment characteristic, and hence is not directly comparable.

Finally, the concern regarding using the dividend policy to restructure the balance sheet has not been addressed in the Transparency Statement Part A. A trend analysis comparing SA Water's capital structure, the level of debt and the dividends should provide a reasonable basis to show that the dividend policy is not used as a "backdoor means" for

<sup>10</sup> The reduction in EBITDA is due to the removal of the customer contribution of \$7.5m, which is recognised as revenue for that year.

capital restructuring. An open and transparent statement of a long term capital structure policy may also assist in achieving this outcome.

The following graph shows an increasing trend in dividend payments, yet a declining



gearing ratio. Such a trend would imply that the dividend policy is not being used for capital restructuring, although the Commission recognises that this analysis is not sufficient to establish this as fact. Further analysis would need to be undertaken to confirm this suggestion.

#### 4.7.5 The Commission's view on compliance with the COAG principles

##### **Adequacy of information: Does the information contained in the Transparency Statement comply with COAG principles?**

In the Commission's view, the Transparency Statement does not sufficiently address the issue of whether the dividend payments meet the 'commercial reality' test, in accordance with the COAG Principles. Issues of capital structure are also not addressed in this section.

The actual dividend policy is not stated in the Transparency Statement – only the policy on total contribution to the government (which incorporates the combination of the dividend and tax equivalent payments). In the Commission's view, this does not comply with the COAG principles.

##### **Provision of information: Did Cabinet receive this information?**

Cabinet did not receive information about the dividend policy – it only received advice on the maximum total contribution to the SA Government.

**Sufficiency of information: Was the information provided sufficient to comply with the COAG principles?**

In the Commission's view, the following changes would assist in the process for making urban water pricing decisions compliant with the COAG Principles:

- (1) Dividend policy is stated transparently and not as a combined contribution to the government.
- (2) Depreciation is calculated in accordance with adjusted asset values (see recommendation under asset valuation)
- (3) Capital structure policy is outlined and it is demonstrated that the dividend policy is not leading to changes to capital structure.
- (4) The Transparency Statement should include a statement from the Minister of Administrative Services as to the level of capital expenditure considered necessary to maintain the ongoing business operations of SA Water.

## **4.8 Tax Equivalent Regime**

The tax equivalent regime (TER) relates to a regime whereby government owned enterprises are subject to the same taxation regime that applies to the private sector. However, for state owned enterprises, this amount is paid to the state government and not the federal government, whereas most of the private sector taxation is paid to the federal government.

### **4.8.1 COAG Pricing Principles**

The COAG principles require that taxes or TER payments be included in the calculation of both the maximum revenue and the minimum revenue. However, the minimum revenue requirement calculation does not require the inclusion of income tax for those organisations which do not pay income tax.

The main reason for the TER is to ensure competitive neutrality. In the absence of TER, the public sector will have a cost advantage since they would not have to incorporate taxes into their prices.

### **4.8.2 Transparency Statement Part A Comments**

The transparency statement includes all relevant taxes paid by SA Water. However, the taxes are combined as total contributions to the government (55% of EBITDA). Also, with regard to inclusion of TER amounts in the maximum revenue requirement calculation, the Transparency Statement Part A states that:

*The pre-tax approach to estimating the required return on assets in setting the maximum revenue outcome removes the requirement to include a separate allowance for income TERs.*

### **4.8.3 NCC Assessment 2003 Comments**

NCC made no comment on the TER issue for South Australia in its 2003 report.

### **4.8.4 The Commission's assessment**

Taxes are paid to the government, whereas dividends are paid to shareholders. For transparency, when the two are the same, the payments should be separately identified. Taxation is an outcome, whereas the dividend policy is an internal policy of the business. The outcome must be reported as such, and not be mingled with an internal policy decision.

SA Water's inclusion of TER in the minimum revenue requirement calculation is considered to be appropriate and compliant with the NCC's pricing principles.



With regard to maximum revenue calculation, it is appropriate that where a pre-tax WACC is used, taxation amounts should not be added on to cash flows as well, since this would be double counting and erroneous.

However, it should be noted that the regulatory trend is to move towards a post –tax cost of capital regime. Also, the fact that the pricing principles require TERs to be included in both maximum and minimum revenue calculation implies that a post-tax WACC is more appropriate, and the taxation amount should be included in the cash flows.

#### **4.8.5 The Commission's view on compliance with the COAG principles**

**Adequacy of information: Does the information contained in the Transparency Statement comply with COAG principles?**

In the Commission's view, the Transparency Statement includes TER and is compliant with the COAG Principles.

**Provision of information: Did Cabinet receive this information?**

The TER calculation was included in the Transparency Statement and made available to the Cabinet when making the pricing decision.

**Sufficiency of information: Was the information provided, sufficient to comply with the COAG principles?**

In the Commission's view, although the information was sufficient to comply with the COAG principles, it could be better presented to achieve greater transparency and consistency. To achieve this:

- the taxation amount should be split separately from the dividend amount, when presenting the information to Cabinet for the water pricing decision.
- a post-tax WACC should be used for the purpose of calculating the maximum revenue and the taxation amount should be included in the cash flows.

## **4.9 Efficient resource pricing - Tariff structure**

Tariff structure has an important role to play in achieving overall economic efficiency. Although the majority of a water utility's cost would be fixed (in short to medium term), consumption based pricing sends a strong signal and achieves allocative efficiencies.

A tariff structure comprising of a fixed charge and a usage (variable) charge, is referred to as a two part tariff.

### **4.9.1 COAG Principles**

In the NCP water reform assessment framework, NCC states that in setting prices for water, the water businesses are to:

*"Set prices that reflect the volume of water supplied to encourage more economical water use. Businesses should implement a two-part tariff (comprising a fixed access component and a volumetric cost component), where this is cost effective."*

The Commission understands that the key driver for this requirement is to achieve a price signal leading to better asset utilisation, water resource conservation and overall allocative efficiency.

### **4.9.2 Transparency Statement Part A Comments**

SA Water has two part tariffs for all non-commercial customers, with a different supply charge to residential and non-residential customers. Its variable charges have two blocks: 44c/kL for all consumption up to 125 kL, and \$1.03/kL for all consumption greater than 125kL.

With regard to the reduced price in the first block (0 to 125kL), the Transparency Statement Part A states that:

*"SA Water also has a lower usage charge for the first 125 kilolitres of water consumed by residential customers to ensure that all customers are able to afford a basic level of service. This component of usage charge is determined on the basis of general affordability of an essential service and the Government's social policy rather on the basis of economic efficiency."*

For all commercial customers, the supply charge is based on a percentage of property value (with a minimum of \$155). Usage charge is being phased in, with the transition being completed in 2006/07. The increased revenue generated by the introduction of usage charge will be offset by reduction in supply charge, such that SA Water remains revenue neutral.

#### 4.9.3 NCP Assessment Report 2003 Comments

The two part tariff for non-commercial customers was accepted by the NCC as having complied with the COAG principles.

The transitional plan for commercial tariffs is also seen to be consistent with the COAG principles.

The only issue of concern raised by the NCC was the issue of possible cross subsidy that may exist in commercial tariffs. The assessment report noted that:

*"South Australia's arrangement may imply a cross-subsidy between commercial users of water services during the period of transition to full water use charges..."*

#### 4.9.4 The Commission's assessment

SA Water has consumption based pricing currently in place for all customers. The two part tariffs being charged for non-commercial customers are consistent with COAG principles. The decision to provide a lower first block tariff for non-commercial customers is not inconsistent with the COAG principle. On the assumption that the variable charge for the second block is the true cost reflective charge, the first block may constitute a cross subsidy, which is transparent.

With regard to commercial customers, the phasing in of two part tariffs is a prudent economic strategy since it removes price shocks and provides the customers a smoother transition.

The issue of potential or perceived cross subsidy is dealt with in the next section.

#### 4.9.5 The Commission's view on compliance with the COAG principles

**Adequacy of information: Does the information contained in the Transparency Statement comply with COAG principles?**

The Transparency Statement outlines the pricing structure and the reasons for the pricing structure. The Commission considers both the structure and the reasons to be compliant with the CoAG Principles.

**Provision of information: Did Cabinet receive this information?**

Cabinet received the information on tariff structures that was included in the Transparency Statement and was sufficiently informed in their decision-making for urban water pricing.



**Sufficiency of information: *Was the information provided sufficient to comply with the COAG principles?***

No change is necessary to accord with the COAG principles in relation to consumption based pricing for water. All relevant material was available to Cabinet to make an informed decision on this issue.

## 4.10 Cross-Subsidies

In a jurisdiction with the water supply logistics faced by South Australia, some cross-subsidies are inevitable under a Statewide pricing approach. The key to adherence to CoAG principles is ensuring that the cross-subsidies are transparent.

### 4.10.1 COAG Principles

In the NCP water reform assessment framework, NCC states that in setting prices for water, the requirements for water businesses are:

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

*“that where service deliverers are required to provide water services to classes of customer at less than full cost, the cost of this be fully disclosed and ideally be paid to the service deliverer as a community service obligation;”*

### 4.10.2 Transparency Statement Part A

With regards to cross-subsidies generally, it was noted that:

*“South Australia has adopted the Baumol Band (Figure 1), as suggested by the NCC, as the theoretical definition of cross-subsidies (NCC, 2001, p 127).”*

#### **Statewide pricing**

With respect to Statewide pricing it was noted that:

*“SA Water provides water services to its customers in regional areas of South Australia at a single uniform price under the South Australian Government's Statewide pricing policy. Thus, water customers in the metropolitan area and in regional urban areas are charged the same price for reticulated water. This is an important element of the Government's equity and social justice policy and regional policy.”*

*“In regional areas there may be a minority of customers who pay less than avoidable cost. SA Water receives a substantial CSO payment to fund any potential cross-subsidies and to ensure that SA Water can achieve an adequate commercial return from its country water business.”*

#### **Consumption based pricing for commercial customers**

On the topic of concern to the NCC regarding the potential for cross-subsidies between commercial customers (see 3.10.3), the Transparency statement Part A states:

*“It appears that the NCC is concerned that there may currently be a cross-subsidy between commercial consumers, on the basis that the transitional arrangements will result in some commercial customers paying less for water.*

*There will be some relative price movements between commercial customers but this by itself does not signify that there is currently a cross-subsidy. A cross-subsidy would arise where a customer is charged a price that sits outside the Baumol Band (ie below avoidable cost or above the stand-alone cost). The Baumol Band acknowledges that a range of prices can be charged to a different set of customers, yet still remain within the band and, hence, without a cross-subsidy.”*

#### 4.10.3 NCP Assessment Report 2003

The key observations in the NCP Report 2003 were:

*the NCC noted and endorsed the South Australian Parliament's legislative transitional arrangements, which are moving commercial customers towards fully volumetric pricing by 2006-07.*

And (as referred to in the extracts from Part A of the Transparency Statement Part A):

*During the phase-in period, the pricing regimes are likely to result in cross-subsidisation among different customers. ... South Australia's comments in relation to expected changes in the water bills faced by commercial consumers of water services — that about half of all commercial consumers could expect to face a reduction in their water bill when fully volumetric water charges are applying in 2006-07 — suggest that there may also be cross-subsidisation among commercial consumers of water services.*

#### 4.10.4 The Commission's assessment

##### Statewide pricing

At the suggestion of the NCC, the SA Government has assessed the possible existence of cross-subsidies in water supply, using the "Baumol Band" approach (Transparency Statement Part A, P35). The Commission is not in a position to comment on the analysis. However, it does note that the process compares the 'Stand-alone Cost' and the 'Avoidable Cost' with the 'Total Average Cost' for service provision.

As previously identified in the discussion on OMA Costs and Efficient Business Costs (3.2), the NMU Performance Monitoring Report 1998/99 (P 35) indicates Water Supply Operating Costs per Property for Mount Gambier, Outer Adelaide and Whyalla, of around \$115, \$185 and \$470 respectively. The equivalent figure for the Adelaide Metropolitan area, taken from WSAAfacts 2000 (P 92) is of the order of \$160. While it is stressed these are only a component of the 'Total Cost' figures for the respective delivery areas, they do suggest strongly that there would still be considerable variation in their respective 'Total Cost' outcomes.

The variation in total costs of service delivery to various locations in Regional South Australia is an additional dimension of the aggregate case that has been put forward for water pricing purposes.

In that the SA Government is committed to maintaining Statewide pricing, it could be argued that a more in-depth understanding of the extent of "minority of customers who pay less than avoidable cost" is not going to impact on decision making. However, in line with previous comments on Efficient Business Costs and CSOs, recognising the recipients of any cross-subsidies and any impact on CSO requirements, is important in order to focus the attention of existing service providers and potential competitors on those areas where innovation may achieve the greatest cost savings. This should then reduce CSOs, in line with NCC preferences.

**Consumption based pricing for commercial customers**

The Commission recognises the potential for the continued existence of cross-subsidies among commercial customers, during the balance of the phase-in period for consumption-based pricing. However, there appears to be no obvious cause for additional action, mainly because it is a sort term issue since consumption-based pricing will be fully implemented for 2006-7 in accordance with an NCC endorsed program.

**4.10.5 The Commission's view on compliance with the COAG principles**

**Adequacy of information: Does the information contained in the Transparency Statement comply with COAG principles?**

In the Commission's view, the Transparency Statement mainly concentrates on putting forward a view that cross subsidy does not exist. The Transparency Statement uses the "Baumol Band" to define cross subsidy and it demonstrate that its costs fall within the band, and hence there is no cross subsidy.

Although this could be seen as complying with the CoAG Principles, the Commission believes that the SA Government will be better served if the major cost differences of serving different customers are examined further.

**Provision of information: Did Cabinet receive this information?**

Cabinet received information leading to the conclusion that the cross subsidies do not exist.

**Sufficiency of information: Was the information provided sufficient to comply with the COAG principles?**

The Commission believes that although compliant with the CoAG principles, the Transparency Statement should provide detailed analysis of cost differences between customer categories and the calculation of CSOs.

The Commission also believes that in order to be consistent with the broader intent of the CoAG strategic Framework, an increased incentive based CSO structure should be implemented that would encourage SA Water to seek out efficiencies in its water operations in non-metropolitan areas.





## 5. CONCLUSION

This is the first time that the SA Government has introduced and published a Transparency Statement for its water pricing decision. It is also the first time that the Commission has been involved in any aspect of water pricing in South Australia. This, in itself, is a major step towards compliance with the COAG water reform strategic framework.

However, as highlighted during this report, there are a number of issues that need further consideration. Although some of these outstanding issues can be easily incorporated in the short term, there are some significant issues that are likely to require a longer time horizon to implement.

The issues that are either currently compliant or require relatively minor additions/changes are summarised in the following table.

Issue	Further consideration required
Demonstration of efficient OMA costs	Further benchmarking works needs to be undertaken to demonstrate a like for like comparison and explanation of where there are differences.
Depreciation amount	Ideally, more transparent calculation and revelation of depreciation amount.
Tariff structures	No further action required
Cross subsidy identification	Identification of cost differences
Tax Equivalent Regime	Moving away from 'total contribution' to tax payments

The following table summarises the areas where more significant work is required to implement the changes/additions.

Issue	Further consideration required
Asset Value	Adjustments to asset values are required for the purpose of price setting, including removal of contributed assets.
WACC	Determination of the appropriate cost of capital for use in price setting.
Annuity	Determination on an annuity amount
Externalities	Development of water resource charging that should apply to SA Water.
Dividends	Demonstration of dividends being consistent with 'commercial reality'

Overall, the Commission considers that the Transparency Statement is a significant step forward in complying with the CoAG principles. The changes and additions proposed in this report, if implemented in future Transparency Statements, would clearly achieve compliance with the CoAG pricing principles for urban water pricing.

With regard to the Terms of Reference:

- (1) The Commission has reviewed the processes undertaken in the preparation of advice to Cabinet and concludes general compliance with the CoAG principles (for the first such process).
- (2) The Commission notes that the Transparency Statement is a fair replication of the actual advice provided to Cabinet. However, in future, Cabinet should consider the Transparency Statements at or before the Cabinet meeting in which the pricing decisions are made.
- (3) The Commission has identified certain additional information (set out above) which it believes would further demonstrate compliance with CoAG principles if adopted in future price setting processes.

## ATTACHMENT A: LETTER TO AND FROM THE NCC

[REDACTED]

ESC0400242

25 February 2004

Mr J Feil  
Executive Director  
National Competition Council  
GPO Box 250B  
Melbourne VIC 3001

Fax: (03) 9285 7477



Level 8  
50 Pirie Street Adelaide  
South Australia 5000  
  
GPO Box 2605 Adelaide  
South Australia 5001  
  
Telephone (08) 8463 4444  
Facsimile (08) 8463 4449  
Freecall 1800 633 592

[www.escosa.sa.gov.au](http://www.escosa.sa.gov.au)  
[escosa@escosa.sa.gov.au](mailto:escosa@escosa.sa.gov.au)

Dear Mr Feil

The Essential Services Commission of South Australia is to undertake an Inquiry into the process undertaken in the preparation of advice to the South Australian Cabinet, resulting in Cabinet making its decision on the level and structure of SA Water's urban water prices for 2004-05, with respect to the adequacy of the application of COAG pricing principles. In undertaking its Inquiry, the Commission is required to consider a document titled *Transparency Statement – Urban Water 2004-05*, which was prepared by Treasury officials for Cabinet.

In order to ensure the Commission is undertaking its assessment in the correct context, the Commission wishes to confirm with the NCC, the relevant COAG pricing principles and interpretation.

Attached is Chapter 3 of the Transparency Statement which sets out the Government's understanding of both the COAG Strategic Framework for the efficient and sustainable reform of the Australian Water Industry and the National Competition Council's interpretation of that framework.

The Commission seeks the confirmation of the NCC that Chapter 3 of the Transparency Statement sets out in totality the relevant principles and is an accurate interpretation of them. The Commission also seeks the advice of the NCC as to whether there are any additional papers or materials on the proper interpretation of the principles to which the Commission should have regard in undertaking its work.

The Commission expects to be set a tight timeframe in which to conduct its Inquiry and accordingly would appreciate the NCC's prompt consideration of these matters.

If you have any queries regarding this matter please contact Mr Rajat Sarawat, Director Pricing and Access (ph: 08 8463 4322)

Yours sincerely

Lewis W Owens  
**CHAIRPERSON**



## National Competition Council

Level 9, 128 Exhibition Street Melbourne 3000 Australia  
GPO Box 2508 Melbourne 3001 Australia  
Telephone 03 9285 7474 Facsimile 03 9285 7477  
Website: [www.ncc.gov.au](http://www.ncc.gov.au)



Ref: sjd672A

9 March 2004

Mr Lewis Owens  
Chairperson  
Essential Services Commission of South Australia  
GPO Box 2605 Adelaide  
South Australia 5001

Dear Mr Owens

Thank you for your letter of 25 February 2004 regarding the inquiry into urban water prices to be undertaken by the Essential Services Commission of South Australia (ESCOSA). You seek the Council's advice on relevant pricing principles and their interpretation, including whether chapter 3 of South Australia's Transparency Statement — Urban Water 2004-05 sets out in totality all relevant principles and is an accurate interpretation of them. You also seek advice on whether there are any additional papers or materials on the proper interpretation of the principles to which ESCOSA should have regard in undertaking its work.

I should explain at the outset that the Council accepted as a useful start (and sufficient for the 2003 NCP assessment) South Australia's undertaking to produce annual transparency statements, on the basis that the annual statements offer a robust investigation of SA Water's pricing behaviour against the 1994 CoAG strategic framework for water reform and the CoAG pricing principles. A significant factor in the Council accepting the transparency statement approach as sufficient for the 2003 NCP assessment was the South Australian Government's undertaking to ask ESCOSA to comment publicly on the statement — with the ESCOSA comments to address the information in the statement and the analysis against the CoAG pricing principles. The Council stated in the 2003 NCP assessments that, in subsequent assessments, it would consider whether the statements and the Government's responses to the statements demonstrate that South Australia is appropriately applying the CoAG water and wastewater pricing obligations.

While accepting in the 2003 NCP assessment the approach of the transparency statement being produced by the Treasury, the Council would

prefer the South Australian Government to request ESCOSA, as the State's independent economic regulator, to produce the statement. ESCOSA has power under its legislation to obtain relevant information and is able to give independent and transparent consideration to water and wastewater price setting.

The data and analysis supporting some of the conclusions in the transparency statement appear to be less than substantial. As an example, I draw your attention to the discussion concerning estimates of efficient business costs. The statement claims that because SA Water's per unit operating costs for urban water are lower than for other large urban water businesses, and because contracts for managing urban water services are allocated through competitive processes, urban water prices are determined on the basis of efficient costs. These statements are questionable. The nature, structure and operating environments of the large urban businesses will vary considerably across jurisdictions. A more appropriate comparison is the change in performance of each business over time. WSAA data indicate that, unlike for almost all large urban water businesses in other jurisdictions, SA Water's per unit operating costs have not been declining over time. The Council accepts that a service delivery competitive tender process increases the pressure to achieve efficient operating costs at the point of selection. The (15.5 year) metropolitan water and wastewater licence recognises, however, that a key objective will be to achieve significant improvement in efficiency and service cost savings. There is only limited evidence in the transparency statement to support the contention that the competitive tender process means the service provider is operating efficiently now, or that the service provider is improving efficiency.

The Council would like ESCOSA, in commenting on the 2004-05 transparency statement, to consider the robustness of the information base and analysis that supports the recommendations on 2004-05 water prices (The Council expects the same consideration of 2004-05 wastewater prices). The Council will look for a better analysis in subsequent pricing transparency statements.

Apart from one comment on asset valuation methodology in section 3.4.1, the Council is satisfied that chapter 3 of the 2005-05 statement reflects the relevant CoAG pricing obligations. Section 3.4.1 should state that the approach in the CoAG pricing principles is that the deprival value methodology be used for asset valuation unless a specific circumstance justifies another method. The discussion on this matter in section 4.3.2 is more accurate.

While not a matter directly relating to the pricing transparency statement, institutional structure is an important element of the 1994 CoAG agenda. Unlike most other jurisdictions, SA Water's prices and service standards are not the subject of independent regulation. In the 2001 and 2002 NCP assessments, the Council proposed that South Australia introduce arrangements to achieve institutional separation such as independent economic regulation of water and wastewater services and/or public price setting process. In the 2003 NCP assessment, the Council concluded that South Australia's current arrangements do not satisfactorily address the

structural separation obligations. While the annual water pricing transparency statements provide a mechanism for addressing questions about the extent of separation in decision making on pricing and service delivery matters, whether or not South Australia satisfactorily addresses its institutional structure obligations depends on the robustness of the annual statements and the Government's responses. This matter is discussed in chapter 3 (sections 3.5.1 and 3.7) of the transparency statement but that discussion does not fully reflect the Council's views.

Finally, the CoAG strategic framework and CoAG pricing principles are the key reference documents that ESCOSA should have regard to in undertaking its work.

I have written to both Ms Vivienne Pring of the Department of Treasury and Finance, and Mr Rod Williams of the Department of the Premier and Cabinet, drawing their attention to the details of this letter. Please feel free to contact me (or Mr Sam Drummond, Water Project Manager on 03 9285 7781) if you would like to further discuss any of the issues I have raised.

Yours sincerely



**John Feil**  
Executive Director

## ATTACHMENT B: ANNUITY CASE STUDY

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### Indicative case study

The following discussion looks at the general form of the relationship between current replacement needs for a typical urban water utility versus the current cost depreciation expense for that utility. It is similar to the analysis referred to in the Report of the Expert Group [Expert Group P 23.]

In the Water Industry, the assets are very long lived. This brings up the crucial issue of 'timing differences' and the often-stark variation between a 'legitimate' depreciation expense calculation and a (say) 30 Year Capital Annuity for the same assets.

As the following two figures would suggest, the investment profiles of Western water utilities exhibit strong similarities across the United States and Australia.

The following case study is to illustrate the impact of the timing of asset acquisition and the long-lived nature of Water Industry assets. The data used relates to the Water Network and a parallel case exists for the Sewer Network. The Case-Study data is all presented in terms of 2000/01 dollars – there is no inflation.

This example is based on actual data for the water supply assets of a moderate urban water utility, employing assets with a replacement value estimated at \$2 Billion. All assets employed, including contributed assets are considered.

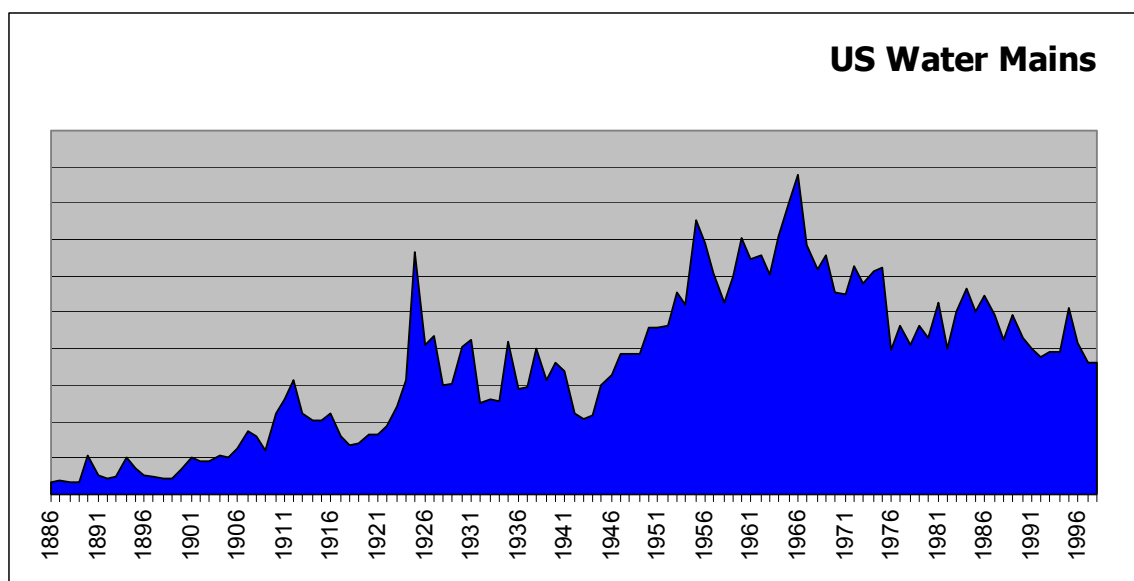
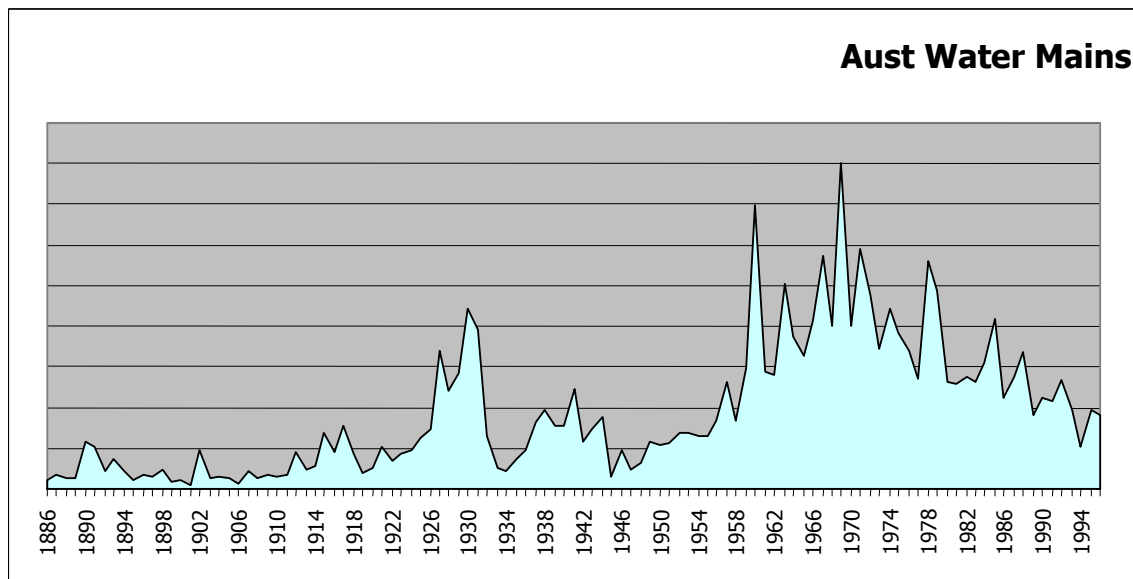
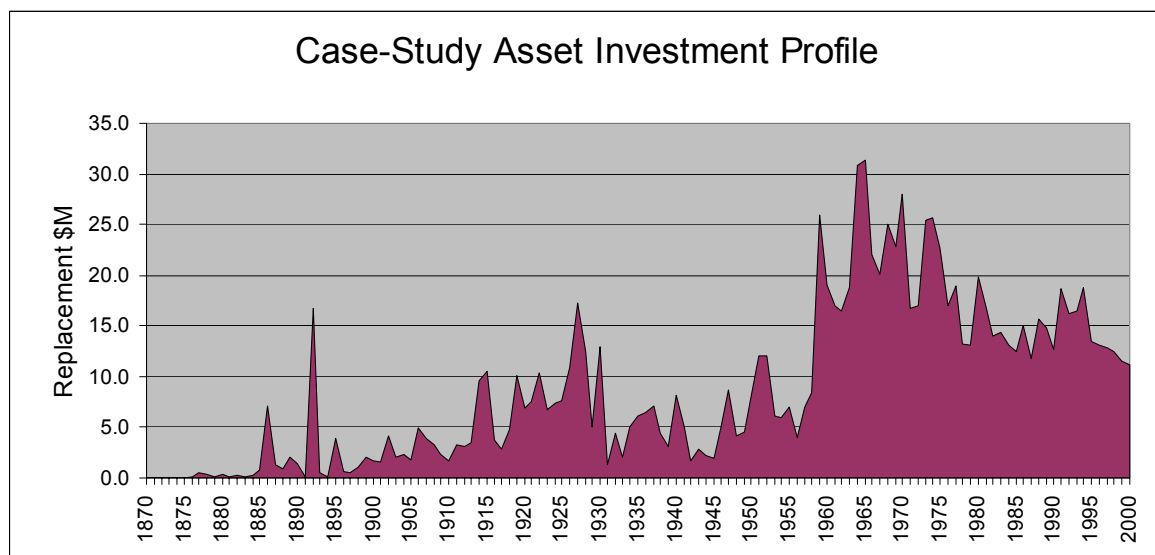


Figure 1: US asset acquisition sample for 18 US agencies (serving 7 million)



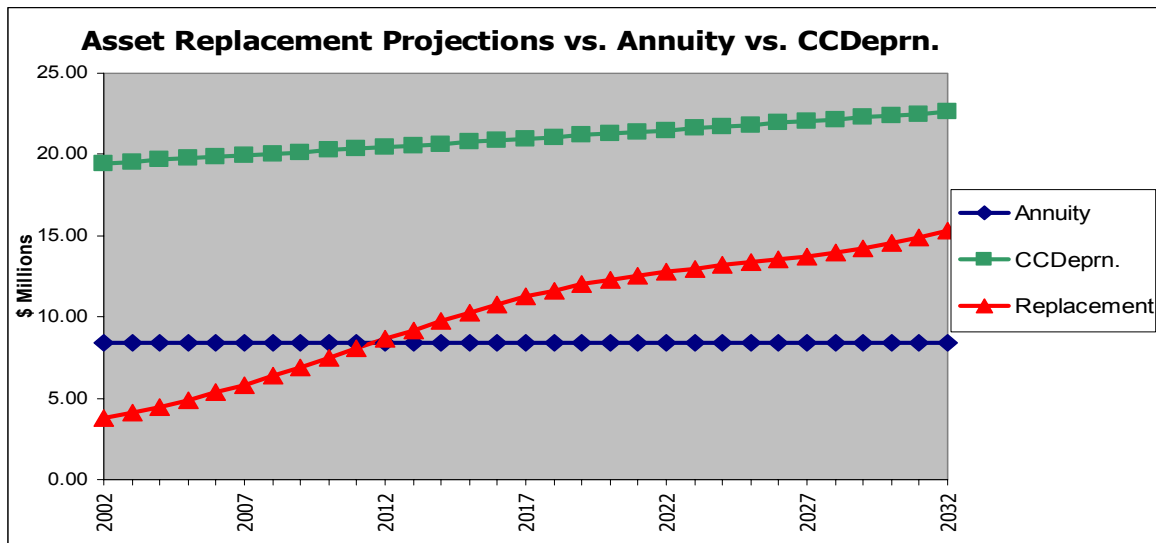
**Figure 2: Australian asset acquisition sample for utilities (serving 6 million people)**



**Figure 3: Case-Study Acquisition Profile**

Comparison of Figures 1, 2 and 3 indicate that the asset acquisition profile of the Case-Study is representative of the US and Australian aggregate cases. Based on the acquisition profile illustrated in Figure 3, and common asset life estimates, the outcomes were a 2001 (straight-line) Depreciation expense of just under \$20 Million, an Annuity figure is just over \$8 Million and replacement projections raising from an initial low of around \$4 Million in 2001 to around \$15 Million in 2031





**Figure 4: Case-Study Annuity vs. Current Cost Depreciation Outcomes**

It is not suggested that there is a simple scalar relationship between the outcomes in the Case-Study and the expected outcomes for SA Water. However, unless there is something extraordinary about either the asset acquisition profile for SA Water or the operating conditions faced by its infrastructure, it is likely that the Annuity result for SA Water water-supply assets would also be significantly lower than the straight-line depreciation expense calculated for those assets.

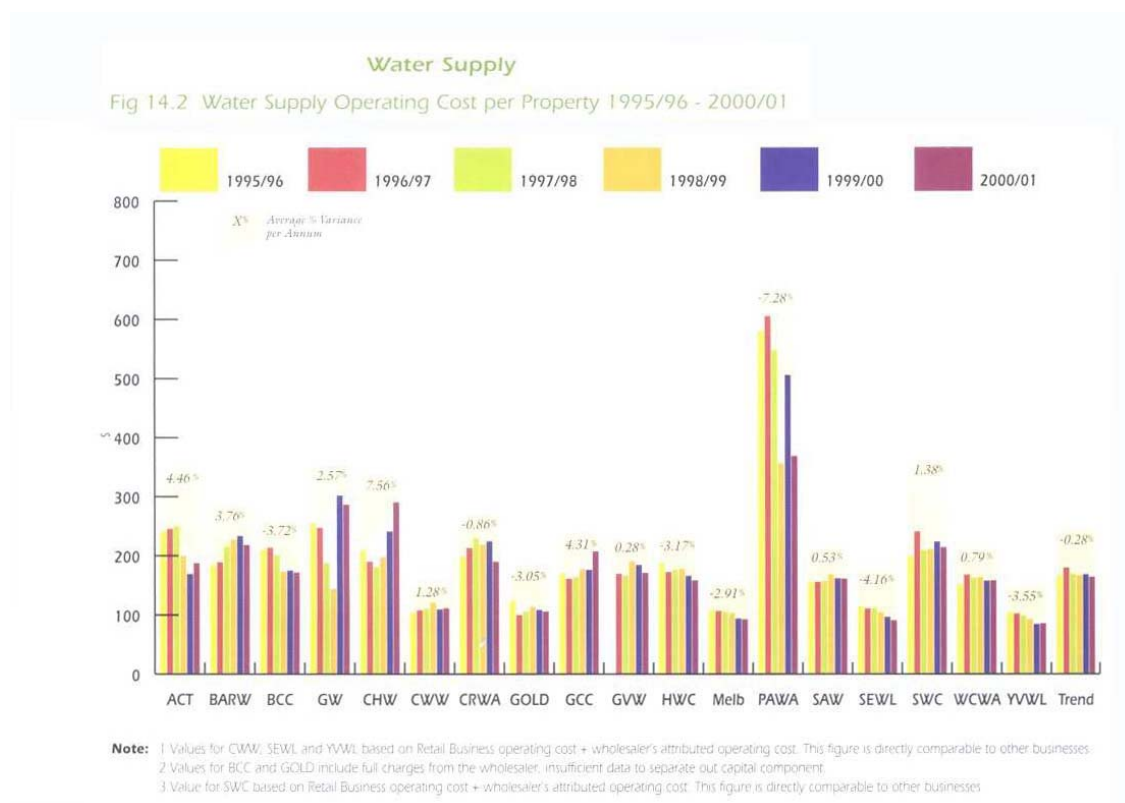


## ATTACHMENT C: SA WATER COMPARATIVE METROPOLITAN URBAN COST PERFORMANCE REVIEW

The use of trend data over the review period for not only the overall Operating Cost per Property, but also its Retail and Wholesale (Treatment & Transmission) components, would be more constructive.

As identified by the NCC, the outcome shown in Figure 5 for SA WATER are fairly stable, while there is a slight overall reduction in the 'Trend' outcomes, being the average outcome for all participants.

**Figure 5: Overall Water Supply Operating Costs per Property**

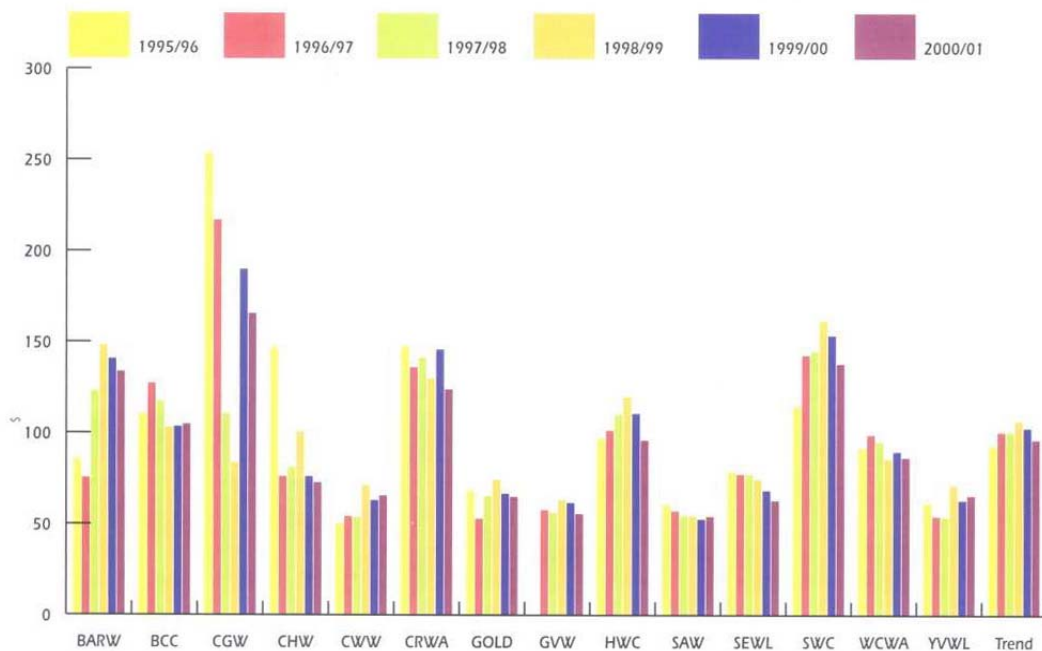


Source: WSAAfacts 2001

Figures 6 and 7 examine the Retail and Wholesale components of the overall costs per property separately.

**Figure 6: Retail Component of Water Supply Operating Costs per Property**

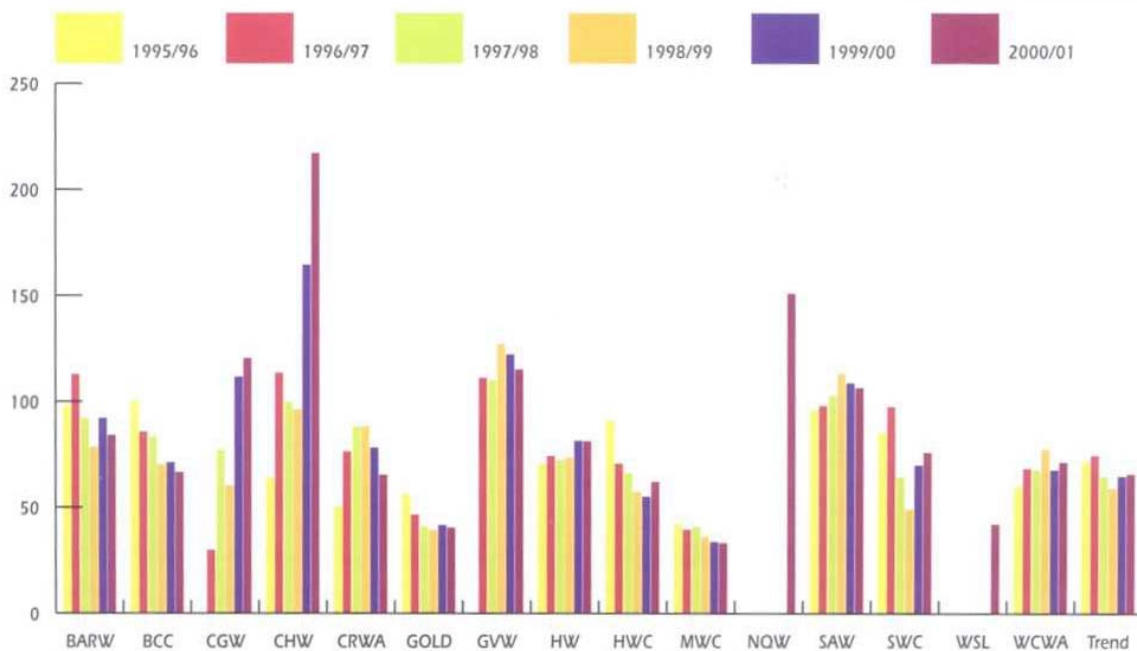
Fig 14.6 Water Supply Retail Operating Cost per Property 1995/96 - 2000/01



Source: WSAAfacts 2001

**Figure 7: Wholesale Component of Water Supply Operating Costs per Property**

Fig 14.11 Water Supply Wholesale Operating Cost per Property 1995/96 - 2000/01



Source: WSAAfacts 2001

In reviewing the outcomes, it should be noted that the Retail element of Operations are arguably the most uniform group of activities and operating environments across the participating Utilities, while the impact of climate (including both long-term and short-term impacts) are most likely to be observed in the Operating costs for Wholesale.

In the above context, it would be noted that SA Water was one of the low-cost leaders during the review period for Retail, while also achieving further reductions during the review period.

The overall outcome of relatively stable (real) costs for the overall outcome is the result of the cost reductions in Retail being off-set by cost increases in Wholesale, in part, due to increased energy costs for pumping.



## ATTACHMENT D: WATER RESOURCE POLICY

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### Water Resource Policy

In February 1994, COAG adopted a strategic framework for the reform of the Australian water industry. The framework covers natural resource management, pricing (including the treatment of cross-subsidies), more rigorous approaches to future investment, trading in water entitlements, institutional reform and improved public consultation. The timetable for implementation requires jurisdictions to adopt charges based on the principles of consumption-based pricing and full cost recovery by 1999, with full cost recovery in respect of rural water supply achieved by 2001.

There are two caveats to the strategic framework. First, while Queensland, South Australia and Tasmania agreed to the broad principles of the framework, they had concerns on the detail of the recommendations. Second, COAG recognised that the speed and extent of water industry reform and adjustment will be dependent on the availability of financial resources to facilitate structural adjustment and asset refurbishment.

The April 1995 agreements link NCP payments to, among other conditions, the implementation of water industry reforms. There were no obligations for water reform attached to the first tranche of payments.

Payments under the second tranche to commence in 1999-2000, will depend on States and Territories effectively implementing the strategic framework for the efficient and sustainable reform of the Australian water industry and future processes as endorsed at the February 1994 COAG meeting and embodied in the Report of the Expert Group on Asset Valuation Methods and Cost-Recovery Definitions (February 1995).

Payments under the third tranche, to commence in 2001-02, will depend on States and Territories giving full effect to, and continuing to fully observe, all COAG agreements on water.

## *Water*

Agreements in relation to water resource policy were made at the following meetings:

COAG	Perth	7 December 1992
COAG	Melbourne	8-9 June 1993
COAG	Hobart	25 February 1994
COAG	Canberra	11 April 1995
ARMCANZ	Hobart	27 February 1998

Extracts pertaining to water industry reform from the Communiqués for each of these meetings are reproduced below. Also provided is the relevant extract from the attachment to the Prime Minister's letter to Heads of Government of 10 February 1997 covering water reform.

The 27 February 1998 ARMCANZ meeting endorsed guidelines for the application of the sections of the 1994 Strategic Framework dealing with assets, the return on assets and asset renewals in the context of cost recovery and subsequent price determination. ARMCANZ has recommended that the guidelines to be considered by COAG as the basis for the NCC's assessment of jurisdictions' obligations on full cost recovery.

### **COAG Perth 7 December 1992**

The Council noted that the issue of appropriate pricing and distribution of water as a resource has been given substantial attention in recent resource policy development at both Commonwealth and State/Territory level. This reflects the intrinsic economic and environmental importance of the issues, and their national nature, which impact on and are of concern to, all levels of government. The Industry Commission and the Ecologically Sustainable Development process have also focussed on water reform issues and proposed that issues such as water pricing and transferability of water entitlements between users need to be further progressed.

The Council agreed to the preparation of a report for their next meeting on the current state of play in both urban and rural water use, as a basis for considering the need for greater impetus to be given to reform in key areas.

### **COAG Melbourne 8-9 June 1993**

As requested at its December 1992 meeting, the Council received a report from



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officials on the current state of play in both urban and rural water use. The report noted that, while progress has been made in reforming pricing, allocation and other aspects of the industry, there are still significant economic and environmental benefits to be derived from adoption of a range of measures to overcome impediments to reform.

The Council has therefore asked a working group of officials with an independent chair, to develop and report on a strategic framework for efficient and sustainable reform of the water industry, which, at the same time, takes account of the technical and policy diversity that exists across the States and Territories. The report is also to address the future roles of the Council of Australian Governments and Ministerial Councils in the reform process, other mechanisms and a proposed timetable for implementation. The report is to be completed in time for consideration by Heads of Government at the next meeting of the Council.

**COAG Hobart 25 February 1994**

The Council considered a report from the Working Group on Water Resource Policy outlining a strategic framework for the efficient and sustainable reform of the Australian water industry. The report had been commissioned by the Council at its June 1993 meeting.

The report noted that, while progress is being made on a number of fronts to reform the water industry and to minimise unsustainable natural resource use, there currently exists within the water industry:

- approaches to charging that often result in commercial and industrial users of water services, in particular, paying more than the costs of service provision;
- major asset refurbishment needs in rural areas for which, in general, adequate financial provision has not been made;
- impediments to irrigation water being transferred from low value broad-acre agriculture to higher value uses in horticulture, crop production and dairying;
- service delivery inefficiencies; and
- a lack of clear definition concerning the role and responsibilities of a number of institutions involved in the industry.

## *Water*

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The report also noted that there is a number of issues and deficiencies involving water and the wider natural resource base that require the attention of governments. These include widespread natural resource degradation which has an impact on the quality and/or quantity of the nation's water resources.

The Council endorsed the strategic framework proposed by the Working Group and agreed to its implementation. Queensland, South Australia and Tasmania agreed to the broad principles but had concerns on the detail of the recommendations. The framework embraces pricing reform based on the principles of consumption-based pricing and full-cost recovery, the reduction or elimination of cross-subsidies and making subsidies transparent. The framework also involves the clarification of property rights, the allocation of water to the environment, the adoption of trading arrangements in water, institutional reform and public consultation and participation.

Implementation of the strategic framework is expected to result in a restructuring of water tariffs and reduced or eliminated cross-subsidies for metropolitan and town water services with the impact on domestic consumers of water services being offset by cost reductions achieved by more efficient, customer-driven, service provision.

In the case of rural water services, the framework is intended to generate the financial resources to maintain supply systems should users desire this and through a system of tradeable entitlements to allow water to flow to higher value uses subject to social, physical and environmental constraints. Where they have not already done so, States are to give priority to formally determining allocations or entitlements to water, including allocations for the environment.

Environmental requirements are to be determined on the best scientific information available and will have regard to the inter-temporal and inter-spatial water need required to maintain the health and viability of river systems and groundwater basins. The Council also agreed where significant future irrigation activity or dam construction is contemplated, that in addition to economic evaluations, assessments will be undertaken to ensure that the environmental requirements of river systems can be adequately met.

Because the changes flowing from the framework are extensive and far reaching in their implications, the Council considered that a five to seven year implementation period will be required. Part of this process will involve governments consulting the community on aspects of the framework. The speed and extent of water industry

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reform and the adjustment process will be dependent on the availability of financial resources to facilitate structural adjustment and asset refurbishment. The detailed decisions of the Council in relation to water resource policy are [contained in the following attachment].

The Council has asked the Working Group on Water Resource Policy to prepare a report for its first meeting in 1995 on progress in implementing the framework with further reports to be prepared annually on progress over the succeeding four years.

**Attachment**

**Water resource policy**

In relation to water resource policy, the Council agreed:

1. that action needs to be taken to arrest widespread natural resource degradation in all jurisdictions occasioned, in part, by water use and that a package of measures is required to address the economic, environmental and social implications of future water reform;
2. to implement a strategic framework to achieve an efficient and sustainable water industry comprising the elements set out in (3) through (8) below;
3. in relation to pricing:
  - (a) in general –
    - (i) to the adoption of pricing regimes based on the principles of consumption-based pricing, full-cost recovery and desirably the removal of cross-subsides which are not consistent with efficient and effective service, use and provision. Where cross-subsides continue to exist, they be made transparent,
      - Queensland, South Australia and Tasmania endorsed these pricing principles but have concerns on the detail of the recommendations;
    - (ii) that where service deliverers are required to provide water services to classes of customer at less than full cost, the cost of this be fully disclosed and ideally be paid to the service deliverer as a community service obligation;

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- (b) urban water services -
  - (i) to the adoption by no later than 1998 of charging arrangements for water services comprising an access or connection component together with an additional component or components to reflect usage where this is cost-effective;
  - (ii) that in order to assist jurisdictions to adopt the aforementioned pricing arrangements, an expert group, on which all jurisdictions are to be represented, report to COAG at its first meeting in 1995 on asset valuation methods and cost-recovery definitions; and
  - (iii) that supplying organisations, where they are publicly owned, aiming to earn a real rate of return on the written-down replacement cost of their assets, commensurate with the equity arrangements of their public ownership;
- (c) metropolitan bulk-water suppliers -
  - (i) to charging on a volumetric basis to recover all costs and earn a positive real rate of return on the written-down replacement cost of their assets;
- (d) rural water supply -
  - (i) that where charges do not currently fully cover the costs of supplying water to users, agree that charges and costs be progressively reviewed so that no later than 2001 they comply with the principle of full-cost recovery with any subsidies made transparent consistent with 3(a)(ii) above;
  - (ii) to achieve positive real rates of return on the written-down replacement costs of assets in rural water supply by 2001, wherever practicable;
  - (iii) that future investment in new schemes or extensions to existing schemes be undertaken only after appraisal indicates it is economically viable and ecologically sustainable;
  - (iv) where trading in water could occur across State borders, that pricing and asset valuation arrangements be consistent;

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- (v) where it is not currently the case, to the setting aside of funds for future asset refurbishment and/or upgrading of government-supplied water infrastructure; and
  - (vi) in the case of the Murray-Darling Basin Commission, to the Murray-Darling Basin Ministerial Council putting in place arrangements so that, out of charges for water, funds for the future maintenance, refurbishment and/or upgrading of the headwork's and other structures under the Commission's control be provided;
- (e) groundwater –
- (i) that management arrangements relating to groundwater be considered by Agriculture and Resource Management Council of Australia and New Zealand (ARMCANZ) by early 1995 and advice from such consideration be provided to individual jurisdictions and the report be provided to COAG;
4. in relation to water allocations or entitlements:
- (a) the State government members of the Council, would implement comprehensive systems of water allocations or entitlements backed by separation of water property rights from land title and clear specification of entitlements in terms of ownership, volume, reliability, transferability and, if appropriate, quality;
  - (b) where they have not already done so, States, would give priority to formally determining allocations or entitlements to water, including allocations for the environment as a legitimate user of water;
  - (c) in allocating water to the environment, member governments would have regard to the work undertaken by ARMCANZ and Australian and New Zealand Environment and Conservation Council (ANZECC) in this area;
  - (d) that the environmental requirements, wherever possible, will be determined on the best scientific information available and have regard to the inter-temporal and inter-spatial water needs required to maintain the health and viability of river systems and groundwater basins. In cases where river systems have been over-allocated, or are deemed to be stressed, arrangements will be instituted and substantial progress made by 1998 to provide a better balance in water resource use including appropriate allocations to the environment in order to enhance/restore the health river systems;

*Water*

- (e) in undertaking this work, jurisdictions would consider establishing environmental contingency allocations which provide for a review of the allocations five years after they have been determined; and
  - (f) where significant future irrigation activity or dam construction is contemplated, appropriate assessments would be undertaken to, inter alia, allow natural resource managers to satisfy themselves that the environmental requirements of the river systems would be adequately met before any harvesting of the water resource occurs;
- 5. in relation to trading in water allocation or entitlements:
  - (a) that water be used to maximise its contribution to national income and welfare, within the social, physical and ecological constraints of catchments;
  - (b) where it is not already the case, that trading arrangements in water allocations or entitlements be instituted once the entitlement arrangements have been settled. This should occur no later than 1998;
  - (c) where cross-border trading is possible, that the trading arrangements be consistent and facilitate cross-border sales where this is socially, physically and ecologically sustainable; and
  - (d) that individual jurisdictions would develop, where they do not already exist, the necessary institutional arrangements, from a natural resource management perspective, to facilitate trade in water, with the provision that in the Murray-Darling Basin the Murray-Darling Basin Commission be satisfied as to the sustainability of transactions;
- 6. in relation to institutional reform:
  - (a) that where they have not already done so, governments would develop administrative arrangements and decision-making processes to ensure an integrated approach to natural resource management;
  - (b) to the adoption, where this is not already practised, of an integrated catchment management approach to water resource management and set in place arrangements to consult with the representatives of local government and the wider community in individual catchments;
  - (c) to the principle that, as far as possible, the roles of water resource management, standard setting and regulatory enforcement and service provision be separated institutionally;

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- (d) that this occur, where appropriate, as soon as practicable, but certainly no later than 1998;
  - (e) the need for water services to be delivered as efficiently as possible and that ARMCANZ, in conjunction with the Steering Committee on National Performance Monitoring of Government Trading Enterprises, further develop its comparisons of inter-agency performance, with service providers seeking to achieve international best practice;
  - (f) that the arrangements in respect of service delivery organisations in metropolitan areas in particular should have a commercial focus, and whether achieved by contracting out, corporatised entities or privatised bodies this be a matter for each jurisdiction to determine in the light of its own circumstances; and
  - (g) to the principle that constituents be given a greater degree of responsibility in the management of irrigation areas, for example, through operational responsibility being devolved to local bodies, subject to appropriate regulatory frameworks being established;
7. in relation to consultation and public education:
- (a) to the principle of public consultation by government agencies and service deliverers where change and/or new initiatives are contemplated involving water resources;
  - (b) that where public consultation processes are not already in train in relation to recommendations (3)(b), (3)(d), (4) and (5) in particular, such processes will be embarked upon;
  - (c) that jurisdictions individually and jointly develop public education programs in relation to water use and the need for, and benefits from, reform;
  - (d) that responsible water agencies work with education authorities to develop a more extensive range of resource materials on water resources for use in schools; and
  - (e) that water agencies should develop individually and jointly public education programs illustrating the cause and effect relationship between infrastructure performance, standards of service and related costs, with a view to promoting levels of service that represent the best value for money to the community;

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8. in relation to the environment:
  - (a) that ARMCANZ, ANZECC and the Ministerial Council for Planning, Housing and Local government examine the management and ramifications of making greater use of wastewater in urban areas and strategies for handling stormwater, including its use, and report to the first Council of Australian Governments' meeting in 1995 on progress;
  - (b) to support ARMCANZ and ANZECC in their development of the National Water Quality Management Strategy, through the adoption of a package of market-based and regulatory measures, including the establishment of appropriate water quality monitoring and catchment management policies and community consultation and awareness;
  - (c) to support consideration being given to establishment of landcare practices that protect areas of river which have a high environmental value or are sensitive for other reasons; and
  - (d) to request ARMCANZ and ANZECC, in their development of the National Water Quality Management Strategy, to undertake an early review of current approaches to town wastewater and sewage disposal to sensitive environments, noting that action is underway to reduce accessions to water courses from key centres on the Darling River system (It was noted that the National Water Quality Management Strategy is yet to be finalised and endorsed by governments.);
9. in relation to water and related research, member governments would:
  - (a) give higher priority to the research necessary to progress implementation of the strategic framework including consistent methodologies for determining environmental flow requirements; and
  - (b) to greater coordination and liaison between research agencies to more effectively utilise the expertise of bodies such as the Land and Water Research and Development Corporation, the Murray-Darling Basin Commission and other State and Commonwealth organisations;
10. in relation to taxation:
  - (a) that a sub-committee of Commonwealth and State officials, established by the Working Group on Microeconomic Reform, meet to discuss taxation issues of relevance to the water industry with a view to reporting, through the Working Group, to the Council within 12 months;



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- (b) to support water-related taxation issues being examined in the proposed Industry Commission Inquiry in Private Sector Infrastructure Funding; and
  - (c) to accept any future consideration of tax compensation payments involving the water industry being dealt with through the Commonwealth State Working Group established at the July 1993 financial Premiers' Conference; and
11. in relation to recommendations (3) through (8):
- (a) that the Working Group on Water Resource Policy would coordinate report to the Council for its first meeting in 1995 on progress achieved in implementing this framework including reductions in cross-subsidies, movement towards full-cost recovery pricing in urban and rural areas and the establishment of transferable water entitlements; and
  - (b) that as part of the monitoring and review process, ARMCANZ, ANZECC and, where appropriate, the Murray-Darling Basin Ministerial Council and the Ministerial Council for Planning, Housing and Local Government would report annually over the succeeding four years, and again at its first meeting in 2001, to the Council of Australian Governments on progress in implementing the various initiatives and reforms covered in this strategic framework.

**COAG Canberra 11 April 1995**

In the lead up to the meeting, the Council agreed to initiatives in the areas of water resource policy and regulatory reform.

The Council agreed to the public release of three documents:

- the Second Report of the Working Group on Water Resource Policy;
- the Report of the Expert Group on Asset Valuation Methods and Cost-Recovery Definitions for the Australian Water Industry<sup>11</sup>; and
- Principles and Guidelines for National Standard Setting and Regulatory Action.

<sup>11</sup> Victoria has noted that COAG's agreement to the public release of the Report of the Expert Group should not be taken to imply endorsement of the Report's recommendations. The Agreement to Implement the National Competition Policy and Related Reforms (April 1995) requires implementation of the strategic framework as endorsed at the February 1994 COAG meeting, and the principles 'embodied in' the Report of the Expert Group.

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- that the modifications be by way of revisions to the clauses in the 1994 framework referring to ground and stormwater management, to incorporate the recommendations in the ARMCANZ papers;
- to endorse the extended water reform framework as the 1996 framework for the strategic reform of Australia's water industry; and
- that Competition Payments referred in the 1995 Agreement to Implement the National Competition Policy and Related Reforms be confined to the 1994 Framework.

**ARMCANZ Hobart 27 February 1998**

On 27 February 1998, ARMCANZ (the Agriculture and Resource Management Council of Australia and New Zealand) Ministers endorsed the SCARM taskforce guidelines for the application of sections of the Strategic Framework and the report of the Expert Group dealing with asset valuation, the return on assets and asset renewals in the context of cost recovery and subsequent price determination. One of the key areas of reform is water pricing where COAG calls for the adoption of consumption based pricing and full cost recovery.

The Task Force, in undertaking this work, commissioned consultants Ernst and Young to assist in the preparation of the guidelines and to develop a financial model for use by water authorities in examining the impact of implementing the COAG requirements for cost recovery under different scenarios. Ernst and Young's report and financial model will provide detailed practical assistance to government agencies and industry in the interpretation and application of the guidelines. The report and model have been exposed to comment from all jurisdictions.

The Task Force also had access to the work undertaken by its member jurisdictions including a study commissioned from consultants Marsden Jacob and Associates by five Victorian rural water authorities.

When all of this work is taken into account, it becomes clear that a prescriptive approach that can be universally applied is not practicable. Indeed to apply a rigid formula to cost recovery is likely to cause unintended consequences in pricing.

ARMCANZ agreed the guidelines should be applicable to the Council's assessments and should be endorsed by COAG as the minimum requirements. These guidelines

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maintain the integrity of the COAG reforms but recognise the range of circumstances peculiar to each water authority that should be considered in determining whether the full cost recovery test is met. It still remains for the guidelines to be endorsed by COAG as the basis for the Council's assessment of jurisdictions' application of full cost recovery obligations.

**Guidelines for the Application of Section 3 of the Strategic Framework and Related Recommendations in Section 12 of the Expert Group**

1. Prices will be set by the nominated jurisdictional regulators (or equivalent) who, in examining full cost recovery as an input to price determinations, should have regard to the principles set out below.
2. The deprival value methodology should be used for asset valuation unless a specific circumstance justifies another method.
3. An annuity approach should be used to determine the medium to long term cash requirements for asset replacement/refurbishment where it is desired that the service delivery capacity be maintained.
4. To avoid monopoly rents, a water business should not recover more than the operational, maintenance and administrative costs, externalities, taxes or TERs [tax equivalent regime], provision for the cost of asset consumption and cost of capital, the latter being calculated using a WACC [weighted average cost of capital].
5. To be viable, a water business should recover, at least, the operational, maintenance and administrative costs, externalities, taxes or TERs (not including income tax), the interest cost on debt, dividends (if any) and make provision for future asset refurbishment/replacement (as noted in (3) above). Dividends should be set at a level that reflects commercial realities and stimulates a competitive market outcome.
6. In applying (4) and (5) above, economic regulators (or equivalent) should determine the level of revenue for a water business based on efficient resource pricing and business costs. Specific circumstances may justify transition arrangements to that level.

7. In determining prices, transparency is required in the treatment of community service obligations, contributed assets, the opening value of assets, externalities including resource management costs, and tax equivalent regimes.

A number of terms used require further comment in the context of these guidelines:

- The reference to *or equivalent* in principles 1 and 6 is included to take account of those jurisdictions where there is no nominated jurisdictional regulator for water pricing.
- The phrase *not including income tax* in principle 5 only applies to those organisations which do not pay income tax.
- *Externalities* in principles 5 and 7 means environmental and natural resource management costs attributable to and incurred by the water business.
- *Efficient resource pricing* in principle 6 includes the need to use pricing to send the correct economic signals to consumers on the high cost of augmenting water supply systems. Water is often charged for through a two part tariff arrangement in which there are separate components for access to the infrastructure and for usage. As an augmentation approaches, the usage component will ideally be based on the long-run marginal costs so that the correct pricing signals are sent.
- *Efficient business costs* in principle 6 are the minimum costs that would be incurred by an organisation in providing a specific service to a specific customer or group of customers, or the minimum amount that would be avoided by not providing the service to the customer or group of customers. Efficient business costs will be less than actual costs if the organisation is not operating as efficiently as possible.