

A BALANCED BARGAIN



**Lewis W Owens
Independent Inquirer
May 2019**

This Report has been produced independently by the SA Water Pricing Inquiry (SAWPI) on the request of the South Australian Government and therefore remains the property of the South Australian Government. The information, statements, statistics and commentary contained in this report have been prepared by SAWPI from publicly available material and from discussions held with stakeholders. SAWPI has based this Report on information received or obtained, on the basis that such information is accurate.

CONTENTS

GLOSSARY	i
EXECUTIVE SUMMARY	1
NOTICE FROM THE TREASURER ESTABLISHING THE INQUIRY	3
1. OVERVIEW	5
1.1 Purpose of the Inquiry	5
1.2 Previous Reports	5
1.3 Submissions and comments	6
1.4 Structure of this report	14
2. BACKGROUND	15
3. REASONABLENESS REVISITED	19
4. A GOVERNMENT PERSPECTIVE IN DEFENCE OF THE INITIAL RAB	23
5. ESCOSA COMMENTS AND ADVICE	33
6. THE ISSUES TO BE ADDRESSED	46
7. REASONABLENESS ASSESSMENT	63
8. ANALYSIS OF THE TWO PERSPECTIVES	70
9. A BALANCED BARGAIN	86
10. THE NEXT STEPS	90
11. APPENDIX 1	91

GLOSSARY

AASB	Australian Accounting Standards Board
ABS	Australian Bureau of Statistics
ADP	Adelaide Desalination Plant
AER	Australian Energy Regulator
APS	Accounting Policy Statement (SA DTF)
BSA	Business SA
CAPEX	Capital Expenditure
CDC	Coorong District Council
CEPA	Cambridge Economic Policy Associates
CoAG	Council of Australian Governments
Commission	Essential Services Commission of South Australia
CPA	Certified Practising Accountants
CPI	Consumer Price Index
CSO	Community Service Obligations
CWSAG	Coorong Water Security Advisory Group
DAC	Depreciated Actual Cost
DORC	Depreciated Optimised Replacement Cost
DRC	Depreciated Replacement Cost
DRD	Draft Revenue Determination
DTF	Department of Treasury & Finance (SA)
DV	Deprival Value
ERA	Economic Regulation Authority (of Western Australia)
ESC	Essential Services Commission
ESCOSA	Essential Services Commission of South Australia
EV	Economic value
EWS	Engineering and Water Supply Department (SA)
FRD	Final Revenue Determination
GCI	General Cost Index
GL	Gigalitre (one billion litres)
GFFCR	Go Forward Full Cost Recovery
GSP	Gross State Product
IPO	Initial Pricing Order
KL	Kilolitre
LITS	Line in the Sand
NCC	National Competition Commission
NWI	National Water Initiative
NPV	Net Present Value
ODV	Optimised Deprival Value
OPEX	Operating Expenditure

GLOSSARY (CONT'D)

ORC	Optimised replacement cost
PP	Pricing Principle
PPI	Producer Price Index
RAB	Regulated Asset Base
ROA	Return on Assets
RS	Regulatory Statement
SA	South Australia
SACOSS	South Australian Council of Social Service
SAFCA	South Australian Financial Counsellors Association
SAFRRRA	South Australian Federation of Residents and Ratepayers Associations Inc.
SAG	South Australian Government
SAIIR	South Australian Independent Industry Regulator
SA Water	South Australian Water Corporation
SAWPI	South Australian Water Pricing Inquiry
TOR	Terms of Reference
TS	Transparency Statement
URB	Upper Regulatory Bound
WACC	Weighted Average Cost of Capital
WICS	Water Industry Commission of Scotland

EXECUTIVE SUMMARY

In early August 2018, the SA Treasurer established an inquiry into water pricing in South Australia. The Inquiry is to help advise the Government if the revenue SA Water is permitted to raise from its drinking water retail services reflects the cost of providing these services, with particular reference to the reasonableness of the Initial value of the regulated asset base (RAB). The Terms of Reference of the Inquiry are detailed later in this report.

This is the fourth report produced by the Inquiry with the fifth and final report due by 30 June 2019.

The Inquiry received eight submissions in response to its third report '**Cautious Conclusion**' and held discussions with a number of stakeholders and interested parties on matters raised. Their views are summarized and reflected in this **Balanced Bargain** report.

The Inquiry held a Workshop in March 2019 attended by over 20 key stakeholder representatives, which considered the matters covered in the **Cautious Conclusion** report. While generally supportive of the report's findings, participants challenged some of the preliminary findings of the Inquiry and a number encouraged a more cautious approach to conclusions which might impact on government funding and support for customer social and economic programs. The participants were keen to emphasise the importance of water to the State and to ensure that any changes as a result of the Inquiry should be managed so they did not harm the long term sustainability of water services.

The Inquiry has therefore revisited its earlier conclusions about the meaning of the term "reasonableness", and has modified its approach, so that now its focus will be on assessing the compliance with legislative requirements and agreement obligations, the credibility of the decisions taken, and the balance reflected in the decision-making process (in terms of consumers versus government interests, long term versus short term considerations, and environment/social versus financial emphasis).

The Inquiry has made a major effort in this report to present and explore what we call 'the government perspective' on the development of the RAB value: this is not necessarily the views of the then government, but rather an attempt by the Inquiry to present the best possible arguments in support of the Initial RAB value.

The Inquiry has altered its previous view that the then government was not entitled to set another RAB in 2013, having already declared a legacy date of 30 June 2006 and accepted that assets installed prior to that date would not receive the full WACC (weighted average cost of capital) return on assets (unless they were doing so at that date). The Inquiry now accepts that the Government was entitled to set a new valuation at the commencement of independent economic regulation in mid 2013 and to set the asset value at a level whereby the Government would receive the expected revenue stream it had foreshadowed in the 2012-13 Regulatory Statement (RS) - with the proviso that this revenue stream had to be determined under the commitments the Government had made in signing the Council of Australian Governments (CoAG) and National Water Initiative (NWI) agreements.

To ensure the arguments against this 'government perspective' were also understood, the Inquiry has presented in some detail the comments of ESCOSA in its review of the Transparency Statements (TS), in which it raised its concerns about the manner in which a number of matters had been treated by the Government: in particular, the way in which pre-corporatisation contributed assets, legacy assets and deprival value had been incorporated.

Following this comprehensive review of the positions supporting a case for no change to the Initial RAB value and a case for addressing these areas of concern, this report examines each of the areas of dispute and analyses the reasonableness of each position. It forms an Inquiry view on what is reasonable, having regard to the revised measures of reasonableness.

The Inquiry finally undertook an analysis of the numbers behind both the government perspective on the RAB value and the views of ESCOSA that there was a case to change the RAB. In the first instance, it used the numbers in the Government's 2012-13 Regulatory Statement (without change) to determine what a credible, balanced and compliant determination of the Initial RAB value might conclude.

The Inquiry also explored a number of other approaches to determining a reasonable RAB value using the Inquiry's views about the appropriate treatment of the matters of concern. This included both a roll-forward of Depreciated Optimised Replacement Cost (DORC) asset values from 2006-07, and a calculation of the RAB value necessary to secure the return on asset revenue target that the government had specified in the 2012-13 RS, and on a revised revenue target calculated by the Inquiry having regard to the achievement of full compliance with the CoAG/NWI obligations.

The Inquiry determined a range of values for a reasonable RAB at 30 June 2013, which was in the range \$7150 million to \$7250 million (in \$ Dec 2012). These are \$520 million to \$620 million below the value set by the Treasurer in May 2013 of \$7770 million (in \$ Dec 2012).

These values would be approximately \$50 million lower if the Inquiry adopted the Economic Value RAB for July 2006 in accordance with the Deprival Value approach, but it has elected at this stage to use the DORC RAB value (subject to further consultation).

The Inquiry concluded that the value of \$7250 million was the highest credible value of the RAB, and is intending to recommend that the Government consider reducing the RAB by \$520 million to achieve this. While the Inquiry believes its analysis supports the lower number of \$7150 million, it accepts that this value does assume acceptance of the Inquiry's views on the treatment of contributed assets, legacy assets and deprival value.

If the Government is unable to agree with the Inquiry's assessment, the Inquiry intends to encourage the Government to consider at least adopting the value from the 2012-13 Regulatory Statement of approximately \$7400 million (in \$Dec 12).

The Inquiry has prepared these revised and refined assessments of credible RAB values, after considering the reasonableness of the process and the issues underlying the differences in opinions. However, as some of its views have changed since the last report, the Inquiry is releasing this report to stakeholders for review and will hold a further Workshop in late May to discuss the feedback received on this latest analysis.

The Final Report will be submitted to the Treasurer by 30 June 2019.

NOTICE FROM THE TREASURER ESTABLISHING THE INQUIRY

The SA Treasurer established the Inquiry on 1 August 2018 with the following Notice:

INQUIRY INTO WATER PRICING IN SOUTH AUSTRALIA

Background

As part of the 2018 State Election the government announced that it would establish an independent inquiry into water pricing in South Australia (Inquiry).

The Inquiry will help to advise the government if the amounts SA Water is permitted to raise from its drinking water retail service reflect the cost of providing these services.

Actual SA Water water charges will not be considered by the Inquiry. Costs included by the Essential Services Commission of South Australia (ESCOSA) by virtue of them being included in a Direction issued by the Minister for Environment and Water under section 6 of the *Public Corporations Act 1993* will also not be considered by the Inquiry.

The Inquiry's Final Report will be considered by the government and may inform the next regulatory determination period for SA water covering 1 July 2020 to 30 June 2024.

Terms of reference

The following are the Terms of Reference for the Inquiry:

1. The Inquiry will consider and report on the following matters relevant to the regulation of SA Water's drinking water services:
 - a) The reasonableness of the opening value of SA Water's regulated asset base (RAB) established by the Second Pricing Order made by the then Treasurer on 17 May 2013, including:
 - i. Asset valuations used to establish drinking water prices in the years leading up to 2013;
 - ii. The process for setting the Initial RAB for 2013;
 - iii. The treatment of customer contributions in setting the Initial RAB;
 - iv. The treatment of the capital costs (and Commonwealth funding) for the Adelaide Desalination Plant in setting the Initial RAB;
 - v. Compliance with the National Water Initiative Pricing Principles in relation to the recovery of capital expenditure;
 - vi. RABs for drinking water services in other jurisdictions, having regard to the key drivers and variables that may affect the value; and
 - vii. Any other matter which may contribute to an understanding of the level of the SA Water drinking water services RAB.
 - b) Whether there should be a change to the value of the Initial RAB (as subsequently adjusted each year since 2013 for depreciation and inflation) for the 2020 Price Determination by ESCOSA.

2. If there are any changes proposed to the RAB valuation, the Inquiry will also consider and report on a possible implementation program and timetable which would ensure a fair and reasonable balance between the interests of consumers and the Government (as Owner of SA Water).
3. The Inquiry will also consider whether there are issues associated with setting the allowed return on the RAB, including whether the methodology should anticipate inflation and returns expected by the market during the relevant regulatory period, to ensure a fair and reasonable balance between the interests of consumers and the Government (as Owner of SA Water).

How the review will be conducted

The Inquiry will be conducted by Lewis Owens as Independent Inquirer.

In conducting the Inquiry, the Independent Inquirer:

1. may have regard to and consider reviews and recent developments and practices in the economic regulation of utilities in other Australian or overseas jurisdictions;
2. may undertake consultation with relevant stakeholders; and
3. may consider any other matter that is viewed as relevant.

Reporting and timing

The Independent Inquirer will provide a report of his findings to the Treasurer by 30 June 2019.


Hon Rob Lucas MLC
Treasurer

July 2018



1. OVERVIEW

1.1 Purpose of the Inquiry

The Inquiry's Final Report will be considered by the Government and may inform the value of the Regulated Asset Base (RAB) and related matters for the mid-2020 regulatory determination by the Essential Services Commission of SA (ESCOSA), covering SA Water's water services over the four-year period 2020/21 to 2023/24.

It is important to emphasize that the findings of the Inquiry will be just one input amongst other advice considered by the Treasurer and the Government in setting the value of the RAB to be specified in a Pricing Order for use by ESCOSA in its determination. The Inquiry does not have the power to determine a revised RAB value: that decision is reserved for the Treasurer.

The purpose of the Inquiry is to review all available information regarding the process used to determine the Initial RAB set in May 2013 (and applied in both the 2013 and 2016 Price Determinations) and the **reasonableness** of that value, having considered the relevant information and the views of stakeholders.

1.2 Previous Reports

The Inquiry commenced operations in early August 2018 and released an **Exploratory Essay** in late August 2018 and a **Diving Deeper** report in late September 2018. Comments were sought from those parties and individuals who have had some involvement in water pricing decisions from the early 2000s.

The Inquiry developed an Excel model to undertake an alternative approach to the development of an opening RAB value for water assets to allow a comparison with the value adopted by the Treasurer in establishing an Initial RAB of \$7.77 billion in the Second Pricing Order of May 2013 (being the value of regulated water assets at 30 June 2013 but expressed in December 2012 dollars).

The proposed alternative approach was explained in the **Diving Deeper** report where we discussed the re-calculation of the water RAB over the period from 1 July 2004 to 30 June 2013. An opening balance in July 2004 of \$4.149 billion was used for water assets; this was derived from the audited statutory accounts value for the SA Water water infrastructure assets and water allocations as at 30 June 2004 less post-corporatization contributed assets of \$94 million. The closing balance of the water RAB at 30 June 2013 was calculated by adding the value of all capital expenditure (capex) and excluding contributed assets and grants, for each year from 1 July 2004, deducting yearly depreciation expenses, and escalating each year's opening balance and half of the capex by the annual CPI (March quarter).

In October 2018, the Inquiry made its model available to interested parties and provided a preliminary re-calculation of the RAB for the water assets of SA Water. The preliminary closing value at 30 June 2013 was re-calculated as \$7.325 billion (in December 2012 dollars) which was some \$445 million below the Initial water RAB value declared by the Treasurer in the Second Pricing Order in May 2013.

During November 2018, the Inquiry received a number of submissions from interested parties in response to the **Diving Deeper** report and subsequently met on a number of occasions with those parties and other individuals to discuss matters raised in the reports and their responses.

The **Cautious Conclusion** report was released in late December 2018 which presented the preliminary conclusions with regard to Term of Reference 1 (although it indicated that these conclusions may be altered as a result of further comments from stakeholders and additional information received). The report also presented some early observations about the remaining Terms of Reference.

A workshop was held on 4 March 2019 to discuss the preliminary conclusions and the submissions received from eight stakeholders on the **Cautious Conclusion** report. The workshop was attended by approximately 20 key stakeholders and provided very useful insights into the issues being addressed by the Inquiry and offered different perspectives to the analysis and conclusions presented in the report (refer to Appendix 1 for a summary of the Workshop discussions). This information, as well as matters raised in the submissions, have been considered by the Inquiry in preparing this **Balanced Bargain** report. This report, and any comments received on it, will form the basis of the final report of the Inquiry to be provided to the Treasurer by 30 June 2019.

1.3 Submissions and comments

The Inquiry released its **Cautious Conclusion** report in late December 2018 and requested comments from stakeholders by mid February 2019.

The Department of Treasury and Finance and ESCOSA have decided not to make formal submissions to the Inquiry, given their roles within government and the sensitivity of the Inquiry's work to their own particular roles. They may elect at a later stage to respond to the Inquiry's findings, but that will be a decision taken at the time.

Both these agencies and SA Water have been most helpful to the Inquiry in responding to our numerous requests for information and access to reports and information. The Inquiry has limited resources and has had to become acquainted with a significant number of complicated decisions made over many decades, and this has required searching files and archives for information that would guide the Inquiry in its work. We apologize for the disruption to the normal operations of these agencies as a result of our multiple requests for information and thank them for their assistance and tolerance.

The Inquiry has sought the views of a limited number of other stakeholders who might be able to assist it in addressing the Terms of Reference. While we have not sought to engage with the general community for their views on water prices (working from the assumption that all consumers would prefer to have fair and reasonable - and preferably lower - water prices), a number of consumer and community groups participated in the Workshop in March 2019 and have made submissions to the Inquiry: we thank them for their contribution to what is a very technical and limited review of past pricing methodology. The role of the Inquiry is restricted to the basic question of whether the value of the Initial regulated asset base (RAB) used by ESCOSA in setting revenues from 2013 onwards was reasonable, having regard to how it was determined by the Government of the day and established as a fixed parameter in the SA Water revenue regulation process through a Pricing Order (issued under the Water Industry Act 2012, Section 35(4)(b)).

Set out below are summaries of the submissions received on the **Cautious Conclusion** report .

Business SA

Business SA is the peak business membership organisation in the State consisting of over 3,000 members. Business SA noted that the Inquiry has thoroughly investigated all possible approaches to how SA Water's RAB could have been constructed and has been helpful for an adequately informed debate on the primary determinant of South Australia's water related charges, including waste-water.

The main points of this submission were:

- The business community has had to deal with high electricity and gas prices over recent years. The tripling of SA Water's potable water price since the late 2000s is another cost driver damaging the competitiveness of local companies, particularly those in the manufacturing and agri-business sector who are facing strong competition from interstate and overseas contemporaries. High water prices also reduce household disposable income which could otherwise be spent in local businesses.
- If appropriate adjustments were made for inflation and contributed/legacy assets, both the Economic Value approach and Depreciated Optimised Replacement Cost (DORC) may have comparable outcomes. A DORC method will still provide the upper value of the RAB, therefore the Government should adopt a conservative estimate of how much the Water RAB should be reduced.
- Although a legal approach to defining what is reasonable is appropriate under administrative law, the primary test of reasonableness in the Inquiry's case should consider the approach an independent regulator would have taken if tasked with determining the value of SA Water's RAB. Evidence from independent regulators interstate should be prioritized over legal definitions of reasonableness.
- An Independent Regulator would have determined the initial 2004 value of the RAB based on the lower of the DORC or EV approach.
- It is clear from regulatory precedents under the National Water Initiative that a reasonable decision would
 - Not capture the value of the declining WACC
 - Remove the value of pre-corporatised contributed assets
 - Correct for CPI inflators
 - Consider the economic value of legacy assets based on prices/revenues reflecting the prior implicit contract with customers; there should be a notional RAB reduction to reflect this.
 - Review capex for efficiency before including it in the RAB
- Country assets should not have been classified as non-legacy; they shouldn't have been categorized as such purely on the basis that CSOs were being paid for these. This treatment would only have been appropriate if rural customers plus CSOs provided a full commercial return.
- The Inquiry's final report should deduct the value of country reservoirs no longer supplying water, or used for recreation.
- The initial submission to the Inquiry highlighted that the former State Government's use of the DORC method without adequate consideration of the EV method was unreasonable. Business SA acknowledges that no approach is perfect, which is why other jurisdictions have typically adopted the lower bound from calculating RAB values using both methods.
- Analysis in the initial submission by Cambridge Economic Policy Associates (CEPA) used a conservative approach for WACC, and choice of present value time-frames.
- If weight is given to the DORC approach, at a minimum, the independent Hunter Water Corporation reports and basis for original DORC valuations should be disclosed.
- The Inquiry should consider the value of all contributed assets between 1965 and 1995 for exclusion from the SA Water RAB; this should include waste-water assets as these accounted for 58 percent of the value of post-corporatised contributed assets. Business SA supports the full \$1,026m (in \$2004) of contributed assets calculated by the Inquiry to reduce the RAB.
- Waste-water asset values in SA Water's asset value calculations are very strong grounds for the Inquiry's final report to include waste-water RAB in its final conclusions.
- The determination of the RAB should be blind to ownership, consistent with National Competition Policy principles.
- Business SA recognizes the need to consider transition arrangements for any RAB adjustment.

South Australian Council of Social Service (SACOSS)

SACOSS expressed its support for the Inquiry as it believed it is appropriate for the Government to ensure due diligence on the reasonableness of the opening value of the regulated asset base (RAB) established by the Second Pricing Order in May 2013.

SACOSS commissioned Mr.I.McAuley to provide an expert opinion which deepened their understanding of the matters at hand and caused a shift in some of their initial thoughts on the matter. The following points have been made by SACOSS with reference to the Inquiry's and Mr McAuley's work on the subject.

The main points of the submission were as follows:

- SACOSS supports the findings of the Inquiry that the decision of the Government to delay the decision on the RAB until the last moment (and appearing to adjust the RAB upwards as the WACC fell) was unreasonable. Given the decision was unreasonable, the question of an appropriate remedy is paramount and therefore there are four significant areas which call for further attention by the Inquiry:
 - Recalculating a 30 June 2013 RAB and treatment of Indexation - the use of CPI probably understates the appropriate rise of the RAB. Over the period 2004 to 2013, construction costs rose faster in SA than nationally and the Inquiry's 'Diving Deeper' report gave no reason for using the CPI. SACOSS recommends that the Inquiry model use different indexes.
 - Treatment of contributed assets – The reasons for exclusion are unconvincing and sinking fund contributions should be treated as any other part of the RAB. There should be some allowance for contributed assets and is a matter for further investigation by the Inquiry.
 - Circularity of economic valuation- The Government, rather than SA Water, is the beneficial owner of the water supply system. Unlike a private shareholder in a public company, the government's objective is unlikely to be to maximize the return on their shares, unless using profits as a means of raising taxes through surreptitious means. In the Government's desire to reduce the RAB it is explicit that it is content to reduce its dividend. No documentation indicates that the price of water has been set by a market or quasi-market method; any RAB derived by calculating the net present value is simply a reflection of the price.
 - Use of deprival value – The deprival value of a financial asset is calculated as the NPV of future benefits to the owner or 'economic value', however calculating the deprival value is relevant only to the beneficial owner of the asset (SA Water is not the beneficial owner) and when those benefits are in the form of financial benefits. The owners are the people of South Australia and their dividends are the surplus value of the benefits of a water supply. On this basis, It is suggested that a deprival value be obtained from a thorough benefit-cost analysis; without this the idea of a deprival value is of no practical relevance to the Inquiry.
- Given the uncertainties around the valuation of the RAB, SACOSS is extremely cautious about how to "correct" for the 2013 decision.
- The Inquiry should conduct its own modelling on the impact on SA Government revenue and report on this.
- SACOSS supports a revenue measure that would replace the lost revenue from the RAB revaluation.

In addition to the comments in the SACOSS summary page, Mr.McAuley made the following comments:

- There were steep nominal and real price rises on domestic water prices, particularly from 2008-09 when the government undertook major investment in water assets in the face of drought and water supply security concerns.
- The combination of price rises and water restrictions resulted in reduction in average consumption which consumers adjusted to (ABS data suggests that water consumption has remained at a lower level) .

- The cumulative effect of the 2004 to 2013 price rises was that nominal prices rose by 220 percent, real prices rose by 150 percent and the average weekly earnings rose by 110 percent. The rise in a household's bill would have been 100 percent (due to the falling usage) when indexed by cpi or 70 percent when indexed by average earnings .
- Governments throughout Australia have done a poor job in explaining the need to invest in water and electricity assets and to pay for those investments through higher prices.
- The government is constrained to operate within the framework of the NWI and must set prices to cover the cost of water supply, including a return on capital
- The Inquiry's various RAB figures involve a reduction of between 5.5 and 13.8 percent of the water RAB; this would represent a reduction of between \$8 m and \$21m in government dividends. In the context of the SA Government revenue, these figures are not large, however if the government sought to offset any loss of revenue by reducing the budget for community service obligations, this would be a significant issue in terms of consumer welfare.
- Comparisons between jurisdictions is not relevant for water and electricity utilities because costs and resultant prices are geographically dependent ; therefore a "building block" approach is more appropriate. In capital intensive industries, the valuation of the RAB is important .
- More substantial shortcomings in SA Water accounts relate to specific assets which may be significantly undervalued, including:
 - Water rights – a reliable valuation cannot be determined as there are no active markets , however these still have a great value to the community
 - Very old assets – have long lives and low depreciation rates
 - Human capital – is expensed, but there is a loss of workforce, performance would suffer and capital costs would be incurred
- There is inequity in the supply charge; consumers with a low water demand pay a much higher average price than high-demand customers. If the supply charge were abolished and absorbed by higher usage charges, the government could display a strong message of equity and SA Water wouldn't need to provide as much capacity (due to lower usage), resulting in a lower RAB. It is acknowledged that the water industry is an industry with high fixed costs and low variable costs and some argue the tariff structure should reflect this structure.

Uniting Communities

Uniting Communities works with South Australians across metropolitan and regional South Australia through more than 100 community service programs . The team of more than 1,500 staff and volunteers support and engage with over 20,000 South Australians each year.

Uniting Communities made the following points in relation to the meaning of "reasonable" :

- The understanding and application of "reasonableness" has been rightly identified by the Inquiry as a core question and is crucial in determining the advice the Inquiry should provide to the Treasurer.
- The best interests of customers should be the driving imperative of regulatory determinations and the prime objective for the regulator (ESCOSA); the Essential Services Commission Act 2002 requires the regulator to protect South Australian consumers' long-term interests with respect to price, quality and reliability of essential services.
- The Inquiry has the capacity to act to reduce prices for consumers, many of whom struggle to meet basic living costs.

- Uniting Communities strongly suggests that “ethical (doing the right thing)” be included in the Inquiry’s existing definitions of
 - Sensible, credible, sound judgment , logical
 - Fair, just, proper, good faith, legal
 - Moderate , prudent, not extreme, pragmatic
- Ethical regulation is an emerging notion and quotes Hodges and Steinholtz (2017) work “Ethical Business Practice and Regulation” which states “*ethical business regulation is an open relationship of trust between businesses and regulators built on evidence that both sides can be trusted.*”¹
- The submission refers to the Water Industry Commission of Scotland (WICS)² who are regarded as a leader in customer engagement in water regulation. WICS have stated that steps to ensure adequate disclosure, no regulatory capture and empower customers and communities to the maximum extent possible include:
 - Engagement
 - Managing risk
 - Monitoring and reporting
 - Governance
- A UK based community organization called SustainAbility First ³, have stated fairness must include the notion of a “sustainable licence to operate “ which includes public purpose, philosophy, compacts for fairness and honest , consistent comparable reporting.
- There are three key messages in relation to ethical regulation
 1. No blame - what is important is what matters now
 2. Fairness and Ethical Practice “do the right thing”- including the perspective of the customers
 3. Sustainable licence to operate - South Australian communities need to be able to trust SA Water to do the right thing with regards to economic efficiency in providing services of acceptable standard and contribute to improved urban and rural environments
- Uniting Communities supports the Inquiry classifications of the various categories into Unreasonable, Not Reasonable , Unfair and Reasonable. The adjustments to the future RAB need to include all categories listed as unreasonable, not reasonable or unfair.
- It is recognized that a transition to reach a revised RAB should occur over the period of the next SA Water regulatory period (2020-2024)
- The right RAB value is the lowest of reasonable estimates as it represents the price that is the lowest and still efficient to be paid by current and future SA Consumers.

South Australian Financial Counsellors Association (SAFCA)

SAFCA provides advocacy, information and support to over 35,000 people and families in financial difficulty in South Australia annually. Although SAFCA’s comments were outside the terms of reference , they wanted to ensure that the voice of financially vulnerable South Australians was heard .

SAFCA made the following points:

- Although not equipped to understand the valuation of the opening RAB, as a matter of principle, the SA Government should accept the lower of the range of reasonable RAB valuations to ensure consumers pay the lowest price.
- Going forward, RAB valuations should be transparent and made clear to the Public that the dividends provided by SA Water to the SA Government (as the sole shareholder) are used to support community services such as schools, hospitals etc.

¹ Hodges, C & R Steinholtz, 2017 . *Ethical Business Practice and Regulation* (2017) , Hart Publishing- p149

² Page 168 of the above publication

³ https://sustainabilityfirst.org.uk/images/publications/fair_for_the_future/24071_F4TF_Fair_STRAWMAN_v8a_WEB_MID-SIZE1.pdf (accessed 3/5/19)

- SAFCA surveyed its members and concluded that all utility bills were difficult to pay but the actual price of water per kl was not their primary concern relative to other utility bills . Those renting privately often found it difficult to access hardship programs through SA Water.
- Members were concerned that a reduction in the dividend paid by SA Water could lead to a decrease in funding for already underfunded community services.
- SAFCA will seek a guarantee from the Treasurer that any decrease in dividend wouldn't impact the community services budget.

Livestock SA

Livestock SA support the Inquiry's findings and are unsure why these findings needed to be "Cautious".

In addition, the following points were made:

- The group supports the assertion that the Inquiry should not take into account the impact on Government revenues and programs supported by SA Water dividend payments.
- Arguments concerning high prices resulting from scarcity of supply are not necessarily correct
- Water industry outputs should be delivered at the lowest possible cost and not based on monopoly profits
- Revenue raised by SA Water should fund renewal and necessary expansion to safeguard its operations and long-term sustainability; these revenues should not be paid to the Government (and consequently result in high water prices)
- The State Government states that it is aiming for the lowest possible cost to do business. Reducing water prices needs to be part of this process ,and should start with a reassessment of the RAB.
- The narrow terms of reference were commented upon in Livestock SA's response to the Inquiry's second report . The group reiterates their disappointment and acknowledges that the decision is reserved for the Treasurer with the Inquiry's findings being just one input amongst other advice to be considered: there could be no change in the way water prices are set.

Coorong Water Security Advisory Group

The Coorong District Council (CDC) and Coorong Water Security Advisory Group (CWSAG) have worked over the last few years to highlight the impact of high SA Water prices on livestock producers, as well as promoting on farm water security technologies and other options to reduce mains water use.

The CDC and CESAG welcome the Inquiry's conclusions , but stand firm on the following:

- The Government must commit to decrease mains water prices rather than committing not to raise prices.
- Financial assistance must be provided to livestock producers in order to reduce reliance on mains water, improve their climate resilience and future water security. This will reduce River Murray water extraction , which is a high priority across the Basin.
- The Group strongly endorses the points made in the Inquiry's last report, and particularly:
 - Asset values account for up to 70% of the price
 - No external independent expert valuation of assets occurred
 - Assets with no further earning potential have been included in the RAB
 - The SA cost of water is higher than in other jurisdictions
 - The removal of Pre-Corporatised contributed assets was never adopted
 - The process for price reviews in South Australia was secretive and limited in its engagement
 - The Inquiry should not take the impact on Government revenues and programs into account

SA Water

SA Water is the State's leading provider of water and sewage services for around 1.7 million people.

SA Water stated that it understands that the price of essential services is very important to its customers, therefore they work to deliver services in the most efficient way possible. SA Water made the following points:

- The Inquiry's benchmarking does not reflect that South Australia has the lowest number of water customers per kilometre of water main and has the longest network of all Australian water utilities. Revenue earned per kilometre is towards the low end when compared with other water utilities.
- Benchmarking the water RAB in isolation can be problematic as it conceals different approaches taken in various states
- An analysis of number of customers to length of mains to demand per customer shows that SA Water provides water services more efficiently than the average of peer organisations; this also demonstrates SA Water's ongoing commitment to improving efficiency over time.
- Changes to the water RAB , combined with potential outcomes based on ESCOSA's rate of return methodology could significantly impact SA Water's revenue. In an extreme case, the long term viability of SA Water could be at risk (with a credit rating falling below the BBB benchmark used in the regulatory framework) . In addition, this could jeopardize SA water's ability to maintain existing levels of service to customers. Analysis indicates SA Water is already generating a lower return on investment than water utilities in other jurisdictions; a reduction in the water RAB will widen this gap.
- The Treasurer, Inquirer or ESCOSA should consider the rate of return methodology.
- The NWI intent was that jurisdictions move to full cost recovery to promote the efficient use of water and wastewater assets whilst removing cross subsidies.
- Various estimates for pre-corporatisation contributed assets were made , however the South Australian government concluded that the preliminary estimates were highly subjective and couldn't be used to value these assets; post corporatisation assets were removed from the RAB as these figures were felt to be more reliable.
- A legacy date of 30 June 2006 was adopted in South Australia and assets purchased up to this date earned a lesser rate of return and locked in the lower prices customers were paying for those assets. Prior to the Government's second pricing order (settling the RAB) in 2013, legacy assets were earning a return of 4.62 percent. When the water RAB was set by the Treasurer in 2013, the legacy water assets were effectively written down in the order of \$0.6 billion (June 2013 dollars) to achieve the 5.06 per cent (pre-tax real) rate of return set by ESCOSA. This action effectively took care of the legacy and contributed asset issue.
- A legacy date was not set for country assets as annual revenue received by SA Water was at full cost recovery with a transparent subsidy from the South Australian Government via Community Service obligation payments. This subsidy has the equivalent impact as reducing the water RAB value. The subsidy remains in place at a fixed nominal amount of \$107.6 million for water and wastewater services.
- The Inquiry approach of de-escalating the closing balance of the water RAB from June 2013 to December 2012 dollars used two CPI data points (March to September 2012) . An alternative approach would be to use four CPI data points as this represents an annual price change and smooths seasonal volatility.
- The models supporting the Inquiry do not appear to include capital expenditure for recycled water assets in the water RAB, the Inquiry's modelling should include capital expenditure in relation to the Glenelg and Southern Reuse Scheme totalling approximately \$90m, or alternatively include this in the Sewage RAB.
- A detailed calculation of regulatory depreciation using the average useful lives from ESCOSA's 2013 final determination would lower the depreciation in the Inquiry calculation by around \$22m.

- The use of CPI to escalate the RAB is common practice for regulators and consistent with ESCOSA’s current approach. However, it is questionable whether CPI is the best asset escalator for businesses with long life assets; the use of the producer price index (PPI) may be more appropriate as it focusses on price changes of production.
- The Adelaide Desalination Plant is a significant asset and insurance for water security in Adelaide and should be fully included in the RAB as the Inquiry has concluded.

South Australian Federation of Residents and Ratepayers Associations Inc (SAFRRA)

The SAFRRA made the following comments:

- Most ratepayers and residents in South Australia are finding SA Water’s water and sewerage charges too high, in particular low income families, pensioners and single parents. Far too many South Australians are forced to be on hardship programs with SA Water to pay for unaffordable water costs. SAFRRA strongly supports that every possible effort should be made to support and have hardship programs in place for all South Australians struggling to pay their water and sewerage bills.
- Water prices in South Australia are adversely affecting business and growth and failing to attract new businesses.
- The shift from the EWS to the corporate body of SA Water was the right decision from an efficiency perspective ; regrettably this cost many EWS employees their jobs
- Asset valuation reviews should be conducted every three years
- Is the Economic Regulation Authority of WA deprival value method using a ten year revenue projection for regulated assets good enough for South Australia?
- Although SA Water and the SA Government were secretive about the increased desalination capacity, this was in the best interests for South Australia.
- ESCOSA price determination for SA Water via a new pricing order was a very good move
- SA Water profits should be redirected towards lower water prices and used for more water security infrastructure projects.
- Current and future technological advances should be factored into pricing any future infrastructure projects.

The Inquiry would like to thank all those who made submissions and provided comments.

It is not possible to respond to every comment and suggestion made, although we hope through continuing our one-on-one conversations with interested stakeholders to discuss these matters and explore their views. Where possible, in the following analysis, we will draw on the comprehensive work undertaken by responders to inform our own analysis and demonstrate how that has been done.

The Inquiry acknowledges that this is a complicated and technical review, and the Inquiry’s reports are difficult to read and comprehend. That, unfortunately, is the nature of this Inquiry. The Inquiry thanks again those who have made the effort to understand the issues and to provide comment on them, but accepts this material is not for everyone. It is a hard slog to read on!

1.4 Structure of this report

This report is structured as follows:

- Chapter 2 addresses some background matters that might assist readers to understand where the Inquirer is coming from and the personal perspectives and prejudices being applied.
- Chapter 3 revisits the definition of “reasonableness” as developed in the Cautious Conclusion report, in the light of feedback and discussion at the March Workshop.
- Chapter 4 sets out the case for not changing the value of the Initial RAB, on the grounds both the process and the outcome were reasonable and complied with the nationally endorsed rules.
- Chapter 5 presents the comments of ESCOSA in the Transparency Statements and advice to the Government, highlighting key areas of contention.
- Chapter 6 explores the key issues regarding any changes to the RAB to address the concerns raised by ESCOSA and supported by many of the submissions to the Inquiry.
- Chapter 7 forms a view as to the reasonableness of the position taken by the Government, and the grounds for recommending a change to the RAB value.
- Chapter 8 presents a detailed analysis of the Government perspective and the Inquiry perspective on the appropriate value of the RAB, and determines different valuations using a number of approaches.
- Chapter 9 uses the previous information to consider the strength of the different views and perspectives, and comes to some conclusions about what a reasonable value and valuation process might constitute.
- Chapter 10 outlines the next steps of the Inquiry, leading to its final report due to be presented to the Government by 30 June 2019.

2. BACKGROUND

This is the penultimate report of the Inquiry, and as such its findings are reaching the stage where they are most likely to feature in the final report to the Treasurer in late June 2019. The Inquiry has traversed a lot of territory, but the time is approaching where it needs to come to firmer views about the reasonableness of the decisions which were taken between 2004 and 2013 and resulted in the determination of the Initial RAB value in May 2013.

In its last report **Cautious Conclusion**, the Inquiry explored the meaning of the term “*reasonableness*”, and this was discussed at the March 2019 workshop with stakeholders. Given the importance to the Inquiry of having a clear view of how to interpret and apply this measure (and its proposed three elements: *sensible, fair and moderate*), the various views of stakeholders on this subject as expressed in their submissions and at the workshop will be discussed in the next Chapter of this report. However, it should be noted that there was general agreement at the workshop that there were special characteristics concerning water that needed to be taken into account in deciding what was reasonable (such as that it was essential for life, it was a public good, and it was fundamental that the water services provided be reliable, healthy and affordable to all). The views of stakeholders extended the interpretation of *reasonableness* into new areas such as “ethical” and “sustainable”, adding a far greater challenge to the task of the Inquiry.

The Inquiry is conducted by one person, and the view of the Inquirer is but one view in a range that ultimately the Treasurer needs to consider in coming to a decision about the value of the RAB to specify for the next pricing determination.

But given the challenge of determining whether previous decisions were reasonable or not, it may be necessary at the outset of this report for readers to understand the Inquirer’s background experience and prejudices, before weighing up the significance of the views presented in the Inquiry’s reports.

The Inquirer was the Chairman of the Essential Services Commission of SA (ESCOSA) and its predecessor (the SA Independent Industry Regulator -SAIIR) from 1999 to 2005. The Inquirer was the signatory to the ESCOSA Part B responses to the first two Transparency Statements in 2004/5 and 2005/6, and as such had a significant role in responding to this initiative of the government.

At the other end of this critical timeline, the Inquirer was the Chairman of SA Water Corporation from July 2011 to June 2017, and specifically at the time the then Treasurer determined the value of the Initial RAB in May 2013. While this determination set a fixed parameter that ESCOSA was required to adopt, and the SA Water Board had no involvement in the discussions leading up to the decision (management provided information to Treasury officials, but it was primarily as a result of discussions between ESCOSA, DTF and the Treasurer), it nevertheless was a matter of significant interest to the Board in terms of the revenues allowed to be earned by SA Water for the period 2013/14 to 2015/16.

It is clear, therefore, that the Inquirer had an indirect involvement in the process now under review in the Inquiry. To some, this may represent a conflict of interest; to others, it gives some comfort that the Inquirer brings a level of understanding of the issues that others do not possess. Readers will have to make their own determination of the Inquirer’s independence and credibility; all I can state is that I had no personal involvement or reputational interest in the process which set the value of the Initial RAB.

My background brings with it certain prejudices, including a belief in good regulatory practices, a desire for the sustainability of SA Water services, and an ambition for delivering the lowest possible prices and top quality water services for all customers in SA.

As the initial independent economic regulator in SA, I hold strong views about the role of regulation in setting prices for regulated industries, and expressed these in a number of papers delivered in my time as the SAIIR and Chairman of ESCOSA. In particular, I advocated for and implemented an approach to regulation called “The ABC of Regulation”, where:

- A = Apply the Act**
- B = Balance the Bargain**
- C = Collaborative Climate**

“Applying the Act” means working within the law, applying whatever the legislation requires you to do and not applying what it does not allow. This does not imply a black letter view of the law, as there is plenty of room within the legislative provisions and regulations for flexible interpretations, but it does mean there are certain things one must do and there are others you must not. In the case of this Inquiry, we are considering whether the decisions taken by the then Government were in compliance with the Agreements that the SA Government entered into in 1994 (CoAG Strategic Framework agreement) and 2004 (the National Water Initiative), and also compliant with their legal obligations under the Essential Services Commission Act and Water Industry Act (the Treasurer’s setting of the Initial RAB was an exercise of statutory power under Section 35(4) of the Water Industry Act, and presumably needed to be exercised in accordance with the objectives of that Act). So the words describing “A” might now need to be expanded to “Apply the Act and Agreements”.

“Balance the Bargain” refers to an underlying principle behind the practice of economic regulation, which is applied to the management of “natural monopolies” such as the key energy/water/telco/transport utilities where a degree of monopolistic power means that there cannot be a reliance on the market to deliver efficient prices. The so-called “bargain” is the implicit agreement between asset owners and customers for a guaranteed price in return for an agreed level of service: price regulation must balance the bargain such that customers receive a specified level of service without the abuse of monopolistic pricing. The Balanced Bargain should support the ongoing investment by the owner in maintaining or improving services, but in a way where incentives drive up efficiencies and customers share in these gains through lower prices and better service.

“Collaborative Climate” refers to the way in which the regulatory regime should operate, reflecting the need for transparency and shared gains. Owners of regulated assets have much greater knowledge of their assets than customers and regulators, and it is necessary, if there is to be an informed deal, for information to be shared and analysed and reported. The process is as important as the outcome, as there needs to be acceptance by customers that the deal is fair and reasonable to both parties. The practice of regulatory reviews across the country is one of extensive consultation and opportunities for customers to offer their views and analysis, in a formalized and innovative approach to sharing the knowledge and the power.

These views on the role of regulation are ones I intend to apply to the analysis of the process that resulted in the Initial RAB. In other words, did the process and decisions comply with the Agreements entered into by the SA Government (CoAG and NWI) and the provisions of the ESC Act and Water Industry Act; did the decisions fairly balance the interests of the owner and customers; and was the process sufficiently collaborative to allow a proper hearing of the views of stakeholders, and was there sufficient information available to customers to inform those discussions? Sitting over these three key ABC components (or underpinning them?) is the measure of “reasonableness”, which we are to discuss anew in the next Chapter.

The second prejudice referred to above is my desire for the sustainability of SA Water services. Naturally, as a former Chair of this great and important organization, I hope for a continuation of the fundamental work it has performed for 150 years in supporting the South Australian community and business. It is owned by the SA Government on behalf of the community, and each year pays to the government a significant financial return on the investment, which is used by the government to provide community services for all South Australians. There is no desire on my

part to recommend actions that would impact on the long term financial sustainability of SA Water and its ability to pay a return to the government as its owner.

However, my third prejudice is to secure for South Australians the lowest possible water prices and top quality water services, and this needs to be achieved while ensuring the sustainability of water resources and SA Water. Some of the concerns raised in the Workshop about the Inquiry's "cautious conclusion" to recommend a reduction in the RAB was the impact this would have on SA Water's profits and dividends, and on the increased demand for water arising from the lower price.

The Inquiry cannot be everything to everyone; its role is to comment on whether the Initial RAB value of \$7.77 billion was reasonable. The Inquiry has assumed this means its task is to advise if the number is too high or too low, having regard to the information and process used to establish the number. Considerations about the consequential impact on dividends to the government, or whether the RAB should be inflated to increase the cost of water so as to manage the demand for a scarce resource, extend the Inquiry into dangerous territory. To address the latter concern, the government can introduce a tax to reflect the scarcity, in preference to changing the RAB. The RAB has a special significance in price regulation, representing the value of the owner's investment in the business on which a return of and on capital is received; it is not appropriate for it to be given an additional role of pricing scarcity.

The current financial return to the government on its ownership of water assets is substantial, despite the Government paying over \$100 million per annum back to SA Water as Customer Service Obligation (CSO) payments. This is because the SA Government receives the Tax Equivalent Regime payment from SA Water (Commonwealth company tax), which a private investor would be obligated to pay to the Commonwealth Government. The SA Government also receives the margin on SA Water's borrowings (via SA Government Financing Authority) which reflect the difference between the cost at which the government borrows (with its AA+⁴ credit rating) and the assumed cost that SA Water would incur if it borrowed at BBB⁵ credit rating. The dividend is currently greater than the CSO payment, before taking into account the tax revenues and the interest margins. Concern at the impact of a reduced dividend (and tax) payment needs to be balanced by an understanding of the government's total revenue raised from SA Water, and the advantages that would flow to SA businesses and customers from a lower water price that more realistically reflected the actual value of the assets involved.

In summary, the Inquirer's prejudices are such that the approach adopted in the Inquiry will be to judge the process that set the value of the Initial RAB against the legal, contractual and regulatory standards encapsulated in the ABC of Regulation. The view of the "reasonableness" of the Initial RAB value will be influenced by balancing my ambition for the lowest credible value of the RAB with the imperative that it must not negatively impact the long-term financial sustainability of SA Water or the capacity to deliver a secure and safe water supply into the future.

A final comment may be needed in this regard. Those arguing for either no change in the RAB or for a minimalist approach to the Inquiry's "cautious conclusions" appear to hold the view that reducing the RAB will have a calamitous impact on SA Water's ability to maintain the network and will jeopardize supply in the future (and also that the government's revenue stream will be so depleted that it will jeopardize the future of many social programs of great importance to the less fortunate in our society). The Inquirer does not share this view: both of these are manageable outcomes, but not by manipulating the value of the RAB.

A high RAB value obviously provides the owner with a higher return from the business and a higher cash flow from the depreciation, tax and dividend receipts: cash flow (ever important to any business) is higher than if a lower RAB

⁴ www.sa.gov.au/treasury-and-client-lending/safa-financial-markets

⁵ SA Water Regulatory Determination 2016, page 121

applied (and every business owner would be happy to receive it - and in the case of a regulated business, to be guaranteed it!).

However, if SA Water needs to re-invest at some future time in replacing its assets or to raise the standards of customer service or product quality, it has the opportunity to apply for full funding at every regulatory determination for the necessary capital expenditure (which will go into the RAB) and opex (which will go directly into revenue and price). If a contributed asset needs to be replaced, or money spent on its maintenance, the business will ask the regulator for such funding and (if justified) will be approved. And it is important to note that the amounts asked for will be exactly the same, whether the RAB value is currently high or low! All this required future expenditure will go into the allowable revenue and price, and it will be no different if the RAB for existing assets is currently high or low. All necessary expenditure, capex or opex, will be reviewed and endorsed by the regulator to receive a full WACC return or to be built into the price.

The only differences with a lower RAB for existing assets are the revenue, profit and cash flow, and this may mean the business has to borrow more than it would if it had a larger cash inflow. The guaranteed return set by the regulator on new investments will justify the increased borrowings and give a suitable return to the owner on the new investments. Over time, the new capital expenditure will become a higher proportion of the RAB than if the inflated initial RAB value applied, and hence over time the profit will grow at a faster rate (but from a lower base); prices likewise over time will slowly increase at a faster rate than if the original RAB had been higher (but also from a lower base). The main difference will be that the business has to borrow more because it will be less able to fund its capex from internally generated cash.

Eventually, the financials of a business may be such as to question its ability to borrow more, and this may impact the operations by forcing a reduction in expenditure below an acceptable level. But SA Water's gearing ratio (debt to assets) is currently at 45% and well below the regulatory assumption on which it is funded that it is 60% debt funded. Many regulated businesses are 85-90 percent debt funded, so there is nothing fundamentally problematic with this situation for SA Water. It comes down to the questions of whether an owner should get a guaranteed full return on assets they have not paid for, or were built at a time when lower returns were expected; and whether it is fair that payments for the replacement of assets in the future should be paid for by the users of those new assets at that time, or by current users who have paid (indirectly via developers and via current charges) for the assets they are currently using.

The significantly different views expressed at the Workshop on the merits of a high or low RAB were a surprise to the Inquirer, and they have forced a re-think on what might constitute a "reasonable" RAB. This re-think is explored more fully in the following sections, but the Inquirer also notes the comments from Uniting Care and SAFCA about the benefits of lower prices to needy consumers, and from Business SA on the impacts of high prices on a number of their member industries.

As stated above, the Inquirer's prejudices are such that the Inquiry believes its fundamental role is to determine if the Initial RAB was set in accordance with the rules (as they were at the time and evolving), and not set at a higher level because of opportunism or the exercise of monopoly powers (as described by CoAG principles). Were the process and outcome a reasonable exercise of administrative powers?

The Inquirer is of the view that there will be no catastrophe if the number is reduced to a value which is fair (to consumers as well as the owner) and consistent with what other jurisdictions adopted in applying the nationally agreed rules. The business, SA Water, has the ability at each regulatory reset to secure the necessary funding to maintain and grow the business to meet the needs of the State, and through the regulatory process, it will receive the appropriate incentives to do so. It does not need an artificially inflated RAB (if that is the case) for it to continue to deliver quality water services efficiently, safely and reliably. These views, these prejudices or preferences, are to be applied in the analysis that follows in the remainder of this report.

3. REASONABLENESS REVISITED

The first Term of Reference requires the Inquiry to consider the reasonableness of the opening value of the regulated water assets of SA Water, as set by the then Treasurer in the Second Pricing Order in May 2013. The discussion in **Cautious Conclusion** (pages 11 to 13) firstly considered the legal interpretation of the meaning of “reasonableness”, and referred to developments in Australian law following a 2013 High Court decision, from where it could be concluded that reasonableness is now an essential element of administrative decision-making and is implied as a statutory condition on the exercise of discretionary power. But the critical thing to consider is not whether a reviewer could have come to a different decision; it is whether the decision reached was unreasonable in the sense that it falls outside the range of determinations that a reasonable person could conceivably have reached.

The **Cautious Conclusion** discussion proceeded to explore, within that broad legal framework, the standards that a “reasonable” person might apply in making an administrative decision, and proposed three elements that might constitute a “reasonable” decision:

- Sensible, credible, sound judgement, logical
- Fair, just, proper, good faith
- Moderate, prudent, not extreme, pragmatic.

The discussion also included a qualifying component of “in the circumstances”: what is reasonable in one situation might not be so under a different situation.

As indicated, these proposals for how the Inquiry would apply the test of “reasonableness” were discussed at the Workshop in early March 2019. A variety of views were proffered, which teased out further the standards that should be applied.

First, there was a strong view that regard should be had to the special circumstances associated with the provision of water, given particularly the commitments to national water reform and the emerging drought at the time of interest. Water was a public good, delivered to urban and regional communities via a natural monopoly framework (predominantly), and essential to life: its supply needed to be reliable, secure, safe and affordable. The implication within this view was that it might be acceptable to err on the side of a higher RAB, to ensure adequate funding was available to support the system that delivered this essential element of life. Inherent in this view appears to be a proposition that water is a scarce and valuable resource, and the government has priced it accordingly. However, the Inquiry is not convinced that scarcity is a RAB issue: if water is scarce, it could be better addressed by a resource tax or levy and not by inflating the RAB which has a special and specific purpose.

Secondly, the view in the Uniting Care submission that a further element, “ethical”, be added to the three elements proposed by the Inquiry received considerable discussion: a decision based on ethical regulation principles (as proposed by Hodges and Steinholtz) would see a move away from rules based regulation to decisions based on ethical business practices. However, a general view emerged that, while important, this approach did not necessarily add to the clarity of the evaluation and could be covered within the element of “fair”.

Thirdly, the discussion of the proposed element “fair” considered that judgement on this element very much depended on the perspective of the viewer, and that people hold widely different views on what is fair. The discussion considered an alternative description of “Pareto optimality” (that no-one should be worse off), but this is a difficult concept to apply (especially when the base case is the current value of RAB, which if reduced would clearly impact negatively on the government and SA Water). There was also the observation that the element “fair” might conflict with the element “moderate”, as a “moderate” assessment might require that one party did not receive

their fair entitlements. Some proposed the adoption of the Rawlsian view of “justice as fairness”⁶, which promotes and prioritizes the interests of the most disadvantaged members of society. However, the Inquiry is limited to reviewing the reasonableness of the Initial RAB value, and is unable to engage in the setting of prices and support for the most needy. There is a long chain of connection between the RAB, allowable revenue, profits, tax and dividend payments, and the distribution of government receipts to those in need, and the Inquiry has no ability to go beyond the first step in this complicated chain of multiple decisions: that is a matter for the government (and ESCOSA to some degree) to consider.

Fourthly, another consideration raised in the Uniting Care submission was the development in the UK through the organization Sustainability First of its concept of a “sustainable licence to operate”. Under a 3 year project commenced in mid 2018, the Fair for the Future Project ⁷is helping energy and water companies better address the politics of fairness and the environment, through the development of a framework of good practice and standards. The proposed model of the sustainable licence incorporates four pillars, of which the second pillar concerns the use of different types of capital: the current focus on financial and manufactured capital needing to be supplemented by consideration of other forms of capital such as human, social/relationship and intellectual capital. This work is at an early stage and may be more relevant to the work of ESCOSA in the next regulatory determination for SA Water. However, the discussion led to the view that an understanding of the meaning of “reasonableness” had to contain some component of sustainability, whether as an element in its own right or incorporated into one of the other three elements. Again, a view seemed to emerge that a sustainable element of reasonableness would lean towards a moderate or prudent view of any change to the RAB; that it would be an error to reduce the RAB by an excessive amount which compromised the sustainability of SA Water and the delivery of reliable and safe water services.

A number of other interesting issues were raised during the discussion. For example, the question of conflicting objectives was raised, such as implementing nationally consistent approaches versus a strict compliance with the perceived rules (the examples being in the application of Deprival Value methodology and the treatment of legacy assets – which are discussed later in this report). Another matter raised was whether the Inquiry was considering the reasonableness of the process or the outcome – the view of the Inquiry is that it is doing both. A further issue concerned the element of time: what may have been reasonable at the time of the decision may not be considered reasonable with the benefit of hindsight; or whether the concern of the Inquiry is with the short term or long term impacts of changing the RAB?

The view was put that the RAB is set as part of the economic regulation process, which has within its legislation (be it the ESC Act or the Water Industry Act) the requirement to protect the long-term interests of consumers. The Treasurer and Minister are also obligated to operate within these Acts. Accordingly, the objectives and statutory factors in those Acts should be considered in determining if an action or decision was reasonable and in the long-term interest of consumers. The Inquirer is wary about the different interpretations parties place on the “long term interests” of consumers: most “long term” benefits are never delivered because there is no-one who remembers the commitment and can enforce it, and because it is often an excuse for not delivering in the short term. It is questionable whether consumers should suffer in the short term for benefits promised but not guaranteed in the future. What might be intended in this regard is that a decision should not be taken with such short-term benefits as will ensure a crisis in the future, and that is reasonable. But it is not convincing that an entitlement now should be surrendered (or worse, that a current infringement should continue) in the expectation that it will be corrected in the long term. Perhaps the underlying issue here is the question of inter-generational transfers: should the next generation be expected to pay for the consumption of the current generation: and the answer is clearly no. However, the current generation should equally not be expected to pay for the next generation (or to the extent that the current and next generations are alive and both consuming the asset in the future, that they should both be

⁶ Stanford Encyclopedia of Philosophy at <https://plato.stanford.edu/entries/rawls/#JusFaiJusWitLibSoc> (accessed 30/4/19)

⁷ <https://www.sustainabilityfirst.org.uk/fair-for-the-future> (accessed 30/4/19)

paying for it at the time!). An inflated RAB may simply mean that the current generation is paying more than it should, not that the next generation is being dumped upon unfairly.

In discussion on the issue of process versus outcome, the point was made that a good process is important for a reasonable outcome. A good process was seen to address the significant asymmetries of knowledge and power, and it was felt that the Transparency and Regulatory Statement process did not do that effectively. Consumers had extremely limited opportunities to input into the process, and indeed the decision on prices each year was taken by Cabinet before the Statements were released for a very limited period of consultation: it was a foregone conclusion and not open to consumer or expert input. It was felt that the current Inquiry was providing at last an opportunity for consumers and experts to have some input into the process of setting the Initial RAB, something that was not afforded them at the time.

Summary and Response

It is difficult to capture all of the views presented at the Workshop, and not all views were supported unanimously. Given the complexity of analyzing the meaning of reasonableness, this is hardly surprising. Indeed, it was never expected that agreement would be reached on a clearer and alternative view of the key elements identified in **Cautious Conclusion**. However, the discussion has caused the Inquirer to think more carefully about the emphasis to be given to the different elements against which decisions would be assessed.

It is clear that, first and foremost, the assessment must be made of whether a decision was in compliance with the then government's own commitment to comply with the CoAG Strategic Framework and Guidelines and the NWI Pricing Principles, and its obligation to comply with the Water Industry Act provisions: if a decision did not comply, it should be considered as unreasonable.

The next level of assessment is whether the decision was so biased towards the interest of the government, and against the interest of customers, that it should be considered as unfair. This is where the elements identified as key components of the meaning of "reasonableness" must be applied: the Inquiry previously identified them as Sensible, Fair and Moderate. However, the choice of words must not get in the way of the description of what analytical process we are attempting to review.

Sensible was selected as a descriptor of a process that was logical, sound and credible; not open to the criticism of being arbitrary, illogical and being unable to withstand scrutiny. To put it another way more commonly quoted, it had to pass the "Pub Test": it had to make sense! And to make sense, it had to be transparent: stakeholders had to understand the process and the reasons behind decisions, if it was to be accepted. Some stakeholders suggested changing it to sustainable, but in the Inquiry's view, that element is better handled elsewhere. Recognising that the opposite of the term "sensible" could be taken as a blunt criticism, we have opted to change the term to **Credible**.

Fair was the descriptor that caused the most debate, as outlined above. It was seen as a two-edged sword, because it could be used to discriminate against certain groups, it was feared that people would find it hard to agree on the fairness of a decision, and that it would be difficult to apply consistently over time. The other descriptions of this term in **Cautious Conclusion** of "just, proper and good faith" did not help in clarifying the intent behind the word. Fair was intended to describe a decision that took account of the interests of both the government and the customer, but as indicated above, many stakeholders were not specifically interested in a 50/50 sharing, with many endorsing a cautionary approach in favour of the government (as a protector of the viability and sustainability of water services, SA Water and vulnerable customers). It is hard to find a word that describes this nuanced concept, other than the word **Balanced**, which is not meant to imply equal but rather to suggest the decision had regard to the interests of government and consumers, of long-term and short-term implications, and of the impact on environmental as well as financial assets. The important element is that the decision needs to have given

consideration to all these factors, and not ignored the different interests. The nuanced concept of “balance” is reflected in the photo on the cover of this report!

Moderate was always the challenging element in the definition, as it implied caution, not going the full length, holding back from the right decision; the description in **Cautious Conclusion** was “prudent, not extreme, pragmatic”. It did not receive a lot of comments in the Workshop, perhaps because it reflected the views of many that actions need to be restrained and sensitive to the long term implications on sustainability and customers (and particularly the poorer members of society). Some suggested it needed to be changed to “long term interests of consumers”, and others to “sustainable” but the Inquiry is uncomfortable with these: the first because it is not helpful in analyzing decisions (as previously discussed), and the second because it may cause confusion as to whether the decision or the outcome is sustainable. The Inquiry is comfortable that the term “moderate” still describes the characteristics it was classifying, as it was an attempt to identify actions where “the winner takes all” and the interests of the other party are ignored. To the extent that this is now picked up in the revised definition of **Balanced**, the Inquiry has decided to remove this element.

Accordingly, the Inquiry has elected to refine its assessment criteria of actions and decisions to the following elements:

- **Compliance** with Acts, Agreements and Principles specifically endorsed by the government
- Whether decisions were **Credible** (logical and sound, transparent, not open to criticisms of being arbitrary, opportunistic and not making sense)
- Whether decisions were **Balanced** (had regard to the interests of the government and consumers, long term and short term implications, environmental/social as well as financial asset impacts).

It is not clear what impact these changes will have on the Inquiry’s assessment, but the elements are an attempt to respond to the feedback from Workshop participants that a longer term and broader interpretation of “reasonable” was necessary than what was proposed in the **Cautious Conclusion** report.

4. A GOVERNMENT PERSPECTIVE IN DEFENCE OF THE INITIAL RAB

4.1. Purpose

The Inquiry has suggested earlier in this Report that the test of ‘reasonableness’ is whether the then SA Government’s decision on the value of the Initial RAB was compliant with its legal obligations and commitments under national agreements, and whether the decision was both credible and balanced. To answer these questions, it is necessary for the Inquiry to have a very clear understanding of the basic elements of the original decision, and desirably that requires the Inquiry to be capable of presenting the case that the value of the Initial RAB is reasonable.

This Chapter therefore intends to set out the arguments in favour of the case for leaving the value of the Initial RAB unchanged. It has attempted to develop the strongest arguments to support this proposition, by arguing that it was within the government’s rights to set a RAB value just prior to the commencement of independent economic regulation at a value based on preservation of the targeted price/revenue path, and that the process of developing the target revenue/price path complied with the CoAG and NWI pricing principles.

In a similar vein, the following Chapter will explore the views of ESCOSA on this evidence, which might support a case that the value was not reasonable and needs to be changed. In this way, the Inquiry hopes to be able to weigh up the strength of the different views and to make a balanced assessment of the cases.

Terms Used:

CoAG	Council of Australian Governments
CSO	Community Service Obligation (payments)
DORC	Depreciated Optimised Replacement Cost
DRD	Draft Revenue Determination
DTF	Department of Treasury and Finance (SA)
DV	Deprival Value
ESCOSA	Essential Services Commission of SA
EV	Economic Value
FRD	Final Revenue Determination
GFFCR	Going Forward Full Cost Recovery
NCC	National Competition Commission
NWI	National Water Initiative
ODV	Optimised Deprival Value
OMA	Operating, Maintenance and Administration costs
RAB	Regulated Asset Base
RS	Regulatory Statement
SAG	South Australian Government
TER	Tax equivalent regime
TS	Transparency Statement
URB	Upper Revenue Bound
WACC	Weighted average cost of capital

4.2 High Level Summary

There are two arguments that together support the case for the defence of the value of the Initial RAB. They are:

1. The TS/RS process and target revenue outcomes reflected in the 2012-13 RS were fully compliant with the CoAG Strategic Framework and Principles, which the SA Government had committed to as a signatory to the

Competition Principles Agreement; they also were compliant with the NWI Pricing Principles which followed the government's endorsement of the NWI in 2004; and

2. The decision on the RAB value in May 2013 was a legitimate act exercised just prior to the move to independent economic regulation (in accord with the principles behind the Line in the Sand valuation method); and the adoption of an economic value (as opposed to the DORC value) was allowed under NWI Guidelines and met the government's intention to match the price/revenue path it had set in the 2012/13 Regulatory Statement without a price shock to customers.

4.3 The First Argument: Full Compliance

The CoAG Strategic Framework for the efficient and sustainable reform of the Australian water industry was endorsed by the Commonwealth and State governments in February 1994 for implementation over a five to seven year period. It emphasized the principles of consumption based pricing, full cost recovery, the removal or transparency of cross-subsidies, and the full disclosure of CSOs. The Framework also stated that water service providers should earn a real rate of return on the written down replacement cost of assets, so an Expert Group was formed to investigate asset valuation methods and cost recovery definitions.

The Expert Group's guidelines for the application of the CoAG Strategic Framework, endorsed by all governments in 1998-99, outlined two core principles of:

- Avoiding monopoly rents, and
- Maintaining the ongoing commercial viability of the business.

The CoAG Guidelines also included the following principles (amongst others):

- The deprival value methodology should be used for asset valuation unless a specific circumstance justifies another method
- 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
- To avoid monopoly rents, a water business should not recover more than the operational, maintenance and administrative costs, externalities, taxes or TERs, provision for the cost of asset consumption and cost of capital, the latter being calculated using a WACC
- In determining prices, transparency is required in the treatment of CSOs, contributed assets, the opening value of assets, externalities including resource management costs, and TERs.

The compliance with these principles will be discussed below, based on comments of the SA Government included in the various Transparency and Regulatory Statements (Parts A and C) over the period 2004-05 to 2012-13.

4.3.1 Application of the Guidelines

The various TS noted that the guidelines were not precise and that there was a reasonable amount of discretion allowed:

"The SAG has adopted CoAG principles to the extent possible at this time, given time constraints and the need to consider and resolve a range of complex issues, some of which are subject to current or future reviews. (page 5, 04/5 TS Part A)."

"As a signatory to the Competition Principles Agreement and related reforms, the SAG is committed to adopting the CoAG principles. As the CoAG principles are not fully prescriptive, the Government has necessarily made some interpretative decisions in their application, while nevertheless remaining consistent with those principles."(page 16,04/5 TS Part A).

“The CoAG principles on urban water pricing are broad and generic in nature. The CoAG Strategic Framework states, ‘a prescriptive approach that can be universally applied is not practicable’(NCC, 1998, p111).” (page 17,04/5 TS Part A)

“As the Guidelines are not fully prescriptive, the Government has made some decisions on their detailed application in light of SA Water’s particular circumstances and more recent accounting standards and regulatory determinations”. (page 17, 04/5 TS Part A).

4.3.2 Avoiding Monopoly Prices

The Statements claimed compliance with this objective primarily by demonstrating that target revenues were below the Upper Revenue Bound (URB), which was determined by applying a full WACC to the total value of assets (plus depreciation and operating costs). In defining URB, the Statements referred to the CoAG Expert Group position:

“The Expert Group argued that CoAG had initially adopted a limited definition of full cost recovery for urban water service providers because of the complexities of valuing resource degradation. It concluded that the relevant objective for water businesses is full economic cost recovery, and not the recovery of accounting costs (Table 1).

The full economic cost recovery scenario includes an estimate of the opportunity cost of capital, or the return foregone as a result of the service provider’s investment in the assets.

The Expert Group concluded that water businesses should generate maximum returns without resorting to monopoly pricing and that these returns should include the opportunity cost foregone on an investment, specifically using a weighted average cost of capital. It also concluded that where full economic cost recovery is not possible, the business should recover sufficient costs to ensure the ongoing commercial viability of the business (Expert Group, 1995, p33-41).”(page 7, 04/5 TS Part A)

The government also emphasized that, in selecting a target revenue below the URB,

“..it is responsible for achieving an appropriate balance between economic efficiency and other policy matters of broader community concern. The Government’s decision, although consistent with CoAG principles, was heavily influenced by broader community concerns, particularly equity, social justice and regional matters”. (Page ii, 04/5 TS Part A).

The Target revenue did not exceed the URB in any Statement from 2004/05 to 2012/13, and this was evidence that there was no abuse of monopoly power:

“The Government considers that the forecast target revenue is consistent with the CoAG principles of avoiding monopoly profits and ensuring the ongoing financial viability of SA Water, being within the band of the maximum and minimum revenue outcomes.

The Government’s approach to 2005-06 water pricing decisions was influenced by equity and social justice policy, environmental policy and regional policy.”(page 68, 05/6 TS Part A)

4.3.3 Asset Values

The 2004/05 TS set out clearly the approach to valuing the asset base:

“The CoAG guidelines recommend that the deprival value method be adopted for the valuation of relevant assets unless there is justification to use another method. In determining prices, the guidelines also require transparency in the treatment of contributed assets and the opening value of assets.

In its review of the National Access Regime (in 2001) the Productivity Commission noted that the Steering Committee on National Performance Monitoring of Government Trading Enterprises in the 1990s recommended the use of the deprival value method of valuation of assets.

The SAG Accounting Policy Statement, APS3, now requires the fair value basis to be applied to the measurement of non-current assets as per Australian Accounting Standard AASB 1041 (July 2001) Revaluation of Non-Current Assets. Additionally, according to APS3:

“the valuation result derived under fair value will result in no material practical difference from the result obtained under deprival value (generally both will be valued on a written-down (depreciated) current cost basis).”

In accordance with the CoAG guidelines, SA Water assets were valued according to the optimized deprival value (ODV) method for the year ending June 2002.

The Hunter Water Corporation Pty Ltd independently reviewed SA Water’s asset valuation methodology, based on ODV, in May 2002..... 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.”

The SAG considers that there is no practical difference between the 30 June 2003 asset valuations using the ODV approach or the fair value method.

The June 2003 (audited) optimized asset base was rolled forward to June 2004, including adjustments for changes in capital, depreciation and inflation to derive a closing balance as at 30 June 2004. The estimated asset base for June 2005 was then determined by maintaining the June 2004 estimated asset base in constant dollars, adjusting only for depreciation and changes in capital (including contributed assets and capitalized interest).

Contributed assets have been included in SA Water’s asset base in the 2004-05 water price setting process, and are recognized 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.

It is considered, however, that the treatment of contributed assets in future price setting processes should be reviewed in the light of recent regulatory determinations.” (pages 18-21, 04/5 TS Part A).

In 2005/06, the government indicated it had changed its approach to the treatment of contributed assets:

“The CoAG guidelines require that the treatment of contributed assets is transparent when determining prices.

For its 2004-05 water pricing decisions, the Government adopted the approach of recognizing contributions as an asset (at fair value) and revenue when the entity gains control of the contribution, which complies with professional Australian Accounting Standards (ie AASB Urgent Issues Group, 1996, p5). Therefore,

contributed assets were included in the asset base and, to ensure no double counting, the revenue associated with these contributed assets was also included in the forecast Target Revenue.

Although compliant with CoAG principles, the Government has reviewed its policy in recognition of current regulatory practices.

Given the broader acceptance by Australian regulators of removing contributed assets from the asset base, the Government has agreed to remove:

- *Contributed assets from SA Water's regulatory asset base*
- *The associated depreciation from the maximum revenue outcome*
- *Annual capital contributions from the forecast target revenue.*

An important issue is to determine the value of contributed assets to be excluded from the initial regulatory asset value, as at 1 July 2004.

There is no sound information on which an estimate of contributed assets prior to corporatization can be based. The Government, therefore, believes that the most appropriate course of action is to value contributed assets from the date of corporatisation.

The Government considers that the establishment of a best estimate of contributed assets from corporatization and their removal from SA Water's asset base for pricing considerations is consistent with current regulatory practices." (pages 28-29, 05/6 TS Part A)

In 2008/09, the government introduced a new approach to the valuation of assets by adopting a "line in the sand" approach for setting the revenue and rate of return on historical assets in place by 30 June 2006 (called the Go Forward Full Cost Recovery or GFFCR approach):

"The 1994 CoAG Strategic Framework requires water businesses to recover in revenues no more than the upper regulatory bound (URB) and at least the LRB.

The NWI requires that metropolitan water businesses should move towards upper revenue bound pricing (clause 66(i))

Other jurisdictions have notionally achieved URB revenues (and prices) because regulators have adopted the 'line in the sand' approach to determining the regulatory asset value. Under the 'line in the sand' approach, regulatory asset values are reset to achieve a predetermined revenue target.

As a result, interstate utility asset values have generally been significantly revised downwards, regardless of the depreciated replacement cost of those assets.

Thus, the 'line in the sand' approach locks in, on a go-forward basis, existing revenues and existing rates of return on existing (i.e. legacy) assets as at a legacy date.

However, all new and replacement capital investments (less contributed assets) from the same legacy date are required to achieve a full WACC return on the replacement (acquisition) value of those investments, on a go-forward basis.

SA accepts the necessity for consistent approaches to pricing by setting revenues to align with principles for the recovery of capital expenditure adopted in other jurisdictions. Such alignment can be achieved even though SA Water's RAB is based on fair value (depreciated replacement cost).

Consistent with the national approach, the only amendment to the 1994 CoAG Strategic Framework is with regard to the return on assets/recovery of capital expenditure based on a SA legacy date of 30 June 2006.

Other aspects of cost recovery continue to be accounted for in accordance with the CoAG Framework Thus, full cost recovery on a 'go-forward' basis is defined as the sum of:

- *OMA costs*
- *Return of assets (depreciation)*
- *Return on assets based on a SA legacy date of 30 June 2006 consisting of:*
 - *Existing returns on all pre 30 June 2006 existing legacy assets on an on-going basis*
 - *The full WACC recovery of 6% pre-tax real on all post 30 June 2006 new and replacement assets.*

The cost recovery position is referred to herein as “Go Forward Full Cost Recovery” or GFFCR.

The URB continues to identify the maximum revenue bound as if all assets were to earn the full WACC of 6% pre-tax real on their depreciated replacement cost.

Where revenues are set to match GFFCR then, as existing assets are replaced, revenues will gradually adjust over a very long transition period, until the WACC is earned on the depreciated replacement cost of all assets.

GFFCR identifies the revenue amount (including CSOs) that is required to achieve full cost recovery on a go-forward basis (consistent with national approaches).” (page 35-36 08/09 TS Part A).

This approach (of setting both a URB and GFFCR amount) continued through to the final Regulatory Statement of 2012/13. Metropolitan water assets were split into two categories: legacy assets (being those assets in place on 30 June 2006), and new assets (being all capital expenditure after that date); all country assets were declared non-legacy on the grounds they received a CSO historically to deliver a full WACC return.

“The Government’s 2008-09 pricing decision confirmed continuation of its Statewide uniform pricing policy for reticulated water and wastewater.

Consistent with this policy, SA Water provides reticulated water and wastewater services to its customers in South Australian regional areas at prices similar to the metropolitan area. Given higher costs in many regional areas, water and wastewater services are provided to many regional customers at less than total economic cost, including return on assets.

The Government therefore provides SA Water with a CSO payment to ensure full cost recovery. Since 2004, the CSO amount has been calculated as the shortfall between the revenue from regional customers and the URB cost of providing regional services. The URB cost consists of operating costs, depreciation and return on assets (ROA). The ROA is calculated using a pre-tax real WACC of 6%. The CSO payment ensures SA Water earns a 6% rate of return on its regulated assets, and thus the URB is achieved for its regional business.” (page 41 08/09 TS Part A).

On this basis, the government declared country water assets as non-legacy, as they were earning a full commercial return. The government reported that the historical return on (legacy) assets, based on recent history, was 3.1% real pre-tax. The disclosed models in Chapter 8 of the 08-09 TS did not identify the return on legacy assets, but ESCOSA commented in its Part B response to the 2009-10 TS that “The Commission believes that the information provided regarding the WACC is broadly satisfactory and, to the extent that the GFFCR incorporates a separate WACC for new capital expenditure and legacy assets, is consistent with the NWIC draft urban water pricing principles. The Commission also notes that it would have been useful for the TS to set out the calculation of the 30 June 2006 returns on legacy assets.” (pages 36-7).

The calculation of the 3.1% value was not explained, but the Inquiry understands that the calculation was an output of the revenue/pricing model maintained by SA Water at the time. The Cabinet Submissions prepared by SA Water identified the legacy rate of return, and both the model and Cabinet documents were provided to ESCOSA as part of the TS process. ESCOSA did not dispute the rate of return calculated for legacy assets.

With the move to independent price regulation from 1 July 2013, this distinction between legacy and new assets ended, and the asset base at that time was the value declared by the Treasurer in the May 2013 Second Pricing Order.

4.3.4 The Pricing Order

The 2012/13 RS was the final statement of the expected asset values and revenues, prior to the setting of the Initial RAB value in May 2013 (the RS was released in July 2012, with the price increase having been announced in May 2012, so the information was prior to the end of the 2011-12 financial year).

Tables 11 and 12 from the RS set out the average asset values for metropolitan and country for 2012-13 in nominal dollars, and the URB, GFFCR and Target revenue (all numbers in nominal 2012-13 million dollars):

	Metro Legacy	Metro New	Total Metro	Country	TOTAL
Average Regulated asset value	2649	2195	4844	2625	7469
Upper Revenue Bound			623	352	975
GFFCR			547	352	899
Target Revenue			587	323	910

The previous year's RS had values (nominal 12/13 million dollars) for these totals much higher than in the 12/13 RS (being 7654, 999, 922 and 953). The Inquiry understands ESCOSA worked with DTF officials on the numbers in the 2012/13 Regulatory Statement and this resulted in many of the numbers in the 2011/12 Regulatory Statement being reduced.

Table 9 in the 12/13 RS presented the projected changes in the total water asset values (again in nominal million dollars for 2012/13):

Opening balance (1 July 2012)	7266
Capital expenditure	193
Inflation @ 2.5%	178
Depreciation	(148)
Closing balance (30 June 2013)	7489

The reported "average" value for the year was \$7,469 million which was used to calculate the URB and GFFCR. The average number is the mid-point between the opening and closing values, after inflating the opening value to 30 June 2013 values: hence the "average" value is effectively the mid-point value for the year but in 30 June 2013 dollars.

Assuming an inflation of 1.25% for the 6 months, the closing balance converts to \$7,397 million in Dec 2012 dollars, which is \$373 million below the number eventually set by the then Treasurer (the Initial RAB was the value of the regulated asset base at 30 June 2013 expressed in \$ Dec 2012).

The process by which the then Treasurer determined the Initial RAB value is reviewed below and in the following Chapter. It should be noted, however, that in correspondence to ESCOSA in April 2013, the then Treasurer stated that ESCOSA had advised "...the water RAB to increase from \$7.5 billion (based on the Regulatory Statement 2012-13)...." (letter from Treasurer to ESCOSA on 17 April 2013, page 2). It is not clear how this number of \$7.5 billion was

derived from the 12-13RS, unless it is simply a rounding up from the closing or average numbers referred to above. While small in the overall scheme of things, the minor differences make it difficult to tie down exactly how the Initial RAB number was derived.

The then Treasurer had advised ESCOSA in the first Pricing Order that the RAB would not be set until May 2013 (after the draft Final Revenue Determination was completed), so ESCOSA prepared its Draft Revenue Determination without a RAB and released it on 7 February 2013. The ESCOSA comments in the DRD on the process of setting the RAB are described more fully in Section 5.6 in the following Chapter.

ESCOSA had indicated in a letter to the Treasurer dated 5 April 2013 that it had completed the DRD on the understanding that the Treasurer would set the value of the RAB so as to achieve the price paths that were in the 2012/13 RS (plus/minus any adjustments to the capex/opex expenditures identified by ESCOSA in its review relative to those in the RS). The letter also suggested an asset writedown might be necessary to achieve these price caps, given that legacy assets included in the RAB were receiving a 3.1% return but would in future receive the full WACC return. ESCOSA indicated that the value of the WACC used in the Draft Determination was 5.42% real pre-tax.

In the response dated 17 April 2013, the Treasurer referred to ESCOSA's comment about the need for an asset writedown by indicating this was in the context of avoiding a price shock to customers, but that recent interest rate declines had produced the opposite effect: this was not anticipated and may require a different approach in the second Pricing Order. The Treasurer indicated it was his firm view that the Pricing Order should aim to provide customers with price outcomes of similar order to those contemplated in the Draft Revenue Determination. The Treasurer observed that as a general principle, he did not support increasing the value of the RAB as any change would be locked in for future years and would expose customers to potential price shocks if market conditions changed in the future and interest rates increased.

ESCOSA provided a copy of the draft Final Revenue Determination to the Treasurer in early May (based on the parameters outlined in the 17 April correspondence and indicating a final WACC of 5.06% real pre-tax). After review and extensive discussions between the Treasurer and ESCOSA, the Treasurer issued the Second Pricing Order on 17 May 2013 setting the value of the Initial RAB at \$7.77 billion; ESCOSA subsequently incorporated this value into its report and issued the FRD in early June.

The Treasurer noted in the 17 May 2013 correspondence to ESCOSA (accompanying the Second Pricing Order) that events had changed since April where the intention was that RAB values would be unchanged; there had been a significant drop in WACC values between the Draft Determination (5.42% real pre-tax) to the draft Final Determination (5.06% real pre-tax). As a result, RAB values had been revised upwards, but to a level such that the final price impacts on customers should still be more favorable than those in the Draft Determination. The Treasurer concluded that the modest write-up of RAB values was unlikely to be sufficient to expose consumers to price shocks in the longer term, but the government would consider movements in WACC in the lead up to the next regulatory review to ensure there were no unexpected effects.

4.3.5 Summary of the First Argument

The First Argument for retaining the Initial RAB value set by the government is basically that the value was derived through a process that was fully compliant with the CoAG Strategic Framework, the CoAG Guidelines and the NWI Pricing Principles.

The opening value set in May 2013 was based on a "fair value" approach which was allowed by the CoAG rules, required by the SA Treasury valuation instructions, endorsed as compliant by ESCOSA and consistent with CoAG principles for revenue targets at the desired GFFCR level which reflected a lower return on legacy assets.

The treatment of contributed assets was compliant with CoAG (being fully transparent), and indeed exceeded this standard by removing all post-corporatisation contributed assets. It was not possible to determine a reliable value of pre-corporatisation contributed assets.

The revenues collected during the period never exceeded the upper revenue bound and did not therefore represent an abuse of monopoly power. At the point of commencement of independent economic regulation, the RAB was set to deliver the revenue/price targets that had been clearly established in the forward estimates and reported in the 2012/13 Regulatory Statement.

4.4 The Second Argument: A Line in the Sand

The supporting argument in defending the Initial RAB value of \$7770 million is that the Second Pricing Order represented the exercise by the government of the “line in the sand” methodology to set the value of the RAB at the commencement of independent economic regulation in accordance with the methodology used interstate and in compliance with the NWI Pricing Principles.

This argument is not explicit in any of the documents seen by the Inquiry, but could be inferred by some of the responses to questions at the Parliamentary Inquiry (see **Exploratory Essay** pages 21-2) and through the Inquirer’s discussions with those involved. While this may be an *ex post rationalization* of what actually occurred, it still needs to be considered.

The Inquiry explored in its last report the use of “line in the sand” valuation methodology across other Australian jurisdictions, and established that its use to manage potential (large) price increases was applied either at the commencement of corporatisation/commercial operations or independent economic regulation.

This argument maintains that the TS/RS process was not independent economic regulation: it was a process to allow the Government to set water prices from 2004/05 to 2012/13 whilst demonstrating compliance with the CoAG and NWI principles: true independent economic regulation only commenced with ESCOSA’s appointment in 2013. Accordingly, under this argument, it was open to the government to make its decision on the RAB in May 2013 based on the “line in the sand” methodology of maintaining the expected revenue/price at the time (the ‘no shock’ principle). The thinking behind this approach has been illustrated above in the discussion on the Treasurer’s correspondence with ESCOSA at the time.

This argument claims that the Initial RAB is reasonable because it did not result in any unexpected price increase at the commencement of independent price regulation, and indeed it resulted in a better outcome than ESCOSA had set out in its DRD. Implicitly, it was open to the government to choose any value of RAB that delivered the forecast revenue/price outcome based on the GFFCR, and it did not need to adopt the DORC asset values that had been used throughout the TS/RS process.

This view reinforces the Inquiry’s statements in previous reports that the initial RAB as used in economic regulation is just a politico/social economic construct used to set prices at a level the government desires at the commencement of this process. The subsequent regulatory treatment of all capex after that date will ensure that the efficient level of investment occurs and owners receive the necessary incentives to invest and improve efficiencies.

4.5 Inquiry Comments

The review of the then government’s comments through the period 2004 to 2013 indicates:

- A commitment to the CoAG and NWI pricing principles
- A desire to move towards the upper revenue bound in compliance with these principles

- An acceptance (eventually) of legacy assets and a lower return on those assets going forward
- An acceptance of the removal of contributed assets from the RAB but a refusal to do so with pre-corporatisation contributed assets on the grounds that a reliable number could not be determined
- A belief that “fair value” (as used in the SA Water statutory accounts in accordance with the Treasurer’s Instructions) was equivalent to a Deprival Value as required by the CoAG principles.
- A belief that the Target revenues established in the 12/13 RS were a reasonable basis for setting the RAB.
- The declaration of the Initial RAB at the commencement of independent price regulation was the government’s prerogative in accordance with LITS methodology and interstate practice.

4.6 Summary

The Inquiry has attempted in this Chapter to present fairly and in some detail a government perspective as to why the Initial Value of the RAB should not be changed. That case is that it was within the government’s rights to set such a value at that time, it complied with all obligations it was required to meet, and it did not reflect an abuse of monopoly powers as it was based on a revenue target well below the maximum allowable under the CoAG and NWI principles.

These arguments will be tested comprehensively later in this report, but we start the exploration of these points in the next Chapter where we report how ESCOSA viewed the compliance of the TS/RS process with the CoAG and NWI obligations, and review the advice ESCOSA provided to the then government about how the Initial RAB should be set.

5. ESCOSA COMMENTS AND ADVICE

5.1 Purpose

The arguments in support of the Initial RAB value in the previous Chapter drew from statements in the TS/RS Parts A and C documentation in defence of the annual adjustments to the asset values, the Upper Revenue Bound/GFFCR and the Target Revenue, using wherever possible the actual words of the government as presented in those documents. These were supplemented by correspondence that the Inquiry was able to access for the period just prior to the issuance of the Second Pricing Order. The Inquiry also drew on discussions with certain stakeholders to round out the arguments in support of the government perspective, and to articulate some defences that had not necessarily been put publicly by the government or DTF previously.

In this Chapter, the Inquiry attempts to present the views of the independent regulator ESCOSA which was given the role of checking the compliance of the government process with the requirements of the CoAG Strategic Framework and pricing guidelines, and later incorporated the NWI Pricing Principles. These comments were published as Part B of the annual Transparency Statement process, after a short period of public consultation and review (but after the price rises had been announced). The comments are also supplemented by correspondence that the Inquiry was able to access in which ESCOSA provided advice to the then Treasurer about how to establish the Initial RAB.

The purpose of this Chapter is to highlight those areas where ESCOSA challenged some of the assertions in the previous Chapter's defence of the RAB value, to examine the correspondence where ESCOSA provided advice to the then Treasurer on its recommended approach to setting the RAB, and where its comments in the Draft and Final Revenue Determinations are relevant to the Inquiry.

Terms Used:

APS	Accounting Policy Statement (SA DTF)
CoAG	Council of Australian Governments
Commission	Essential Services Commission of SA
CSO	Community Service Obligation (payments)
DORC	Depreciated Optimised Replacement Cost
DRD	Draft Revenue Determination
DTF	Department of Treasury and Finance (SA)
DV	Deprival Value
ESCOSA	Essential Services Commission of SA
EV	Economic Value
FRD	Final Revenue Determination
GFFCR	Going Forward Full Cost Recovery
NCC	National Competition Commission
NWI	National Water Initiative
ODV	Optimised Deprival Value
OMA	Operating, Maintenance and Administration costs
RAB	Regulated Asset Base
RS	Regulatory Statement
SAG	South Australian Government
TER	Tax equivalent regime
TS	Transparency Statement
URB	Upper Revenue Bound
WACC	Weighted average cost of capital

5.2 High Level Summary

In its Part B comments in the Transparency Statements, ESCOSA was required to review and report on the compliance of the process with CoAG guidelines, not the actual outcome of the process:

“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).....
The SAG is a signatory to the CPA and is therefore committed to adopting the CoAG principles.*

*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 principles and whether information relevant to the CoAG principles was made available to Cabinet 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.” (page 9, 04/05 TS Part B)

ESCOSA sought clarification from the NCC about the appropriate documents it should consider in its Inquiry, and was advised that the CoAG strategic framework and CoAG pricing principles were the key reference documents that ESCOSA should have regard to in undertaking its work.

In its first Part B report in the 2004/05 TS, ESCOSA concluded that in general, the process complied with CoAG requirements but specified a number of areas where compliance could be improved. Relevant to this Inquiry, it expressed some concerns at the treatment of contributed assets but supported the approach taken to setting the regulated asset value: this latter view was to be qualified in subsequent years. ESCOSA’s concerns at the treatment of contributed assets continued for the whole period of the Statement process.

Between 2010 and 2013, with the then government drafting a major new piece of legislation for regulation of the water industry, ESCOSA was asked by the then Treasurer to provide advice on the preferred approach for developing a regulatory framework for water, including how to establish a value of the Initial RAB. These comments give further insight into ESCOSA’s views on the approach adopted by the government in determining the Initial RAB in May 2013.

ESCOSA’s views on the above areas will be explored in more detail in the following sections.

5.3 Asset Valuation

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

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

ESCOSA’s assessment in 2004-05 was as follows:

“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).”(page 18, 2004-05 TS, Part B)

However, in the 2005-06 TS, ESCOSA qualified its support:

“The Commission concluded in its 2004 inquiries that SA Water had employed an approach to establishing asset values (the fair value method) that was consistent with the requirements of the CoAG principles (the deprival value method). The basis of the asset valuation has not changed on this occasion.

Of course, as the above quote from APS 3 implies, there may be situations where a valuation under fair value would differ from that under deprival value. However, significant differences are unlikely to arise when valuing water assets. These assets are specialized assets which are unlikely to have observable market values (once installed). In such circumstances both fair value and deprival value should lead to a valuation based on the replacement cost of an asset’s remaining future economic benefits.

The Commission has not conducted an asset valuation of SA Water (which would be beyond the scope of this inquiry) but has satisfied itself that a valuation based on fair value should be consistent with deprival value for these asset types.

Further comfort about the SA Water valuation was provided originally by its independent verification by and against the Hunter Water Corporation Pty Ltd. The TS 2004-05 for Urban Water (upon which the Commission’s 2004 water inquiry was based) reported that a good correlation was found in that verification.

The Government will need to ensure that SA Water’s application of fair value, or any subsequent method applied, remains consistent with the CoAG principles’ deprival value on an ongoing basis. This might, at some point, require the development of separate asset valuations. It is important to recognize that a valuation method used for price setting need not be the same as that used for accounting purposes. Indeed, it is quite common in price regulation for a regulatory asset value to differ significantly from an accounting asset value.”(pages 22-6, 2005-06 TS Part B).

In its comments on the 2007-08 Transparency Statement, ESCOSA noted this was the first opportunity for it to consider the pricing process in the context of the NWI, and observed:

“..that the introduction of the NWI into the assessment increases the scope of water pricing reform beyond that of the 1994 CoAG pricing principles alone, with the stated intent of achieving best practice water pricing. This means that some of the approaches previously adopted now need further improvement.” (page 1, 07-08 TS Part B).

In its detailed assessment of the asset valuation approach, ESCOSA reported as follows:

“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’

NWI Clause 66(i) states:

*‘Metropolitan
Continued movement towards upper bound pricing by 2008.’*

Added to this are the clause 65 outcomes, particularly the outcome “avoid monopoly rents”, which inform the Commission that the asset valuation information presented to cabinet should address the deprival value methodology or the reasons for departure from that.

Transparency Statement Part A identifies continued use of the fair value method of asset valuation.

In previous reports the Commission has agreed that a valuation based on fair value should be consistent with deprival value for SA Water's assets, but noted that there may be situations where a valuation under fair value would differ from that under deprival value.

The use of fair value has been previously attributed to the application of South Australia Government Accounting Policy Statement APS3, which picks up AASB 1041. The Commission also acknowledges that the fair value asset valuation derives originally from a deprival value based valuation conducted in 2002 (as reported in TS 2004-05).

The Commission acknowledges the requirements of accounting standards, which are relevant to financial reporting obligations. However, it is not necessary for an asset base developed for pricing purposes (sometimes called a regulatory asset base) to equate with that used for financial reporting purposes. Indeed, in other regulated industries it is uncommon for these to equate. While the use of fair value may be convenient, and for practical purposes consistent with the pricing principles, TS Part A could better explain the departure from deprival value

The Commission also notes that other jurisdictions have adopted a variety of approaches to asset valuation for water pricing, many of which do not appear to align with the pricing principles. However, this does not necessarily justify similar treatment in SA." (page 28-9, 2007-08 TS, Part B).

5.4 Contributed Assets

In its comments on the first Transparency Statement in 2004-05, ESCOSA stated:

"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 practice.

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 determining the maximum and minimum range for the urban water pricing decision." (page 18, 2004-05 TS Part B).

ESCOSA's concern with the partial removal of contributed assets flowed from the government's stated objective of moving towards URB pricing as required by the CoAG and NWI principles:

"It is also significant that under the NWI, governments will be required to commit to moving towards (and probably to) maximum revenue case pricing by 2008. If the upper bound is based upon an unreasonably inflated asset base for pricing purposes then the result would be a lock-in of excessive prices." (page 25, 2005-06 TS Part B).

The government responded to these comments by undertaking a review of their approach to contributed assets, and in the 2005-06 TS removed contributed assets from the regulated asset base from the date of corporatization of SA Water in July 1995. ESCOSA approved of this approach as being compliant with CoAG principles and certainly more in keeping with the intent of the CoAG principles. Nevertheless, it commented:

"... the Government has only estimated and removed contributed assets since corporatization in 1995. It argues there is no "sound information" available prior to that time. The Commission recognizes that it may be difficult to get an accurate picture of exactly which assets were contributed and that this can complicate their exclusion from pricing considerations. However, it is known that contributions of this type have been

taking place for a very long time and that they possibly constitute a significant proportion of water and wastewater assets.

Combined with the possible risk of asset value lock-in arising through the NWI, it would be timely for the Government to now seek a best estimate of contributed assets pre-1995. An exact figure is unlikely to emerge, but it should be feasible to develop an estimate within a reasonable range based on data for past land and network developments. This would at least provide a more secure basis for adopting an estimate, rather than simply choosing a default of zero.

The Commission believes that fuller compliance with the CoAG principles would result if an estimate of pre-1995 contributed assets was also provided, thereby enabling consistent and more transparent treatment of all contributed assets.” (page 25-6, 2005-06 TS Part B).

The government’s approach to pre-corporatisation contributed assets did not change in either of the 2006-07 or 2007-08 Transparency Statements, prompting the following comments in ESCOSA’s 2007-08 Part B report:

“The Commission has addressed this matter at some length in every past inquiry. It is apparent to the Commission that the Government has taken little or no effective action in response to its previous comments other than to state, on page 14 of TS Part A, that it had “carefully” considered the matter. The Government has stated in prior TSs that it considered there to be no sound information on which to estimate contributed assets prior to 1995.

The discussion in TS Part A of the actions of other jurisdictions in relation to contributed assets concludes with the statement that they are a “legacy issue”. The Commission is unable to reconcile this concept with the pricing principles, which do not refer at all to “legacy issues”.

As the Commission has explained in previous inquiries, the inclusion of contributed assets is likely to result in a significantly over-inflated asset base and therefore an artificially high upper bound. Resultant prices will then also be over-inflated and monopoly rents will be locked in, not avoided. This is clearly at odds with the pricing principles.

Further, inclusion of capital contributions means that customers will be paying for infrastructure twice. In past inquiries the Commission accepted that the adopted approach might comply with the 1994 CoAG pricing principles, in so far as it was at least transparent (in the sense that the implied value of pre-1995 contributed assets is zero). However, even this view is no longer tenable. The Commission has presented clear advice in the past on ways in which a reasonable estimate of pre-1995 contributed assets might be developed.

TS Part A provides no particular indication that any of these suggestions has been addressed. Transparency is not demonstrated by a failure to address the challenge of pre-1995 contributed assets in any meaningful way.” (pages 31-2, 2007-08 TS Part B).

In its comments on the 2008-09 TS, ESCOSA stated:

“This year’s TS Part A introduces an additional argument as to why pre-1995 contributed assets should not be removed from the asset base, pointing to the ‘general principles for consistent approaches to pricing, pending finalization of those principles’.

The Commission understands that this refers to the process being led by the NWC Steering Group on Water Charges to develop principles to achieve consistency in water charging and cost recovery practices across

sectors and jurisdictions. As discussed earlier, these principles are currently in draft form and have not yet been adopted. The Commission is therefore unable to place any significant weight on them at this point.

The Commission has not changed its view that the inclusion of contributed assets is likely to result in a significantly over-inflated asset base and therefore an artificially high upper bound. Resultant prices will then also be over inflated and monopoly rents will be locked in, not avoided. This is clearly at odds with clause 65 of the NWI.” (page 37, 2008-09 TS Part B).

It further commented on the implications of this in the move towards upper bound pricing:

“The Commission notes that the requirement of NWI clause 66(i) is only for movement “toward” the upper bound by 2008. It is not clear when the upper bound should be met, although the Commission assumes that such movement should at least continue beyond 2008.

Consistent with its view in previous inquiries, the Commission’s main concern relates to the estimation of the upper bound itself, in so far as the issues raised earlier in this report, especially around efficient costs, contributed assets and externalities, mean that doubt must exist about the location of the upper bound.

Setting a pathway toward the upper bound presupposes that the upper bound has been identified satisfactorily. The NWC noted its concerns about movement toward an ill-defined upper bound, particularly in relation to contributed assets, in its 2005 NCP Assessment.” (page 62, 2008-09 TS Part B).

5.5 Process for Setting a RAB

In 2010, the government was planning major reforms to the water industry under its Water for Good initiative, including the preparation of a Water Industry Act. In September 2010, the government requested advice from ESCOSA on the valuation of SA Water’s regulatory assets that were in existence at 30 June 2006 (the legacy date) and new and replacement assets that were acquired after that date; and also an appropriate rate of return for legacy assets and new and replacement assets. ESCOSA was to provide this advice having regard to the NWI Pricing Principles, precedents in other jurisdictions and the draft Water Industry Bill. The advice was sought to assist in the development of an Initial Pricing Order (IPO) under the proposed Water Industry Act, with the IPO to apply for the first four year regulatory period commencing 1 July 2012 (subsequently changed to a 3 year period commencing 1 July 2013 due to delays in having the legislation approved). ESCOSA consulted with SA Water in the preparation of its advice, key extracts of which are reproduced below (from a letter to the Treasurer dated 24 December 2010):

“It is the Commission’s position that best practice regulatory principles would entail that the IPO not set a rate of return. That said, it is appropriate and consistent with best practice regulatory principles for the IPO to provide guidance or direction to the Commission as to the methodology to be utilized in determining the rate of return.” (page 3)

“The Commission appreciates that there are transitional issues that will need to be addressed given the introduction of independent economic regulation of the water industry. One of the more complex transitional issues is how the regulatory value associated with past investments should be determined.

In the regulatory context there is a degree of circularity between asset values and prices: asset values are a reflection of future revenue streams, which are dependent on prices; the RAB is an input into pricing decisions.

In other jurisdictions where independent economic regulation has been introduced, it has been common for a one-off decision to be made on the regulatory value of the existing asset base. This approach, has, in

particular, been used where prices are below those that would be derived if a full commercial return were to be provided on the current-day depreciated replacement cost of the assets. That method has become known as the 'line in the sand' approach, reflecting that a line has been drawn between the past and the future, with any future new investment to be valued at cost.

The line in the sand approach involves setting the cost building blocks such that they generate prices or returns that are consistent with existing outcomes – that is, there is an element of back-solving in the process.” (Page 4)

“For new investment, economic principles dictate that prices should be set to provide a full commercial return on the cost of new assets, as well as a return of those investment funds over time (through regulatory depreciation). This is necessary to ensure that an incentive for investment is provided.

However, for past investments, economic principles prescribe only a range (and potentially a wide range) as to what should be assessed as the cost associated with those assets. As the assets used to provide water and sewerage services do not have alternative uses (and are therefore considered as sunk assets), there is little opportunity foregone to society from continuing to use those assets for water and waste water services. Thus the opportunity cost (which is also the value of the assets in their next best use) is likely to be close to zero, and sets the lower limit for the assessed cost of these assets. At the other extreme, if the assessed cost (and therefore prices) is sufficiently high, the customers will be encouraged to disconnect from the water and wastewater systems and become self-sufficient. The point at which the assessed cost encourages such bypass sets the upper limit for what may be considered to be consistent with economic efficiency.

Within this range, other factors may be considered when determining the cost that should be assessed for past investments. Valuation methods that are based upon current day replacement cost are typically an important reference point given that such values are consistent with the outcome that would be predicted to occur (in long run equilibrium) in a workably competitive market and hence at first sight would appear to provide a reasonable outcome. However, other factors should be considered, such as the reasonable expectations and interests of both the regulated business and customers.

Ultimately, there is no single correct answer to how the value of existing assets should be determined.” (Page 5)

“How to determine the appropriate initial asset value

The Commission recommends that the line in the sand approach be implemented with reference to 2009/10, which is the most recent year where SA Water’s actual costs and revenues can be ascertained. Care should be taken, however, to ensure that there are no abnormal (one-off) operating costs or revenues in that year, as such items will be reflected directly in the initial RAB. If any abnormal operating costs or revenues exist, an appropriate adjustment should be made to remove the impact of those items.

The value of the initial RAB can then be set at a level that generates the level of revenue that is observed for that particular year (adjusted if necessary), given the operating expenditure, capital expenditure, commercial WACC and age profile of assets (which is relevant to the depreciation allowance).

The Commission notes that this approach has been adopted by the Victorian Essential Services Commission for determining the initial RAB of the Victorian water businesses.

An alternative approach that has been used in other jurisdictions involves determining forecast costs over a future period of multiple years, and determining the initial RAB as the present value of the forecast future

cash flows. The WA Economic Regulation Authority and the NSW regulator IPART have used this approach in the past.

The Commission does not recommend this alternative approach on the basis that it would first require an assessment of whether or not the forecast expenditure is prudent and efficient. If inefficient forecast expenditure is included, the initial RAB will reflect such expenditure and prices will not be reflective of efficient costs.” (pages 5-6).

Consistency with NWI Pricing Principles

“ A key feature of the NWI pricing principles is a requirement to recover the full cost of new capital expenditure after the legacy date.

Regarding the treatment of legacy assets, the NWI principles are non-specific and would appear to permit either the RAB or the rate of return to be adjusted to create consistency with previous revenue levels. In the discussion behind the intended principles, the narrative would appear to assume that the ‘line in the sand’ would involve setting a RAB to be consistent with past returns, as follows:

- PP9. There are a number of matters that need to be considered in establishing the initial asset base. These include:
- a) the methodology used to value the initial asset base (including decisions on whether and where to draw a ‘line in the sand’). In establishing this initial value, consideration is given to the extent to which past capital expenditure is deemed to be excessive for the needs of current users or was contributed by others and therefore excluded from the initial asset base; and
 - b) the way in which contributed assets are dealt with in the establishment of the initial, and the rolled forward, asset base.
- PP10. It is common practice for some jurisdictions to draw a ‘line in the sand’ to differentiate between past (legacy) investment decisions and new investment decisions. Where a line in the sand is drawn, an opening RAB value is set (which essentially locks in the past rate of return on previous investments). The RAB is then updated (or rolled forward) each year to reflect prudent capital additions, disposals and depreciation).[Emphasis added].

The emphasized text would appear to assume that the RAB would be the identity that is adjusted to take account of the conditions that existed prior to the legacy date.”(pages 7-8).

Summary of Advice

1. The IPO should fix a regulatory value for SA Water’s existing assets – the RAB. This RAB need not be based on the legacy date of 30 June 2006. It is the Commission’s advice that a more recent RAB be fixed under the IPO eg as at 30 June 2010.
2. The IPO may be used to specify the methodology to be used by the Commission in determining the WACC
3. A single regulatory rate of return should be applied to both existing and new assets.
4. In order to prevent a significant price shock in applying a full rate of return to existing water assets, the regulatory value of existing water assets should be written down for regulatory purposes, to derive a pricing outcome that is consistent with the current revenue path. As this would be a regulatory matter, such a write down would not affect the accounting value of the relevant assets: the regulatory value is different, and is used for different purposes, to the accounting value.

The Commission notes that it has consulted with SA Water in developing this advice. SA Water has stated that it has no objections to the Commission's position that the RAB be written down to achieve consistency with current prices." (Page 2).

The ESCOSA advice of 2010 was considered by the government in implementing the changes to the water industry arising from the Water Industry Act 2012, which included the commitment to transfer responsibility for water pricing to ESCOSA (with the Inquiry from 2011 and the Final Determination to commence on 1 July 2012 but subsequently delayed until 1 July 2013).

5.6 The Final RAB Decision

As described in Section 4.3.4, ESCOSA commenced its formal role as the independent regulator for SA Water on 1 January 2013, but had been involved with DTF and SA Water officials throughout the previous year in preparation for this role. This included a role in reviewing SA Water's proposed capital and operating expenditures and advising Treasury on changes to these plans which were incorporated into the 2012/13 Regulatory Statement released in July 2012:

"the Commission reviewed SA Water's proposed capital expenditure for 2014/15 and 2015/16, and the Government took account of the Commission's advice on capital expenditure reductions in its 2012/13 Regulatory Statement" (page 110, ESCOSA Draft Revenue Determination Feb 2013).

ESCOSA released the Draft Revenue Determination (DRD) on 7 February 2013, under which the average revenue for water services would fall by 5.4% in real terms (and be held constant in real terms for the remainder of the 3 year period).

The Commission noted that it had to make the draft determination in the absence of a specified initial RAB value; but it had sought and received clarification of its understanding of the principles upon which the initial RAB would be set. The Commission said this understanding played a major role in achieving the real average price reductions it had proposed.

"The Commission has established revenue caps in this Draft Revenue Determination based on its understanding that the Treasurer will set the value of the RAB to achieve price paths for water and sewerage services equal to:

- *The price paths that the Government forecast in its 2012/13 Drinking water and Sewerage Prices Regulatory Statement(RS)*

Plus/minus

- *Adjustments to pass through to consumers the full impact of changes in capital and operating expenditures that the Commission makes relative to those forecast in the 2012/13 RS."(Page 2, Draft Revenue Determination Feb 2013).*

ESCOSA commented that it could only implement the revenue caps in the DRD if the Treasurer changed the value of the RAB to be consistent with those caps, and stated:

"The Commission expects that this will require a significant overall reduction in the RAB value. The Commission will calculate the required reduction prior to its Final Revenue Determination(FRD). That reduction will depend on various factors that may change significantly prior to the FRD, such as interest rates.

A large part of the overall required RAB change will simply reflect differences in the methodologies that the Government has used in the past and those used by the Commission and other economic regulators. For

example, the Government required only a 3.1% pre-tax return on “legacy” water assets; if these assets are to earn a commercial rate of return without increasing the revenues that they generate, their RAB value will need to be reduced significantly.

The Commission will provide a recommended initial RAB value to the Treasurer prior to finalizing its FRD.

The Commission may recommend a further reduction in the initial RAB value to bring South Australian prices in line with those interstate.” (page 4, DRD).

ESCOSA explained that it had been forced to adopt an unusual approach to developing the revenue caps:

“Under normal circumstances, the Commission would set revenue caps using the conventional “building block” approach generally adopted by economic regulators.

The Commission has had to adopt a different approach in this DRD because the Treasurer has decided to set one of the most critical “building blocks” – the value of the RAB – in a Pricing Order to be issued in May 2013.

Therefore, rather than the revenue caps being determined as the end-result of a “building block” approach, they are back-solved by starting with pre-determined price paths and adjusting for only two “building blocks” (the Commission’s determinations of allowed capital and operating expenditures).(Page 107, DRD).

Chapters 9 and 11 of the DRD set out the approach adopted by the Commission in accommodating the Pricing Order. The average revenue caps developed by ESCOSA were based on the price paths contained in the 2012/13 Regulatory Statement (released in July 2012), adjusted by any further changes it could identify in capital and operating expenditures relative to the proposed expenditures included in the RS. ESCOSA made a number of changes to the numbers in the 2012/13 RS, including to the revenue forecast to ensure it only applied to “direct control services” (the group of services which are regulated, and to which the RAB applies – not all of SA Water’s activities and revenue are regulated). Changes were also made to the capital and operating expenditures proposed by SA Water, and compared to those in the 2012/13 RS.

ESCOSA advised its intention to make a recommendation to the Treasurer as to the Initial RAB value prior to making the Final Revenue Determination. It continued:

A RAB value does currently exist, as the Government has used the RAB concept in setting prices for a number of years. However, the initial RAB value for the purposes of economic regulation is likely to be significantly different to (and probably lower) than the current RAB value, for several reasons; these are explained in turn below.

- *Increased rate of return on legacy assets*
In setting prices until now, the Government has required SA Water’s metropolitan water ‘legacy’ assets (those in existence on 30 June 2006) to earn a 3.1% rate of return (pre-tax, real), while all other assets were required to earn a 6% rate of return.
While the Commission’s current estimate of the regulatory rate of return is less than 6% (it is 5.42% on a pre-tax basis) it is substantially higher than 3.1%. Therefore, to achieve the same revenue from legacy assets when the Commission’s regulatory rate of return is applied, the RAB value must be reduced significantly.
- *Changes in the rate of return*
Any difference between the rate of return determined by the Commission in its Final Revenue Determination and the average rate established under the 2012/13 Regulatory Statement, will require an adjustment to the initial RAB value in order to ensure that revenue is consistent with the

Government's pre-determined price path. If the Commission's rate of return remains below 6%, then the RAB value of non-legacy assets would need to increase.

- *Changes in other key inputs
Changes in other key inputs such as changes in demand or CSO payments to Sa Water relative to the assumptions contained in the Regulatory Statement will also require adjustments to the initial RAB value in order to avoid unintended price changes.*

Taking the above factors into account, it is likely that the drinking water RAB value will need to be significantly reduced, primarily due to the legacy asset issue.” (pages 129-130, DRD)

On 5 April 2013, ESCOSA provided the promised advice to the Treasurer on “Principles for Setting Initial Regulated Asset Base Values for SA Water”, which set out three key principles:

“Principle #1: Price Path less expenditure savings

It is our understanding that the initial RAB will be set to deliver the price paths that the Government forecast in its 2012/13 Regulatory Statement

Plus/minus

Adjustments to pass through to consumers the full impact of changes in capital and operating expenditures that the Commission makes relative to those forecast in the 2012/13 RS.

The Commission's understanding is that [the] initial RAB value will be set to deliver a price path outcome, not a revenue path outcome. This distinction is critical, particularly as demand for water is expected by the Commission to be lower than that forecast under the RS. Given a predetermined price path, lower demand will result in total revenue being lower than that forecast in the RS. If initial RAB values were to be set to deliver revenue paths, average prices would need to be much greater than those set out in the Commission's Draft revenue Determination..... If the Initial water RAB value was set to deliver the RS revenue path, average real prices would need to increase by around 9.6% on 1 July 2013 (and be held constant in real terms for the remainder of the period), rather than the 0.2% increase projected in the RS.

Principle #2: Consistency with Commission's final decision on key parameters

The Commission believes that the initial RAB value should be set consistent with the decisions made by the Commission on key parameter values, such as the regulatory rate of return and demand forecasts, in its Final Revenue determination.

If Principle #2 is not applied, the considerable efforts of the Commission and members of the public will be wasted and Principle #1 will not be met. Various changes are likely to occur between the Draft and Final Revenue Determinations (e.g. in the regulatory rate of return) and those changes will need to be reflected in the initial RAB value in order to ensure no price surprises for customers and that customers receive the full benefits of the Commission's expenditure savings.

Principle #3: Consider interstate price comparisons and costs

Principle #1 is very valuable in considering forward-looking price changes. However, if existing prices are “too high”, application of Principle #1 alone cannot address that problem. Therefore, the Commission has publicly stated in both its Statement of Approach (July 2012) and in its Draft Revenue Determination (Feb 2013) that it may also consider recommending that interstate price comparisons are considered in setting the initial RAB value.” (Pages 2-3).

These Principles were not based on CoAG or NWI guidelines, but would appear to be part of the regulatory philosophy ESCOSA held at the time. It is unclear to what extent they influenced the government's decision in May 2013 when setting the Initial RAB value.

The Treasurer responded to ESCOSA on 17 April 2013, as mentioned previously (see Section 4.3.4). The Treasurer advised that the intention was to set the RAB at the current value as set out in the 2012/13 Regulatory Statement. ESCOSA proceeded to prepare its Final Determination based on the parameters in the 17 April letter, and provided a draft of the Final Revenue Determination to the Treasurer. As reported previously, the Draft FRD included the information about a further reduction in WACC from 5.42% to 5.06%, which resulted in a series of discussions between the Treasurer and ESCOSA on the options for consideration.

On 17 May, ESCOSA received the Second Pricing Order which set the water RAB for 1 July 2013 at \$7770 million (in Dec 12 dollars), approximately 5% higher than the value in the 2012/13 RS. The Treasurer indicated that the RAB values had been revised upwards in response to the significant drop in WACC values between the Draft and Final Determinations, which had not been contemplated in the April letter.

The Inquiry has not been privy to any records of meetings between ESCOSA and the government in this period, so is unclear as to how the final RAB number was derived and ESCOSA's view of it. Equally, there was no clarification on this matter in ESCOSA's Final Revenue Determination, released in early July 2013, and officials were unable (or unwilling) to do so for the Inquiry. The informal view suggests it was an arbitrary choice from a range of possible values, having regard to the impact on government revenue and the price.

5.7 Inquiry Comments

The Initial RAB value set by the government achieved the objective of securing the revenue (and price) path it had specified in the 2012/13 RS (less the efficiencies ESCOSA had identified), which ESCOSA had accepted as the basis for setting the average revenue caps while taking into account the cost savings it identified in the regulatory review process. However, it also meant that consumers did not receive much (if any) of the benefit that a falling WACC would normally deliver to consumers, and the benefit was predominantly captured by the government and locked in for future years.

ESCOSA's comments over the years seemed to be in general agreement with the government's, endorsing the approaches as generally compliant with CoAg and NWI principles and specifically the move towards upper bound pricing. This led to an implied support for the right of the government to adjust the RAB to accommodate the changes in WACC and secure the target revenues. Equally, its focus on "price" as opposed to "revenue" was irrelevant when the government required it to use an annual demand of 190GL, which was the number used in the 12-13 RS.

The Inquiry notes the government's claim that ESCOSA supported the use of "fair value" as the equivalent of "deprival value", but it is important to emphasize that the Commission had raised this as an issue and kept open the revision of the RAB value to reflect this.

The Inquiry agrees with ESCOSA that the treatment of pre-corporatisation contributed assets needed to be reviewed: it was obvious that the value was difficult to determine, but it certainly was not zero!

The Inquiry notes ESCOSA's support for the upper revenue bound (and the securing of the target revenues), but also notes the Commission's concern that these "targets" were based on inflated RAB values arising from contributed asset, legacy asset and "fair value/deprival value" treatments, resulting in higher URB and GFFCR values than appropriate.

5.8 Summary

While ESCOSA's assessment of compliance during the TS/RS process was limited to the process and not the outcome, it nevertheless was important in providing some independent review of the pricing decisions and (while endorsing compliance in many areas) identified a number of areas where it felt compliance was an issue. Most of these areas of difference (identified above in the first five TS Part B reports) remained unresolved in the subsequent years.

With specific regard to compliance in establishing the RAB value, the three main areas of concern identified by ESCOSA were the use of Fair Value as a surrogate for Deprival Value, the failure to remove all contributed assets from the RAB, and the treatment of 'legacy assets' being those assets installed prior to July 2006.

These three areas of concern were seen to inflate the value of the RAB, with consequent impact on the upper bound price/GFFCR revenue target that the government was seeking to achieve, and which ultimately was a key factor in setting the level of the Initial RAB.

The second part of the above analysis documented ESCOSA's advice to the government in 2010 and 2013 on how to establish the initial RAB; this is a different exercise to evaluating compliance. The government was not obliged to follow this advice, although much of it appears to have been used, albeit not necessarily in the way ESCOSA might have intended.

6. THE ISSUES TO BE ADDRESSED

The previous Chapters and Inquiry reports have presented the information available (that is, not including information unable to be accessed by the Inquiry due to Cabinet Confidence or commercially sensitive information) on which to decide if the Initial RAB value, and the process to determine it, were reasonable.

In this Chapter, the Inquiry will examine that information and come to a conclusion about the individual elements. Because a number of the elements are connected, it is important that we step our way through all of the pieces before identifying the key areas for more detailed assessment.

Terms Used:

ADP	Adelaide Desalination Plant
CoAG	Council of Australian Governments
CSO	Community Service Obligation (payments)
DORC	Depreciated Optimised Replacement Cost
DRC	Depreciated Replacement Cost
DTF	Department of Treasury and Finance (SA)
DV	Deprival Value
ESCOSA	Essential Services Commission of SA
EV	Economic Value
EWS	Engineering and Water Supply Department (pre SA Water)
GFFCR	Going Forward Full Cost Recovery
LITS	Line in the Sand
LRB	Lower revenue Bound
NWI	National Water Initiative
OMA	Operating, Maintenance and Administration costs
PP	Pricing Principles
RAB	Regulated Asset Base
RS	Regulatory Statement
TS	Transparency Statement
URB	Upper Revenue Bound
WACC	Weighted average cost of capital

6.1 The Underlying Issue

In the **Diving Deeper** report, the Inquiry commented as follows:

“It is credible for DTF to argue that the decision in May 2013 to set the Initial RAB for water at \$7.77 billion was legal and appropriate, as it was entitled under the NWI to draw a LITS and set the value so as to preserve the revenue stream it had presented in the forward estimates. That is one possible interpretation, and the current Treasurer would be within his rights to uphold that earlier decision.

The other interpretation, which I support, is that it was not appropriate to be using the LITS approach to set the Initial RAB in May 2013 at a time of significant price increases and where forward estimates were unreliable and easily gamed. I believe the preferred approach would have been to set an Initial RAB at a time of relative price stability, and to roll forward that value in accord with best regulatory practice.

It is the intention of the Inquiry at this time to proceed on that basis, unless it receives additional information and comment which cause it to revise this conclusion.” (page 12, Diving Deeper).

Indeed, further information and comments have caused the Inquiry to revise its approach to this issue. It is now apparent to the Inquiry that there is an underlying issue that must be addressed before other key elements can be considered, because this issue can take the Inquiry in two quite different directions.

The issue concerns the ability (or not) of the government to draw a “line in the sand (LITS)” in May 2013 and to base its determination of the Initial RAB on the forecast revenue targets that were included in the 2012-13 Regulatory Statement (12-13 RS). This in effect was setting the regulatory asset value in 2013 using an Economic Value approach, at a level which would generate the expected future revenues set out in the 12-13 RS.

Even if it was justifiable for the government to adopt this approach, the Inquiry would still need to check its compliance with whatever rules and guidelines applied in that situation. It will be necessary to check whether the CoAG and NWI principles apply, whether it is possible to draw multiple LITS (and whether the declaration of a legacy date at 1 July 2006 had any significance to the 2013 decision, and whether it was a LITS), whether traditional accounting principles (relating to the establishment of a Deprival Value) are relevant, and whether the outcome was compliant with the objective of securing the RS target revenues (in terms of the Final Revenue Determination by ESCOSA).

The alternative direction is the one that the Inquiry had been pursuing in its earlier reports, which might be expected to provide a different value as it was based on rolling forward the RAB from the commencement of the Transparency Statement process, using the actual capital expenditures each year: which is essentially a Depreciated Optimised Replacement Cost (DORC) valuation. This is the asset value that would have resulted if independent price regulation had commenced around the time of the NWI agreement in 2004 and best practice regulatory methodology had been applied from that date.

Both of these directions will be impacted (to differing degrees) by decisions relating to the treatment of contributed assets, legacy assets, and Deprival Value: these will be discussed later.

It is intended at this time to explore in some detail the issues surrounding this underlying matter: did the government have the right to declare an Initial RAB value in May 2013 by declaring a LITS economic value, rather than remaining with its previously determined value based on DORC? And was the DORC value compliant anyway?

As reported in the previous Chapter, ESCOSA accepted the right of the government to set the Initial RAB based on securing the targeted ‘average revenue’ (ESCOSA preferred the ‘price’) for the period 2013-14 to 2015-16. ESCOSA implicitly accepted the view that the RAB set in the Second Pricing Order would be the “Initial RAB” for economic regulation purposes (and implicitly that the previous TS/RS processes were of a different nature).

Clause 4.1.7.1 of the initial pricing order (dated 24 September 2012) provided that “...the determination must adopt the initial regulated asset base for SA Water as at 1 July 2013 to be specified by the Treasurer in a subsequent pricing order under s35 of the Act”.

ESCOSA’s advice to the Treasurer in its letter of 24 December 2010 (referred to previously) on the process for setting an initial RAB stated “...it need not be based on the legacy date of 30 June 2006.”(page 2)

These views seem to support the proposition that the setting of the RAB value by the Treasurer in 2013 would be the “initial RAB” for independent economic regulation purposes (as indicated, ESCOSA officially commenced its role as the independent regulator under the Water Industry Act in January 2013).

The Inquiry engaged Associate Professor Malcolm Abbott to advise it on matters related to the application of LITS valuation, and was advised that the approach had been applied in other jurisdictions at either the commencement of corporatization (which in SA Water’s case was in 1995) or at the commencement of independent economic regulation (see the **Cautious Conclusion** report pages 39-40 and Appendix 7). This means it is possible to argue that the TS/RS process was not independent regulation (which it probably wasn’t, even though it was ruled as compliant with the CoAG and NWI agreements and the government argued it was equivalent), that it was instead a process implemented by the government in preparation for independent regulation and to achieve compliance with the CoAG and NWI commitments it had made (and on which the receipt of its Competition Payments and ADP contributions from the Commonwealth depended).

To expand further on Associate Professor Abbott’s advice, the theoretical structure underpinning the application of the LITS valuation methodology supports its use at either the time of corporatization (from when “commercial” rather than “political” decisions would be made regarding the operation of the business), or at the commencement of independent economic regulation. When SA Water Corporation was established in 1995, the asset valuations were for statutory accounting purposes and resulted from a series of re-valuations undertaken by SA Water with some overview by Hunter Water Corporation, which continued into 1995-96 and on a regular program thereafter. There was no LITS valuation, as the assets were valued at the full DORC value and reported in the Annual Accounts and audited by the SA Auditor General, and no EV or Deprival Value assessment was undertaken.

Further, the operation of SA Water Corporation was very much under the control of the Treasurer, and budgets and prices were set by the government (with minor input from the Board). Even at the commencement of the TS process in 2004, it was a further two years before a number of the corporate policy positions for government businesses were settled. And finally, the massive capital expenditures during the period 2008-09 to 2012-13 were directed by government as part of the Water for Good and Water-Proofing Adelaide programs and the whole-of-government response to the drought: many of the investment decisions were not taken independently by the Board of SA Water, and were not reviewed by ESCOSA.

It is the view of the Inquirer that the operation of SA Water was not truly independent or commercial until 2013. Accordingly, it appears to the Inquirer that it was open to the government to make a LITS valuation in 2013, at the commencement of independent economic regulation.

This view was clearly supported by ESCOSA (as reported in Chapter 5 above). However, in the view of the Inquiry, there is at least one issue to address, and that concerns the action by the Government to declare a legacy date on 30 June 2006 under the NWI Pricing Principles.

Clause 10 of the NWI PP, in the background section to the Principles for the Recovery of Capital Expenditure, notes that:

“It is common practice for some jurisdictions to draw a LITS to differentiate between past (legacy) investment decisions and new investment decisions. Where a LITS is drawn, an opening RAB value is set (which essentially locks in the past rate of return on previous investments). The RAB is then updated (or rolled forward) each year to reflect prudent capital additions, disposals and depreciation.”

Clause 17 (principle 3) provides that, in setting the opening RAB value, a sensible form of valuation be adopted (although this is a somewhat open requirement given the wide range of choices allowed). Importantly, it goes on in Note 3 to the clause to state:

“The legacy date equates to the date where a LITS has been drawn. Where jurisdictions have not drawn a LITS, the legacy date will be no later than 1 January 2007 and may be in accordance with earlier dates as determined by governments or economic regulators.”

This suggests the legacy date concept is closely tied to the LITS approach. The legacy date was determined by the SA Government as being 30 June 2006 (as stated in the 2008-09 TS page 32). It could be argued that for NWI purposes, it would be assumed (or even deemed) that the government drew a LITS when it established the legacy date.

Although it took the unusual approach of setting two different rates of return rather than changing the asset value as other jurisdictions had done, the impact and intent is consistent with the NWI Pricing Principles. The legacy asset values were preserved at the DORC levels that had been established by SA Water valuation processes in the period up to (and including) the 2005-06 TS.

However, there is a further complication to this analysis, in that the NWI Pricing Principles do not prohibit subsequent revaluation, and indeed seem to assume that such revaluation will happen in certain circumstances, notably where a DRC or DORC approach has been used to value assets (refer Principle 5, clause 21):

“Where a DRC or DORC is used as a basis for asset values, the RAB comprising new investments and legacy investments should be re-valued through an independent appraisal on a rolling basis in accordance with Accounting Policy Standards”.

The question that arises is whether the government could use this re-valuation mechanism to draw another LITS in 2013. This potentially opens a “can of worms” in the case of SA Water, since the Accounting Policy Standards set by SA Treasury do not allow asset values to be set by any other method than DORC (unless specifically approved by the Treasurer, which approval was not forthcoming during the TS/RS process), so the above clause might not allow a re-valuation based on an economic value set by reference to the achievement of the targeted revenue from the 2012-13 RS (unless the Treasurer specifically approved this – which might be inferred by his decision in setting the Initial RAB, even if not made explicitly).

The legacy assets were used by the government in the TS/RS process to determine the Going Forward Full Cost Recovery (GFFCR) revenue target, and the target revenues for 2012-13 to 2015-16 set in the 2012-13 RS are marginally above the GFFCR levels (but only 1% higher over the 4 years). The target revenues are therefore broadly in line with the NWI pricing principles and are below the Upper Revenue Bound (URB), which of course treats the legacy assets as if they are new assets earning the full WACC return.

It is important to clarify whether the government was still bound in 2013 by the undertakings and principles of the CoAG and NWI agreements. The Inquiry has checked these agreements and has not been able to find any expiry dates. It notes also that the current Government acknowledges the ongoing relevance of the NWI pricing principles, as witnessed in the latest (28 October 2018) Pricing Order, which directs ESCOSA that it must adopt or apply the NWI Pricing Principles in its determination for the next regulatory period. The Inquiry concludes from this that the government accepts that it is still bound by these agreements (and was at the time the then Government set the Initial RAB in May 2013). Further, the fact that the SA Government received Competition Payments and received Commonwealth Funding for the ADP in return for compliance with these national agreements, suggests to the Inquiry there was an implied obligation to continue that compliance when it set the Initial RAB.

The Inquiry sought legal advice from Crown Law to clarify the Government’s legal obligations in this regard, and was advised that CoAG and NWI Agreements are political agreements and are not legally binding – but there would be an expectation that signatories would comply with the terms and spirit of the agreements. However, the advice concluded it was open to the Treasurer in 2013 to decide not to abide by the terms and spirit of these agreements, to use a different methodology to establish a RAB value, and to adopt a new date for the purpose of setting the RAB value.

Having considered all the above, it would seem to the Inquiry that the government was entitled to revalue and set a new RAB value at the commencement of independent economic regulation from June 2013, and it was not restricted from that action by its declaration of a legacy date of 30 June 2006.

The NWI Pricing Principles required a legacy date to be set, such that there would be a clear separation between the old and the new pricing regimes: all new investments from that date would receive the full WACC return, and legacy assets would receive their historic rate of return. In the case of SA Water, this meant metropolitan water assets would receive the historic return of 3.1% going forward, and all new investments, country water assets and all sewerage assets would receive the full WACC which they had - with a government CSO for country water- been earning. This was implemented, and the GFFCR target revenue adopted these rules. However, separately from this NWI obligation, the government was entitled to set a new RAB at the commencement of independent economic regulation to manage the price path it had established. This was also allowed under the NWI principles (Principle 5, clause 21 as above).

It is important to emphasise, however, that the Inquiry believes (despite the strict legal opinion) the government was morally bound by its undertakings under the CoAG and NWI pricing principles to set that value based on the GFFCR revenue (which recognized legacy assets). As the Target Revenue was almost identical to the GFFCR level, this does not appear to be an issue: the government appears to have accepted and applied that constraint. However, the GFFCR level is based on the underlying asset values as used in the TS/RS process, which ESCOSA has argued were inflated (by contributed assets and possibly by the use of “fair value” rather than “deprival value”), and hence so too were the GFFCR revenues in the 2012-13 RS.

There is yet another complication, however, if it is accepted that the CoAG and NWI principles apply. If the government was truly setting an initial RAB value in 2013 for the commencement of independent price regulation, then under the CoAG guidelines it should choose the Deprival Value, which is the lesser of the Economic Value and the DORC. In this case, and given that the EV would at that time have been higher than the DORC, the value of the RAB should be the DORC asset value in the 2012-13 RS and not the economic value based on achieving the targeted revenues. This circuitous discussion brings the topic back to the original view of the Treasurer in his 17 April 2013 correspondence, in which he supported the adoption of the DORC RAB value in the 2012-13 RS (before subsequently changing his view to adopt a higher EV based RAB).

There are some extremely complicated and conflicting issues raised in the above discussion, but the Inquiry proposes to adopt the following principles:

- 1) The government was within its rights to declare an Initial RAB in 2013 by establishing a valuation based on securing the 12/13 RS target revenue stream for the period 2012-13 to 2015-16 that had been set in accordance with CoAG and NWI pricing principles.
- 2) The government was still bound by the provisions of the CoAG and NWI principles when it made its decision in May 2013.
- 3) The CoAG and NWI principles include the treatment of Deprival Value, contributed assets and legacy assets.

The Inquiry is therefore of the view that it must (as an additional approach, in addition to its earlier preferred approach) continue to investigate these matters, with a view to establishing a RAB value based on the approach adopted by the government, but ensuring compliance with its CoAG and NWI obligations and commitments (these are further explored in Sections 6.3 and 6.4 below).

Equally, the approach earlier favoured by the Inquiry (of determining an opening RAB value in the mid 2000s and rolling this forward to 2013 in accord with best regulatory practice) will provide an alternative view to the above approach, by establishing what the RAB might have been if the move to independent economic regulation had

occurred much earlier in the process, around the time of the government committing to the National Water Initiative and prior to the massive increase in investment associated with the drought and the Water Proofing Adelaide initiative. This will provide some perspective to the reasonableness of the RAB value determined by the government in 2013, having delayed the introduction of independent economic regulation for almost a decade.

6.2 The Inquiry Roll-Forward Approach

The approach proposed by the Inquiry has been set out in the **Cautious Conclusion** report in December 2018 (see pages 19-20 in particular). The Inquiry has been keen to emphasise “...that it is not the purpose or role of the Inquiry to calculate a new value for the RAB and to recommend its substitution for the value determined by the Treasurer in May 2013. We are to advise the government whether (in the Inquiry’s view) the value adopted was reasonable” (page 19, *Cautious Conclusion*).

“In brief, the Inquiry has followed a 3-stage process:

- 1. It first sought to answer the question as to what would have been the value of the RAB in June 2013 if an independent regulator had been given responsibility for price regulation of SA Water from the commencement of the National Water Initiative in 2004.*
- 2. Having identified that value, the Inquiry has sought to understand what the key factors were that contributed to the difference, and what were their individual contributions.*
- 3. The Inquiry then considered the individual decisions relating to each factor against the “reasonableness” criteria and the CoAG and NWI pricing principles to determine if (in its view) the decision was reasonable or not.*

*In other words, using the same information, would a reasonable person have come up with a different answer, and why? And were the reasons behind the decisions so unreasonable they should be reviewed by the Treasurer?”(page 19, *Cautious Conclusion*).*

There are two key elements of this proposed Inquiry approach: the starting date for the roll-forward, and the opening value of the RAB at that date (the other matters primarily concern the new capital expenditures, depreciation and inflation, all of which are relatively straightforward using reliable data provided by SA Water to ESCOSA). We will discuss the opening value later in this Chapter, after we have considered a number of the related issues such as contributed assets, legacy assets and deprival value.

The other matter, the roll-forward start date, has been discussed in earlier reports:

“One key concern of some parties is the use of the starting date of 2004/05, and this was explored in both the Exploratory Essay and the Diving Deeper reports. It was chosen for a number of reasons:

- 2004/05 was the commencement of the Transparency Statement process, where the government for the first time opened up water pricing to external scrutiny*
- 2004/05 was the year in which the government signed up to the National Water Initiative, committing itself to a number of actions on water pricing including a renewed commitment to implement the CoAG agreement of 1994.*
- 2004/05 was a period of relative price stability and “normal operations” which represented a solid base from which to move to the new commercial approach to pricing new investment*
- Most other interstate jurisdictions had independent price regulation for water by that date (NSW, Victoria and WA had all conducted independent price reviews by 2005)*
- The 2013 RAB had a clear history of derivation from the 2004/05 numbers, and this was a logical starting point for the Inquiry.*

There were two other starting times considered. The first was to go back to the establishment of SA Water in July 1995, as this represented a decision to move to a corporate structure with more commercial focus than the previous government Department – but the information available was limited and there were many asset revaluations in the early years that might have complicated the analysis. The second was to commence the analysis in July 2006, the so-called legacy date which draws a distinction between old and new assets (with different investment objectives). The problem with this date (which is potentially important in reviewing the later decision to value all assets using the full DORC) is that the date was not declared until 2008/09 when the rapidly expanding investment program was already underway. While the Inquiry has not adopted this later date, it has undertaken an analysis to determine if it is critical (the analysis showed it to be material but elected to use the 2004 starting date for all the reasons it has stated previously).

While this approach underpins the work undertaken by the Inquiry, it could not be applied precisely in every situation and the Inquiry has been forced to adopt a flexible approach. At the end of the day, the work has not been about developing a new value for the RAB; rather, it has been about understanding the impact of a limited number of key decisions along the path to setting the Initial RAB, and to forming an opinion as to whether they were (in the circumstances) reasonable or not.” (Cautious Conclusion, pages 19-20).

Despite the above comments, the Inquiry has re-considered its position on the starting date for its roll-forward process, as a result of discussions with key stakeholders and on-going review of the documents. It is now of the view that it should commence this process from 1 July 2006, the legacy date.

It has changed its view on this matter for the following reasons:

- 1) It has increasingly become apparent to the Inquiry that the data quality and reliability in the first two years of the Transparency Statement process was poor, and reflected the quality of asset management and data in SA Water at the time (which was rapidly improving but from a low base). By 2006, serious investment in improving the quality of asset management and data was starting to result in some increased confidence in its reliability.
- 2) All data for a particular year’s price-setting in the TS/RS process was forecast, not actual (e.g. the 2006-07 TS which set prices for 2006-07 was prepared in late 2005, when the 2004-05 data was still being finalized), so data from the 2004-05 TS relating to 2004-05 was particularly questionable.
- 3) While the first two years of the Transparency Statement process had demonstrated some considerable fluctuations in the data, by 2007 the historical data for particular years (eg 2006-07 and 2007-08) was displaying more consistency when reported in subsequent TS (i.e. across the 08-09 and 09-10 TSs).
- 4) By 2006-07, the matter of contributed assets had been resolved, at least to the extent that all post-Corporatisation contributed assets had been removed from the RAB and no contributed assets after that date were part of the RAB (it still left open the treatment of the pre-corporatisation contributed assets, which we will discuss later).
- 5) The objective of the Inquiry was to ensure that the significant increase in capital expenditure from 2008 associated with the drought was captured by the regulatory discipline, which (through CoAG and NWI) emphasized that all new capital expenditure should earn the full return via the WACC; so it was important to adopt the earliest possible date, but not at the expense of data quality.
- 6) The declaration by the government of 1 July 2006 as the legacy date has loomed larger in significance as the Inquiry has dug deeper into the issues around the decision regarding the Initial RAB. This was the date that the government, finally and officially in accord with the NWI, declared a date after which the return on all new assets should earn the full WACC, and accepted (through its GFFCR process) that the return on (certain of its) historical or legacy assets should be set at a lower (historical) level of 3.1% real pre-tax. Even though the government retained the full value of legacy assets in the RAB and developed the GFFCR as its way of complying with the NWI principles, it nevertheless implicitly accepted that there was a LITS where the

historical return on certain assets should be accepted and incorporated into prices. No other jurisdiction adopted this GFFCR approach, only SA (the other jurisdictions simply wrote down the value of their legacy assets). This was a very significant decision, which flowed into future levels of Target Revenue as the government used the GFFCR process as the key guide in setting the Target Revenue (which was eventually to be the basis for setting the Initial RAB in May 2013).

- 7) The Inquiry now believes that the fact that the legacy date was not officially declared until the 2008-09 TS is not as significant as it first believed, because it proposes to use the information from the 2008-09 TS (which provided corrected historical data back to 2005-06) to set an opening value for the RAB at 1 July 2006.

As indicated above, the data quality was improving over time and by 2008-09 was steady and broadly consistent with subsequent data; this gives some comfort that by this time, the data is of sufficient reliability to use as a base for the roll-forward regulatory process (and in hindsight, that the 2004-05 data is not as reliable).

The data quality over the whole period of the TS/RS process is of unknown reliability, but one assumes that it does improve as time progresses and more attention is paid to its quality (and of course, it is always a forecast, and it is not until a TS two years later that the (historical) data is derived from actual and audited reports). Certainly, the decisions taken in 2013 have little to do with correcting data quality: they are more to do with a different approach to setting the RAB and the government's desire to secure the revenues targeted in the 2012-13 RS and based on the GFFCR return on assets calculation.

Having examined the data in much more detail in recent months, the Inquiry (despite some frustration with the inability to reproduce exactly the numbers used by the government) is of the opinion that the data provided in the 08-09 TS which relate back to the year 2006-07 provide a reliable basis for its proposed roll-forward approach commencing from 1 July 2006. In particular, the data has been able to be checked, is based on actual expenditure reflected in the statutory accounts (where as indicated above, all TS and RS forward numbers are just estimates and often from two years ahead of actual expenditure), and has a degree of confirmation by stabilizing in value in later Transparency Statements.

6.3 Contributed Assets

The Inquiry has reported extensively on this matter (see in particular Chapter 5, pages 31-37 of the **Cautious Conclusion** report).

It concluded:

“ The Inquiry believes there is sufficient confidence in these numbers to adopt a value which a reasonable person would accept as sensible, fair and appropriate in the circumstances. It is unreasonable to assume that the value is zero.” (page 37, Cautious Conclusion).

The government frequently stated that the CoAG guidelines only required that the treatment of contributed assets be transparent, and therefore they were compliant. But by their own actions in removing all post-corporatisation contributed assets (and on-going), the government effectively conceded that all contributed assets should be excluded from a regulatory asset base, and that is the view that ESCOSA held, as does this Inquiry. The CoAG and NWI principles are generally supportive of this intent. The government's fundamental defence in not excluding these pre-corporatisation assets was that a reliable number could not be determined.

Using a number of assumptions that had been previously developed by SA Water in its 2004 advice to the Treasurer, the Inquiry estimated that the value of pre-corporatisation contributed water assets was \$441 million (in \$2004), comprising \$328 million from the period 1965-6 to 1987-8, and \$113 million from 1988-89 to 1994-95. The first figure is derived from a single number in the 1987-88 accounts, and has far less certainty about what it means than

the latter number which is derived from the annual reported numbers in the EWS accounts. With no scientific basis, the Inquiry is inclined to adopt a notional, confidence based number of around \$200 million in \$2004 (or \$210 million in \$2006) – based on a 90% confidence for the later numbers and 30% confidence for the earlier number: these are pure guesses and unable to be substantiated, but at least are not zero.

The Inquiry is of the view that only DORC based asset valuations need to be adjusted for the pre-corporatisation contributed assets, as these contributed assets were included in the asset valuations undertaken by SA Water. The Inquiry does not believe it is appropriate to adjust the EV asset value calculation, as the EV is based on the revenue received by the business, which in 2006 was dominated by historical prices that had not been influenced significantly by the NWI pricing principles which encouraged the government to drive towards the Upper Revenue Bound: the prices were still predominantly driven by recovering the actual cost of debt rather than the theoretical cost of capital. As the EV at the time reflected primarily the recovery of the actual historical costs incurred by the business, it therefore did not include a recovery on the cost of contributed assets.

Given the government commenced the classification of legacy and non-legacy assets from 1 July 2006, it will be necessary to allocate the Inquiry's value of pre-corporatisation contributed assets between these classifications (see Section 6.6).

6.4 Legacy Assets

The discussion in Section 6.1 touched on the significance of the treatment of legacy assets by the government in the GFFCR process, with regard to the setting of target revenues (which ultimately were used to adopt an EV-based initial RAB in May 2013).

When the government finally declared a legacy date of 30 June 2006 in the 2008-09 TS (the soon-to-be-published NWI Pricing Principles foreshadowed a default legacy date of 1 January 2007 for those jurisdictions that had not done so), it made the following comments:

“South Australia: Go-forward full cost recovery

South Australia accepts the necessity for consistent approaches to pricing by setting revenues to align with principles for the recovery of capital expenditure adopted in other jurisdictions. Such alignment can be achieved even though SA Water's RAB is based on fair value (depreciated replacement cost).

Consistent with the national approach, the only amendment to the 1994 CoAG Strategic Framework is with regard to the return on assets/recovery of capital expenditure based on a South Australian legacy date of 30 June 2006. Other aspects of cost recovery continue to be accounted for in accordance with the CoAG Framework (viz, OMA costs and return of assets (depreciation)).

Thus, full cost recovery on a 'go-forward' basis is defined as the sum of:

- *OMA costs*
- *Return of assets (depreciation)*
- *Return on assets based on a SA legacy date of 30 June 2006 consisting of:*
 - *Existing returns* on all pre 30 June 2006 existing legacy assets on an on-going basis*
 - *The full WACC of 6% pre-tax real on all post 30 June 2006 new and replacement assets.*

*Note * Specifically, the return earned should be no less than the return being achieved at the legacy date*

Where revenues are set to match the GFFCR, then, as existing assets are replaced, revenues will gradually adjust over a very long transition period, until the WACC is earned on the depreciated replacement cost of all assets.

GFFCR identifies the revenue amount (including CSOs) that is required to achieve full cost recovery on a go-forward basis (consistent with national approaches. In its 2008-09 pricing decision, the Government approved the adoption of a revenue amount (based on the GFFCR) for the water business.

Thus the new boundaries for the setting of water revenues are to recover no more than the URB and at least the revenue amount (based on the GFFCR). The LRB is largely superseded by the new GFFCR revenue amount, although LRB will continue to be reported in accordance with the 1994 CoAG Strategic Framework.

Estimates of the future URB and GFFCR positions are subject to change, particularly as firmer estimates become available of future operating and capital expenditures.”(page 32, 2008-09 TS).

The government clearly committed to the national approach, and accepted that legacy assets should receive a lower return than the full WACC applicable to non-legacy and post-legacy assets (non-legacy assets are assets existing at the legacy date but earning the full WACC return, which the government concluded was the case with country water assets as the government contributed CSO payments to deliver that return). The government accepted that the GFFCR approach would see a gradual transition to full cost recovery over a long period of time, similar to what the other jurisdictions had adopted by writing down their asset values. The government preserved the full asset value, but accepted a lower return on the legacy assets.

The Inquiry explored the treatment of legacy assets in the **Cautious Conclusion** report (see pages 38 to 40), but struggled to determine the ramifications (if any) of the government’s actions, and concluded:

“It can be seen that, under a strict but generous interpretation, the Government complied with the NWI Pricing Principles regarding the treatment of legacy assets. The difference with other jurisdictions is that the Government elected to retain the full DORC valuation of the asset base (including the pre-corporatization contributed assets) and not to draw their “line in the sand” to write down the value of the legacy assets.

It appears to the Inquiry, based on these comments, that the application of the “line in the sand” methodology by the Government in 2006 and 2013 was very different from its use in other jurisdictions and resulted in a significantly higher RAB than would have occurred if the Government had followed the practices of the other jurisdictions. Whilst the treatment of legacy assets might comply with a strict interpretation of the NWI Principles, it seems to the Inquiry it was hardly moderate or fair when compared to how other jurisdictions treated the value of their legacy assets.”

The Inquiry had formed the opinion that the government had implicitly drawn a LITS when it specified a legacy date and applied a lower WACC value to legacy assets from that date; and that it drew another LITS in May 2013 when it re-set the RAB value using an economic value approach to preserve the target revenues.

While the Inquiry considered that the government had complied with the NWI pricing principles, the Inquiry should have been more precise in its choice of words and added the condition “as long as the GFFCR approach continued to be applied”. The Inquiry did not mean to imply that the obligations/commitments made by the government as a signatory to the NWI ceased in 2013. The Inquiry needs to determine to what extent did the Pricing Principles, and the actions taken in declaring a legacy date and legacy return, limit the options available to the government in setting the Initial RAB.

The government in the 2008-09 TS possibly kept open its options when it stated “water revenues are to recover no more than the URB and at least the revenue amount (based on the GFFCR).” However, having endorsed the GFFCR as the new path forward which satisfied its commitment to national consistency, the government appears to have complied with this approach when it set the RAB in May 2013. As proof of this, the 2012-13 TS target revenues over the four years 2012-13 to 2015-16 are within 1% of the GFFCR level and well below the URB level. This demonstrates

that the government continued its recognition of legacy assets up to the independent economic regulatory period. The explanation in the 2008-09 TS above that “as existing assets are replaced, revenue will gradually adjust over a very long transition period” gives a clear understanding that GFFCR was the basis of future pricing.

There are, however, other commitments in the CoAG and NWI pricing principles that need to be checked.

Many of the so-called pricing principles are simply statements of fact about practices adopted across the various jurisdictions. Nevertheless, there are some with specific principles to apply:

“PP17. Valuation of Legacy Assets

Legacy assets that are to be retained should be valued at DRC, DORC, ORC, indexed actual cost, ODV or using another recognized valuation method.

**legacy assets are those which existed at the legacy date.*

**this is consistent with Expert Group findings that deprival value# should be used*

**the legacy date equates to the date a “line in the sand” has been drawn.*

#The deprival value is the value of future economic benefits that would be foregone if the entity is deprived of an asset....The optimized DV is the lesser of the DORC and the economic value of the asset.

Where jurisdictions have not drawn a line in the sand, the legacy date will be no later than 1 January 2007.....

PP18. Recovery of Legacy Capital Expenditure

In respect of legacy investment decisions, charges will achieve cost recovery by way of a depreciation charge or annuity charge and a positive return on an asset value used for price setting purposes as at the legacy date.

**Legacy investment decisions are decisions made prior to the legacy date*

**The return earned should be no less than the return being achieved at the legacy date.....*

**Once set, the legacy date should not change.” (NWI Pricing Principles, 2010)*

It is clear that the Government set a legacy date, identified a group of legacy assets (all metropolitan assets built prior to 1 July 2006), and ascribed a value to those assets and a return on those assets (3.1% real pre-tax). The Inquiry has previously expressed its uncertainty about the government’s decision to not classify Country water assets that existed at 30 June 2006 as legacy assets, as the government argued the CSO contribution from the government raised the return to the full WACC level (see page 41 of the 08-09 TS referred to previously). The Inquiry now accepts that the argument in support of the treatment of Country assets as non-legacy is correct, as long as the CSO paid in the later RS period were calculated on the same basis as in 2008-09.

The 2012-13 RS stated on page 15:

“ For this pricing decision, SA Water’s state-wide pricing CSO is set at the same level as for the 2011-12 pricing decision (\$ nominal, million):

	<u>2011-12</u>	<u>2012-13</u>
<i>Statewide pricing , Water business:</i>	98.7	47.9

As can be seen, there was a significant reduction in 2012-13 from the level in the previous year. In addition, the numbers in the 2011-12 RS indicated the CSO payment was to be \$102.17 million in 2011-12 and \$138.37 million the previous year, so the numbers were declining. It is understood the justification was that, as metropolitan prices moved higher and with the metropolitan capital program, the difference in costs between the country and metropolitan costs was declining, and hence the CSO was less. While difficult to understand, the Inquiry is of the view that this is probably correct, and does not undermine the case for country assets to be treated as non-legacy. It will proceed on that basis.

It is clear from PP17 that the legacy assets, as declared at the legacy date, should be valued using one of the many methods specified, but in accordance with the deprival value method which is defined as “the value of future economic benefits that would be foregone if the entity is deprived of an asset. The optimized deprival value is the lesser of the DORC and the economic value of the asset”. It seems to the Inquiry that this required the government to choose the lesser value of the DORC and the economic value of the revenue generated by the metropolitan water assets when returning 3.1% real pre-tax (plus non-legacy revenue). This is what the NWI Pricing Principles require and it is what the government itself endorsed in the 2008-09 TS.

The Inquiry has accepted that the government was entitled to set the RAB in May 2013 based on the achievement of target revenues, but these target revenues must be no more than allowed under the NWI pricing principles. The Inquiry will re-calculate what the GFFCR revenues should have been having regard to the value of legacy assets as set by the government at 1 July 2006, and compare those levels with the target revenues set out in the 2012-13 RS. If the target revenues exceed the revised GFFCR values, there would appear to be a case to reduce them to the new GFFCR level and re-calculate the EV and potentially the Initial RAB.

6.5 Deprival Value

The 2006-07 TS (and others that followed) stated that the fair value (DORC) valuation for SA Water’s assets had been used for setting the RAB as it was effectively the Deprival Value and therefore complied with the 1994 CoAG pricing principles. Section 6.4 above also referenced NWI Pricing Principle 17, which also specified Deprival Value as the required approach to valuing legacy assets.

As discussed in full in **Cautious Conclusion** (pages 23-24), the claim that the fair value (DORC) value is effectively the Deprival Value is not correct, as it was strictly necessary to calculate an economic value as well as the DORC and to choose the lower value as the RAB, and this has not been done. The discussion in the earlier report acknowledged the difficulties with both DORC and EV methodologies, and noted that neither is capable of delivering the “right answer”. It said:

“the ultimate selection and use of a value for the RAB comes down to what the Government is attempting to achieve in terms of revenue to the water business and prices to business and residential customers”(page 24).

Despite the difficulties, the Inquiry has proceeded to calculate a RAB value for 2006-07 based on the free cash flows to the business as disclosed in the various Transparency Statements. This was a yearly indication by the government of its expectations of the revenue it planned to receive from the use of the water assets, and the costs incurred in achieving that revenue. The costs incurred consisted of the full operating and administrative expenditure, and the “annuity” expense was defined by the CoAG principles as the expenditure necessary to maintain the network capacity to meet existing demands (but not to expand or upgrade that capacity). These numbers were provided in each of the early Transparency Statements (not later ones after GFFCR was introduced), and it is possible to calculate the RAB (economic value) by calculating the “free cash-flow” as [Revenue minus Opex minus Annuity], and dividing by the real, pre-tax WACC. The RAB (EV) can be compared with the RAB (DORC) corrected for pre-corporatisation contributed assets, to determine the Deprival Value at that time, according to the various Transparency Statements (see Table 6.1).

Table 6.1 2006-07 Asset Value (2006/7 \$million)

Transparency Statement	Average RAB(DORC)	Economic Value (EV)	RAB (DORC) minus Contributed Assets	Deprival Value
2006-07	4473	4273	4263	4263
2007-08	4538	4442	4328	4328
2008-09	4593	4146	4383	4146
2009-10	4596	4146	4386	4146

The Inquiry has stated its preference to use 2006-07 as the starting year for its roll-forward approach to setting the 2013 RAB, and to use the data from the 2008-09 TS as the most credible data. It can be seen from the above that the numbers in the 08-09 and 09-10 TS are virtually identical, which is a possible sign that by that time, the actual data for 2006-07 had been audited and confirmed. The 2008-09 TS Part A was written in November/December 2007, such that the actual expenditures for the 2006-07 financial year had been confirmed by the Auditor General.

The Inquiry in the above table used its risk-based value of \$210 million (in \$2006) for the pre-corporatisation contributed assets; if the Inquiry had used the full amount of \$463 million (in \$2006), the EV and the revised DORC values would almost be identical. Of course, in 2006/7, given the historical basis for the establishment of the RAB value, the only reason for the difference between the statutory and regulatory values should be the value of contributed assets. Further, at that time, the connection between a WACC return on assets and water prices was minimal. This may be an explanation that logically combines the statutory and regulatory values, the EV and the DORC in 2006-07.

Whatever the reason, the Inquiry's decision on the value of pre-corporatisation Contributed Assets would, in this analysis, be made redundant by the application of the Deprival Value methodology, as the Deprival Value methodology has chosen EV rather than the corrected DORC.

This places some pressure on the credibility of the Inquiry's approach to determining the EV, using the numbers in the various TS which refer to the 2006-07 year. The options available to the Inquiry are to endorse:

- the Deprival Value based on the EV of \$4146 million (from both the 08-09 and 09-10 TS) or
- the average EV over the four TS values for 06-07 of \$4250 million; or
- the average Deprival Value over the four TS values for 06-07 of \$4220 million; or
- the RAB based on removing the full estimate of pre-corporatisation contributed assets of \$4130 million
- the RAB based on DORC minus the Inquiry's \$210 million of pre-corporatisation CA of \$4383 million

The strict application of the Deprival Value methodology (as required by the CoAG and NWI principles) would adopt the first option, based on the EV. The calculation of the EV by the Inquiry is a simple approach using the information from the 2008-09 and 2009-10 TSs, which is consistent across those two years. It makes sense, given the data quality and the knowledge about how prices were set at the time (i.e. the prices had a weak connection to RAB and the legacy assets were earning only 3.1% return at the time). One would expect that in 2006 the EV would be below the RAB based on a full DORC valuation, even when (some of) the value of contributed assets had been removed.

There are therefore a range of values available to the Inquiry for setting as an Opening Value on 1 July 2006, dominated by assumptions about which value of pre-corporatisation contributed assets should be used, the reliability of the calculation of EV, and whether the Deprival Value methodology should be used in July 2006 or whether it is more appropriate to only use it at the time of setting the Initial RAB in 2013: all critical decisions which have a fundamental impact on the value of the RAB.

These options will be considered in the following Section.

6.6 Opening Regulatory Asset Value at 1 July 2006

We intend in this section to utilize all of the previous analysis to develop an opening value for the RAB roll-forward from 1 July 2006. It will call upon the information provided in the first four Transparency Statements, but primarily the 2008-09 TS and partly the 2009-10 TS information relating to the regulatory year 2006-07.

As indicated previously, the data quality within and across the various Statements is a challenge, and of course not helped by the fact that most of the data are estimates or forecasts rather than actual, audited numbers (which is

why the Inquiry has preferred to adopt the 08-09 and 09-10 TS data as the information for 2006-07 should by then have been audited).

There are further complications. Firstly, we are wanting to adopt an opening value at 1 July 2006, the legacy date; we do not want an average value for 2006-07, nor a closing value, nor what is called a “2006/7 value”. In various Statements, all of these are used at random, but the Inquiry has generally been able to work out what the number is actually referring to. For example, the practice in calculating the target revenue is to use an average RAB (ie the average of the opening and closing values for any year, with the opening value converted to closing value dollars by CPI escalation), and hence the value is expressed in dollars at the closing date.

Second, the TS switch between nominal and real values, and between different base years of “real”: so when one is talking about a value in 2006-07 dollars, one needs to be aware of what it is expressed in (nominal or real, and 07/8 or 08/9 or 06/7 dollars etc). And if one is trying to determine an opening value, one needs to (generally) assume that the “2006-07” value is actually the 30 June 2007 value and needs to be corrected back to 1 July 2006 values by removing inflation (which can be either a standard 2.5% or another number of varying amounts), capex and depreciation for the year, to get the actual opening value for the year in question (which of course should also be the closing value for the previous year, in either 30/6/xx or 1/7/xx dollars).

The Inquiry sets out below the analysis it has undertaken to determine the opening asset value at 1 July 2006, starting with the numbers provided in the three Transparency Statements for the year 2006-07:

Asset Value on 1 July 2006 (in July 06 million dollars)

07-08 TS	4418
08-09 TS	4411
09-10 TS	4411

The Inquiry has elected to use the value of \$4411 million (July '06 dollars) as the opening value for water assets as specified by the government in the Transparency Statement process, at the legacy date. This is the value before any alterations by the Inquiry from its consideration of the matters of contributed assets, legacy assets and deprival value.

The 2008-09 TS (Tables 17 and 20) allow the first calculation of legacy and non-legacy water asset values for 2006-07. This back-calculation indicates a value of legacy assets (all metropolitan) of \$2517 million and non-legacy assets (predominantly country) of \$2191 million (all in 7/8 dollars), with legacy assets 53.46% of the total.

The 2009-10 TS had legacy assets valued at \$2537 million and non-legacy at \$2175 million (both in 07/08 dollars), or legacy assets 53.84% of the total, broadly consistent with the 08-09 TS numbers (which we prefer).

Using this % breakdown of legacy/non-legacy assets as specified by the government, **the opening asset values at 1 July 2006 would be \$2358 million for legacy assets and \$2053 million for non-legacy assets (total of \$4411 million), all in July 2006 dollar values. This is prior to the treatment of contributed assets and deprival value.**

The Inquiry has formed the opinion that the RAB should be reduced to reflect its assessment of the value of pre-corporatisation contributed assets (that is, that the value was certainly not zero as the government had assumed and the reliability of the numbers was sufficient to make such an allowance). It has decided on a confidence adjusted basis to recognize \$210 million of these water assets (in July 2006 dollars), and further has made an arbitrary allocation of 75% of these assets to metropolitan (legacy) assets and 25% to country (i.e. \$158 million to legacy and \$53 million to non-legacy assets).

The value of the opening asset value at 1 July, 2006 is therefore \$4200 million, comprising \$2200 million of legacy assets and \$2000 million of non-legacy assets. This is prior to the consideration of deprival value.

In Section 6.5, we discussed the Inquiry's calculation of the Economic Value of the water business based on the information provided in the various Transparency Statements for 2006/07 and following years. While the approach is not as comprehensive as normally undertaken, and used only the information available in the TSs, it does reflect the inherent value of the business through the eyes of the owner, and based on a 6% WACC real, pre-tax return for non-legacy and new assets (and 3.1% for legacy assets). It is also based on a one year forward looking perspective, although later in the TS/RS process, there are up to four year projections (but ESCOSA in its advice to the government about the establishment of an Initial RAB argued against such multi-year projections as had been adopted interstate, due to the greater uncertainty about revenue and costs). Hence, the EV of the business at a point in time, based on the TS numbers, is not necessarily an inferior approach.

We have concluded earlier that the EV does not need to be corrected for Contributed Assets, as these did not reflect any contribution to the revenue stream at the time.

However, because the approach adopted by the Inquiry involves dividing a free revenue stream (revenue minus OMA costs minus an annuity for asset replacement/maintenance) by the applicable WACC (or 0.06 in the case of the Inquiry's approach based on the Government's assumptions at the time), the EV calculated is very sensitive to small variations in revenue and opex assumptions and even the underlying assumptions regarding the annuity and WACC). In Section 6.5, we reported the numbers from the various TS as presented in the documents; it is clear that the RAB used to calculate the URB for 2006/07 was the closing value at 30 June 2007. However, it is not as clear as to what dollars the EV are expressed in: it is a value at a point in time (1 July 2006) looking forward at the expected revenue for the following 12 months, so it could be a July 2006 value or a December 2006 value. The Inquiry's review of interstate practice would suggest the value is at the point of the forward looking assessment, that is, 1 July 2006.

If that is the case, then applying the Deprival Value test (of the lesser of the DORC and EV valuations), we are comparing the corrected DORC value of \$4200 million with the EV value of \$4146 million from the 08-09 and 09-10 TS. However, as has been noted in the previous Section, Table 6.1 shows the 2006-07 EV calculations from the 2006-07 to 2009-10 Statements, and the average is \$4250 million; and the average Deprival Value for this 2006-07 year from the four TS calculations is \$4220 million.

In its **Cautious Conclusion** report, the Inquiry reported on the submission from Business SA which included work undertaken by Cambridge Economic Policy Associates to calculate an EV in July 2004 based on free cash flow: it determined a range of values from \$2650 to 4770 million, and recommended the Inquiry use the average value of \$3620 million. The Inquiry was not comfortable with this analysis, nor with using the average given the wide range of possible values. In the report, the Inquiry proposed to use an opening value in July 2004 of \$4150 million (which in its roll-forward calculation was \$4337 million in July 2006). If this was adjusted by the \$210 million of pre-corporatisation contributed assets, the value would be approximately \$4130 million at 1 July 2006.

Given the sensitivity of the EV calculation to small changes in input values (as also seen in the Business SA estimates), the Inquiry is of the view that the results suggest an EV range from around \$4150 to \$4250 million and a corrected DORC value of \$4200 million.

The Inquiry will therefore undertake its roll-forward analysis, and its evaluation of CoAG and NWI compliance for determining the GFFCR and target revenue compliance, on the basis of an opening RAB value on 1 July 2006 of \$4200 million, comprising \$2200 million of legacy assets and \$2000 million of non-legacy assets (all in July 2006 dollar values).

It accepts that this is at the upper end of the EV estimates, and will ascertain the views of stakeholders on the credibility of this analysis before finalizing its investigations.

In Chapter 8, the Inquiry will undertake its evaluation of the two cases (the government perspective of a LITS valuation in May 2013, and the Inquiry's perspective of a regulatory roll-forward from July 2006) using these opening values at the legacy date.

6.7 Miscellaneous Assumptions

There were a number of matters raised in the stakeholder submissions which required the Inquiry to be clear about some of the underlying assumptions of its analysis. It cannot comment on all of these, but it will address some of the more important ones briefly below.

Escalation Factor

The government case in defence of the Initial RAB (and supported by SA Water) has argued that the use of CPI escalation by the Inquiry is inappropriate, as CPI is not a good indicator of the increase in costs of the water business and that the Producer Price Index (PPI) should be used. In some of the TS evaluations, the escalation factor was a government nominated figure which was applied for budget preparation and not necessarily either the CPI or PPI.

The choice of escalation factor is driven by a view as to whether we are working to a Financial Maintenance model or an Asset Replacement model; and regulators always work to a financial model. It may be appropriate for an infrastructure business to use a PPI to escalate its asset base in its statutory accounts (although even there it is normal for periodic external reviews, and as pointed out previously, the basis of DORC valuations is open to debate).

A Financial Maintenance model is looking at maintaining the real value of an investment, and that is generally done by reference to the CPI. Further, if we are considering the impact on consumers, using CPI is appropriate in terms of the real value of consumer spending.

These matters were discussed at the March workshop, and the Inquiry is comfortable that its approach is appropriate for the task it is undertaking. However, it has decided as part of its analysis, to undertake some evaluations using the government escalation factors and asset values, rather than its own numbers, and see the impact of the changed assumptions.

Capital Expenditures

The Inquiry decided to use, for its preferred roll-forward valuation approach, the capital expenditure numbers provided by SA Water to ESCOSA as part of the data base for the 2013 Regulatory Determination: these numbers covered the period from 2004 to 2013 (the last year being a forecast, the others being audited actual figures).

SA Water provided a different set of numbers to the Inquiry, and it took some time to identify the reason, but it turned out that SA Water had later classified some expenditure on waste-water treatment facilities as water related, because the expenditure was to produce water for recycling.

The Inquiry investigated this matter, but found that the revenue was being allocated to wastewater, the facilities were located in a wastewater plant, and the operation was based on wastewater treatment. The Inquiry has therefore continued to use the numbers provided by ESCOSA in its analysis.

SA Water has suggested that these assets have not been included in the wastewater asset base used by ESCOSA; the Inquiry encourages SA Water and ESCOSA to ensure the assets are included in the waste-water RAB, as it does not believe they should be in the water RAB and has excluded them.

Other

A number of other issues raised by parties have been addressed in the discussion on legacy assets . This included consideration of how the 3.1% return was calculated, and the Inquiry believes it has addressed this matter and also the claims by SA Water that the asset revaluation at 30 June 2013 addressed the Contributed Asset issue and that the CSO should be considered as a reduction in RAB value by the government. The Inquiry believes these matters have been overtaken by the approach set out in Chapter 8.

But first it is necessary to divert into a consideration of the “reasonableness” of the process and the actions taken in setting the Initial RAB, as this will influence the views of the Inquiry as it considers and contrasts the different perspectives of the government and consumer interests.

7. REASONABLENESS ASSESSMENT

The earlier Chapters have reviewed both the approach taken by government in 2013 and an alternative approach by the Inquiry to determining an Initial RAB value, in order to gain an understanding of the key elements which influence the valuations.

The **Cautious Conclusion** report also considered a benchmarking approach based on a review of asset values per customer and per volume of water sold, but determined that it could not draw any definitive conclusions from comparisons with other jurisdictions and was unwilling to use this approach to determine an asset value for SA Water. Instead, it needs to focus on the decision taken in May 2013 and how that value was determined from the data available to the government regarding the South Australian water services business.

In Chapter 3, we refined our approach to defining “reasonableness”, and concluded:

“the Inquiry has elected to refine its assessment criteria of actions and decisions to the following elements:

- **Compliance** with Acts, Agreements and Principles specifically endorsed by the Government
- Whether decisions were **Credible** (logical and sound, not open to criticisms of being arbitrary, opportunistic and not making sense)
- Whether decisions were **Balanced** (had regard to the interests of the government and consumers, long term and short term implications, environmental as well as financial asset impacts).”

The Inquiry will examine the government decision with reference to these elements.

7.1 Compliance

The Inquiry has reported extensively on government actions over the period from 2004 to 2013 during the Transparency/Regulatory Statement process. The main purpose of the TS/RS process was to demonstrate compliance with the CoAG Strategic Framework and guidelines, and later with the NWI Pricing Principles, to ensure the government received various Commonwealth funds and to move water prices towards the Upper Revenue Bound allowed by the pricing principles. The compliance of the process was monitored by ESCOSA, and at times by various Commonwealth bodies including the National Competition Commission, the National Water Commission and the Productivity Commission. The CoAG and NWI compliance was a condition for receipt of the various payments from the Commonwealth.

These bodies, each in their own way, generally endorsed the approach of the SA Government in its compliance with these CoAG and NWI obligations, as reflected in the comments of ESCOSA reported in Chapter 5. As noted, there were a number of areas of concern (such as the treatment of contributed assets, the approach to recognizing legacy assets, and the use of fair value rather than the prescribed deprival value), but each of these was grudgingly acknowledged as compliant with the words (but not, by inference, with the intent or with standard regulatory practice).

The words in the CoAG guidelines and NWI principles were frequently vague and allowed a number of interpretations, so it was relatively easy (not without some skill) to demonstrate compliance. After all, the government through Treasury officials was involved in the drafting of these documents so they were presumably crafted to assist compliance.

Equally, the Essential Services Commission Act and the Water Industry Act contained obligations and Objectives that the Treasurer and Minister were required to apply, but they are equally vague – such as the obligation to look after

the long-term interests of consumers! As observed in Chapter 2, this is a two-edged sword for consumers, who might prefer some short-term interests as well.

The Inquiry initially believed that the action by the government in May 2013 to adopt an economic valuation for RAB based on the Target Revenues set in the 2012-13 RS was a breach of the NWI principles, in that it seemed to be drawing a second “line in the sand” at a higher value, when the government had already drawn a line at 30 June 2006 (the legacy date) and the NWI Principles said only one line could be drawn. However, on the basis of legal advice, and having considered in detail the government perspective in Chapter 4, the Inquiry has accepted that the government had the right to set a new RAB value for 30 June 2013 at the commencement of independent economic regulation. Nevertheless, while the government may not have been legally bound by the CoAG and NWI principles, there is a strong expectation that signatories would comply with the terms and the spirit of the agreements.

The Inquiry has formed a view on the decision regarding contributed assets, and acknowledges that the words in the CoAG guidelines and NWI principles do not require their removal from the RAB (but the clear intent of the guidelines, the practice elsewhere, and the government’s own actions indicate that they should be); we will discuss this further under the Credible and Balanced criteria.

The issue of legacy assets is complex, and the unique approach adopted in SA places it in a similar category to contributed assets: probably compliant with the words, but not necessarily with the spirit or standard regulatory practice. The Inquiry has considered the fine print of the principles, and it is difficult to find words that indicate a breach: the approach of determining a lower return rather than adjusting downwards the asset value is not prohibited. The fact no other jurisdiction followed this approach is not a reason for concluding the approach was not compliant.

The third area of potential non-compliance concerns the use of deprival value: the Inquiry believes the government consistently failed to apply (at least in any documentation observed by the Inquiry) the criterion of comparing the DORC value and the economic value, and choosing the lesser value. The main problem with this test, of course, is the ability to determine an economic value, and the Inquiry itself has struggled to do so: the method it has adopted is very sensitive to the value of WACC used to convert free cash flow into economic value. The DORC supposedly has more credibility as a number, being backed up by assets and asset valuations, but the Inquiry has no great faith in these numbers either. Nevertheless, it is a big call to replace the DORC value with an economic value – although that is effectively what the government did when it set the RAB at a level which it said was to recover its targeted future revenues.

The government was, in the view of the Inquiry, entitled to set the value of the Initial RAB in May 2013 so as to maintain its target revenues, and was not prevented from doing so by earlier actions under the TS/RS process. The Inquiry does not believe the government breached (in a legal sense) the undertakings it had accepted in being a signatory to the CoAG and NWI agreements (with the possible exception of the failure to determine a deprival value – which matter will be discussed later in this Chapter), and nor did it fail to comply with its obligations under the ESC Act and the Water Industry Act (although it is hard to determine if its actions to secure the revenue stream at a time when the cost of debt was falling, reflected the long term, or indeed the short term, interests of consumers). Its actions in setting the Initial RAB in the Second Pricing Order appear to be in legal compliance with these Acts, but the Inquiry is interested to ensure it was also in compliance with the spirit of the Agreements and the overall interests of consumers: locking in a long term inflated value of RAB could be seen as not acting in the interests of consumers!

These views are stronger than the Inquiry’s legal advice that the government was not legally bound by the principles in the agreements and was free to determine a RAB value without reference to these principles. The Inquiry believes the government was morally bound to comply with the Principles, particularly as it had received Commonwealth payments based on this compliance, and the current government has continued in late 2018 to instruct ESCOSA to ensure NWI compliance in the next Revenue Determination. In addition, the government was, in the Inquiry’s view,

bound by legislation to protect the long term interests of consumers, and an inflated RAB did not necessarily achieve that objective.

The overall assessment of the Inquiry is that the government was probably compliant in a very strict legal sense, but not so in a number of areas in terms of the spirit or intent or objectives of the Acts and agreements.

7.2 Credible

While the action of setting the Initial RAB in May 2013 may have been in legal compliance with the various obligations, the next step in the consideration of the “reasonableness” of the Initial asset value and the process to derive it is the question of whether the decisions behind it were credible (that is, were logical and sound, were transparent, were not arbitrary or opportunistic, and made sense).

The Inquiry has attempted in Chapter 5 to understand the logic behind the decision to set the Initial RAB value at \$7770 million. It has described the evolution through the Transparency Statement process leading to the production of the 2012-13 Regulatory Statement, and the involvement of ESCOSA in checking the numbers with DTF officers and adjusting them prior to its release in July 2012. The 12-13 RS Target Revenue numbers for the years 2012/13 to 2015/6 became the basis for setting the value of the RAB, so that the target revenues (less any efficiencies identified by ESCOSA in its first regulatory review) could be achieved. The RAB value that was included in the 12-13 RS was replaced by the Initial Asset Value, determined supposedly so as to secure the targeted revenue stream despite the decline in the WACC value.

So there are two key elements to consider: first, the TS/RS process leading up to the production of the target revenues in the 12-13 RS; and secondly, the process to adjust the RAB to secure the target revenues.

The TS process, despite its title, was a complicated exercise which failed to offer transparency and relevance. The Part A Statements were released for comment after the decision had been announced, a very short time was provided for comment (and hence rarely received any), and many of the comments from ESCOSA and stakeholders were ignored. The documents were difficult to read (as the Inquiry has found!) and almost impossible to relate to the previous year’s edition (notably, the switch between nominal values and different year real values was frequent, and the alternative use of average asset values and year end asset values without explanation, combined with a variable interpretation of what (for example) 2006/7 dollar values means – July ’06, June ’07, or Dec ’06 – meant that there was little possibility of an easy understanding or analysis of the approach. And then there was the GFFCR!!

With considerable effort, the Inquiry has developed some understanding of the process, but it was not something that was possible at the time for the majority of stakeholders. It developed into an intellectual exercise between DTF and ESCOSA, and failed to engage the wider community (even when prices were escalating at over 20% pa for four successive years and prices increased by over 150% over the period). The Statements were produced 1 to 2 years ahead of the period they applied to, they were always therefore based on forecasts, and bore limited relevance to the actual numbers. The basing of the Initial RAB value on the securing of the 2012-13 RS target revenues, given the way in which these target revenues had been determined, does little to assist argue the case they were credible.

The TS/RS process may have been public (albeit to a very limited audience!), but it was not transparent and was difficult to make sense of: a public worried by the drought and the potential long term uncertainty re water supply was in no position to challenge the numbers, even if they had been able to interpret them.

The second part of this issue concerned the process over the first few months of 2013 to settle the value of the Initial RAB. Conducted behind closed doors between ESCOSA and DTF officials and the Treasurer, this was not transparent and the reasons were not made public (until much later when the issue became raised by the resignation of some ESCOSA Commissioners and a Parliamentary Committee investigated – see **Exploratory Essay**).

Even then, the issues were not clear and the Committee did not produce a report or findings. The Inquiry itself has struggled to ascertain how the final number was derived, and the logic (if any) behind it.

The Inquiry's analysis (see the following Chapter 8), even on the basis of the government's own numbers in the 2012-13 RS, finds it was not necessary for the government to increase the value of the RAB above the DORC valuation to secure the target revenues, yet it did, and ESCOSA delivered the promised revenues in its final determination (adjusted for some opex and capex efficiencies identified). The justification for the higher RAB is hard to find, and was not part of the public debate at the time as the promised price cuts from June 2013 were delivered. But when the decision process is not transparent and open to consultation, it leaves open the accusation that it was arbitrary and opportunistic, and not logical and sensible.

In our exploration of the meaning of "reasonableness" in Chapter 3 (paragraph 1) we noted:

"reasonableness is now an essential element of administrative decision-making and is implied as a statutory condition on the exercise of discretionary power. But the critical thing to consider is not whether a reviewer could have come to a different decision; it is whether the decision reached was unreasonable in the sense that it falls outside the range of determinations that a reasonable person could conceivably have reached."

It appears to the Inquiry that, when the value determined by the Treasurer fell outside the government's own values in the RS, serious questions arise as to the reasonableness of that decision. The TS/RS process, leading to the determination of target revenues and eventually to the Initial RAB value, failed the Credibility test. The review process conducted by ESCOSA was restricted to a review of Cabinet's compliance with CoAG guidelines and there was no truly independent review. The GFFCR process, developed by the government to demonstrate compliance with the NWI principles, was complicated and difficult to understand, and the TS/RS documentation was often confusing. Because the documentation was released after the decision was announced, there was little incentive for stakeholders to participate, and accordingly they didn't.

The process from 2004 to 2013 was dominated by the government and used (effectively) to implement and fund the major initiatives associated with the Water for Good and Water-Proofing Adelaide programs. Obviously, it could be argued that this was necessary, and these important works would not have occurred if it had not been under the control of the government and if the expenditure had to be approved by an independent economic regulator. All of this may be true, and it may have required the government to use its full (monopolistic) powers to deliver these important works in a very tight timeframe, but it nevertheless does not distract from an assessment that the process leading up to the final RAB decision, and the decision itself, were not credible in the sense of being logical and transparent rather than opportunistic and arbitrary.

On the credibility test, there are grounds for re-examining the basis for the decisions and ascertaining what a more credible process might have concluded.

7.3 Balanced

The final step in the consideration of the "reasonableness" of the Initial asset value and the process to develop it is the question of whether there was a balanced consideration of potentially conflicting interests: between the government and consumers, between long term and short term benefits, and between environmental/social impacts and financial impacts.

Given our comments in the previous section, it can be concluded we do not believe the Government was in a good position to give this balanced consideration when the opportunities for public input were so limited and the critical decision was taken without any public input. It is hard to be a straight tree when the wind only blows from one direction.

Sometimes, even when you hear other views, you ignore them, as was the case with pre-corporatisation contributed assets. The ESCOSA Part B comments in the TS process never failed to repeat the case for exclusion, and the government's Part A and Part C responses were always to bat them away. The government continued to assert that no credible number could be determined, but never answered the criticism that the value certainly wasn't zero! The Inquiry believes the government had adequate information to make a decision, but it refused and the issue continued unresolved even at the end (although as we show in the next Chapter, it didn't really matter once the 3.1% return was corrected!). A simple reflection of balancing the interests of the government and consumers would have come up with a number, just like this Inquiry has done.

As indicated, the way the TS/RS process was conducted meant there were few real opportunities for consumer views to be considered, and the government did not actively encourage this input. ESCOSA's ability to reflect consumer views was also limited, partly because of the limited timeframe for consultation and limited consumer interest (justifiably, given the decision had already been taken!), but also because it was involved in an on-going ideological dispute with DTF such that communication was difficult. Neither DTF nor ESCOSA were well placed to present or negotiate a position that represented consumer interests.

ESCOSA seemed to agree with the government view that prices should move to the Upper Regulatory Bound, perhaps because that was what economics said was the optimal outcome and one reading of the NWI principles supported this view; but the NWI principles also reflected the view that legacy assets should receive the (lower) historical return, not the full WACC. There was little serious push-back from ESCOSA in its Part B comments on the government's aspiration to move towards the URB, other than to comment that the URB was based on RAB values that the Commission believed were inflated.

It is apparent to the Inquiry that most of the key decisions over this period appear to reflect the government's benefit rather than consumers' benefit: the fact that prices could be increased by such huge amounts each year does not demonstrate that consumer impacts were high on the agenda. With the impact of the drought in high visibility, and with many experts demanding significant government action, it was a brave person to complain: besides, high prices would restrain demand and force all consumers to recognize that this was a precious and limited resource. But not only was the government raising revenue to fund the massive investments in drought management infrastructure, it was at the same time driving upwards the price to achieve the URB. The major focus was on the financial requirements, and the ability for the government to fund a raft of programs broadly associated with drought.

Additionally, the increased revenue was used to implement a number of consumer protection measures, and these were accepted as a responsible means of addressing the needs of the poorest members of society: and this is important and supported by the Inquiry. Given the price rises, this was indeed an important part of the package of measures funded by government. The Inquiry notes the views of a number of stakeholders at its March 2019 workshop that the value of the RAB should not be reduced because the resulting fall in revenue to government could jeopardise the continuation of these (and other) social support programs. Indeed, the continuation of the government's support for Statewide pricing via the CSO program was seen as potentially at risk.

It is possible to infer from these views that the government did consider the interests of consumers (and particularly the needy) when it set prices (and asset values) that provided a revenue stream to fund CSOs and social and business support programs. It may not be explicit, although the government did claim in the various TS/RS documents that such factors influenced its decisions. Also, consumer interests are broader than just the price: sustainability and reliability are also relevant to considerations of consumer interest.

The Inquirer is of the view that all consumers benefit from having a price that truly reflects the value of the assets invested in the business, and which is not inflated. It also endorses the view that social support programs should be part of that formula, as water is a critical element of life which should be affordable to all. If that means inflating the

price to cover the cost of these programs (be they social support or Statewide pricing or environmental and educational programs) they are legitimate uses of the power of government, but do not need to rely on artificial increases in the value of the RAB: they can be better achieved by a more transparent specification of the costs for each program and funded accordingly.

Finally we need to consider the decision in May 2013 to increase the value of the RAB above its already inflated DORC value, to ensure the government received the same revenues it had forecast in the 2012-13 RS which had been based on a 6.0% WACC (but which had now fallen to 5.06%) and a 3.1% return on legacy assets. The Inquiry had previously concluded that the government had elected to take back all of this benefit to itself, but further analysis suggests that it could have increased the RAB by even more if (as in the Treasurer's letter to ESCOSA of 17 April 2013 referred to earlier) the RAB value in the 12-13 RS of "\$7.5 billion" was adjusted by the ratio of 6.0 divided by 5.06, which would produce a value over \$8 billion. The final value of \$7.77 billion appears to represent a 50/50 sharing (approximately) between the government and consumers.

However, it is important to note that the government itself benefitted from the reduction in WACC which partially reflected a reduction in the cost of debt, such that the government and SA Water were paying less for their borrowings. If SA Water was being regulated by ESCOSA at that time, 100% of the benefits of a reduction in WACC would have flowed through to consumers, not the government.

Indeed, the work by the Inquiry has found that the value of the RAB could actually have been reduced at the time and the government would still receive the full target revenues, so the decision to increase the RAB value suggests the government did much better than this analysis would suggest.

On the balance test, there is some evidence (and from the Workshop, some support) for the view that the government did consider the interests of consumers when it set the value of the Initial RAB in May 2013, and this resulted in the on-going support for many business and consumer support programs. However, the Inquiry is concerned that this consideration of consumer interests was not explicit or transparent, and does not address the real issue of shorter term benefits through lower prices, versus the consideration of support for environmental, business and social programs funded by higher revenues. The Inquiry feels that the key driver for this decision was the desire for revenue rather than the interests of consumers, and again gives cause to consider what the RAB value would have been if it was based on the NWI principles and was not an opportunistic securing of more revenue.

7.4 Summary

The Inquiry has to determine the reasonableness of the process to set, and the value of, the Initial RAB in July 2013. It has considered this from the perspectives of compliance, credibility and balance.

From a compliance perspective, the Inquiry accepts that the government had the necessary authority to set an Initial RAB in May 2013 at the commencement of independent economic regulation, subject only to compliance with the CoAG and NWI principles. While it broadly accepts the overall legal compliance of the process, it needs to also take account of the credibility and balance tests in deciding if the value of the Initial RAB is reasonable.

From a credibility perspective, the Inquiry is concerned that the processes adopted to set the target revenues and the final RAB lacked transparency and were difficult to understand: they were very much under the control of the government without independent verification and challenge. To be credible, one would also expect that the value determined was consistent with the government's own information and analysis presented in the RS/TS process, and that does not appear to be the case.

From a balance perspective, there were limited opportunities for consumers and stakeholders to input to the process and to understand the details of the approach. While the outcome (being higher revenues) might assist in

social and business support programs, there is no guarantee that this will result and there is no evidence that consideration was given to the benefits to all consumers of lower prices.

While the Inquiry will therefore accept the approach adopted by the government as a legitimate approach to setting the RAB, it will pursue a number of concerns regarding the methodology and compare the revised value outcomes with those from the Inquiry's approach of rolling forward the asset valuation from the legacy date. Given the Inquiry's assessment of the reasonableness of the process, it needs to examine in some detail the final valuation, as the process was not conducive to a reasonable result.

8. ANALYSIS OF THE TWO PERSPECTIVES

The Inquiry has progressed to the stage where it is able to examine in detail the two perspectives it has identified, and to use them to assist it determine the reasonableness of the value of the Initial RAB and the process which led to its determination.

Terms Used:

CoAG	Council of Australian Governments
DORC	Depreciated Optimised Replacement Cost
ESCOSA	Essential Services Commission of SA
GFFCR	Going Forward Full Cost Recovery
LITS	Line in the Sand
NWI	National Water Initiative
RAB	Regulated Asset Base
RS	Regulatory Statement
SA	South Australia
TS	Transparency Statement
WACC	Weighted average cost of capital

The first (or ‘government’) perspective argues in favour of the Initial RAB value set in May 2013, on the grounds that the government was legally able to declare a LITS valuation at the commencement of independent economic regulation, based on the target revenues it had specified in the 2012-13 RS, and that nothing it had done in the lead-up to this decision had compromised its ability to adopt an Economic Valuation at that time.

The ‘government’ case essentially argues that the TS/RS process was not independent economic regulation, and the government’s use of a DORC based valuation to set target revenues throughout that process did not prevent it from adopting an economic valuation of assets for the commencement of independent regulation.

We refer to this as “the government perspective” not because it represents the views of the current Government or even of the previous Government, but because the cases considered are the Inquiry’s best attempts to defend the value of the Initial RAB which emerged from government in 2013.

The second (or Inquiry) perspective argues that the value of the Initial RAB should be reduced, on the ground that the government had committed to reform of the water industry when it signed up to the National Water Initiative in 2004 and specifically when it declared a legacy date of 1 July 2006, and that a fair and reasonable value of the RAB should be determined by setting an asset value at that date which was CoAG and NWI compliant, and then rolling forward the DORC asset value through the application of best regulatory practice principles.

8.1 The Government Case

The government case in defence of the Initial RAB value rests squarely on information in the 2012-13 Regulatory Statement, Tables 9, 11 and 12. The Inquiry will take two different approaches to using this information: the first will simply use the information as presented, without any modification (apart from adopting the final WACC of 5.06% real pre-tax), but the second will adjust the numbers to be (in the view of the Inquiry as set out previously) CoAG/NWI compliant.

It is important to note that the government’s decision regarding the Initial RAB was taken in May 2013, and it was based on information contained in the 12-13 RS which had been released in June 2012. The Inquiry has tried to put

itself in the position of the government and its advisors at this time using the information that would have been available.

As a result, the Inquiry has decided to undertake all of its analysis using the key WACC values as set out in the 12-13 RS and in the 17 April and 17 May 2013 correspondence from the Treasurer to ESCOSA, namely pre-tax real values. While ESCOSA did move to a post-tax valuation methodology for its Final Determination, the Treasurer's objective of securing the revenue stream set out in RS 12-13 was determined using pre-tax values and his explanation of moving from a DORC valuation to an economic valuation was justified in pre-tax terms, so the Inquiry is continuing with that practice in its analysis.

8.1.1 Unadjusted 2012-13 Regulatory Statement Values

There are two approaches to observing the government's valuation from the 2012-13 RS: the first is simply to note the closing RAB value at 30 June 2013, and the second is to adjust the RAB value to secure the target revenue at the lower WACC value.

The escalation assumption used in the 12-13 RS is 2.5% pa; so for its analysis of the government case the Inquiry has used that assumption (and therefore a deflator of 1.0125 to convert June 13 dollars into December 12 values).

Case GOV1

The first approach is found in Table 9 of the 12-13 RS, which presents a closing RAB at 30 June 2013 of \$7489 million (in June 2013 dollars), or \$7397 million in December 2012 dollars. This RAB is the total value of all legacy and non-legacy assets, and treats legacy assets at their full value.

Case GOV2

The second approach uses information in Tables 11 and 12 of the 12-13 RS, which present "average asset values" over the 2012-13 year, broken down into legacy assets (\$2649 million) and non-legacy assets (\$4820 million) or a total RAB of \$7469 million which is used to determine the Return on Assets for the 2012-13 year. The values are expressed in nominal dollars, which may roughly translate into December 2012 dollars although this is not strictly correct (but does not impact on the Inquiry's analysis). Using the target returns of 3.1% for legacy and 6.0% for non-legacy assets, the government calculated a target return on assets of \$371 million for the year.

If the government was to receive the same return on assets when the WACC had fallen to 5.06%, the average RAB would need to be [371 divided by 0.0506] or \$7332 million, a reduction of [7469 – 7332] or \$137 million from the full DORC average asset value. If we apply this reduction to the closing value of \$7489 million, we determine a revised closing value at 30 June 2013 of \$7352 million (or \$7261 million in December 2012 dollars).

Therefore, using the government's own numbers in the 2012-13 Transparency Statement, without any modification by the Inquiry, produces a value of \$7261 million (rather than the \$7770 million determined by the Treasurer in the Second Pricing Order). This value is \$509 million less than the Initial Asset Value (in December 2012 dollars).

This revised asset value would deliver the same return on assets that the government had expected in setting the GFFCR revenue for the year 2012-13.

There is a complication that the Inquiry has had to consider, and that is that the Total Revenue objective of the government over the 4 year period from 2012-13 to 2015-16 is slightly different than the GFFCR revenue, being \$11m higher in 2012-13, \$4m lower in 13-14, \$10m higher in 14-15 and \$20m higher in 15-16. Should this additional revenue be derived from a higher return on assets, or by reducing operating expenditure? The Inquiry notes that the

GFFCR 'return on assets' component was determined in accordance with the pricing principles endorsed by the government, although it also reported an Upper Revenue Bound which it did not exceed. The Inquiry also notes that ESCOSA removed \$80 million of opex in its Revenue Determination, implying there were grounds for greater efficiency.

The Inquiry undertook additional calculations to inform its view on this matter. It repeated the above calculation for each of the years 2013-14 to 2015-16, using the data in the RS, and adjusting the closing RAB value each year to remove the new capex and to adjust values back to June 2013 values. The result for each of the three years was a lower value RAB at 30 June 2013 than the \$7352 m value reported above (in \$ June 13).

Also, the Inquiry repeated the above process using adjusted 'return on assets' values for each of the four years, by assuming the difference in Target revenue was able to be sourced totally from the return on assets. While this increased the closing value in each of the years (apart from 2013-14 where it fell), the new values for 2013-14 to 2015-16 were still below the \$7352 m value; and despite the impact of the \$11 m higher revenue target in 2012-13 resulting in a \$217 m increase, the average over the four years was slightly below this value.

Having weighed up all these issues, the Inquiry has decided that the original analysis should stand. The government set a target for return on assets as specified in the RS, and the Inquiry analysis delivers this return when the WACC is reduced. It is not appropriate to assume that any increase in target revenue should be sourced from an increase above the CoAG/NWI compliant return on assets, and it would appear that (looking over the whole period) the asset value calculated delivers the target return for each year. The Inquiry believes the number calculated from the 2012-13 TS for the 2012-13 year, without any modification, gives a credible value of the government's objective of achieving the target revenue despite the decline in the value of WACC.

Accordingly, this approach of securing the government's target return on assets in the 12-13 RS produces an EV RAB value at 30 June 2013 of \$7261 million (in \$ Dec 12).

8.1.2 Modified 2012-13 Regulatory Statement Values

The Inquiry has accepted that independent economic regulation did not commence until 2013, and therefore that the government was able to establish an Initial RAB in mid 2013 using a LITS valuation based on the target revenues set out in the 2012-13 RS for the following four years. However, the Inquiry had one proviso on that acceptance, and that was that the target revenues should be developed in accordance with the government's commitments under CoAG and NWI. In other words, if the target revenues had been based on information that artificially inflated the numbers, this should be corrected.

The Inquiry has accepted this premise because it received expert advice that a LITS can be applied at the commencement of independent economic regulation, and that did not occur in SA until 2013. Equally, the Inquiry has determined that in the period of the TS/RS (from 2004/5 to 2012/13) and on-going, the government was duty bound by the CoAG and NWI pricing principles (even if not strictly legally bound).

Case GOV3

The Inquiry therefore will conduct a CoAG/NWI compliant approach to developing the target revenues for the years 2012/13 to 2015/16, similar to the approach in the 2012-13 Regulatory Statement. The Inquiry will use the values for the key inputs (such as capex, escalation, WACC, opex and sales volumes) that were used by the government in the Statements commencing in TS 2006-07 through to RS 2012-13. However, the commencing RAB value on 1 July 2006 will be the value determined by the Inquiry of \$4200 million, comprising \$2200 million of legacy assets and \$2000 million of non-legacy assets (as these have been derived from the various Transparency Statements – see Section 6.6), which of course means that \$210 million of pre-corporatisation contributed assets have been removed.

There is a complication with this approach as a result of the uncertainty surrounding the TS/RS values for each input for each year, as the values for a particular year frequently change (but the Inquiry presumes that later Statements should provide more reliable historical information). Each TS and RS was prepared at least one and sometimes two years ahead of the year in question, so the data is always a forecast, never an actual. The only exception to this may be when historical information is included in a Statement and the value has stabilised e.g. the 2008-09 and 2009-10 TS both present historical data back to the 2006-07 year, and the data for 2006-07 in these later Statements is generally consistent across the two Statements. So the Inquiry has chosen to work backwards from the 2012-13 RS, and choose the data for a particular year from the latest TS or RS that refers to that year. We refer to this as the “best” data from the TS/RS.

The Inquiry considered using the values of the inputs determined as the most “credible” by the Inquiry. These values (for capex in particular, but also inflation and depreciation) were developed in consultation with ESCOSA, based on data provided by SA Water for its 2013 Revenue Determination. These numbers are the actual values rather than the forecast values. However, as the Inquiry is attempting in this case to replicate the approach adopted by the government in setting target revenues and the associated RAB, it believes it is more appropriate to use the information that was available to the government at the time. (In the Inquiry’s alternative case, discussed in Section 8.3, which uses a regulatory roll-forward of the RAB from 2006-07, it is appropriate to use actual data because that is what happens in a regulatory determination, where the actual data is substituted for the assumed data at the next regulatory review).

The detailed roll-forward calculation for this case is presented in Table 8.1, using the TS/RS data as described above. It gives a 30 June 2013 closing asset value (in June 13 dollars) of:

Legacy assets:	\$2394 million	(\$2364 million in \$ Dec 12)
Non-legacy assets:	\$4885 million	(\$4825 million in \$ Dec 12)
Total	\$7279 million	(\$7189 million in \$ Dec 12)

These values of the legacy and non-legacy assets can also be used to calculate the return on assets component of the GFFCR (see below).

- Calculating a GFFCR/Target Revenue

The GFFCR was determined by the Government in the various TS/RS reports by calculating a return of 3.1% on legacy assets and 6.0% on non-legacy assets, and adding the estimated operating costs and depreciation. In the 2012-13 RS, the Target Revenue was very close to the GFFCR values (within 1% in total over the three years from 2013-14 to 2015-16).

However, the Inquiry believes there is a need to correct the 3.1% rate of return on legacy assets used by the government. As the Inquiry understands it, the 3.1% rate of return on legacy assets was determined around 2007 by dividing the historical return in the mid-2000s by the asset value in the SA Water accounts. As we have seen previously, this value included a value attributable to contributed assets (as these had been included in the valuation process based on the length of mains and a \$ per kilometre value). As we have decided to remove Contributed Assets from the asset value, we need to correct the denominator in the calculation of the historical return (see Section 6.6). Given a legacy asset value of \$2358 million in July 2006, which we have reduced to \$2200 million after the removal of \$158 million of contributed assets, the return should be calculated as $[3.1 \times 2358 / 2200]$ or 3.32%. In effect, this nullifies the Inquiry’s decision to remove Contributed Assets from the legacy asset classification: an unexpected outcome but one the Inquiry has thought about and discussed with other authorities. Its impact is not huge, as it only affects the legacy assets, and these are a much smaller proportion of the asset base relative to the growing non-legacy asset base; but nevertheless, this change does have an impact on the target revenue.

The target Return on Assets, using the legacy and non-legacy asset values with returns of 3.32 and 6.0% respectively, was \$372 million for 2012-13. The asset value needed to secure this revenue target for 2012-13, with a 5.06% WACC, was determined to be \$7351 million at 30 June 2013 (or \$7261 million in \$ Dec 12).

If the calculation is repeated for the following three years (the years of ESCOSA's first Revenue Determination), the DORC asset values grow by about \$220 million pa (of which about 80% is simply escalation of the asset base), this translating (with returns of 3.32 and 6.0 percent) into a \$13 million pa growth in Return on Assets, and this producing (with a 5.06% WACC) an increase in the estimated economic value of around \$260 million pa. The growth in asset and economic value over this period is explainable by the combined effects of inflation at 2.5% and the net value of capex minus depreciation, as would be the outcome using the standard roll-forward approach adopted by ESCOSA.

The Inquiry therefore does not believe it is necessary to follow the approach adopted by ESCOSA in its Draft Revenue Determination, where it was required to use the revenue targets over the years 2013-14 to 2015-16 (as a RAB had not been set). The Inquiry has checked the roll-forward in the 2012-13 RS and concluded the growth in asset values over the three years is consistent with the additions of capex and the adjustments for depreciation and inflation. The Inquiry can concentrate on determining a value for the asset base at 30 June 2013, using just the year 2012-13 data, knowing that will be appropriate for securing the government's target revenue over the following regulatory period.

The detailed roll-forward calculation for this case is presented in [Table 8.2](#).

The Inquiry has determined a revised RAB economic value at 30 June 2013 using the "best" data from the government's TS/RS reports for capex and escalation, but correcting for the treatment of contributed assets and legacy assets to achieve CoAG/NWI compliance. Using the TS/RS assumed escalation rates, the result is an economic valuation of \$7261 million (in \$ Dec 2012).

The total DORC value of the legacy and non-legacy assets at 30 June 2013 using the TS/RS escalation rates was calculated above to be \$7189 million (in \$ Dec 12). This DORC valuation is lower than the equivalent economic value. Application of a deprival value test would see the DORC valuation adopted in preference to the Economic Value.

For information, if the Inquiry's escalation rates (actual CPI, March to March) are used rather than the TS/RS escalation rates, the economic valuation is \$7155 million and the DORC value is \$7077 million (in \$ Dec 12) – the escalation rates used in the TS/RS process are on average greater than actual CPI. These EV and DORC values are respectively \$106 million and \$112 million lower than the government escalation rate case.

CASE GOV3-TABLE 8.1

LEGACY ASSETS (METRO ASSETS AS AT 30 JUNE 2006)

SA Water Pricing Inquiry roll forward of the RAB		<i>No capex for legacy assets</i>						
<i>Inflation (as per DTF)</i>		3.5%	3.5%	3.5%	3.5%	3.5%	2.5%	2.5%
Water RAB (\$,000,NOMINAL)		2006/07	2007/08	2008/09	2009/10	2010/11	2011/12	2012/13
Capex/indexation figure from TS/RS		09/10	09/10	10/11	10/11	11/12	12/13	12/13
Opening Balance		2,200,000	2,233,000	2,266,495	2,300,492	2,335,000	2,370,025	2,381,875
Inflation		77,000	78,155	79,327	80,517	81,725	59,251	59,547
depreciation		-44,000	-44,660	-45,330	-46,010	-46,700	-47,400	-47,637
Closing balance		2,233,000	2,266,495	2,300,492	2,335,000	2,370,025	2,381,875	2,393,784
								June 2013 dollars
								2,364,231
								Converted to December 2012 dollars

NON-LEGACY ASSETS (ALL COUNTRY ASSETS AND METRO ASSETS FROM 1 JULY 2006)

<i>Inflation (as per DTF)</i>		3.5%	3.5%	3.5%	3.5%	3.5%	2.5%	2.5%
Water RAB (\$,000,NOMINAL)		2006/07	2007/08	2008/09	2009/10	2010/11	2011/12	2012/13
Capex/indexation figure from TS/RS		09/10	09/10	10/11	10/11	11/12	12/13	12/13
Opening Balance		2,000,000	2,152,915	2,374,619	2,951,266	3,934,524	4,438,857	4,668,569
Inflation		72,135	78,642	92,509	119,604	145,443	113,559	119,127
additions/capex		122,000	188,000	537,000	932,000	442,000	207,000	193,000
depreciation		-41,220	-44,938	-52,862	-68,345	-83,110	-90,847	-95,301
Closing balance		2,152,915	2,374,619	2,951,266	3,934,524	4,438,857	4,668,569	4,885,394
								June 2013 dollars
								4,825,081
								Converted to December 2012 dollars
TOTAL LEGACY NON-LEGACY (NOMINAL)		4,385,915	4,641,114	5,251,758	6,269,524	6,808,882	7,050,444	7,279,179
								7,189,312
								Converted to December 2012 dollars

Methodology	
1	Roll-forward from 2006/07 using the Inquiry calculated opening balance which deducts Contributed assets
2	Roll-forward to June 2013 separately for legacy and non-legacy assets
3	The figure for capex and indexation is obtained from the latest available Transparency/Regulatory Statement
4	Depreciation at 2%
5	Conversion to December 2012 dollars using 2.5% pa as per the majority of DTF Transparency/Regulatory Statements

GOV3_ TABLE 8.2

LEGACY ASSETS (METRO ASSETS AS AT 30 JUNE 2006)

SA Water Pricing Inquiry roll forward of the RAB from 1 July

Inflation (as per DTF)			3.5%	3.5%	3.5%	3.5%	3.5%	2.5%	2.5%	2.5%	2.5%	2.5%
Water RAB (\$,000,NOMINAL)			2006/07	2007/08	2008/09	2009/10	2010/11	2011/12	2012/13	2013/14	2014/15	2015/16
Capex/indexation figure from TS/RS			09/10	09/10	10/11	10/11	11/12	12/13	12/13	12/13	12/13	12/13
Opening Balance			2,200,000	2,233,000	2,266,495	2,300,492	2,335,000	2,370,025	2,381,875	2,393,784	2,405,753	2,417,782
Inflation			77,000	78,155	79,327	80,517	81,725	59,251	59,547	59,845	60,144	60,445
depreciation			-44,000	-44,660	-45,330	-46,010	-46,700	-47,400	-47,637	-47,876	-48,115	-48,356
Closing balance			2,233,000	2,266,495	2,300,492	2,335,000	2,370,025	2,381,875	2,393,784	2,405,753	2,417,782	2,429,871

NON-LEGACY ASSETS (ALL COUNTRY ASSETS AND METRO ASSETS FROM 1 JULY 2006)

Inflation (as per DTF)			3.5%	3.5%	3.5%	3.5%	3.5%	2.5%	2.5%	2.5%	2.5%	2.5%
Water RAB (\$,000,NOMINAL)			2006/07	2007/08	2008/09	2009/10	2010/11	2011/12	2012/13	2013/14	2014/15	2015/16
Capex/indexation figure from TS/RS			09/10	09/10	10/11	10/11	11/12	12/13	12/13	12/13	12/13	12/13
Opening Balance			2,000,000	2,152,915	2,374,619	2,951,266	3,934,524	4,438,857	4,668,569	4,885,394	5,105,309	5,315,296
Inflation			72,135	78,642	92,509	119,604	145,443	113,559	119,127	124,572	129,933	135,170
additions/capex			122,000	188,000	537,000	932,000	442,000	207,000	193,000	195,000	184,000	183,000
depreciation			-41,220	-44,938	-52,862	-68,345	-83,110	-90,847	-95,301	-99,658	-103,946	-108,136
Closing balance			2,152,915	2,374,619	2,951,266	3,934,524	4,438,857	4,668,569	4,885,394	5,105,309	5,315,296	5,525,329
TOTAL (LEGACY + NON LEGACY)			4,385,915	4,641,114	5,251,758	6,269,524	6,808,882	7,050,444	7,279,179	7,511,062	7,733,078	7,955,200

Methodology

1	Roll-forward from 2006/07 using the Inquiry calculated opening balance which deducts Contributed assets
2	Continue roll-forward from Table 8.1 to June 2016 separately for legacy and non-legacy assets
3	The figure for capex and indexation is obtained from the latest available Transparency/Regulatory Statement
4	Depreciation at 2%
5	Conversion to December 2012 dollars using 2.5% pa as per the majority of DTF Transparency/Regulatory Statements

8.2 The Inquiry Case

Case INQ1

The alternative case to be considered by the Inquiry works from the premise that the most appropriate date to commence a regulatory roll-forward process was the legacy date, when the government decided that certain assets in existence at 30 June 2006 (those assets not earning the WACC rate of return) would be classified as legacy assets and receive only the historical return in the future, whereas other assets that were earning a full WACC return at the time, and all new investments, would receive the full WACC return in the future.

This date was important, as it recognized that all future investments would be treated as commercial and should be guaranteed a commercial rate of return, to attract the necessary capital to maintain and grow the water services that supported the State. The Inquiry's preference for this approach has been outlined in its previous reports and will not be elaborated on again in this report.

We have discussed previously the appropriate starting date (1 July 2006), and the opening asset value at that time (\$4,200 million) - see Sections 6.2 and 6.6.

The Inquiry has undertaken modelling using this information and other information on capital expenditures (from ESCOSA based on SA Water information provided to the 2013 Revenue Determination) and using actual CPI information (with a 3 month lag, March to March). We have also used a 2% depreciation allowance.

As the escalation rates used by the Inquiry are actual CPI, and the CPI for 2012-13 was 1.6%, in converting from June 2013 dollars to December 2012 values, we have used a deflator of 1.008 rather than the 1.0125 value used in the government cases.

The Inquiry Case data is in general different from that used in the previous section (where we used in one part the data from the TS/RS documents without modification, and in the other, data modified by the Inquiry to correct what – in its view – were non-compliances with the CoAG and NWI principles, but which left the TS/RS data on capex and escalation in place).

The Inquiry roll-forward approach (using actual data) generally had lower inflation than assumed in the TS/RS process; the depreciation numbers were broadly consistent across all years; and the actual capex was lower than the earlier TS estimates and higher than the TS values from 2010 onwards: but the overall effect is not great as the various factors cancel each other out!

The results of the Inquiry roll-forward calculation are shown in [Table 8.3](#).

They show an asset valuation at 30 June 2013 of \$7209 million (in \$ June 13) or \$7151 million (in \$ Dec 12).

Case INQ2

The Inquiry used the same information as in the above case, but separately rolled forward the legacy and non-legacy asset classes. The roll-forward calculation is shown in [Table 8.4](#). The asset values at 30 June 2013 were:

Legacy assets	\$2333 million (\$ June 13)	\$2315 million (\$ Dec 12)
Non-legacy assets	\$4876 million (\$ June 13)	\$4837 million (\$ Dec 12)
Total	\$7209 million (4 June 13)	\$7152 million (\$ Dec 12).

The Inquiry then used the values of legacy and non-legacy assets at June 2013 to calculate a GFFCR target Return on Assets using the 3.32% and 6.0% rates of \$370 million. This was converted to an EV based RAB using a 5.06% WACC.

This produced a RAB value of \$7312 million (or \$7254 million in \$ Dec 12).

In this instance, using the Inquiry roll-forward approach, the EV is higher than the DORC value, so the application of a deprival value test in mid 2013 would see the RAB set at the DORC valuation of \$7152 million (in \$ Dec 12).

Case INQ3

The Inquiry investigated the outcome if the Government had, in 2006, reduced the value of the legacy assets instead of instituting the GFFCR methodology and the 3.1% return on legacy assets: this is the approach adopted in most other jurisdictions.

The value of the legacy assets would have been set to achieve the 6% return (i.e. \$2358 million by the ratio 3.1/6) or \$1217 million – the same answer is achieved if contributed assets are first removed and the resulting value of \$2200 million is multiplied by the ratio 3.32/6. Hence the Inquiry commenced the roll-forward in July 2006 using a legacy asset value of \$1217 million and a non-legacy asset value of \$2000 million.

The detailed roll-forward calculation is shown in Table 8.5.

The closing DORC RAB value in June 2013 was \$6166 million (in \$ June 13) or \$6117 million (in \$ Dec 12).

Applying the full 6.0% WACC gives a target Return on Assets for 2012-13 of \$369.9 million. If the Government elected to secure that target revenue despite the decline in the WACC to 5.06%, as it was entitled to do, the value of **the EV RAB would be \$7310 million (in \$ June 13) or \$7251 million (in \$ Dec 12).**

CASE INQ1-TABLE 8.3

<i>Inflation (as per ESCOSA methodology)</i>		2.9%	2.5%	4.3%	2.4%	2.9%	3.3%	1.6%	
Water RAB (\$,000,NOMINAL)		2006/07	2007/08	2008/09	2009/10	2010/11	2011/12	2012/13	
Opening Balance		4,200,000	4,352,701	4,547,440	5,177,499	6,081,308	6,594,080	6,971,662	
Inflation		124,435	110,326	205,416	136,852	184,146	219,492	115,620	
additions/capex		113,400	173,200	520,800	879,300	454,800	292,900	263,484	
depreciation		-85,134	-88,786	-96,157	-112,343	-126,174	-134,811	-142,068	
Closing balance		4,352,701	4,547,440	5,177,499	6,081,308	6,594,080	6,971,662	7,208,698	June 2013 dollars
								7,151,486	Converted to December 2012 dollars

Methodology	
1	Roll forward from 06/07 using single opening balance (not split into legacy/non-legacy)
2	ESCOSA advice on figures for Capex
3	Actual CPI with 3 month lag (March to March)
4	depreciation at 2%

CASE INQ2-TABLE 8.4

LEGACY ASSETS (METRO ASSETS AS AT 30 JUNE 2006)

Roll forward of the RAB from 1 July 2006 to 30 June

<i>Inflation (as per ESCOSA methodology)</i>		2.9%	2.5%	4.3%	2.4%	2.9%	3.3%	1.6%
Water RAB (\$,000,NOMINAL)		2006/07	2007/08	2008/09	2009/10	2010/11	2011/12	2012/13
Opening Balance		2,200,000	2,220,312	2,231,085	2,281,787	2,291,743	2,312,802	2,341,858
Inflation		64,312	55,179	95,323	55,592	66,894	75,312	38,118
depreciation		-44,000	-44,406	-44,622	-45,636	-45,835	-46,256	-46,837
Closing balance		2,220,312	2,231,085	2,281,787	2,291,743	2,312,802	2,341,858	2,333,138
								June 2013 dollars
								2,314,621
								Converted to December 2012 dollars

NON-LEGACY ASSETS (ALL COUNTRY ASSETS AND METRO ASSETS FROM 1 JULY 2006)

<i>Inflation (as per ESCOSA methodology)</i>		2.9%	2.5%	4.3%	2.4%	2.9%	3.3%	1.6%
Water RAB (\$,000,NOMINAL)		2006/07	2007/08	2008/09	2009/10	2010/11	2011/12	2012/13
Opening Balance		2,000,000	2,132,389	2,316,355	2,895,713	3,789,566	4,281,278	4,629,804
Inflation		60,123	55,146	110,092	81,260	117,252	144,180	77,502
additions/capex		113,400	173,200	520,800	879,300	454,800	292,900	263,484
depreciation		-41,134	-44,380	-51,535	-66,707	-80,339	-88,555	-95,231
Closing balance		2,132,389	2,316,355	2,895,713	3,789,566	4,281,278	4,629,804	4,875,559
								June 2013 dollars
								4,836,865
								Converted to December 2012 dollars

Methodology

1	Use the starting balance at 1/7/06 using the legacy /non-legacy assets figures calculated from the 08/09 Transparency Statement
2	Deduct pre-corporisation contributed assets
3	Depreciation at 2%
4	Indexation using CPI Indices for All groups Australia as per ABS. Regulatory approach of cpi lag methodology.
5	Capital Expenditure figures provided by ESCOSA (Essential Services Commission of South Australia)

CASE INQ3-TABLE 8.5

<i>Inflation (as per ESCOSA methodology)</i>	2.9%	2.5%	4.3%	2.4%	2.9%	3.3%	1.6%
Water RAB (\$,000,NOMINAL)	2006/07	2007/08	2008/09	2009/10	2010/11	2011/12	2012/13
Opening Balance	3,217,000	3,360,625	3,550,551	4,157,956	5,057,316	5,560,678	5,925,277
Inflation	95,699	85,671	162,824	112,013	154,257	185,841	98,588
additions/capex	113,400	173,200	520,800	879,300	454,800	292,900	263,484
depreciation	-65,474	-68,944	-76,219	-91,952	-105,694	-114,143	-121,140
Closing balance	3,360,625	3,550,551	4,157,956	5,057,316	5,560,678	5,925,277	6,166,209
							6,117,271
							June 2013 dollars
							Converted to December 2012 dollars

Methodology	
1	Roll forward from 06/07 using combined legacy balance \$1,217m and non-legacy balance of \$2,000m
2	ESCOSA advice on figures for Capex
3	Actual CPI with 3 month lag (March to March)
4	depreciation at 2%

8.3 Summary of Evaluation

The Inquiry has considered a number of approaches to determining what a “reasonable” value of the Initial RAB might be, both from the perspective of the government and from its own view as to the correct application of the CoAG/NWI principles.

The government perspective uses predominantly the information in the TS/SA documents and principally the 2012-13 RS: the intention being to use the raw data as applied by the government without modification. The results were as follows:

Government RAB Values at 30 June 2013 (\$ million, Dec 2012)

CASE	DORC RAB	EV RAB	Comments
GOV1	7397	-	RAB closing value for 2012-13 reported in Table 9 12-13 RS. Value includes contributed assets and the full value of legacy assets.
GOV2	-	7261	Adopts the 2012-13 revenue target in 12-13 RS, but calculates what RAB would need to be if WACC is 5.06%. The revenue target was based on the legacy/non-legacy returns in GFFCR of 3.1 and 6.0% and asset values from GOV1.
GOV3a	7189	7261	Uses the Inquiry opening asset values in July 2006 (therefore removes Contributed Assets) and rolls forward using the capex and escalation values from the TS/RS.
GOV3b	7077	7155	As for GOV3a, except uses Inquiry escalation (CPI) rather than government rates. Adopts ‘best’ TS/RS capex numbers.

The GOV1 case is simply the full value of assets (legacy and non-legacy combined) as presented by the government, and is the DORC value developed by the government over the TS/RS process. It has not been adjusted for any of the views of the Inquiry, and therefore represents in the eyes of the Inquiry the absolute highest value that could be supported. It is the value that the Treasurer indicated in his letter to ESCOSA of April 2013 that he would determine, prior to changing to a value which was based on securing the target revenue. It is, in the Inquiry’s view, an outlier and not reflective of the findings of the Inquiry.

The GOV2 case uses the asset values from the 12-13 RS, but more specifically targets the forecast revenues for the period 2012-13 to 2015-16. While the target revenues are inflated by the high RAB (as in GOV1), the complex interplay between legacy (moving from 3.1 to 5.06% return) and non-legacy (moving from 6.0 to 5.06% return) assets does result in a small reduction in value of the legacy assets. The overall result is more credible than GOV1, but is still inflated by the use of the inflated RAB values (which still contain contributed assets).

The GOV3a case uses the information from the 2012-13 RS (especially the capex and escalation numbers), but the roll-forward commences from the asset values declared by the Inquiry (which have had the Inquiry's value for contributed assets removed). This is considered to be more credible and compliant than GOV2.

The GOV3b case is not strictly based on the government TS/RS information as it uses the actual CPI escalation rather than the government rates (although this information was available to the government if it chose to use it). It does illustrate that changing a simple input like the escalation rate can have a significant impact on the final value (in this case about \$106 million reduction in RAB value).

The Inquiry perspective uses the information from ESCOSA concerning actual capital expenditure (provided by SA Water in a formal submission to the Commission), actual CPI (using a March to March quarter value as is used in ESCOSA revenue determinations), and a 2% depreciation rate which is also the rate generally applied by the Commission. The Inquiry believes this information is the most reliable, and as it is historical and audited, prefers it to the forecast numbers used in the TS/RS process. The results were as follows:

Inquiry RAB Values at 30 June 2013 (\$ million, Dec 2012).

CASE	DORC RAB	EV RAB	Comments
INQ1	7151	-	This is the Inquiry base case, using opening values in 2006 corrected for Contributed assets, and rolling forward using actual capex and escalation to give a DORC based RAB value.
INQ2	7151	7254	This uses the INQ1 value for legacy and non-legacy asset values in June 13 to calculate a target return on assets using 3.32 and 6.0% returns, and then calculating an EV to deliver this return at a 5.06% WACC.
INQ3	6117	7251	This alternative approach examines the outcome if the government followed interstate practice and reduced the legacy asset value in 2006, but used a LITS valuation in 2013 to secure the forecast rate of return revenue.

The Inquiry analysis adopts a starting asset value on 1 July 2006 of \$4200 million. In Section 6.6, where this value was derived, the Inquiry elected to adopt this value (subject to further discussion with stakeholders) which was at the higher end of a range of \$4150 to \$4200 million, based on a deprival value consideration of various DORC and EV calculations. The above values would be approximately \$50 million lower if the Inquiry had adopted the Deprival Value methodology.

The INQ1 case is a pure DORC based RAB, achieved by rolling forward the Inquiry determined opening values for July 2006, using the actual capex and CPI escalation values for the period to June 2013. It reflects the outcome likely to have been achieved if ESCOSA had become the economic regulator in July 2006 and undertaken a standard

regulatory roll-forward (of course, it does not incorporate any savings that ESCOSA would have applied by reviewing SA Water's expenditure proposals).

The INQ2 case uses the Inquiry RAB to calculate a return on assets for the GFFCR revenue stream, and then adjusts this for the 5.06% WACC so as to secure the revenue stream. It gives a slightly higher EV RAB than the DORC value.

The INQ3 case considers what would have been the outcome if the DORC value of legacy assets was adjusted in 2006 to achieve the same return on asset but using the then WACC value of 6.0%, and then rolling forward the lower value to 2013. It shows that the DORC RAB value would be significantly lower, but the URB revenue target would be almost identical to the INQ2 case. If the government drew a LITS in June 2013 to secure this revenue, the EV RAB would be similar to the INQ2 case.

If the government cases and Inquiry cases are compared, there is not a lot of difference in the values.

DORC Values

If we consider the DORC values, the upper bound (of \$7397 million) is set by the RS 12-13 number for the total of all assets without accepting any of the Inquiry's views. Even so, this value is \$373 million below the value of the Initial RAB set by the Treasurer.

If the other DORC values are considered, the GOV3 value at \$7189 million is very similar to the INQ1 and 2 value of \$7151 million (and if account is taken of the impact of government escalation factors, the Inquiry value of \$7151 million is probably a reasonable reflection of the analysis).

The lower bound value in INQ3, while historically interesting, is of less interest once it is accepted that the government had the right to set an EV in 2013 up to the value of the URB, which it had aspired to since 2004.

A DORC RAB value of \$7151 million is around \$620 million below the Initial RAB value.

EV Values

The EV values are remarkably similar, which is not surprising given they are based on securing the ROA revenue stream from very similar DORC asset values. The GOV2 and GOV3a numbers of \$7261 million are very close to the INQ2 and INQ3 values of \$7254 and \$7251 million. The only outlier is the GOV3b calculation of \$7155 million, applying the Inquiry escalation rates to the GOV3a case.

An EV RAB value of around \$7255 million is \$515 million below the Initial RAB value.

8.4 Conclusion

The purpose of the above exercise has not been to determine a new RAB value: it has been to use the modelling to understand the impact of the different inputs, and to determine if the decisions behind them were reasonable or not.

As we have emphasized throughout the Inquiry process, it is not the role of, nor appropriate for, the Inquiry to state that any one of these values is more "correct" than the number adopted by the former Treasurer in setting the Initial RAB value at \$7.77 billion: there are many assumptions and prejudices behind both values.

Nevertheless, the Inquiry does believe there are some conclusions to be drawn:

- Even if all the Inquiry's views on reasonableness are ignored, it is difficult to support a value for the Initial RAB in June 2013 of \$7,770 million (in \$ Dec 12).
- On the government's own calculations, the maximum number the Inquiry can observe is around \$7,400 million, which is the value in the 2012-13 RS and endorsed by the Treasurer in April 2013.

- The range the Inquiry believes is most credible is between \$7150 million (based on DORC) and \$7250 million (based on EV). These values would be \$50 million lower if the Inquiry applied strictly the Deprival Value methodology in setting the opening value in July 2006.

The following Chapters will discuss the near-final conclusions of the Inquiry, the possible options available to the Treasurer for consideration, and the final steps leading to the conclusion of the Inquiry at the end of June 2019.

9. A BALANCED BARGAIN

As recent droughts demonstrate, water is an essential element of life: it is a precious resource, and its management requires sensitivity and balance. It affects the lives of all South Australians and the viability of many key industries in the State. Its price affects the demand for this resource, but also the ability of consumers and businesses to pay. Obviously, the revenue affects the financial viability of SA Water, its ability to deliver a quality water service, and the return it pays to government. Getting the price for water at the right level is a matter of balance between these objectives, and that requires that the value of RAB be set to achieve that balance.

The main problem with the process that set the value of the Initial RAB was that it failed most of the tests with respect to transparency, justification, consultation and independent review. To this day, and despite the work of the Inquiry, there is no clear understanding of how the actual value was determined. Of course, the Inquiry has stated from its commencement that there is no correct value: it is a socio-political construct to set a price which balances the interests of the owner and the customers and achieves the social and economic objectives of the government.

The problem in this instance is that the government was both the decision maker and the beneficiary, and that requires real effort on their part to demonstrate balance and credibility – the other important elements of ‘reasonableness’ in addition to compliance.

The Inquiry has to look beyond the question of whether the government complied with its obligations under the relevant Acts and Agreements: it has to determine if the actions were ‘reasonable’. The process the Government undertook, the TS/RS methodology and the final unknown approach to setting the Initial RAB value behind closed doors, do not assist its case.

The number chosen was not reviewed or reviewable (and even the commitment to review it prior to the following Regulatory reset does not appear to have been undertaken, at least publicly). The approach taken does not readily demonstrate that it balanced the interests of consumers against the government’s own interest in securing its revenue.

According to the Inquiry’s analysis (which will be tested through the release of this report), the government’s own numbers – neither the DORC asset valuation they argued for over the previous decade, nor the economic valuation to secure the forecast revenue stream - support the value that was determined. Even without accepting any of the Inquiry’s views concerning non-compliance with CoAG/NWI pricing principles, the value appears to be significantly inflated.

The Inquiry has come to the view that a reasonable person would decide that the value is excessive and should be reduced.

It accepts, however (and this was reinforced at the Workshop with key stakeholders) that this is a sensitive and delicate matter, as the revenue streams from this business are used by the government to support social and economic programs (it would be interesting to see what the view would be if the business was privately owned – and the Inquiry sees no reason to differentiate!). So we need to look at the issues and attempt to balance the interests of the two parties. As we have noted before, the cover picture on this report demonstrates that balance does not mean equal – it can be appropriate to reflect the higher importance of social/economic interests than the private.

To obtain some “feel” for the issues regarding what a balanced response might be, the Inquiry has briefly considered three positions that might reflect different weightings to the Inquiry’s conclusions:

Leave the RAB Value Unchanged

Arguments in support of this position might include:

- In drawing a LITS in May 2013, the government was legally entitled to revalue the assets. Given the uncertainty around both DORC and Economic valuations, it was entitled to determine a number which did not result in a price increase.
- Water is a scarce resource and holding the RAB at a high value gives an important message to consumers and encourages sustainable use.
- The higher RAB supports an increased return to government, which is used to fund many important social and business programs (including postage stamp pricing for regional customers and payments to those in need).
- Customers have become used to the current price of water; for most customers and businesses, it does not represent a major cost.
- The higher returns to government support on-going investment in measures to address water security and environmental challenges, which are important for future generations.
- Leaving the RAB value unchanged is a fair balance between the interests of current and future consumers, ensuring the burden is not transferred to future generations.
- The benefit to individual customers would be small (eg a RAB reduction of (say) \$400 million would result in an annual reduction in revenue of about \$25 million (ROA plus depreciation) or \$33 per customer per annum), whereas the benefit to society can be significant.

Correct the Glaring Errors

There is an argument that the government needs to do something to demonstrate that the former process gave limited regard to the interests of consumers, and acknowledges that certain of the actions are hard to justify. While not supporting the range of corrections the Inquiry has identified, this view might put the following arguments in support of a moderate approach:

- On the government's own numbers, there appears to be little evidence to support increasing the RAB above the DORC valuation that was presented in the 12-13 RS; indeed, this value included a full valuation of legacy assets and included the pre-corporatisation contributed assets. A reasonable response by government would be to at least correct this decision.
- A small change in RAB would have a minimum impact on government revenues but demonstrate a commitment to consumers and business to take a fair and balanced approach.
- This step would demonstrate a willingness to reverse and correct errors that are unfairly benefitting government over the interests of individuals and businesses.
- There would still be significant revenues to government to support social and business programs, with funding from increased debt repayment margins off-setting any decrease in tax equivalent payments and dividends.
- This should have a minor impact on water prices and continue to give a strong message about the scarcity of water and the need to use it efficiently.

Address All the Concerns

A number of individuals and organisations have been calling on the government to review this matter for many years: it is now over 6 years ago that the value of the Initial RAB was set (and many of the components were in place for the previous 10 years of the TS/RS process). The impact of the decision has been felt in regulated water prices from 2013-14 to 2019-20. There is an argument that the government has benefitted from an inflated RAB value for many years, and it is time that this was corrected. Further, given the period of time, it is argued that the full correction identified by the Inquiry should be passed on to consumers: some would argue they should receive even more, given they have been overcharged for many years! Arguments in support of this position might include:

- The Inquiry has identified a number of areas where it believes the government failed to comply with CoAG and NWI principles, and concluded that the government was duty bound (and possibly legally bound) to comply with these, particularly as the government received Commonwealth funding subject to complying: these matters should be addressed, and fully complied with.
- The government has been the recipient of revenues that it was not entitled to; the least it can do is to fix these problems going forward, even if it does not restore the revenue illegally gained.
- The impact of reducing the RAB by (say) \$600 million would be a reduction in revenue of around \$37 million per annum (ROA plus depreciation): this is not a large sum and is well below the current and likely future payments to the government by SA Water. Funding for important government programs should not be significantly affected.
- The reduction in price would assist families and businesses struggling with costs, and would assist the economy.
- The lower RAB should not impact SA Water’s financial capacity to deliver world class water services, as it has the opportunity in its current Revenue Application to seek and justify every necessary capital and operating expenditure: these decisions by ESCOSA will not be impacted by a reduction in regulatory asset value.
- The reduction in RAB would go some way (but not completely) to moving the RAB per customer connection and the RAB per volume of water delivered for SA Water back towards the levels for interstate water businesses.

The Inquiry has sought to understand the views of the different parties on what a “reasonable” approach would be. There is no “right” answer, and the information provided by the Inquiry will allow the current government to weigh up the different views and give consideration to these options. The Inquiry believes that all three views above have strengths and weaknesses, and recognizes it is for the government to make the decision as to whether it should change the value of RAB for the next Revenue Determination. However, that does not stop the Inquiry from putting forward its own view on what might be a “reasonable” outcome, a reasonable balance between the interests of consumers and the government, a reasonable bargain that settles for once and for all the dispute surrounding this matter.

9.1 The Inquiry View

There appear to be two levels of consideration that need be applied to these matters: the first is about how the government used its own numbers to create an Initial RAB value, and the second concerns how the controversial issues of contributed assets, legacy assets and deprival value are handled.

On the first matter, the Inquiry believes that the evidence is pretty strong that the government numbers do not support the Initial RAB value:

- If we use without any modification the DORC derived value of RAB for 30 June 2013 that is given in the 2012-13 Regulatory Statement, then the value would be \$7397 million (in \$ Dec 12). Now this number is clearly at the high end, as it treats legacy assets at their full DORC value, and includes pre-corporatisation contributed assets.
- If we use the economic value of RAB necessary to deliver the same return on assets as is reported in the 2012-13 Regulatory Statement, but at a 5.06% WACC, then the value would be \$7261 million (in \$ Dec 12). This number reflects the outcome of a number of complex interactions between the decrease in return on assets for non-legacy assets (from 6.0% to 5.06%), the increase in return on legacy assets (from 3.1% to 5.06%) and the consequential small write-down in legacy asset value.

On the second matter, the Inquiry has examined at some length the issues around pre-corporatisation contributed assets (where it concluded the number was not zero and calculated an uncertainty-based value of \$210 million), the treatment of legacy assets (where it endorsed the unusual approach of the GFFCR and adopted the government’s

treatment in its analysis but increased the allowable return on legacy assets), and deprival value (where it undertook an assessment at the commencement of the Inquiry's roll-forward approach in July 2006 but adopted the DORC valuation as more credible). The Inquiry used these detailed assessments to undertake its own roll-forward valuation, and calculated a 30 June 2013 RAB value of \$7150 million (in \$ Dec 12). This number is \$620 million below the value of the Initial RAB set by the Treasurer (it would be \$670 million below if the Inquiry strictly applied the Deprival Value methodology, as discussed in Section 6.6).

The incremental impact of addressing these issues is not large (an additional \$111 million relative to the government case economic valuation of \$7261 million). Indeed, it could be seen as a small price to pay for finally addressing all of the issues that have dogged this debate for the past decade.

9.2 Conclusion

The Inquiry has attempted to take a balanced view of the arguments in favour of not changing the Initial RAB value, and those for changing it. Despite giving the case for no change every consideration, it is unable to endorse it. The Inquiry believes strongly that the number must be credible, and its origin able to be explained and understood. It must be able to demonstrate that fairness and independent assessment were part of its determination, but the Inquiry has been unable to get that comfort. The Inquiry must conclude there is a strong case for change, on the evidence before it.

Further, as the government has benefitted from this inflated value for many years, there is some justification for taking a sympathetic view of those changes. It is a matter of judgement and balance, driven by considerations of compliance and credibility.

Accordingly, having considered all of the above issues, the Inquiry is likely to conclude that a "reasonable" value for the Initial RAB would most likely lie in the range \$7150 million to \$7250 million (in \$ Dec 12).

If, however, the Inquiry's conclusion regarding the requirement for compliance with CoAG and NWI Principles is not accepted, the Inquiry is likely to recommend that the government at least give consideration to adopting the value of RAB in the 2012-13 RS of approximately \$7400 million (in \$ Dec 12).

10. THE NEXT STEPS

The Inquiry has now completed the body of its investigation, but given the changes it has adopted following on from its Workshop in March 2019, it has determined that it will hold another Workshop to discuss these conclusions before finalizing its report to the Treasurer.

This **Balanced Bargain** report is to be released in early May, and it is intended to hold a Workshop in late May to explain its findings and to discuss the conclusions with stakeholders.

Any changes arising from that Workshop will be incorporated in the Final Report, due to be presented to the Government in late June 2019.

The Inquiry is seeking written comments on this report by 31 May 2019, so it has time to consider the views alongside the discussion at the Workshop, in the preparation of the Final Report.

Comments should be forwarded to:

Ms.A.Pataki
Executive Officer
SA Inquiry into Water Pricing
GPO Box 1045
ADELAIDE SA 5000

or emailed to waterpricinginquiry@sa.gov.au

Telephone inquiries should be directed to the Executive Officer on 84290634.

APPENDIX 1

SUMMARY OF OUTCOMES FROM STAKEHOLDER WORKSHOP

HELD 4 MARCH 2019

Inquiry into Water Pricing in South Australia

Stakeholder Workshop

4 March 2019

SUMMARY REPORT



Contents

- Background and context..... 3
 - Workshop approach..... 3
 - Summary Report 3
- Topic 1 - Reasonableness..... 4
 - Session overview..... 4
 - Discussion themes..... 4
- Topic 2 – Methodology and process for setting the Initial RAB 6
 - Session overview..... 6
 - Discussion themes..... 6
 - Technical and pocess considerations..... 8
 - Timing 8
- Topic 3 – Contributed Assets 9
 - Session overview..... 9
 - Summary of discussion..... 10
- Topic 4 - Implementation considerations 11
 - Session overview..... 11
 - Discussion themes..... 11
- Any Other Matters 13
- Appendix A: Workshop attendance list 14

Background and context

In August 2018 the South Australian Treasurer established an inquiry into water pricing in South Australia (“the Inquiry”). The objective of the Inquiry is to consider and report on the reasonableness of the opening value of SA Water’s Regulated Asset Base (RAB), which forms part of the SA Government’s broader consideration of whether the revenue that SA Water is permitted from its drinking water retail service reflects the cost of providing these services.

Since being established, the Inquiry has delivered three discussion papers detailing its investigations into the opening value of the RAB. The latest paper, *A Cautious Conclusion*, was released in December 2018, and provided tentative recommendations that could form the basis of the Inquiry’s response to the Treasurer.

Prior to the release of the Inquiry’s fourth discussion paper (expected to be released in May 2019) and its Final Report to the Treasurer (due in June 2019), the Inquiry sought a workshop with key stakeholders to:

- canvas feedback on the findings presented in *A Cautious Conclusion*
- better understand stakeholder views in regards to matters still under consideration, and
- consider any other matters in relation to the Inquiry.

The Inquiry’s Final Report will be considered by the SA Government and may inform the value of the RAB and related matters for the next regulatory determination by the Essential Services Commission of SA (ESCOSA) for SA Water covering the period 2020-21 to 2023-24.

Workshop approach

The workshop was held on 4 March 2019. It was attended by representatives from the SA Government, SA Water, Essential Services Commission of South Australia (ESCOSA), Water Services Association of Australia (WSAA), as well as various consumer advocacy groups and their technical advisors (a full list of attendees is provided at Appendix A). The workshop agenda was split into four key topics under further consideration of the Inquiry, followed by an opportunity to discuss any other relevant matters:

Topic 1 - Reasonableness

Topic 2 - Methodology and process for setting the initial RAB

Topic 3 - Treatment of contributed assets

Topic 4 - Implementation considerations

Summary Report

This report is provided as a summary of the workshop discussion. It has been structured in accordance with the workshop agenda. For simplicity, where possible, discussion points have been grouped into key themes.

This report presents the views expressed by participants during the workshop. The workshop was delivered under ‘Chatham House Rules’ and, subsequently, no attribution of these views to individuals or organisations has been made. Importantly, the basis of these views has not been reviewed as part of the report, and the Inquiry makes no representations in regard to their validity.

Topic 1 - Reasonableness

Session overview

Topic 1 explored stakeholders' views regarding the Inquiry's interpretation and application of the term reasonableness. The Water Pricing Inquirer, Lewis Owens, introduced the topic and explained the Inquiry's approach taken within *A Cautious Conclusion*. This was followed by a presentation of research and comments regarding 'reasonableness' in a regulatory context.

Participants were asked to consider two questions in relation to the Inquiry's interpretation of reasonableness:

- 1 What are your views on the approach taken by the Inquiry in considering "reasonableness"? (Sensible, Fair, Moderate)
- 2 What are your views in regard to the proposed treatment of decisions as a recommendation? (Reasonable, Not Reasonable or Unfair, Unreasonable).

Alignment to the Terms of Reference

1(a) The reasonableness of the opening value of SA Water's regulated asset base (RAB) established by the Second Pricing Order made by the then Treasurer on 17 May 2013

Discussion themes

In considering the Inquiry's interpretation of "reasonableness", participants' comments could be broadly broken into three themes:

- 1 The elements and categorisation of reasonableness
- 2 The importance of the perspective the inquiry chooses to take
- 3 Temporal context and considerations.

The elements and categorisation of reasonableness

Participants raised a number of considerations in regard to the Inquiry's proposed elements of reasonableness, as well as Uniting Communities' written submission to the Inquiry which proposed that "ethical" should be included as a fourth element. Discussion included whether:

- 'ethical' is already covered by 'fair'; and whether inclusion would open the inquiry's framework to subsequent challenge or criticism regarding the ethical nature of decisions.
- 'moderate' and 'prudent' in the categorisation proposed in *A Cautious Conclusion* could be in conflict in certain circumstances
- 'sensible' reflects or includes 'sustainable' (social, environmental and economic) and whether this link could be explicitly drawn.

Overall, the discussion appeared to reflect a broad recognition that the elements used by the Inquiry to consider and respond to the 'reasonableness' of the opening value of the RAB were in and of themselves, reasonable.

When asked, participants also did not offer any particular strong views or objections to the classifications used by the Inquiry regarding assessment of decisions regarding the SA Government RAB (Reasonable, Unfair or Not reasonable, Unreasonable) and the associated recommendations to the Government associated with each category.

The importance of the perspective the inquiry chooses to take

It was acknowledged that the Terms of Reference do not provide guidance on the perspective from which reasonableness is to be applied, and that any assessment of the reasonableness of the opening value of the RAB is subject to the perspective the Inquiry chooses to take.

In that context, the workshop discussed a number of important considerations when choosing a perspective:

- legal vs regulatory perspective:

Participants noted that the Inquiry had chosen more of a regulatory reasonableness test rather than purely legal, given that all decisions were well within any legal boundaries. There was no objection made to this as a necessary prerequisite during the discussion.

To inform this perspective, discussion highlighted some of the public's expectations of regulation, in particular protecting the long term interests of consumers and avoiding price shocks.

- compliance vs consistency with other jurisdictions

Without offering any opinion of the validity of each, discussion noted the significant difference between assessing reasonableness in terms of compliance with policy and/or national initiatives, as opposed to comparing the approach taken in other jurisdictions.

- the reasonableness of the process vs the outcome:

It was suggested that, ultimately, there is a public expectation for the reasonableness of both the process and the outcome.

A reasonable process could be viewed as a necessary prerequisite for getting a 'good' outcome, or the credibility of the outcome. An outcome that is not acceptable raises questions about the appropriateness or legitimacy of the process.

It was noted that Water prices have risen threefold over the past decade. If the reason for such increases was transparently conveyed to customers, the prices (and process) may have been more readily accepted.

Temporal context and considerations

The workshop also discussed the importance of due consideration of whether the Inquiry is assessing the reasonableness of the RAB in retrospect or rather in the context of the time of decision-making. Depending on the view taken, considerations should include:

- the data available at the time
- the environmental and political context, such as the millennium drought and growing acknowledgement of the scarcity of water
- changes in the public expectations of regulatory process and outcomes, or the importance placed on compliance with the NWI principles.

Topic 2 – Methodology and process for setting the Initial RAB

Session overview

Topic 2 unpacked the key technical, timing and process considerations that led to the opening value of the RAB, and canvassed stakeholders' views regarding the reasonableness of each. The session was broken into three parts:

- 1 The application of the accounting methods in setting the RAB (process)
- 2 The regulatory accounting methods and calculations used to determine the RAB (technical)
- 3 Timing of the commencement date.

A number of presentations were used to share expert perspectives and inform attendees. Whole-of-group discussions gave all the opportunity to contribute views and ideas.

It is acknowledged that the technical complexity of the topic restricted the ability for some participants to share meaningful views on the 'technical' and 'timing' aspects of the RAB.

Alignment to the Terms of Reference

1(a)(i) Asset valuations used to establish drinking water prices in the years leading up to 2013

1(a)(ii) The process for setting the initial RAB for 2013

1(a)(vi) RABs for drinking water services in other jurisdictions, having regard to the key drivers and variables that may affect the value

Discussion themes

Nonetheless, comments could be grouped into the following three themes:

- 1 The reasonableness of the RAB value (from an outcome perspective)
- 2 Technical and process options and limitations
- 3 Timing of decisions, legacy assets and the line in the sand.

The reasonableness of the RAB value (from an outcome perspective)

Comments from various participants challenged the view that the value of the RAB was unreasonable. The three key arguments are explained in turn below.

The value of the RAB and water prices relative to other jurisdictions

First, some participants shared insights from other jurisdictions to contextualise discussion of South Australia's RAB and water price, and argued that SA Water bills are not high relative to other utilities after adjustment for population density. Data was presented that indicated SA Water's typical water and waste water bill in 2017-18 was mid range compared with other utilities (specifically, ninth of 17 utilities listed) and that against an index set at 1998, SA Water's real price increases were the second lowest of the capital cities, although the 1998 index point was not explained for relative prices at the time.

A higher RAB valuation leads to service sustainability, greater price stability and offsets future replacement costs

Second, various participants suggested that a higher RAB value could potentially be viewed as 'beneficial' because:

- 1 The long term price path is not impacted by adjustments to the RAB
- 2 The SA Water RAB provides long term financial sustainability – current prices contain sufficient revenue to maintain current service standards
- 3 Reducing the RAB now would lead to higher price increases in forward years
- 4 additional revenue provides funding for future (higher) replacement costs and, as a result, reduces future price rises (effectively a 'sinking fund').

These perceived potential benefits were in turn countered by the views that:

- returns sufficient to secure investment in future capital works are provided through the regulatory revenue setting process (and recouped through pricing), and that a higher RAB value leads to inflated revenues and prices
- there is no existing mechanism for this revenue to be reinvested (and deducted from a future RAB increase), thus factoring future CAPEX costs into the RAB value would ultimately result in the consumer 'double-paying', and
- the comments assume that price stability is valued greater by consumers than lower prices that are then followed by higher relative price rises (i.e. that flatter prices are a better outcome than price variability involving a period of lower prices).

The significant rises in price between 2005 and 2012 placed an implicit environmental or scarcity premium on the price of water

Third, at various points throughout the workshop, stakeholders suggested that the price rises over the 2005 -2012 period led to a heightened consumer appreciation for the scarcity of water, and was effectively perceived as an 'environmental' price signal now factored into water pricing.

It was suggested that a lower price resulting from any reduction in the RAB could remove this 'implicit' environmental factor, and that consideration should be made as to whether 'explicit' environmental/scarcity factors should be incorporated into the tariff structure.

Technical and process considerations

Presentations were given on the Deprival Value, Economic Value and the Line in the Sand, providing background and explaining the respective methodologies and principles of each.

General feedback from the group acknowledged that there appeared to be no single “right” approach or “right” value. Various approaches to RAB valuations have occurred inter-state and were invariably linked to the government objectives (or desired outcomes) at the time, reflecting the subjective nature of choosing a ‘reasonable’ approach.

The Deprival Value

Definitions of the Deprival Value and the ‘Line in the Sand’ were presented, along with a potted history of their adoption as principles within the regulation of Australia’s water industry.

The discussion highlighted that the National Water Initiative Pricing Principles (2010) allow for a variety of acceptable asset valuation techniques (DRC, DORC, ORC, indexed actual cost, ODV or another recognised valuation method). As mentioned previously, discussion centred on the approaches from other states, often subject to the respective government’s objective at that time (but SA was quite different from all others). It was acknowledged that this may complicate the task of the Inquiry, as there does not seem to be a single approved approach.

Economic Value

The presentation noted that Economic Value is a widely used approach to asset valuation that has the benefit of recognising the distinction between legacy and new assets. It values existing assets consistent with the implicit pre-existing contract with customers, and draws a ‘line in the sand’ so that new asset decisions are then evaluated on a commercial basis. The presentation noted that the key considerations in applying the Economic Value approach are: what are the cash flows – current and future? Over what period? What is the discount rate? And what are the sensitivities and cross-checks?

Line in the Sand

The workshop discussed the line in the sand principle, how it was applied and where it might most appropriately be drawn. Discussion suggested that in the South Australian context for SA Water’s RAB, no clear single line in the sand was drawn and rather multiple ‘lines in the sand’ were drawn. One explanation for this was suggested to be the line in the sand was updated to be reflective of the improving data quality through time, overlaid with a gradual shift towards full economic regulation.

The workshop acknowledged the difficulty in applying the line in the sand methodology for this reason, and no clear feedback was provided regarding an appropriate place to draw the line in the sand.

Timing

Timing of the commencement of the Initial commencement date

A presentation outlined the advantages and disadvantages of the various options to adjust the commencement date for the RAB, which is rolled forward to the opening value. Participants benefitted from the exploration of each of the options, however, no firm feedback was provided.

Topic 3 – Contributed Assets

Session overview

Topic 3 explored the reasonableness of the decision that assets contributed prior to SA Water's corporatisation would not be removed from the RAB and considered the options to appropriately value these assets.

A presentation was given to walk participants through the methodology applied by the Inquiry to calculate a value, prior to tables being asked two questions:

- 1 Should the assets contributed prior to corporatisation remain or be removed from the RAB? (pp 31-37)?
 - a) On what basis?
- 2 What is the most reasonable basis to value the contributed assets prior to corporatisation?
 - a) Is the method used by the Inquiry to calculate the value of contribution assets prior to 1987/88 reasonable (p 37)?
 - b) What is the most reasonable period to calculate a value for contributed assets:
 - I. 1965/66 – 1994/95
 - II. 1965/66 – 1987/88 (1988/89 – 1994/95
 - III. Other?

Alignment to the Terms of Reference

1(a)(i) Asset valuations used to establish drinking water prices in the years leading up to 2013;

1(a)(iii) The treatment of customer contributions in setting the Initial RAB

1(a)(v) Compliance with the National Water Initiative Pricing Principles in relation to the recovery of capital expenditure

Summary of discussion

Stakeholders generally agreed that contributed assets have some value (ie it is not zero), however, the information is unreliable and determining what value to apply is difficult. The question for the Inquiry is how to determine a justifiable value.

Some participants suggested that contributed assets should be included as they needed to be replaced. The counter-view was that customers shouldn't be charged for assets that did not cost the owner (SA Government). Notably, the efficient cost of repairs and replacement of these assets was allowed by the Regulator (Essential Services Commission of SA- ESCOSA) in previous revenue determinations.

In that context, it was suggested that the third methodology (indexation) applied by SA Water within its 2004 memo to the SA Government was more appropriate than the first (historic).

A participant noted that there could be an alternative methodology to the three applied by SA Water in its 2004 memo; that is, keep revenues constant, have the rate of return fixed and back calculate for the desired RAB. It was proposed that this would provide a new RAB and the difference between the existing and the value calculated under this method would be a new value of the pre corporatisation contributed asset base. It is beyond the scope of this report to consider the validity of this approach.

Topic 4 - Implementation considerations

Session overview

Topic 4 canvassed issues and opportunities the SA Government should consider in implementing any proposed change in the RAB. Brief table discussions were held prior to reporting back to the group.

Alignment with the Terms of Reference

2. If there are any changes proposed to the RAB valuation, the Inquiry will also consider and report on a possible implementation program and timetable which would ensure a fair and reasonable balance between the interests of consumers and the SA Government (as Owner of SA Water)

Discussion themes

Transparency, communication and engagement

There was general recognition that the SA Government could use a revised RAB value as an opportunity to raise the level of communication and perceived transparency in relation to water pricing in South Australia. Specific suggestions included:

- clear communications regarding the SA Government's objective and desired outcomes for the Inquiry and any resultant revaluation of the RAB; for example is the key objective 'fair pricing', or 'reduced prices or another objective'?
- undertake meaningful consultation with key stakeholders before acting on the Inquiry's report.

As discussed under Topic 2, it was suggested that a reduction in the price of water resulting from any reduction in the RAB could remove an 'implicit' environmental charge, and that consideration should be made as to whether 'explicit' environmental/scarcity factors should be incorporated into the tariff structure.

While outside the scope of the Inquiry, the suggestion was also made that the SA Government may wish to consider how the public may view subsequent price rises following a price reduction. It was mentioned (without specific reference) that the public values a loss greater than they value an equivalent gain, and therefore, the perception of price savings now may not offset the negative perception of relatively smaller future price rises.

Finally, the question was raised whether the ability for the Treasurer to change the RAB at each price determination should be removed. Comments throughout the workshop referenced the gradual shift to independent regulation of South Australia's water supply. Removing the Treasurer's power to alter the value of the RAB could be seen as a final step towards full independent regulation and remove the perceived conflict of interest that the ultimate asset owner is able to influence revenue outcomes; which is likely to have, in part, led to this inquiry.

Impact

Comments highlighted a number of primary and secondary flow-on affects that would need to be explored and/or further considered by the SA Government prior to determining a course of action. These included:

- how the revised RAB impacts SA Water and SA Government revenues; including whether any other mechanisms should be introduced to offset this impact (e.g. water tariff structures; taxation)
 - with regard to tariff structure, is it reasonable that an element of water tariffs reflect the scarcity of water (which became inherently acknowledged in the price rises through the millennium drought)
- any potential impact a revised RAB could have on SA Water's Debt to Equity ratio, and subsequent impacts for its credit rating and WACC
 - As a state-owned entity, whether there could be any flow on implications for the credit-rating of the State
- Whether there is any impact on the ability of SA Water to deliver a safe and reliable water supply.

Timing

The workshop highlighted a number of timing considerations, specifically:

- Timing of when a revised RAB is implemented and when the benefit is passed on to consumers:
 - Whether the reduction made and passed on at a single point of time, or whether it is phased. This included whether the tariff structure could be used to smooth the impact of revenues
 - ESCOSA approach would apply a step-change in the first year and adjust for CPI in years after
- The historical timing of when the RAB adjustment is made, i.e. is it adjusted in 2004/05 and rolled forward, 2013 and rolled forward, or is it an adjustment as of 2019?

In terms of an implementation program, it was highlighted that it would be beneficial from SA Water's perspective to have any revisions of the RAB finalised prior to SA Water's regulatory proposal to ESCOSA, due in October 2019.

Any Other Matters

Participants welcomed the opportunity to raise a number of issues that go beyond the scope of the Inquiry's Terms of Reference, but that they feel the Inquiry or the SA Government should consider:

- The decision to exclude wastewater assets from the scope of the Inquiry, with comments suggesting:
 - wastewater assets account for about a third of the SA Water's total asset base,
 - it's difficult to disentangle water and wastewater assets.
 - there hasn't seen any solid justification provided for the exclusion of waste water assets, and there is no precedent from other states.

- SA Water operational efficiency:
 - It was highlighted that, within the National Performance Report data, SA Water ranks as one of the most efficient water companies in Australia. That is, when adjustments are made for the length and quantity of SA Water's assets against the number of customers, it is one of the most efficient in the country.
 - The operational efficiency of the business has also increased recently, which has contributed to more stable prices. The uptake of technology is an important contributor to this improvement.

- With the major improvements in technology, SA Water should be able to further reduce the cost of operations and the SA Government should consider support for water technology innovation (and provide jobs in this State).

- The return SA Water's shareholders currently receive is one of the lowest in Australia (as a percentage return on statutory and regulatory asset values). However, it was also suggested this might be because the statutory and regulatory asset values are inflated.

Lew Owens asked attendees to consider whether an additional workshop should be held in the near future , and advise the Executive Officer of their views.

Appendix A: Workshop attendance list

Name	Position	Organisation
Inquiry Representatives		
Lew Owens	Inquirer	Water Pricing Inquiry
Ann Pataki	Executive Officer	Water Pricing Inquiry
Participants		
Andrew McKenna	Senior Policy Advisor	Business SA
Eric Groom	Consultant	CEPA
Adam Pamula	Director Account Management	DTF
Stuart Hocking	Deputy Chief Executive	DTF
Adam Wilson	Chief Executive Officer	ESCOSA
Nathan Petrus	Director, Consumer Protection and Pricing	ESCOSA
Ross Haig	Senior Regulatory Analyst	ESCOSA
Dean Crabb	Policy Officer	Livestock SA
Roch Cheroux	Chief Executive Officer	SA Water
Jamie Hollamby	General Manager Business Services	SA Water
Natalie Caon	Senior Manager Pricing	SA Water
Ross Womersley	Chief Executive Officer	SACOSS
Jo De Silva	Senior Policy Officer	SACOSS
Kevin Kaeding	President	South Australian Federation of Residents and Associations Inc.
Mark Henley	Manager Advocacy	Uniting Communities
Stuart Wilson	Deputy Executive Director	Water Services Association of Australia
Adam Lovell	Executive Director	Water Services Association of Australia
Dr Malcolm Abbott		Swinburne University
Ian McCauley		
Dick Blandy		