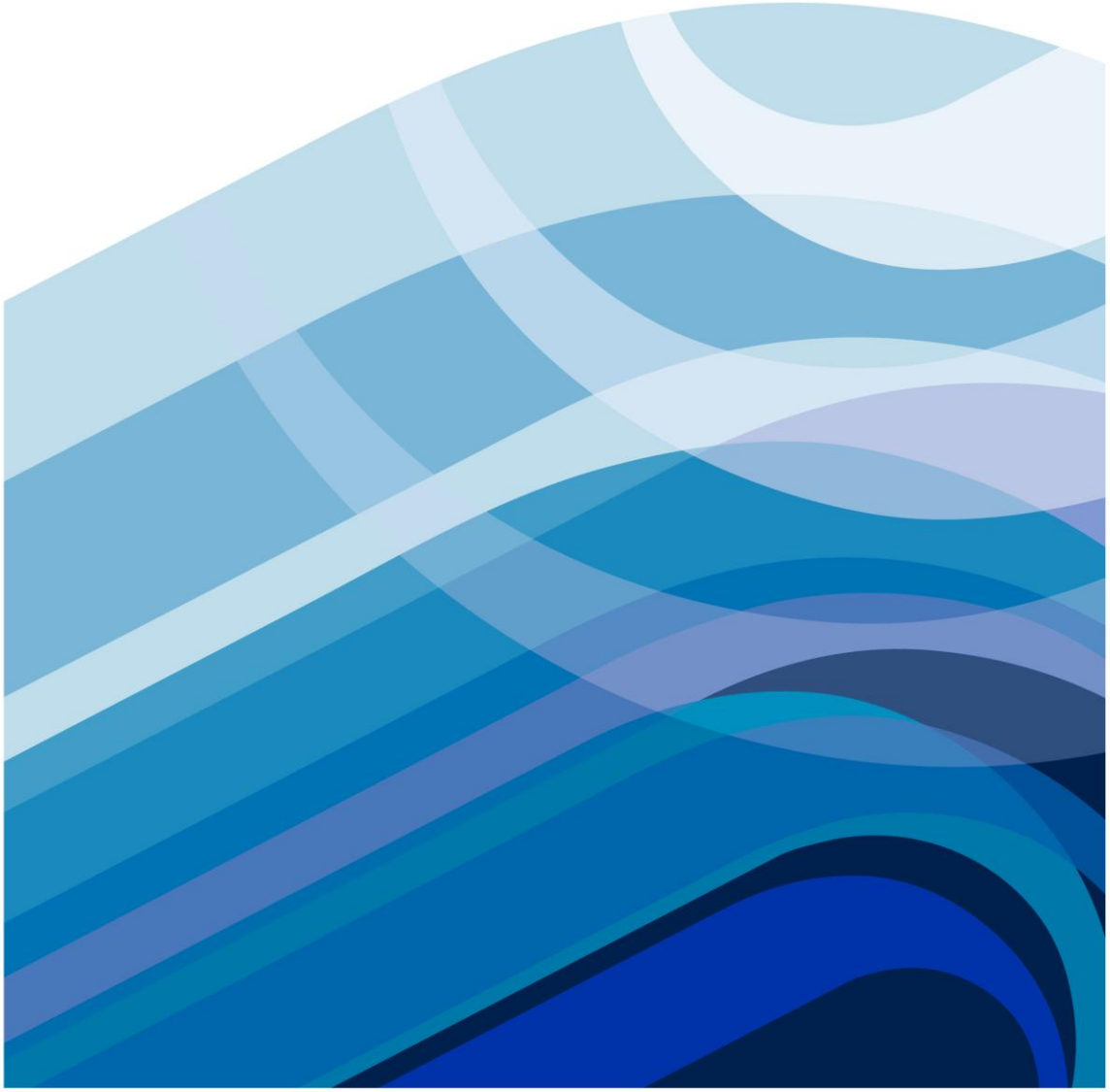
Economic Regulation Authority Inquiry into the Efficient Costs and Tariffs of the Water Corporation, Aqwest and Busselton Water Board

Submission in Response to the Draft Report

22 October 2012



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1. Executive Summary

The Economic Regulation Authority (ERA) released the Draft Report for the *Inquiry into the Efficient Costs and Tariffs of the Water Corporation, Aqwest and Busselton Water Board* on 25 September 2012. The report canvassed a wide range of issues and commented on operations of the three utilities, price paths for regulated and unregulated services and other matters.

The Water Corporation welcomes the opportunity to comment on this report. We have chosen to confine our submission to the central issues of long term service viability and fair and equitable tariffs for our customers.

It is often said that essential water services are in the "forever" business. Our customers expect us to deliver safe, reliable, essential water services at an affordable price now and in the future. Meeting these needs today, and ensuring we can meet them tomorrow, are at the core of our responsibilities.

In the Draft Report, the ERA proposed a significant change in the price path due to market conditions that result in an almost record low "risk free rate" being used to determine an appropriate rate of return.

In addition, the ERA recommended changes to the:

- regulatory asset value; and
- operating expenditure.

Appropriate rate of return

The setting of an appropriate rate of return is fundamental to setting customer prices and ensuring the ongoing viability of both the Water Corporation and the provision of water services in Western Australia. Using the same basis as the 2009 ERA Final Report, changes in market interest rates adopted by the ERA result in proposed reductions in the rate of return from 6.62% in 2009 to 4.03% in the Draft Report.

It is important to note that the Water Corporation is not questioning the economic theory which underpins this calculation.

The real issue is that there is a mismatch between the short-term timeframe for the rate of return for pricing and the long-term timeframe for evaluating investments. Investments in water services infrastructure – such as dams and pipelines, complex treatment plants and simple wastewater ponds, sewers and drains - can last for 100 and more years. It is not appropriate to evaluate these investments on the basis of a periodic (3 year) assessment of volatile market rates. Additionally, it is not possible for the Corporation to develop a borrowing strategy to mitigate the debt market exposure from the current pricing approach.

The volatility of the ERA calculation in the Draft Report is demonstrated by the theoretical rate of return reducing by 24% over the six months since the Water Corporation made its original submission in March 2012.

If applied by Government, this volatility would result in prices being predominantly dependent on the timing of ERA enquiries, rather than the underlying cost of providing services to customers.

For example, the market-based rate of return could be expected to revert to a more typical longer-term average of around 6% for the next inquiry in 2015. In response, if the Draft Report's findings are implemented, this could result in a 2016/17 price increase in the order of 18.5%. The Water Corporation believes that a price increase of this magnitude is undesirable. Our understanding is that both customers and Government would generally prefer more stable and consistent prices over time to facilitate budgeting at household, small business and State Government levels.

The Water Corporation requests that the ERA examine alternative pricing approaches to reduce price volatility and "inquiry timing" risk. While this will not impact the Water Corporation's revenue base over time, it will improve price stability for customers and Government.

Additionally, setting the WACC at short-term low levels does not facilitate private sector investment in water service assets. The Water Corporation encourages private sector investment as a means of sourcing innovation and efficiency. It provides a complementary source of funding for Government, which is focused on fiscal and debt restraint.

The real pre-tax WACC of 4.03% is equivalent to a nominal pre-tax return of 6.22%. Our experience is that the private sector needs higher rates of return to support investment in long-lived assets. This supports a longer term view of the cost of funds in the price calculation.

Regulatory Asset Value

The ERA has identified what they believe to be an overstatement in the calculation of the Water Corporation's Initial Regulatory Asset Value (IRAV).

The Water Corporation was unaware of the issue until the Draft Report was published.

The Water Corporation continues to support a pricing model where developer contributions are excluded from both revenue and the Regulatory Asset Value (RAV) as it leads to a more stable price path for customers.

If the ERA has erroneously included developer funded assets in the IRAV when making this change to the pricing methodology in 2009, then there is a case for an adjustment to be made. However, this opens the question of whether the IRAV should be adjusted for other changes in pricing methodology.

If the ERA is going to revisit the IRAV based on their 2009 change in methodology associated with the treatment of developer contributions, it would be consistent to also include an adjustment for the proposed adoption of a lower post-tax WACC methodology in 2012.

Operating expenditure

The Draft Report recommended reductions in the Water Corporation's operating cost base. These reductions are inconsistent with the findings of the Draft Report that recognised that current operating expenditure is efficient, with no catch-up efficiency required. We look forward to working with the ERA to understand the modelling behind the conclusions.

Impact of the Draft Report recommendations

If implemented as drafted, the ERA price recommendations would significantly reduce the cash flow generated by the Water Corporation that supports the funding of new investment. While the ERA has supported the Water Corporation's capital program, consequent budget constraints could unintentionally lead to reduced investment, and have a direct impact on customer service levels, on investment to meet customer growth, and the ability to optimally maintain and replace assets.

There is no evidence provided in the Draft Report that current customer service levels (supply security, health, environment, water resource management, customer service) are inappropriate.

Regulatory framework

The ERA has recommended the establishment of a more explicit 'charter' between the water businesses and the Government in line with the Productivity Commission's recent recommendations. The objectives of the Productivity Commission's proposed charter are to provide more independence between water businesses and governments, and to reduce the cost of price regulation of government owned businesses.

The Water Corporation is a highly regulated water service provider, wholly owned by the Western Australian State Government, with a governance framework defined by statute. Any change to the current governance arrangements (such as by virtue of a charter or similar) needs to ensure net public benefit, with clearly defined benefits and costs.

In closing

The Water Corporation appreciates the importance of setting prices that maintain customer affordability, while ensuring adequate funds to invest in services for the future.

We are committed to work with Government as a whole to achieve this goal, in the interest of continuing to provide safe, reliable water services to our customers in Western Australia.

2. Revenue Requirement

The ERA Pricing Model calculates prices that result in the Water Corporation receiving the revenue required to cover costs, including their estimate of the required return on assets.

The Draft Report recommends a range of price changes that result in significantly lower revenue than recommended from the 2009 Inquiry. These result in a reduction in the projected revenue of the Water Corporation which may impact on the funding available to maintain service levels.

The Water Corporation's March 2012 submission states in the Executive Summary (page 3):

In making this submission, the Corporation notes the background to this inquiry. The ERA has undertaken a number of inquiries into the Water Corporation's prices since 2005. The recommended prices have been based on a pricing model developed by the ERA. The Corporation has endorsed this model and proposes that it continues to be used as the basis of calculating our revenue requirement and prices.

The Corporation has accepted the ERA's calculation of the WACC in previous inquiries. This acceptance has been based on the ERA adopting an approach that is consistent across the entities they regulate and the alignment of the WACC with normal commercial returns for water utilities.

The Water Corporation based it's submission on acceptance of the ERA's previous calculations of both the WACC and the RAV. In contrast, the ERA's Draft Report states (page 9):

The Authority has calculated the Water Corporation's revenue requirement on the basis of its submitted assumptions at $7,978 million for the period from 2013/14 to 2015/16.

The Authority has assessed Water Corporation's proposal and recommends that the efficient level of revenue recovery for Water Corporation is $5,816 million for the period from 2013/14 to 2015/16.

The $2,162 million (37%) difference between $7,798 million and $5,816 million is made up of:

- 25% ($1,442 million) representing the difference between the 5.28% calculated in the Water Corporation's submission and the 4.03% in the Draft Report, due to subsequent market variations.

The Water Corporation believes that the current methodology results in an unacceptable level of price volatility. Alternative methods should be considered to provide a more predictable and robust price path for customers and Government.

- 7% ($422 million) due to the ERA proposed revision to the RAV. The Corporation has only now had the opportunity to comment on the proposed reduction.

- 5% ($298 million) due to a lower than forecast level of operating expenditure which the Water Corporation believes risks current customer service levels.

The Water Corporation expresses concern with the representation in the ERA Draft Report of the basis for the revenue estimates included in our draft submission. Accordingly, we request that any differences attributable to market forces and changes in ERA's methodology are clearly articulated in the Final Report.

3. Appropriate rate of return

The rate of return is determined by the WACC, which drives approximately 50% of the Water Corporation's current revenue requirement. The components of its calculation have been based on current market rates, which have been volatile in recent years, and as a consequence, result in price volatility for customers.

Price stability is an important objective for essential services as price fluctuations need to be absorbed into existing budgets. Consideration should be given to options that reduce the potential for price shocks in the future.

Short-term market fluctuations are not incorporated into the investment planning for long-lived assets. The cost of capital for investment in long-lived assets does not align to short-term fluctuations in the market for 5 year Commonwealth Bonds. For example, the current low real rate of return of 1/3% p.a. is unlikely to continue in the long-term, making the current WACC unsuitable for long-term planning decisions. A long-term average cost of capital is used. A similar longer-term approach could be taken for pricing without distorting investment decisions.

As shown in Table 1, the basis of ERA's calculation using a WACC of 4.03% is consistent with past practice. The theory of this calculation is not a point of disagreement between the Water Corporation and the ERA.

Table 1 WACC Calculation between ERA Water Pricing Inquiries

	ERA 2005 Inquiry	ERA 2009 Inquiry	ERA Draft Report 2012	Difference 2009 to 2012
Nominal Risk Free Rate	5.23%	5.52%	2.45%	-3.07%
Real Risk Free Rate	2.42%	3.07%	0.34%	-2.73%
Inflation Rate	2.74%	2.38%	2.10%	-0.28%
Debt Proportion	60%	60%	60%	0%
Equity Proportion	40%	40%	40%	0%
Cost of Debt; Debt Risk Premium	1.000%	2.600%	2.314%	-0.286%
Cost of Debt; Debt Issuing Cost	0.125%	0.125%	0.125%	0.000%
Cost of Debt; Risk Margin	1.125%	2.725%	2.725%	0.000%
Australian Market Risk Premium	6.0%	6.5%	6.0%	-0.5%
Equity Beta	80%	65%	65%	0%
Corporate Tax Rate	30%	30%	30%	0%
Franking Credit	50%	65%	25%	-40%
Nominal Pre Tax WACC	8.53%	9.16%	6.22%	-2.94%
Real Pre Tax WACC	**5.63%**	**6.62%**	**4.03%**	**-2.59%**

The key issues associated with this lower WACC are its volatility and disincentive for private sector participation in the industry.

WACC Volatility

The Water Corporation's submission of March 2012, highlighted the problem of the current practice of setting the WACC for the next three years based on a recent 20 day period.

One issue the ERA may wish to consider is the impact of setting the WACC for the following three years based on the average value for a recent 20 day period. While this is standard practice, it makes the price setting process a little arbitrary in volatile financial markets. A longer-term average may be more appropriate for a Government owned utility.

The point being made was not seeking (say) a 40 day average, but a more fundamental consideration of whether the WACC should be forecast in this manner and then held for the following pricing period.

Since the Water Corporation's March Submission (i.e. within just 6 months), the WACC has reduced from 5.28% to 4.03%, further reinforcing this point. The fact that the WACC has reduced by 24% in 6 months illustrates the volatility for prices, and the arbitrary nature of the estimate in relation to the timing of inquiries.

From Table 1 it can be seen that the real risk free rate was 2.42% and 3.07% in the last two inquiries, resulting in a risk adjusted WACC of 5.63% and 6.62%. The real risk free rate is now just 0.34%. It is unlikely that the real risk free rate will remain at such a low level at the next review in 3 years.

If the WACC were to return to a more long-term average of approximately 6% for the next inquiry in 2015, the 2016/17 price increase would need to be in the order of 18.5%, other things being equal. Most customers and Government would prefer more stable prices over time, rather than large reductions followed by large increases.

The Water Corporation requests that the ERA seek alternatives to reduce price volatility at subsequent reviews. This request is not intended to result in an increase in average revenue over time.

The other risk associated with the current volatility is the arbitrariness of the timing of the inquiry. If the inquiry had been completed in March this year, the WACC would have been assessed at 5.3% rather than 4.03%. As a result, the recommended prices would have been 12% higher for a period of 3 years for no other reason than timing.

The Water Corporation does not have the option of refinancing its debt portfolio every three years to match the assumed market rates and 60% debt structure. Even if the debt equity ratio was 60%/40%, market liquidity would only allow a partial alignment of funding. The Corporation would not be able to refinance or reset its interest cost structure on the assumed $10 billion (60%) debt over a 20 day period every three years.

The ERA's objective is to estimate the required rate of return over the pricing period. With the current volatility of the major driver of the Water Corporation's revenue, this would suggest a much shorter review period (e.g. an annual reset) to mitigate this risk, rather than the 5 year period proposed in the Draft Report.

An alternative would be to retrospectively include a reconciliation for the actual WACC at the next review. The Water Corporation notes that this would have been to the advantage of customers over the last pricing period.

Private sector participation

As noted in the March submission, setting the WACC at low short-term levels does not facilitate private sector investment in water service assets.

The Water Corporation encourages private sector investment as a means of sourcing innovation and efficiency. It provides a complementary source of funding to Government, which is focused on fiscal and debt restraint.

The real pre-tax WACC of 4.03% is equivalent to a nominal pre-tax return of 6.22%. Our experience is that the private sector needs higher rates of return to support investment in long-lived assets. This supports a longer term view of the cost of funds in the price calculation.

4. Regulatory Asset Value

The ERA has identified what they believe to be an overstatement in the calculation of the Water Corporation's Initial Regulatory Asset Value (IRAV).

The Water Corporation was unaware of the issue until the Draft Report was published.

The Water Corporation supports a pricing model where developer contributions are excluded from both revenue and the Regulatory Asset Value (RAV) as it leads to a more stable price path for customers. As noted by the ERA, the Water Corporation initially proposed that the IRAV be calculated with developer contributions excluded from both the revenue and the IRAV.

If the ERA has erroneously included developer funded assets in the IRAV when making this change to the pricing methodology in 2009, then there is a case for an adjustment to be made. However, this opens the question of whether the IRAV should be adjusted for other changes in pricing methodology (e.g. the proposed change to a post-tax WACC).

The Water Corporation does not support the historical cost methodology for determining an IRAV discussed on page 30 of the Draft Report. The base asset value in 1995 does not have any greater status than the accounting value in any other year, and simply represent a continuation of the values that were used by the Water Authority of Western Australia. It is not a significant date for the purpose of asset valuation.

A more robust methodology would be to assess the written down replacement value of the assets in 2005, excluding developer contributions, which better reflects the real value of the investment in the assets. This also aligns with the annual adjustment of the RAV in the ERA Pricing Model. However, this would result in a significantly higher IRAV and, therefore, higher prices for customers.

The Water Corporation continues to support the ERA's deprival methodology as a reasonable approach to setting an IRAV that is "price neutral" (i.e. maintains the initial starting prices, other things being equal).

The Water Corporation does not believe that it is good regulatory practice to re-open the IRAV and that this should be avoided if possible. Given that the written down replacement value of the Water Corporation's assets shows that real investment has been greater that the RAV, there is no equity driver for a downward adjustment.

However, if the ERA is going to revisit the IRAV based on their 2009 change in methodology associated with the treatment of developer contributions, it would be consistent to also include an adjustment for the proposed adoption of a lower post-tax WACC methodology in 2012.

5. Operating Expenditure

The Water Corporation proposed that the "base" operating expenditure used in the ERA Pricing Model be shifted from the current practice of using 2004/05 expenditure to a more inclusive 2010/11 level.

Growth in costs as a result of providing higher levels of output (e.g. the higher operating costs associated with new desalination plants and the additional costs incurred to deliver improved environmental outcomes) needs to be separated so as not to distort the efficiency calculation. These costs have become a greater proportion of total operating expenditure.

While excluded from the efficiency measure, these additional outputs are being delivered and prioritised in the same manner as the base costs (i.e. subject to the same efficiency improvements as the base).

The Water Corporation's Board adopted the 2010/11 baseline as a more inclusive measure of the Corporation's overall efficiency performance. The ERA has accepted the rebase to 2010/11.

The ERA has accepted the Corporation's proposed 2% efficiency target. Page 40 to the Draft Report states.

The Authority accepts the Cardno recommendation that 2.0 per cent is an appropriate efficiency target to apply to base operating expenditure over the upcoming price review period.

The Draft Report also recognises that the Corporation is operating on the "Efficient Frontier" (i.e. that it is already an efficient company).

On page 40, Table 3.9 outlines Carno's calculation of the efficiency target. This includes the statement that the required "Catch-Up Efficiency" is 0% as *"The Water Corporation was assessed as already operating at an efficiency frontier hence no catch-up efficiency is possible."*

"Catch-Up Efficiency" is defined in the footnote to the table as "*… an efficiency that can only be applied to companies that are considered to be less efficient than a frontier company."*

Under these circumstances, as the ERA accepts the 2% efficiency target, any proposed cuts to the Corporation's operating expenditure can only be achieved through cuts to the proposed "Levels of Service" expenditure.

There is no evidence provided in the Draft Report that current customer service levels (supply security, health, environment, water resource management, customer service) are inappropriate and should be reduced.

6. Demand Risk

The volume of water sales and growth in customer services are key variables in determining prices in the short-term. Under (or over) estimates can result in higher (or lower) prices than needed to recover costs.

Currently, variations between actual demand and the estimates are "washed-up" in the following ERA review. As a result of the wash-up, while customers' short-term prices are impacted by demand estimates, long term prices (beyond 3 years) are independent of differences between actual and projected demand. The Water Corporation currently only bears a risk of a short-term funding gap if water sales are less than forecast.

The ERA has proposed to cease this reconciliation of forecast to actual revenue requirement. As a result, if actual sales are higher than projected, customer prices would be higher than with the current methodology, and the opposite would be the case if sales are lower. This is not in the interests of customers as the mitigation for this risk is to forecast lower water sales and growth, and this would result in higher prices.

Moreover, this change would result in a financial incentive for the Water Corporation to increase sales. This would be contrary to the long-term strategy to meet customer demands and reduce/defer capital expenditure. The Water Corporation believes that the proposed change is not in the interest of customers, and would result in higher costs for customers in the long-term.

The Water Corporation is not in a position to manage the main driver of demand forecast risk (i.e. climate and the need to reduce consumption in response to low inflow events). For example, the current Perth supply security strategy requires the flexibility to respond to rainfall variations in the short-term. Campaigns such as "Target 60" provide an initial response to maintain supply security when streamflows are low, as an alternative to more costly, capital intensive source augmentation.

The ERA's notes that "*restriction policies are now well-established and are unlikely to change in the near future*". The Government set the current level of restrictions through by-laws in 2007 (sprinkler rosters) and 2009 (winter ban in some parts of the State). As a result, the source development strategy now requires different demand management responses to past years, depending on streamflows.

In the longer-term, ongoing water efficiency programs are part of our plan to meet customer growth, effectively delaying the need for source augmentation. As the marginal cost of adding new sources is higher than the average cost of existing sources, delaying the need for new sources will keep prices lower.

Achievement of long-term efficiency targets is a continuous process that will not be achieved if there is a stop/start approach. However, a stop/start approach would be required if the Water Corporation had to try and encourage sales to meet short-term sales targets.

In addition to not providing the appropriate incentives for water efficiency, eliminating the catch-up will introduce the potential for the gaming of forecasts. There is currently no incentive for the Water Corporation or the ERA to under or over-estimate forecasts as any gains or losses are subtracted or added to future prices. As a result, the Water Corporation and the ERA can agree demand forecasts in a neutral environment.

However, if demand risk is passed to the Water Corporation, there would be no incentive for the Water Corporation to seek the lowest reasonable forecast. This

would result in higher prices for customers in the short and long-term, and would create a point of conflict between the Water Corporation and the ERA over the estimates. The information asymmetry between the organisations would provide an incentive for the ERA to challenge the Water Corporation's forecasts, even if they were developed in the current unbiased manner.

The Water Corporation notes the ERA's assessment that there appears to be a lack of clarity in the current demand forecasting process and has already implemented improved processes to coordinate and document forecast assumptions for internal purposes. Discrepancies can arise due to different forecast objectives (e.g. conservative production estimates to ensure capacity to deliver may be inconsistent with the need for more neutral sales estimates) and action has been taken to ensure these differences are recognised and do not lead to inconsistent advice.

The Water Corporation is confident that the improved processes will result in greater clarity for the next ERA inquiry.

7. Other issues

Proposed Charter

The ERA has recommended the establishment of a more explicit 'charter' between the water businesses and the Government in line with the Productivity Commission's recent recommendations. The objectives of the Productivity Commission's proposed charter are to provide more independence between water businesses and governments, and to reduce the cost of price regulation of government owned businesses.

The Water Corporation is a highly regulated water service provider, wholly owned by the Western Australian State Government, with a governance framework defined by statute.

Any change to the current governance arrangements (such as a charter or similar) needs to ensure net public benefit, with clearly defined benefits and costs.

Recycled water prices

The ERA's comments on recycled water prices are noted. This matter was not explicitly in the scope of the terms of reference, discussion paper or the Water Corporation's initial submission. It is accepted, therefore, that the ERA's comments in this regard are high level in nature.

As noted by the ERA, the Water Corporation is currently documenting its pricing principles for recycled water. They will reflect the policy of providing the recycled water resource (as opposed to the infrastructure) free of charge for public open space, as endorsed by Government. This policy does not apply to local authority owned businesses such as golf courses and, therefore, does not result in any competitive neutrality issues.