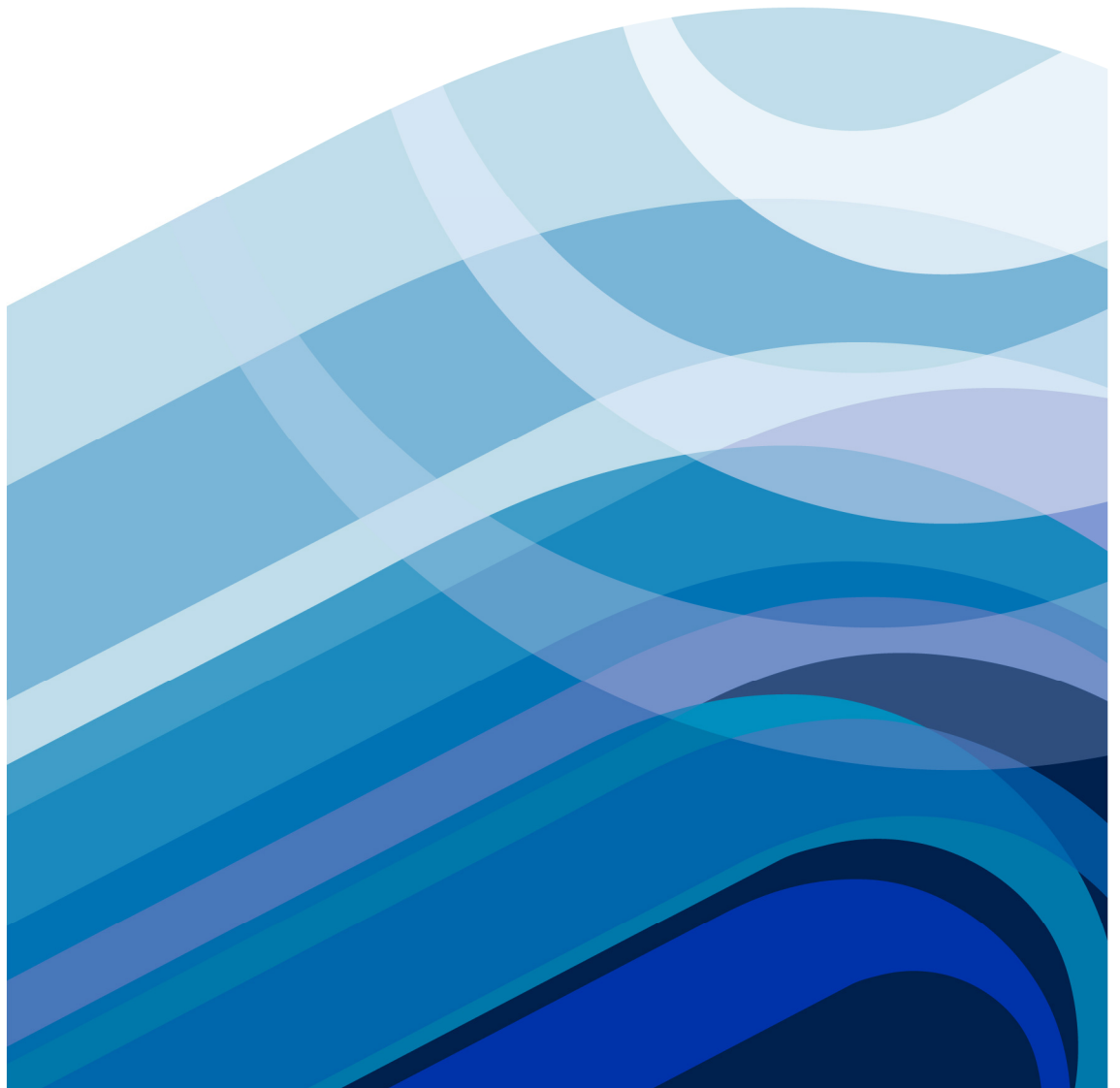




Economic Regulation Authority Inquiry into the  
Efficient Costs and Tariffs of the Water Corporation,  
Aqwest and Busselton Water Board

## **Submission in Response to the Issues Paper**

14 March 2012



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## 1.0 EXECUTIVE SUMMARY

The Water Corporation (the Corporation) is pleased to offer this submission in response to the Economic Regulation Authority (ERA) *Issues Paper: Inquiry into the Efficient Costs and Tariffs of the Water Corporation, Aqwest and the Busselton Water Board (6 February 2012)*.

The Corporation welcomes the inquiry as an important part of setting our prices, providing customers and Government with an independent assessment of the cost of providing water services and the associated prices required to recover these costs.

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.

While there are a number of variables in the model that contribute to the price calculations, the major determinants of the revenue required are the Weighted Average Cost of Capital (WACC) and the size of the capital program.

- **Weighted Average Cost of Capital**

Approximately 50% of the Corporation's revenue requirement is the return on investment, and is based on the ERA's assessment of the Corporation's WACC. As an example of the sensitivity of pricing to this assessment, in the ERA's 2009 inquiry, the increase in the WACC from the 5.63% to the current 6.62% (a 17.5% increase) increased the overall revenue requirement and prices by approximately 8.8%.

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.

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.

It should be noted that setting the WACC at an artificially low level could potentially exclude the private sector from making investments in the provision of some capital based services. For example, the Mundaring Public Private Partnership (PPP) would not have been viable if a significantly lower WACC was used for the Public Sector Comparator.

The Corporation proposes that the ERA continue to use the current method of calculating the WACC. If the ERA wishes to change the method of calculation (a possibility raised in their Issues Paper), then the Corporation will provide comments in support or opposition to proposed changes in our response to the ERA's Draft Report.

- **Capital Program**

Currently, due limits on borrowing, the size of the Corporation's capital program is dependent on the level of funding approved by the State Government.

The Terms of Reference for the current ERA inquiry includes a request to examine the efficient operating and capital costs of providing appropriate service standards. It is noted that these costs may be different to the funding included in the Corporation's capital budget.

Since the last ERA inquiry in 2009, the Government has approved additional expenditure for the provision of the Southern Seawater Desalination Plant (SSDP), but has reduced the budget available in the latter years of the Corporation's program.

The Corporation has identified three different capital scenarios that prices could be based on. These are:

- The current capital program included in the State Budget;
- The capital budget being sought in the Corporation's Strategic Development Plan (SDP), which includes additional funding for high priority projects;
- The appropriate program identified in the Corporation's Strategic Investment Business Cases (SIBC) that should be delivered to meet required service standards if the State were not subject to capital budget constraints.

Past experience has shown that additional funding has been approved within the price determination period. The Corporation proposes adopting a price path based on the capital program in the SDP. It is noted that if a reduced program is adopted for pricing purposes and the required expenditure is subsequently higher, future prices will need to be increased to compensate.

- **Operating Expenditure**

The Corporation has an efficiency target of reducing the real operating expenditure per service by 2% per annum, after adjusting for items that increase operating costs but are not a reflection of inefficiency (predominately additional expenditure required to improve the level of service provided).

As part of the 2011/12 State Budget, the Government sought a further Efficiency Dividend of \$20.754m (plus inflation in subsequent years), increasing the short-term efficiency target above 2% per annum. After identifying savings to meet the additional Efficiency Dividend, continuation of the 2% per annum target appears achievable, but challenging.

Operating expenditure represents approximately 30% of the revenue requirement.

While operating efficiency improvements are a significant focus of ongoing management activity, short-term prices are relatively insensitive to the operating efficiency target. A 1% change in the operating efficiency target would change

prices by approximately 0.3%. This is a relatively small change compared to other factors such as changes in the WACC, but would have a relatively large impact on the Corporation's ability to deliver services, maintain assets and carry out activities that create capacity to continue to improve the business.

Benchmarking shows that the Corporation's efficiency model is similar to that used for the Melbourne water utilities, with their efficiency target including an adjustment for new or changed service outcomes. These utilities are targeting efficiency improvements of 1% per annum compared to the Corporation's 2%.

Price regulators normally allow regulated utilities the opportunity to retain the benefit of outperforming efficiency targets as a form of efficiency incentive. To date, the ERA's pricing models have included operating budgets based on the Corporation's 2% per annum operating efficiency target, passing on all the efficiency benefits to customers.

The Government has budgeted to retain the benefits of the additional Efficiency Dividend to reduce State debt. The ERA should consult the Government as to whether they wish to retain this benefit as budgeted, or whether it should be passed on to customers through lower prices.

- **Tariff Structure**

Once the revenue requirement is determined, prices are calculated within a tariff structure that will result in the required revenue. Increasing one element of the tariff structure (e.g. volumetric charges) allows lower prices elsewhere (e.g. service charges).

The tariff structure is set with two objectives:

- To send a price signal to encourage appropriate consumption of a service (e.g. higher volume charges encourage lower water consumption); and
- Equity in the recovery of costs between customers.

The ERA has made a number of recommendations for reform of the Corporation's tariff structure in previous inquiries, many of which have been implemented, and some of which have been rejected by Government.

Consistent with our submissions to previous pricing inquiries, the Corporation continues to support a tariff structure based on:

- Volumetric charges reflecting the Long Run Marginal Cost (LRMC) of developing new water sources. This price will encourage efficient consumption relative to the cost of source development, and provide the best signal for the development of long-term substitute sources (e.g. non-potable recycling) and demand management projects.
- Annual charges based on the service provided rather than property values. Charges based on property values are expensive to administer, difficult for customers to understand, and have a relatively weak correlation to customers' ability to pay (e.g. where pensioners occupy high value property).

- Uniform developer contributions across the State. Location based developer contributions would have very little impact on demand for services in most locations. A State wide charge is easier to administer, provides certainty for developers when planning their investments, and is set to raise the revenue required to provide distribution assets to service the land.

With the exception of replacing valuation based charges, the Corporation proposes to continue with the current tariff structure. The alternatives to valuation based charges remain unchanged from those proposed in our submissions to previous inquiries.

## **2.0 INTRODUCTION**

The Water Corporation is the principal supplier of water services in Western Australia. It is an integrated water utility providing water, wastewater and drainage services to hundreds of thousands of homes, businesses and farms, and bulk water for irrigation.

Its services, projects and activities span over 2.5 million square kilometres. There are regional offices in Perth, Bunbury, Albany, Karratha, Geraldton, Northam and Kalgoorlie, which allow its employees to provide a high level of professional expertise to customers.

In 2010/11, the Corporation provided 360GL of water to 1.1 million properties from 245 schemes, treated 150GL of wastewater at 105 treatment plants from 924,000 properties and provided drainage services to 364,000 properties, including metropolitan main drainage and 6 rural drainage schemes. 251GL of bulk water supplies were provided to irrigators.

The Corporation received \$2.0 billion in revenue, including \$483 million in Community Service Obligation (CSO) payments. The Corporation had operating expenses of \$707 million, and a capital program of \$1.0 billion.

The Corporation's By-law prices are set by the Western Australian Government based on independent advice from the ERA.

The Corporation has over 3,000 employees and participates in alliances to manage assets valued at over \$13 billion in water supply, wastewater, drainage infrastructure and bulk water for irrigation.

It strives to deliver excellent customer service, continues to improve its existing levels of customer satisfaction and routinely engages with its customers to understand what they require from the Corporation as a service provider.

The Corporation has a commitment and responsibility to be a leader in ensuring the sustainable future of Western Australia's water supply. It aims to maximise economic, environmental and social benefits while minimising its environmental footprint.

The Corporation is a corporatised entity, owned by the Western Australian Government and accountable to our sole shareholder, the Minister for Water, for delivery of its services in a commercial manner. The Board and Executive Team include a diverse range of specialist and general skills and experience.

### **2.1 CURRENT WATER CORPORATION PRICES**

In recent years, increasing utility price increases Australia-wide have received considerable media attention. This has been no different in Western Australia.

Price increases have been required to pay for the new water sources built in response to our drying climate, replacing the reduced inflows into Perth dams. Climate independent water sources such as desalination plants are considerably more expensive than traditional sources such as dams and groundwater, but ensure security of supply. With completion of the augmentation of the Southern Seawater Desalination Plant (SSDP) to 100GL per annum at the end of 2012,

and with ongoing demand management initiatives, Perth and country communities served from the Integrated Water Supply Scheme (IWSS) will be free from the threat of total sprinkler bans, and the associated loss of gardens, the impact on related industries (nurseries, lawn mowing, turf farms) and the general community amenity.

The Corporation's total charge for an average customer in 2011/12 is \$1,162. As Table 1 shows, this is low relative to other large water utilities across Australia and it is the lowest of any utility with a desalination plant. Even with the added cost of new sources, Western Australia's water charge for the average consumer of \$550 per annum is one of the lowest in the country.

**Table 1 2011/12 charges for a customer based on 270kL per annum**

	<b>Water Charge</b>	<b>Wastewater Charge</b>	<b>Total Charge</b>
Southern Water Tasmania	\$493	\$461	<b>\$954</b>
Hunter Water	\$561	\$556	<b>\$1,117</b>
<b>Water Corporation</b>	<b>\$550</b>	<b>\$612</b>	<b>\$1,162</b>
Power and Water Corporation Northern Territory	\$547	\$616	<b>\$1,163</b>
Melbourne City West Water	\$686	\$546	<b>\$1,232</b>
Sydney Water	\$713	\$540	<b>\$1,252</b>
Melbourne South East Water	\$596	\$659	<b>\$1,255</b>
Queensland Urban Utilities	\$830	\$476	<b>\$1,306</b>
Melbourne Yarra Valley Water	\$633	\$691	<b>\$1,324</b>
SA Water	\$879	\$483	<b>\$1,362</b>
ACTEW Corporation	\$888	\$555	<b>\$1,443</b>

## **2.2 ASSISTANCE TO CUSTOMERS**

The Corporation supports cost reflective pricing but recognises that there are members of the community who have difficulty paying their bills. Providing assistance to individual customers in need is more appropriate than reducing the charges for all customers.

Customers who are experiencing financial hardship or difficulties in paying their bill are able to negotiate a payment arrangement in accordance with their circumstances. They have access to information about eligibility for concessions, other government funded assistance programs such as the Hardship Utility Grant Scheme (HUGS) and flexible payment options.

Water usage charges have been increased as a proportion of the total bill to reflect the marginal cost of new sources and to encourage people to use less water. To offset higher usage charges, increases to water service charges are lower. Customers who manage their water use can now better manage their total water bill. The water efficiency projects implemented by the Corporation to encourage and assist lower water use in response to low dam inflows have also helped customers reduce their water bills.



### 2.3 PAST ERA PRICE INQUIRIES

The ERA has undertaken a number of inquiries into the Water Corporation's prices and tariff structures:

- Water and Wastewater Pricing of the Water Corporation and the Water Pricing of the Bunbury and Busselton Water Boards - 2005
- Cost of Supplying Bulk Potable Water to Kalgoorlie-Boulder - 2005
- Country Water and Wastewater Pricing in Western Australia - 2006
- Harvey Water Bulk Water Pricing - 2007
- Developer Contributions to the Water Corporation - 2008
- Pricing of Recycled Water in Western Australia (Final Report in 2009)
- Tariffs of the Water Corporation, AQWEST and Busselton Water Board 2008/09 (Final Report in 2009)

In reviewing and recommending prices for water customers, considerable pricing reform has already occurred since the ERA's first pricing Inquiry in 2005.

The Corporation is supportive of the current economic regulation framework that has been developed by the ERA and considers that it is soundly based to allow an appropriate rate of return for an efficient service provider. The framework supports the following pricing principles:

- Developing efficient price signals – usage prices encourage customers to make decisions to achieve efficient consumption;
- Setting equitable tariffs – prices determine how costs are shared between various customers, and the basis on which costs have been allocated have been made explicit, e.g. based on uniform prices, ability to pay or cost reflectivity;
- Cost recovery – determining the appropriate revenue target includes:
  - ensuring a utility's expenditure is efficient and effective by ensuring the limited resources available to a utility are appropriately allocated to efficiently providing the various services that customers, Government and regulators require; and
  - ensuring the long-term financial viability of an efficient service provider, including an appropriate rate of return on their investment.

The key price signal that has the potential to influence customer behaviour is the volume charge for water. The increases in volume charges - proposed by the Corporation, recommended by the ERA and adopted by Government - for business and residential customers has encouraged more efficient water use, and is supported.

Residential volume charges up to 300kL State-wide reflect the cost of augmenting Perth's water supplies. While this is an economic efficient price for Perth customers, the Government's uniform pricing policy means this price is charged for residential customers with consumption up to 300kL throughout the State. In making this decision the Government has placed equity ahead of efficiency for country customers.

It is noted the water tariff reforms did not result in more revenue for the Corporation, as the additional revenue from increases in volume charges was offset by reductions to the water service charge. Consumers using small volumes pay less under the proposed tariff structure, while those consuming high volumes pay more.

The ERA has previously proposed replacing the current method of charging for residential wastewater and drainage services based on gross rental values of properties. Charges based on property values are expensive to administer, difficult for customers to understand, and have a relatively weak correlation to customers' ability to pay (for example where pensioners occupy high value property). Although this proposal was not accepted by previous Governments, the Corporation continues to support a move away from valuation based charges.

## **2.4 PRICING MODEL**

As part of their previous inquiries, the ERA developed a pricing model for the Corporation and recommended a number of changes to the tariff structure. The model determines the revenue required to recover the cost of providing services to customers, and calculates prices that will result in the required revenue.

The Corporation has endorsed the ERA's pricing model and agrees with the methodology used.

The key elements that contribute to determining the revenue requirement are:

- **Capital**
  - the initial asset value – this value was set in 2005 and represented the value of the Corporation's past investments that were to be recovered through future prices.
  - actual capital expenditure since 2005.
  - projected capital expenditure over the next 7 years.
  - the Weighted Average Cost of Capital (WACC) – the ERA's assessment of the normal rate of return on investment for a water utility.

The return on investment based on the WACC makes up 50% of the revenue requirement.

Changes in the WACC have a significant bearing on the price path. In the 2009 inquiry, the ERA's assessment of the WACC increased from 5.63% to 6.62%, a 17.5% increase. This one change increased the revenue requirement and, therefore, prices by 8.8%.

Depreciation makes up 20% of the revenue requirement.

- **Operating**

Operating expenditure in the pricing model is projected based on:

- The base operating expenditure in 2004/05.
- An ongoing efficiency target of reducing the real operating cost per service by 2% per annum. This target is double that applied by regulators for some major Eastern States water utilities.
- Increases in operating expenditure to allow for growth, price inflation and adjusting for items that increase operating costs but are not a reflection of inefficiency (predominately additional expenditure required to improve the level of service provided).

The Corporation needs to match the operating expenditure assumed in the pricing model to achieve the target return on capital.

Operating expenditure represents approximately 30% of the revenue requirement.

While operating efficiency improvements are a significant focus of ongoing management activity, short-term prices are relatively insensitive to the operating efficiency target. A 1% change in the operating efficiency target would change prices by approximately 0.3%. This is a relatively small change compared to other factors such as changes in the WACC, but would have a relatively large impact on the Corporation's ability to deliver services, maintain assets and carry out activities that create capacity to continue to improve the business.

The Corporation proposes rebasing the base operating expenditure from 2004/05 to 2010/11. Rebasing will allow past adjustments for levels of service to be included in the base and, therefore, the 2% per annum efficiency target.

While level of service costs are outside the 2% per annum efficiency measure in the model, they are subject to the same justification, prioritisation and procurement processes as non-level of service costs. Modelling of the rebase numbers shows that they are being delivered with a similar level efficiency.

- **Government subsidies**

- Community Service Obligation payments are the amount the Government pays to the Water Corporation for the difference in the cost of providing services and the regulated prices set by Government.

CSOs include the revenue shortfall associated with charging uniform State-wide tariffs for expensive country services, the reduced charges for pensioners, seniors and charities, and the additional cost of providing infill sewerage services that is above the standard sewerage rates.

The size of CSO payments is a function of the Government's pricing decisions, the level of service provided to country regions and the size of the infill sewerage program. Higher prices reduce losses on country services, but increase the cost of concessions to pensioners, seniors and charities as they are a proportion of the standard price and increase the CSO payment.

- **Customer demand**

Customer demand is dependent on:

- Growth in customer numbers

Growth in the customer base increases the number of customers that share the total cost. While costs need to increase to service growth, the increase is generally lower than the increase in revenue from new customers. Generally higher growth leads to economies of scale and lower prices.

Growth in water demand is an exception. New water sources are generally more expensive than existing sources, so that increased demand result in higher unit costs and, therefore, higher prices.

- Change in water demand per customer

Programs that can reduce demand at a lower cost than expanding supply lead to lower prices. While the reduced water sales during a drought results in reduced revenue, ongoing savings reduce the need to construct expensive new water sources such as desalination plants and, therefore, ultimately result in lower prices and save customers money.

- **Tax and Dividends**

The pricing model is completely independent of the actual tax and dividend payments to Government. The WACC is based on the industry norm, and not the actual capital structure of the Corporation.

## **2.5 REVENUE CAP**

As previous ERA inquiries have established the pricing model and reviewed the Corporation's tariff structure, there is now the opportunity for the ERA to consider moving to a more light-handed approach to price regulation. The Corporation proposes that, in the first instance, this could be a move from the current approach of recommending prices (price cap) to recommending a revenue cap. With this approach, prices for each product may be varied by the regulated utility as long as the maximum revenue cap is maintained.

Such a move would be consistent with moving towards the Productivity Commission's recommendation from the final report of their Australian's Urban Water Sector inquiry (August 2011).

### *RECOMMENDATION 11.1*

*State and Territory Governments should move away from regulatory price setting to a price monitoring regime (where some form of prices oversight is considered*

necessary). Independent regulatory price setting should only be applied where it can be demonstrated that price monitoring and appropriate governance arrangements are unlikely to prevent misuse of market power.

The Corporation sees the benefits moving to a revenue cap are:

- Increased flexibility – a revenue cap would allow the Corporation to develop pricing for different product offerings, with the sum of the revenue not exceeding the revenue cap. If prices are set by the regulator, the utility cannot develop and price alternative offerings.

*If regulation restricts the potential pricing strategies utilities can adopt, it might prevent efficient pricing or prevent service offerings being made that some consumers might find attractive. By reducing pricing flexibility for utilities, current price setting approaches would potentially obstruct the pricing reforms advocated by the Commission in this report. (Productivity Commission Final Report page 316).*

- Better information – the utility has a much closer relationship with the customer base and knowledge of billing system costs and capabilities.

*Another problem with regulation is that of imperfect information and asymmetric information between the regulator and the regulated utility. Regulators typically do not have as much information as those being regulated.*

*Decisions by regulators also typically depend on assumptions made about a large number of parameters, and assumptions that can turn out to be erroneous. The assumptions made by regulators are not necessarily superior to those of utilities. (Productivity Commission Final Report page 316).*

- Compliance and administration costs

There is an additional cost of regulation associated with the ERA understanding, assessing, modelling and making recommendations about the Corporation's tariff structure.

Past differences between the ERA and the Corporation on tariff structures have generally not been about pricing principles but about the ability to implement what has been recommended. This is an example of information asymmetry, both about the knowledge of the Corporation's billing system capability and limitations, and the implication of particular tariff structures over time and for atypical customers and schemes.

*There are potentially significant costs associated with complying with and administering regulation. The compliance costs faced by businesses involved in the urban water sector include:*

- *management and staff time (including the potential need to hire additional staff, and costs associated with management being diverted from core business)*
- *hiring of external expertise (such as engineers or lawyers)*
- *purchase and maintenance of specially modified IT systems or other equipment required to ensure compliance*

- *training costs.*

*Although these costs fall initially on businesses, many are likely to be passed on to consumers through higher prices. The burden of compliance costs in the urban water sector therefore falls mainly on consumers. There are also significant costs to government (ultimately passed on to consumers or taxpayers) associated with design and enforcement of regulation. (Productivity Commission Final Report page 314).*

## **2.6 PRICE PATH PROPOSAL**

As noted in section 2.4 above, in setting the revenue requirement, the key variables that affect prices are the level of capital required for new infrastructure and the WACC.

The following section provides a sensitivity analysis of the potential price path against these two variables.

### **2.6.1 Capital Program**

Currently, due limits on borrowing, the size of the Corporation's capital program is dependent on the level of funding approved by the State Government.

The Terms of Reference for the current ERA inquiry include a request to examine the efficient operating and capital costs of providing appropriate service standards. It is noted that these costs may be different to the funding included in the Corporation's capital budget.

Past experience has shown that additional funding has been approved within the price determination period. Table 2 shows that since the last ERA inquiry in 2009, an additional \$606m was approved between 2008/09 and 2012/13. Additionally, since the last ERA inquiry the Corporation has agreed with Government a base level of funding for future years, with additional funding above this level to be sought based on program or project business cases. As a result, the projected base capital program for future years has been reduced substantially, but with the potential for additional funding to be approved in future budgets.

The Corporation has identified three different capital scenarios that prices could be based on. These are:

- The current approved capital budget;
- The capital budget being sought in the Corporation's Strategic Development Plan (SDP), which includes additional funding for high priority projects;
- The appropriate program identified in the Corporation's Strategic Investment Business Cases (SIBC) that should be delivered to meet required service standards if the Corporation were not subject to capital budget constraints.

Table 2 provides a comparison between the capital program assumed in the 2009 pricing model, the actual and current projected expenditure.

**Table 2 Capital Program – ERA 2009 Assumption vs Actual and Budget**

	2008/09	2009/10	2010/11	2011/12	2012/13	2013/14	2014/15	2015/16
	\$m	\$m	\$m	\$m	\$m	\$m	\$m	\$m
ERA 2009 Inquiry <sup>1</sup>	1,002	1,160	867	695	823	1,476	1,737	1,753
Actual to 2010/11 and Current Budget <sup>2</sup>	1,040	1,173	976	997	965	959	733	918
Difference	39	13	109	302	143	-516	-1,004	-835

1. Forecasts used to prepare the three year price path.

2. 2011/10 actual data; 2011/12 budget data and 2012/13 to 2015/16 forecasts.

## 2.6.2 Weighted Average Cost of Capital (WACC)

For this inquiry, it is expected the ERA will reassess the WACC in mid 2012 and revise the price path based on prevailing global financial conditions.

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.

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 Corporation proposes that the ERA continue to use the current method of calculating the WACC. If the ERA wishes to change the method of calculation (a possibility raised in their Issues Paper), then the Corporation will provide comments in support or opposition to proposed changes in our response to the ERA's Draft Report.

As a base case, the Water Corporation has used a long-term average of 6% in its pricing modelling and a range of 5.28% to 6.62%. When combined with the three capital scenarios, indicative potential price paths for an average residential customer using 270kL are shown in Table 3.

It should be noted that the maximum price increase in any year for the 6.62% WACC scenario has been limited to 8.5%, and if this occurs, additional price rises would be required in the future to recover the revenue short-fall.

Another issue is that the following table assumes that the benefits of a lower WACC are passed on as lower increases towards full cost recovery. Even at a 5.28% WACC, current water prices are below full cost recovery. An argument can be made that if 8.5% per annum is an acceptable phase-in rate towards full cost recovery, then this percentage increase should continue to be used until cost recovery is achieved, independently of the WACC. This approach would benefit customers in the longer-term by minimising future price increases.

**Table 3 Indicative price path for average residential customer**

<b>WACC vs Capital Scenario</b>	2013/14	2014/15	2015/16
<b>2011/12 State Budget</b>	7.8%	5.1%	
<b>WACC = 5.28%</b>			
<b>Capital Scenario</b>			
Current Budget	4.7%	4.9%	5.0%
Strategic Development Plan	4.9%	5.0%	5.1%
Strategic Investment Business Cases	5.3%	5.4%	5.5%
<b>WACC = 6.00%</b>			
<b>Capital Scenario</b>			
Current Budget	7.2%	7.3%	7.4%
Strategic Development Plan	7.3%	7.4%	7.5%
Strategic Investment Business Cases	7.7%	7.8%	7.9%
<b>WACC = 6.62%</b>			
<b>Capital Scenario</b>			
Current Budget	8.5%	8.5%	8.5%
Strategic Development Plan	8.5%	8.5%	8.5%
Strategic Investment Business Cases	8.5%	8.5%	8.5%

Table 3 shows that the key determinant of the required price increases will be the WACC.

The Corporation proposes adopting a price path based on the capital program in the SDP. It is noted that if a reduced program is adopted for pricing purposes and the required expenditure is subsequently higher, future prices will need to be increased to compensate.



### **3 RESPONSE TO SPECIFIC QUESTIONS RAISED IN THE ISSUES PAPER**

#### **Service Standards**

*(1) Question for Water Corporation, Aqwest and Busselton Water: do you have sufficient resources to meet the service and performance standards set out in your operating licences?*

The resources available to the Corporation are limited by our approved capital and operating budgets. The Corporation has a culture of compliance and the first call on these resources is to meet the service and performance standards set out in our operating licences.

The resources required to meet service and performance standards relate to both the target level of service and the level of risk that is taken that this standard will not be met. The greater the level of resources applied, the lower the risk of non-compliance through incidents such as customer service non-compliance (e.g. bursts and interruptions), environmental non-compliance (e.g. sewerage overflows, odours) or health non-compliance (e.g. insufficient multiple barriers to meet drinking water guidelines).

The rate of addressing these service risks is often agreed under Memorandum of Understanding with regulators, which includes taking into account the available funding to address these issues. For example, expenditure programs are developed to meet performance guidelines over a number of years. These programs are often reviewed where there is a change in the funding available.

Other service and performance standards are mandatory and need to be met, whether or not they offer the best outcome from the available resources.

Recent cuts in the capital budget available to the Corporation and the need to redirect funding to meet growth in the Pilbara and to fund the expansion of the Southern Seawater Desalination Plant have resulted in a level of funding that will result in an unacceptably high risk of non-compliance in some areas of the business. These risks are outlined in section (5) below.

*(2) Question for interested parties: Do you have any concerns about the current levels of service provided by Water Corporation, Aqwest and Busselton Water?*

The Corporation interprets the term “levels of service” in the broad sense of including both the level of service received by customers (e.g. service quality, continuity, customer contact response) and meeting other regulations (e.g. health, environmental, safety).

The Corporation meets the service standards either required by or agreed with regulators, or determined through consultation with Government and the community. The services that can be provided are limited by the available funding, and expenditure needs to be prioritised across competing projects.

The requirements of regulation receive priority as the Corporation, the Corporation’s Board and management have compliance obligations and are subject to prosecution for non-performance. As such, compliance with regulation

that is not cost/benefit justified requires funding and can reduce the overall levels of service that can be achieved for the community.

The Department of Treasury manages the Regulatory Impact Assessment process for regulatory proposals to determine the impact of new regulation on business, consumers and/or the economy. However, it currently only applies to Cabinet proposals of a regulatory nature and subordinate legislation made by the Governor in Executive Council.

In the Corporation's experience, regulators change regulatory requirements without the need to go to Cabinet or via legislation, and these can add significant costs without an assessment of the net benefit to the State. This could result in the community incurring the cost of providing higher levels of service than can be justified.

The ERA may see the level of service required by regulators and the method in which this is assessed as a productive line of investigation against the requirement in the Terms of Reference focus on the appropriate service standards and the resources required to meet them.

### **Service Providers' Tariff Proposals**

*(3) Request to Water Corporation, Aqwest and Busselton Water: please provide, in response to this issues paper, your own proposed revenue requirement and associated tariffs for the period from 1 July 2013 to 30 June 2016, and justification for that revenue and tariffs.*

As discussed above, the key driver for the Corporation's revenue requirement is the WACC. As this can only be estimated at this time, it is not possible to propose an actual revenue requirement and the associated tariffs at this point in the inquiry.

The Corporation's tariff proposal is that:

- The basis of calculating the revenue requirement should be the ERA's current pricing model, to be updated for actual expenditure and extended to include 2019/20;
- The WACC to be calculated using the current methodology, and
  - the ERA consider using a moving average to calculate the WACC to overcome the problem of financial volatility.
- Capital expenditure to be based on actual expenditure to date and the forecasts provided in the Corporation's current SDP.
- Operating expenditure to be based on:
  - A rebase of the pricing model from 2004/05 to the actual 2010/11 expenditure;

- Operating efficiency of a reduction in the real operating cost per service of 2% per annum;
- Increases in operating expenditure to allow for growth, price inflation and adjusting for items that increase operating costs but are not a reflection of inefficiency (predominately additional expenditure required to improve the level of service provided).
- Demand to be based on actual growth and consumption to date and the forecasts provided in the Corporation's current SDP.
- With the exception of replacing valuation based charges, continuing with the current tariff structure based on:
  - Volumetric charges reflecting the Long Run Marginal Cost (LRMC) of developing new water sources. This price will encourage efficient consumption relative to the cost of source development, and provide the best signal for the development of long-term substitute sources (e.g. non-potable recycling) and demand management projects.
  - Annual charges based on the service provided rather than property values. Charges based on property values are expensive to administer, difficult for customers to understand, and have a relatively weak correlation to customers' ability to pay (e.g. where pensioners occupy high value property). The alternatives to valuation based charges remain unchanged from those proposed in our submissions to previous inquiries.
  - Uniform developer contributions across the State. Location based developer contributions would have very little impact on demand for services in most locations. A State wide charge is easier to administer, provides certainty for developers when planning their investments, and is set to raise the revenue required to provide distribution assets to service the land.

## **Demand Projections**

*(4) Request to Water Corporation, Aqwest and Busselton Water: please provide your demand projections for each of your services including the analysis for why you think these projections are robust.*

Customer demand is dependent on:

- Growth in customer numbers

Growth in customer numbers is dependent on the level of land development activity. The overall growth rate expected is in the order of 2.6% per annum, but this is made up of different estimates for each customer class.

The Corporation will provide the actual customer numbers and growth estimates by year for each customer class that is in the ERA's pricing model.

Growth estimates are supported by a detailed analysis of potential land developments and major industrial and mining projects.

- Change in water demand per customer

Meeting the needs of a growing State requires a combination of both water source solutions and demand management initiatives. The Department of Water now requires the Corporation and other licensees to develop and implement water efficiency measures as part of the standard licensing process. Table 4 provides the Water Forever glide path for water efficiency.

**Table 4 Target per Capital Water Consumption for Perth (kL/annum)**

	2012/13	2013/14	2014/15	2015/16	2016/17
Perth per capita consumption	143	142	141	140	139

Other demand management initiatives have been implemented for individual schemes. These have been targeted to schemes where the demand management helps overcome supply constraints, and where the cost savings are greatest.

Actual water consumption will also depend on climatic conditions and tends to vary around the target. As agreed in previous inquiries, it is appropriate to incorporate an adjustment for variations in previous estimates into the following price determination. This approach avoids any incentive for either the Corporation or the ERA to “game” demand estimates (i.e. to under or over-estimate demand to modify the price outcome), and recognises that the Corporation has no control over climate variation.

The demand management activities carried out by the Corporation which do contribute to overall demand can be assessed on the merits of the individual business cases.

### **Capital Expenditure**

*(5) Request to Water Corporation, Aqwest and Busselton Water: please provide your capital expenditure proposals including the analysis for why you think these proposals are appropriate.*

Currently, due to limits on borrowing, the size of the Corporation’s capital program is dependent on the level of funding approved by the State Government.

The Terms of Reference for the current ERA inquiry includes a request to examine the efficient operating and capital costs of providing appropriate service standards. It is noted that these costs may be different to the funding included in the Corporation’s capital budget.

Past experience has shown that additional funding has been approved within the price determination period. Table 2 on page 15 shows that since the last ERA inquiry in 2009, an additional \$606m was approved between 2008/09 and 2012/13.

Since the last ERA inquiry, the Corporation has agreed with Government a base level of funding for future years, with additional funding above this level to be

sought based on program or project business cases. As a result, the projected base capital program for future years has been reduced substantially, but with the potential for additional funding to be approved in future budgets.

The Corporation has identified three different capital scenarios that prices could be based on. These are:

- The current approved capital budget;
- The capital budget being sought in the Corporation's Strategic Development Plan (SDP), which includes additional funding for high priority projects;
- The appropriate program identified in the Corporation's Strategic Investment Business Cases (SIBC) that should be delivered to meet required service standards if the Corporation were not subject to capital budget constraints.

### Capital Prioritisation

The aim of the Corporation's capital investment program can be summarised as: *to acquire assets that deliver sustainable water services at an agreed level of service and tolerable level of risk.*

In other words, the Corporation's aim in prioritising its capital investment is to maximise the overall benefit received from the available capital budget, where "benefit" includes considerations of both service and risk.

The Corporation's former methodology for capital prioritisation had a focus on maintaining a tolerable level of risk in each of its infrastructure systems. In 2009, the Corporation began a project aimed at refining this approach to achieve a more strategic focus and to incorporate other criteria, in addition to risk.

At the same time, the Corporation initiated an Australia-wide study into the capital prioritisation methods in the water industry, under the auspices of the Water Services Association of Australia (WSAA).

The Corporation presented its new draft methodology at a national workshop for the industry in November 2009, where it was acknowledged that the Corporation was at the forefront of developments in the industry.

Following a second workshop in 2010, WSAA engaged GHD consultants to research current practices, nationally and internationally, and to document best practice.

The Corporation's approach was included as a Case Study in their report, and the principles underpinning the Corporation's process and methodology were confirmed as the basis for best practice.

The seven core principles are:

1. Outcome-focused
2. Sound Governance
3. Communication
4. Robust and Consistent Inputs
5. Analytical and Judgemental Decision-Making

6. Established Processes
7. Documented Outcomes

### The Use of Strategic Investment Business Cases (SIBC)

The Corporation's process is distinguished from others by the initial focus on aligning the investment with strategic priorities, as a preliminary to prioritising individual capital projects.

A distinctive feature of the Corporation's process is the preparation of a SIBC for each of 17 areas of the business (Metro Water, Country Wastewater etc.)

Each SIBC sets out four options, each option representing a different level of investment over 20 years and the consequent outcomes for the business (level of service and risk). This relationship between investment and outcomes is the key to determining the allocation of the available capital funding to each SIBC.

There are four nominated levels of investment for each SIBC:

- Option A has a likelihood of failing to meet some current regulatory requirements and some standards or policies, below which the community or regulator would not accept. If investment was below this minimum, it is likely there would be legal action with major consequences for the Corporation.
- Option B just meets all current regulatory requirements but may fail some standards or policies.
- Option C meets all current regulatory requirements and standards or policies, including obligations under the Customer Charter.
- Option D meets all current regulatory requirements and standards or policies, and may deliver some outcomes that anticipate increased requirements and obligations.

The outcome for each option in each SIBC is assessed on a scale of 1 to 10, with unacceptable being 0 – 2, Undesirable 2 – 4, Acceptable 4 – 6, Desirable 6 – 8 and Ideal 8 – 10.

Once the outcomes are assessed for each SIBC, the cost of delivering the options is introduced. The available funding is then allocated between SIBCs based on the assessed priorities.

Once the amount allocated to an SIBC has been determined, its individual projects can be prioritised, using criteria relevant to the SIBC, including risk, to determine the specific investments that make up the 5-year program.

Benefits of the approach include:

- Aligns capital investment directly with strategic priorities;
- Focuses on the outcomes delivered to the business, stakeholders and customers;
- Ensures focus on the relative importance of outcomes, rather than projects;

- Provides a framework for making decisions about the trade-offs between business outcomes;
- Enables the Corporation to advise Government on the impact of variations in funding.

The new process and methodology were used for the first time in 2011 to formulate the 2012/13-2016/17 program. Based on this experience, SIBCs are currently being updated and improved, with the revised SIBCs due for completion in May 2012.

The current level of approved capital is insufficient to fund all SIBC to an acceptable level, with some SIBCs being only funded to allow an “undesirable” rather than an “acceptable” outcome, and two SIBCs are funded with an “unacceptable” outcome. The Corporation has sought additional capital funding to rectify this situation.

## Operating Expenditure

*(6) Request to Water Corporation: please provide your operating expenditure efficiency target proposal including the analysis for why you think this target is appropriate.*

The Corporation has a stated efficiency target of reducing the operating expenditure per service by 2% per annum, after adjusting for items that increase operating costs but are not a reflection of inefficiency (nominally labelled “Level of Service” (LoS)).

As part of the 2011/12 State Budget, the Government sought an additional Efficiency Dividend of \$20.754m (plus inflation in subsequent years).

To date, the ERA’s pricing models have included operating budgets based on the Corporation’s stated operating efficiency target. During previous inquiries, the ERA has assessed the efficiency target, accepted it as sufficient, and included it in the price model, effectively passing on all the efficiency benefits to customers (and none to the owner, the Government).

The key drivers to improvements in efficiency in the Corporation are:

- Economies of scale – as the customer base grows, the fixed cost of delivering many functions remains unchanged or grows by a smaller percentage, effectively providing the same service for a lower cost per service.
- Continuous improvement – incremental improvement in processes and advances in the use of technology allow the cost of delivery of services to be gradually reduced over time. The Corporation has a budget target of an improvement of 0.5% per annum.
- Efficiency initiatives – major initiatives that allow a step change in the cost of delivery of services. Efficiency initiatives normally receive this label when they are undertaken to reduce costs, but initiatives that improve the level of service to customers (increase outputs) can also improve efficiency (i.e. greater output for the same cost).

The Corporation has undertaken a recent analysis that has shown an expected efficiency improvement of 1.6% per annum can realistically be achieved from the combination of:

- efficiencies incorporated into current major contracts (ie Mundaring PPP and the two new metropolitan operating alliances);
- economies of scale (where costs do not grow proportionally to growth in the number of services); and
- the 0.5% per annum currently targeted for continuous improvement in budgets.

As the current target is greater than 1.6% per annum, the difference between 1.6% per annum base efficiency and the 2% per annum target needs to be found through either:

- Additional efficiency initiatives (real efficiency);
- Reductions in the levels of service provided (cost cutting).

After identifying savings to meet the additional Efficiency Dividend, continuation of the 2% per annum target appears achievable, but challenging.

#### Benchmarking with other utilities

Benchmarking shows that the Corporation's efficiency model is similar to that used for the Melbourne water utilities, with their efficiency target including an adjustment for new or changed service outcomes. These utilities are targeting efficiency improvements of 1% per annum compared to the Corporation's 2%.

The Sydney Water efficiency model only partially adjusts for the provision of additional levels of service to the extent that the costs of bulk water, Build Own Operate water filtration, the carbon price, S16A recycled water schemes and the Climate Change Fund are excluded from the cost base. All other cost pressures (except growth and inflation) will be absorbed by the business while still delivering an annual efficiency of 1%.

Price regulators normally allow regulated utilities the opportunity to retain the benefit of outperforming efficiency targets as a form of efficiency incentive. The Corporation has a higher efficiency target compared to Sydney Water and the Melbourne water utilities. An argument could be made that our efficiency target is higher than the industry average, and there could be scope for the Government (as the Corporation's owner) to retain some of this out-performance as higher returns from dividends. This is on the basis that Corporation's internal budgeting would not change and would continue to drive to achieve the full 2% efficiency.

The Government has budgeted to retain the benefits of the additional Efficiency Dividend. The ERA should consult the Government as to whether they wish to retain this benefit to reduce State Net Debt as budgeted, or whether it should be passed on to customers through lower prices.



*(7) Request to Aqwest and Busselton Water: please provide your operating expenditure efficiency targets, if you consider such a target would be appropriate; if not, please provide measures you intend to put in place to achieve efficiency gains.*

Not applicable.

*(8) Question for interested parties: The method that is currently used to encourage efficiency gains is by way of an operating expenditure efficiency target. What do you think would be an appropriate operating efficiency target for the Water Corporation? Are there any other methods that should be applied to generate greater incentives to be efficient?*

See (6) above.

### **Efficiency of Demand Management Activities**

*(9) Request to Water Corporation, Aqwest and Busselton Water: what demand management activities are you intending to undertake over the review period; please justify why you think this expenditure is efficient.*

The Water Corporation is continuing to run a number of demand management programs. In 2012/13, the programs include:

- Completion of Perth water efficiency program (including community based social marketing H2Omesmart program).
- Implement Non-Residential Water Efficiency Strategy for data logging for large customers, a dedicated water efficiency stakeholder manager for peak industry bodies to progress sector-specific water efficiency initiatives, and a convenient service for discounted water efficiency products and services for all non-residential customers.
- Regional and Metropolitan H<sub>2</sub>ome Smart Program with Retrofits to deliver the successful H<sub>2</sub>ome Smart program, including retrofits, to households in key schemes across the state.
- Improved Regional Sprinkler Roster Compliance for an additional Water Efficiency Inspection Officer for the North West Region to improve sprinkler roster compliance.

These are generally targeted to achieve the greater reduction in water use for the lowest cost. They are reviewed annually and reprioritised to ensure best value for money. The Corporation prepares business cases for new proposals that include an assessment to ensure each proposal is economically viable. In some cases, demand management is put in place while new source development is underway to ensure continuity of supply; in other cases demand management is used to enable source deferral (e.g. the Integrated Water Supply System).

*(10) Question to interested parties: Are you aware of any information that would help the Authority to assess whether the demand management activities of the service providers are efficient?*

The Corporation can provide the ERA with business cases for its demand management activities to demonstrate the need and their efficiency.

### **Community Service Obligations**

*(11) Request to Water Corporation: please provide your projection of CSO revenue, including the analysis used to calculate this revenue, for the review period.*

The CSO payment is currently calculated based on an approach agreed with the Department of Treasury. The Corporation recognises the need for changes to be made to align with regulatory valuations and rates of return used in the ERA's regulatory framework.

The Corporation's preferred position is that the ERA's regulatory framework determines the Non-commercial Country Services component, and the Corporation continues to manage the CSO for New or Changed CSOs between inquiries, the Infill Sewerage Program and Revenue Concessions. The CSO country loss model rebase year is 2011/12. It is, therefore, timely to change the CSO in line with the ERA's regulatory framework as part of this inquiry.

Table 5 shows the Corporations' projected CSO from the draft 2012/13 SDP. The Corporation will provide these numbers can be provided to the ERA broken down by service and by scheme.

**Table 5 Community Service Obligations**

Community Service Obligations	2012/13	2013/14	2014/15	2015/16	2016/17
	\$m	\$m	\$m	\$m	\$m
Non-Commercial Country services	255	252	255	260	265
New or changes CSOs	31	80	103	125	126
Revenue Concessions	116	127	138	148	158
Infill Sewerage	35	35	37	38	42
Total	437	494	533	571	592

### **Rate of Return**

*(12) Request to Water Corporation, Aqwest and Busselton Water: what rate of return are you proposing to use in the calculation of your revenue requirement?*

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.

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 Corporation supports the Productivity Commission's view that "*determining an appropriate rate of return is important. If the rate of return is set too high, this means businesses might recover revenues that exceed costs which might encourage 'under-consumption' of infrastructure relative to efficient levels. If the rate is set too low, this can deter investment in infrastructure. The Commission considers this latter prospect to generally be a worse outcome as in the long run it is likely to involve greater efficiency losses.*"<sup>1</sup>

The Corporation proposes that the ERA continue to use the current method of calculating the WACC. If the ERA wishes to change the method of calculation (a possibility raised in their Issues Paper), then the Corporation will provide comments in support or opposition to proposed changes in our response to the ERA's Draft Report.

*(13) Question to interested parties: what rates of return do you consider to be appropriate for the Water Corporation, Aqwest and Busselton Water? Are there any particular factors that would lead the Authority to calculate a different rate of return to Aqwest and Busselton Water compared to the Water Corporation (for instance, in the last review the Authority used a lower credit rating for the water boards)?*

No comment.

*(14) Question to interested parties: Should the Authority calculate the rate of return on the basis of a pre tax approach, as it has in past inquiries, or on the basis of a post tax approach, which more explicitly accounts for the tax payments made by the service providers?*

There are two objectives for the calculation of the WACC:

- Not too high to protect customers from monopoly rents;
- Not too low so that utilities can make a fair regulated return and efficient investment by the private sector is not discouraged.

There are many elements that make up the calculation of the WACC and some subjective judgement is used in their assessment. Introducing the added complexity of tax will not enhance the objective of setting the WACC within the appropriate range.

The key issue is that calculating the WACC on a post-tax will be a time consuming and have a cost without demonstrated benefit.

It is noted that this was considered but, at this stage, not adopted by IPART.

The Corporation proposes that the WACC continues to be calculated on a pre-tax basis.

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<sup>1</sup> Australia's Urban Water Sector, Productivity Commission Inquiry Report Volume 1, No. 55, 31 August 2011, p 274.

## Inflation

*(15) Request to Water Corporation, Aqwest and Busselton Water: please provide your inflation projection as well as the reasons for why you have adopted your proposed inflation measure.*

The Water Corporation uses a number of inflation indices for different purposes, as previously reviewed by the ERA and approved by the State Government.

The General Price Increase (GPI) is a Consumer Price Index (CPI) Perth based price rise required to fund the inflationary cost pressures on the Corporation's existing costs. It is applied to all fees and charges. The figure is provided by the Department of Treasury and reflects the average annual movement in Perth's quarterly CPI to September.

The following table shows the Water Corporation's inflation expectations prepared for the 2012/13 budget.

**Table 6 Perth CPI Projections**

%	2010/11	2011/12	2012/13	2013/14	2014/15	2015/16
ERA 2009 Inquiry forecast <sup>1</sup>	3.00%	2.50%	2.50%	2.50%	2.50%	2.50%
Water Corporation 2012/13 Draft Budget <sup>2</sup>	2.75%	3.00%	3.25%	3.25%	3.25%	3.25%

1. Forecasts used to prepare the three year price path.

2. 2011/10 actual data; 2011/12 budget data and 2012/13 to 2015/16 forecasts prepared for the 2012/13 budget.

To calculate cost inflation pressures on its capital and operating programs, the Corporation uses internally calculated indexes: Capital Cost Index (CCI) and Operating Cost Index (OCI). These are a composite of indexes published by the Australian Bureau of Statistics, selected specifically to reflect the composition of the Corporation's capital (that is, CCI) and operating (that is, OCI) programs. The ERA has previously accepted the use of these indices. The composition of each index was last revised in September 2009 and is shown in Table 7 and Table 8.

**Table 7 Composition of the OCI**

OCI - ABS Index	To capture the cost of...	Weighting
Labour Price Index -	Labour	53%
Electricity, Gas & Water Supply	(Internal & External)	
Producer Price Index -	Materials; Plant and	9%
Articles Produced by Manufacturing Sector	Equipments	
Consumer Price Index -	General Expenses	8%
Perth		
PPI-Property	Property	3%
Producer Price Index - Infrastructure maintenance	Infrastructure maintenance	8%
Producer Price Index - Consultancy	Consultancy, Engineering Design and Engineering Consulting Services	3%
Producer Price Index - Information Technology	Information Technology, Computer System Design and Related Services	5%
CPI-Energy	Energy	8%
PPI-Chemical	Chemical	3%
Total		100%

**Table 8 Composition of the CCI**

CCI - ABS Index	To capture the cost of...	Weighting
- Producer Price Index (PPI) Non Residential Building (WA)	Wages Construction, Building Materials and Other Non Direct Costs	82%
Labour Price Index (LPI) consisting of: 1- Professional, Scientific and Technical Services (WA) 2- Administrative and Support Services (WA)	Pay/Wages: Business	15% (of which: 67% 33%)
- Consumer Price Index (Perth)	General Expenses	3%
Total		100%

*(16) Question for interested parties: Should tariffs be adjusted by using an inflation index that represents inflationary conditions in Australia or locally?*

Estimates for future expenditure should be based on cost escalation using local indexes and cost factors. For example, there is no point in estimating the cost of constructing infrastructure in the Pilbara based on Perth prices as the costs would be significantly underestimated.

Similarly, past efficiency performance needs to be measured against local prices. The Corporation is not being more efficient if local prices go up by less than the national average, and similarly, it is not being less efficient if the local prices go up by more than prices nationally. Additionally, in terms of efficiency, it is important to use an index based on the Corporation's business (i.e. our OCI). Changes in CPI reflect a change in the value of money, not the cost of inputs for a particular business.

The calculation of the WACC is based on the Australian capital market. Conversion between real and nominal rate of return is about the value of money, and should, therefore, be based on Australian, not local indices.

Given the present value calculation of the price model, whether prices are escalated by local or Australian CPI in the period between price inquiries would appear to have little importance in the long term. Future price paths can be adjusted for any divergence between local and Australian indices that would result in under or over-recovery.

## **Carbon Price**

*(17) Request to Water Corporation, Aqwest and Busselton Water: please provide your carbon cost projections as well as the reasons for why you have adopted these projections.*

In November 2011, the Australian Government passed the Clean Energy Act. This is anticipated to increase the cost of many inputs required to deliver water and wastewater services. In the Water Corporation's case, it will increase the cost of its energy requirements, may result in a direct liability for emissions from its major wastewater treatment plants and will result in higher inflation across most cost elements. This will impact on both capital and operating costs.

The Corporation has estimated the financial impact of the Clean Energy Act using financial parameters supplied by the State Government. The estimates are based on a medium impact scenario and should be treated as an indicator of the size of

the impact. Adjustments for the actual impact will be made retrospectively once the actual impact on inflation is evident.

Adjustments to inflation will also result in an increase to the general price increase applied to the Corporation's charges for all services. Inflation based increases in Government approved prices are generally based on the previous year's actual September to September increase in CPI. The cost increase for the Clean Energy Act would not impact prices until 2013/14 if the normal process was applied a year after the tax was introduced.

In consultation with the Department of Treasury, the Corporation's submission is for a separate and explicit price increase of 0.8% for the initial cost impact of the Clean Energy Act to be applied from 1 July 2012. Any differences between actual and expected inflationary impacts can be adjusted for in later years.

### **Key Issues for Setting Water Charges for Residential Customers**

*(18) Question for interested parties: In determining the level of water usage charges for residential customers, what considerations or assumptions should the Authority take into account regarding, for example:*

- *the **long-run or short-run marginal cost of water supply**;*
- *the level of **security of supply**;*
- *the cost and availability of current and future water sources, including **externality** costs;*
- *the marginal costs of water delivery;*
- *whether usage charges should be set in **inclining blocks**, or if there should be a **single volumetric charge**, and on what basis the charges in each band should be set;*
- *whether **discounts** should apply for low volumes of water use;*
- *whether **high prices** should apply to water use above a certain level, and if so, what level and what price;*
- *potential impacts on **tenants and large households** of any changes in usage charges;*
- *how any changes in charges should be phased in?*

The Corporation has commented extensively on the above issues in its submissions to the ERA's previous inquiries. The Corporation is proposing continuation of the current method of determining residential charges, and the basis on which the ERA set these charges.

Information that will be supplied to the ERA to support these calculations includes:

- A revised and updated Long Run Marginal Cost model.

The revised LRMC will include the cost of future water sources. The previous model supports a charge of \$1.97/kL.

- The Corporation's revised approach to security of supply.

With climate variation experience in the south west of Australia, the concept of calculating a percentage for source security (e.g. a 2% chance of restrictions) does not have a realistic statistical basis. The longer time series do not reflect the shift in climate and the short time series that reflect the new climate are not statistically valid.

With a much greater proportion of the Corporation's sources being climate independent, the Corporation has developed a plan of the appropriate response to varying dam levels over time. This includes a combination of demand management and source augmentation when dam levels are low, through to the point where desalination production would be reduced if there was a chance of dams spilling.

- Water demand based on a gradual reduction in per capital water demand outlined in the Corporation's Water Forever plan.
- An assumed average output of 80GL per annum from the augmented SSDP. Actual output will vary between 65GL and 100GL depending on the inflow into the Corporation's southern dams.

### **Water Charges for Residential Customers in Country Towns**

*(19) Question for interested parties: Do you have any comments on how the uniform tariff policy is applied in the pricing of country residential water services; e.g.*

- *Is the uniform price threshold of 150 kL per household for water to meet basic needs appropriate?*

*Should the same usage charge continue to apply up to the average level of consumption per household (300 kL for Country South towns and 500 kL for Country North towns)?*

- *Should all residential customers pay the same annual water service charge?*
- *Are the thresholds above which cost reflective charges apply for residential households (550 kL for Country South towns and 750 kL for Country North towns) appropriate?*
- *Is an additional allowance of 200 kL a year required for households in Country North towns to meet their average additional water use?*

As with the comments above, the Corporation has commented extensively on the above issues in our submissions to the ERA's previous inquiries. The Corporation is proposing continuation of the current method of determining residential charges, and the basis on which the ERA set these charges.

### **Water Charges for Non-residential Customers in Country Towns**

*(20) Question for interested parties: Should the number of cost categories for residential and non-residential customers in country towns be the same?*

The tariff structures for residential and non-residential customers are fundamentally different in that cost reflective prices apply from the first kilolitre used by commercial customers, but only gradually increase for consumption above the uniform tariff for residential customers.



15 classes are required for non-residential customers to allow the gradual adjustment of charges, both in the short-term to allow the phase-in of the price increases required, and in the long-term, when investment in new assets will require a change of class for some schemes.

This same driver does not apply to residential customers as much of their consumption is at the uniform price, and there are alternative mechanisms to reduce the impact of changes in class.

Increasing the number of billing classes complicates the billing system, increasing the size and cost of the testing regimes required, and increases the probability of billing error.

The Corporation would not support a change in the number of cost categories for either residential or non-residential customers.

### **Wastewater Charges for Residential Customers**

*(21) Question for interested parties: Should wastewater charges for residential customers continue to be set on the basis of property values, or should customers pay the average cost of wastewater services (subject to caps)?*

The ERA has previously proposed replacing the current method of charging for residential wastewater and drainage services based on gross rental values of properties. Charges based on property values are expensive to administer, difficult for customers to understand, and have a relatively weak correlation to customers' ability to pay (for example where pensioners occupy high value property). Although this proposal was not accepted by previous Governments, the Corporation continues to support a move away from valuation based charges.

### **Wastewater Charges for Non-residential Customers**

*(22) Question for interested parties: Are there any concerns with the current method of charging for non-residential wastewater services; and would an alternative method be more appropriate?*

The Corporation supports continuation of the current method for charging non-residential wastewater customers.

### **Charges for Drainage Services**

*(23) Questions for interested parties: Are there any concerns about the current method used by Water Corporation to charge for its drainage services? On what basis should the costs of providing drainage services in the Perth metropolitan area be recovered? How should the costs of expenditure to improve drainage water quality, and other drainage programs with wider community benefits, be recovered? Should country customers pay for the drainage services provided to them by the Water Corporation, and if so, on what basis should the charges be set?*

See comment for (21) above.



## **Concessions for Pensioners and Seniors**

*(24) Question for interested parties: Do you have any comments on the concessions for pensioners and seniors provided by the Water Corporation, Aqwest and Busselton?*

Concessions to pensioners, seniors and charitable institutions are funded by the Government through a CSO payment to the Corporation. This payment is based on the difference between the standard charges and the lower concessionary charges to these customers, plus the additional cost of administration.

The levels of the concessions are set by Government.

The current concessions are different between metropolitan, country north and country south. This reflects past differences in tariff structures that were originally in place prior to 1985 when metropolitan and country water were provided by different organisations, and the different climatic conditions between the north and the south of the State.

## **Water Corporation's Non-standard Tariffs**

*(25) Question for interested parties: Are the Water Corporation's non-standard tariffs appropriate, either on the grounds of cost-reflective pricing of specific services, or equity reasons, or for practical considerations?*

The Corporation negotiates non-standard tariffs for major consumers and for non-standard services. These charges are generally based on recovering the cost of the service provided. The power to negotiate prices is essential to allow flexibility in service provision, and to allow risk mitigation where a large individual customer requires significant investment in capacity that would be "stranded" or unused in their absence.

Revenue from the Corporation's non-standard tariffs associated with regulated assets is included in the Corporation's revenue cap. There is no incentive for the Corporation to utilise any monopoly power to overcharge customers, as any additional revenue would be off-set by lower prices to other customers.

As a Government owned organisation, the Corporation's approach to charging is to ensure that charging policies are applied consistently between customers. Negotiations are around applying consistent principles to customers with different service requirements, rather than a win/lose negotiation over the level of prices.

## **Impacts of Tariffs**

*(26) Question for interested parties: Do you have any particular concerns around the social impacts of water pricing that need to be brought to the attention of the Authority?*

Water is an essential service that everyone in our community needs, and sewerage is an essential service from which the also community collectively benefits health and environmental outcomes.

The recent increases in water service charges around Australia have been due to the additional costs that have been incurred responding to our drying climate.

In assessing the social impact of price increases, there is a difference between:

- the needs of providing assistance to those without the capacity to pay higher charges; and
- accommodating the gradual adjustment of budgets for those with the capacity to pay.

General equity and affordability has been addressed with the uniform pricing policy for residential water, and caps on country sewerage rates. The revenue short-fall that results from this policy is made up through Community Service Obligation subsidies funded by taxpayers through State Treasury. Similar subsidies are provided for pensioners, seniors and charitable organisations.

The Government has also provided additional assistance to compensate for rising utility prices, through targeted programs such as the Hardship Utility Grant Scheme (HUGS) and a general increases in the cost of living rebates for seniors.

The ERA and Government have addressed the impact of budget adjustments in the past by limiting the annual increase in charges. It should be noted that while this policy allows for the gradual change in individual customer's budgets, it results in higher future price increases to recover the revenue foregone. Further lowering the transition to full cost recovery is, therefore, not necessarily to the advantage of the customer.

Past practice has been to limit the maximum increase in customers' bills to 10% plus the General Price Increase. This limitation has not been applied where tariff reform has resulted in an increase in one part of a customer's bill (e.g. volumetric charges) being off-set in another part (e.g. service charges), lower the percentage increase in the total bill.