



Submission to the Economic Regulation Authority's Draft Report

Inquiry into Tariffs of the Water Corporation,
AQWEST and Busselton Water

Part B – Detailed Examination

22 May 2009

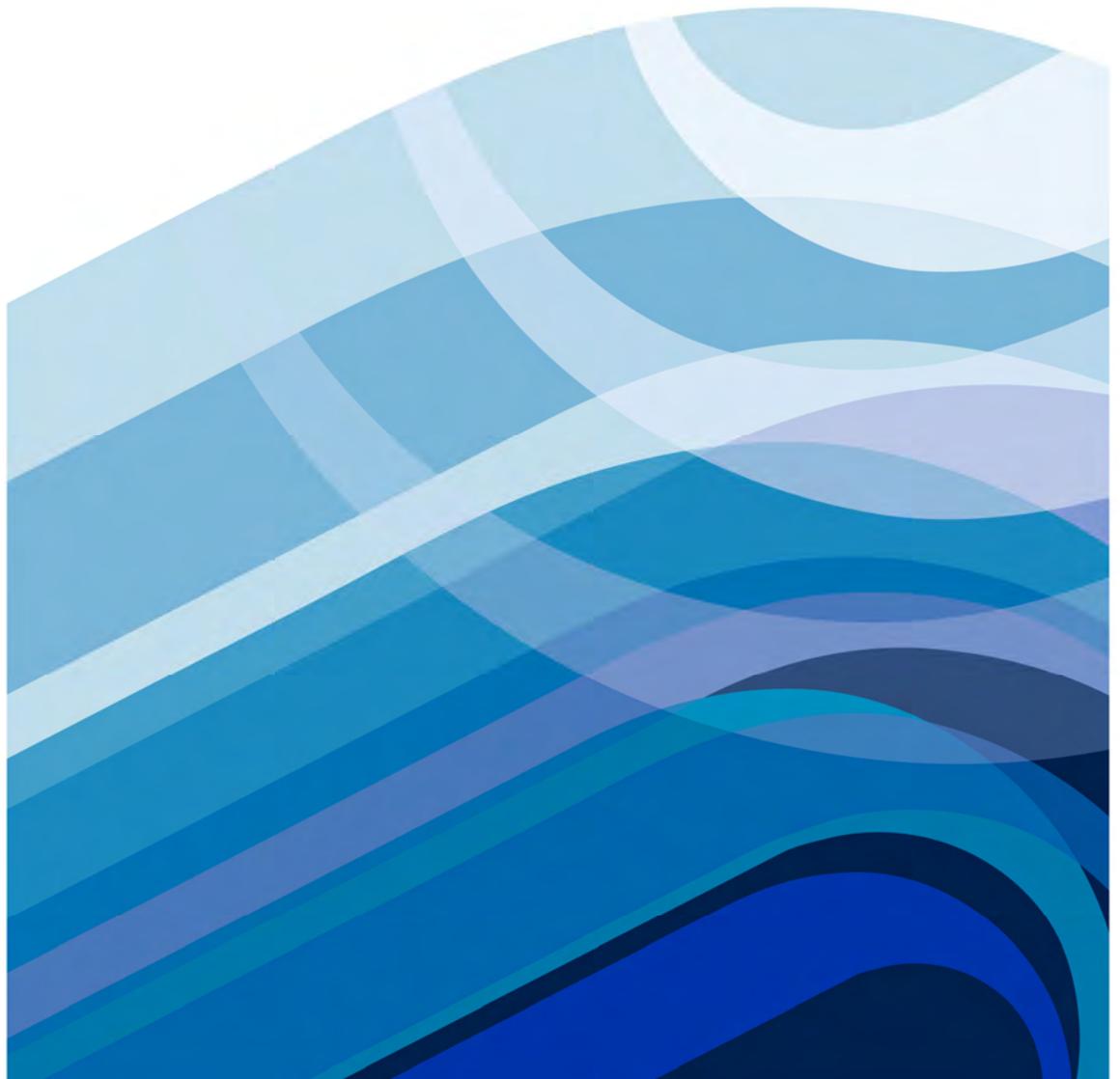


Table of Contents

1. Introduction	1
1.1 ERA Rationale for the Proposed Usage Charges	2
1.2 Long Run Marginal Cost Pricing Model	2
1.3 Short Run Market Clearing Pricing Model	6
1.4 Definition of Equity	10
2. ERA Draft Recommendations.....	12
2.1 Water Tariffs for Perth, Bunbury & Busselton.....	12
2.2 Country Water Tariffs	14
2.3 Wastewater Tariffs	16
2.4 Drainage Tariffs.....	18
2.5 Water Corporation’s Other Tariffs	20
2.6 Method for Calculating Revenue Requirement	22
2.7 Operating & Capital Expenditure	29
2.8 Rate of Return.....	31
2.9 Regulatory Asset Values	32
2.10 Demand Management.....	33
2.11 Cost Allocation	34
2.12 Draft Tariff Recommendations.....	37

1. Introduction

The Water Corporation (the Corporation) offers this submission in response to the Draft Report prepared by the Economic Regulation Authority (the ERA) in its Inquiry into Tariffs of the Water Corporation, Aqwest & Busselton Water (18 March 2009).

Given the size and complexity of the ERA's Draft Report, the Corporation submits its response in two parts:

- **Part A:** An overview of the Corporation's response to key issues raised in the Draft Report; and
- **Part B:** A more detailed examination of the key issues addressed in Part A, together with the Corporation's response to each of the individual draft recommendations.

This document represents Part B of the Corporation's response. Specifically, this submission discusses in more detail:

- the Long Run Marginal Cost (LRMC) calculation, including the determination of the externality premium;
- a comparison of the strengths of the LRMC model compared to the ERA's Short Run Market Clearing Pricing (SRMCP) model; and
- the need to recognise alternative perceptions of equity in setting prices for services where demand is not sensitive to prices.

1.1 ERA Rationale for the Proposed Usage Charges

The Corporation does not object to the magnitude of the usage charges recommended by the ERA in its Draft Report, but rather the underlying rationale for setting the charges.

The Corporation's concerns may be summarised as follows:

- The use of a prototype Short Run Market Clearing Pricing (SRMCP) model for setting retail tariffs is not supported. Charges based on the Corporation's Long Run Marginal Cost (LRMC) model are far sounder, both from a theoretical and a practical perspective;
- While the Corporation offers support in principle to the concept of an externality adjustment, it does not agree with the basis of the ERA's calculation, and questions why it would be applied only to residential consumption above 500kL.

1.2 Long Run Marginal Cost Pricing Model

The ERA has used the Corporation's LRMC model to calculate the proposed usage charge for residential consumption between 0 and 150kL (\$1.13/kL) and the externality premium for residential consumption above 500kL (\$2.57/kL).

With the exception of the volumetric charge above 500kL (\$2.00/kL), the Corporation has used the LRMC model to calculate residential usage charges (0 to 150kL - \$1.36/kL, 150 to 500kL - \$1.80/kL) and the usage charge for metropolitan business (\$1.80/kL).

The range of results from the same model reflects different input assumptions (climate scenarios, groundwater availability and demand assumptions), and is an expected outcome when modelling an uncertain future.

The ERA's Draft Report provides a critical examination of the inputs and the mechanics of the Corporation's LRMC calculation. For the most part, this examination endorsed the use, inputs and mechanics of the approach, with three notable exceptions:

- 1) the environmental externality associated with long-term demand;
- 2) the variability of potential outcomes of the LRMC results; and
- 3) the groundwater abstraction rule used in the Corporation's submission.

These points are discussed below. The Draft Report also provides discussion on the relative merits of a LRMC pricing approach compared to the proposed SRMCP model. The Corporation has addressed its discussion on this topic under Section 1.3.

LRMC with Groundwater Environmental Externality Premium

The Corporation recognises that there may be externalities when developing new sources and does not object to the principle of including an externality adjustment. However, it should be recognised that externalities can be both positive and negative. It should also be recognised that many potential negative externalities are internalised to the extent that the Corporation incurs costs in avoiding, mitigating and/or offsetting them.

The Corporation's concerns with the externality premium proposed in the Draft Report are:

- the decision to base that externality premium on a hypothetical ground water abstraction that is not based on the water resource regulators assessment of the sustainable groundwater yield; and
- its use to justify a higher charge only for residential customers using more than 500kL. If the ERA can identify a genuine externality cost, it should be applied to all water users. It should be noted that only 40% of groundwater use is for public water supply.

A better approach than an externality premium, and one currently employed by the Department of Water, is to ensure only the sustainable abstraction is permitted (in which case, there is no externality premium).

The Corporation offers the following observations regarding the ERA's groundwater abstraction assumptions:

- There appears to be a contradiction in determining an externality charge by assuming an abstraction that is lower than the sustainable allocation. The Corporation's abstraction is consistent with the allocation provided by the Department of Water, which is responsible for managing sustainable abstraction from the Gngangara mound.

By implication, it suggests that higher demand on the Integrated Water Supply Scheme (IWSS) will mean higher long-term groundwater abstraction and that this abstraction will have significant environmental consequences. A higher abstraction in the short-term, with management of local impacts, can be offset with lower future abstraction (for example, when the Southern Seawater Desalination Plant (SSDP) is commissioned).

The Corporation doesn't believe the ERA is in a better position to make a judgement on sustainable groundwater abstractions than the Department of Water. While it may disagree with the assessment, the ERA should base its pricing decisions on modelling inputs consistent with the advice of the appropriate regulator.

- The proposed methodology to value groundwater abstraction externalities by simply altering the volumes abstracted in the LRMC model does not appropriately reflect the mitigation action to offset the impact of this abstraction. For example, the Corporation's response to reduced rainfall (and subsequent declining recharge and water levels on Gngangara) in recent years has been to:
 - shift abstraction away from environmentally sensitive areas, for example using coastal bore fields and urban superficial bore fields;
 - abstract more from confined aquifers, which involves "resource recovery" i.e. drawing water from off-shore (i.e. non-Gngangara) storage and therefore resulting in reduced effects on superficial water levels and hence the environment.
- The Department of Water's advice on page 12 of the Draft Report needs to be accommodated in any externality calculation: *"It must be noted that it is very difficult to separate the direct impacts of climate variability versus abstraction"*.

If the ERA is seeking to calculate an externality premium for the short-term, prior to commissioning of the SSDP, the LRMC model is not the appropriate method. For their current tariff proposal, the ERA should make a specific estimate of the environmental impact of additional residential consumption by consumers using more than 500kL, and also whether an increase in price would have any beneficial impact.

Does the ERA propose to drop the externality charge when the SSDP is commissioned, and how does this sit with the recommendation to lift water restrictions?

Should the ERA wish to introduce an externality premium, a more appropriate approach would be to attempt to value the externalities associated with the new sources and include this in the price. This should include consideration of the positive externalities of source supply. Care should then be taken to ensure that any comparative options also include an externality value.

Variability of the LRMC Results

It is acknowledged that the LRMC approach has the potential to produce a range of results dependent in part on changes in the level of demand and the uncertainties associated with supply sources.

The range of the results from the LRMC model should not be considered a criticism of the approach (or the model) but rather an entirely appropriate output that reflects the uncertainties inherent in any exercise that forecasts the future. There should not be one number, nor is there likely to be a very small range, as no system is completely flexible or utterly predictable.

What matters is not the existence of the range, but rather the magnitude of it, that determines the usefulness of the approach. Due to the greater stability of long-term inflow averages by comparison to annual variations in rainfall, the LRMC will deliver a

considerably smaller pricing range than any short-term model. Price stability is valued by customers and provides a more useful economic signal.

The LRMC range can be further reduced by:

- ensuring inputs to the pricing model are reasonable and not extreme; and
- averaging the results over multiple inflow sequences.

Neither of these points was adequately addressed when determining the \$2.57/kL upper range of the Draft Report's pricing recommendation. The estimate was produced by assuming a dry climate scenario, coupled with a reduction in groundwater abstraction while assuming a sudden shift in demand. The significant reduction in supply coupled with an increase in demand is unlikely to occur simultaneously and instantly. A more internally consistent and realistic scenario would not deliver such a high result.

The Corporation considers the \$2.57/kL to be a high a price, particularly when compared to the cost of all new sources. It sends a price signal to customers at a level that is 25% higher than the cost of the most expensive source used.

The Corporation's proposed price of \$2.00/kL for high consumption is based on the cost of augmenting the Southern Seawater Desalination Plant (SSDP) with energy purchased from a renewable energy generator. This would result in a sound, stable, long-term basis for setting a volume charge to encourage efficient discretionary consumption.

The Groundwater Abstraction Rule Used in the LRMC Model

As identified in the Draft Report, the Department of Water has recently altered the variable groundwater abstraction arrangement such that the maximum annual draw is limited to 145 GL with 165 GL permitted in exceptional circumstances. This arrangement was finalised after the previous LRMC model was submitted.

Accordingly the Corporation acknowledges that the range of 105 to 165 GL adopted in the previous LRMC model should be modified. The LRMC has been recalculated using:

- a 105 to 165 GL variable abstraction range from 2009 to 2012; and then
- a 105 to 145 GL variable abstraction range following the commissioning of the SSDP.

This revision recognises the revised arrangements from 2012 onwards, but acknowledges that prior to the completion of the SSDP there may be exceptional circumstances which require temporary abstraction greater than 145GL.

Revised Metropolitan Usage Charge Proposal

In making the adjustment to the LRMC to reflect the revised variable groundwater abstraction rule, the Corporation identified several minor adjustments to the original model which warrant refinement. These adjustments reflect:

- i) The impact of climate variability on traded water supply arrangements; and
- ii) The possibility of some surface water losses in large inflow years and/or higher dam levels. This adjustment recognises that all surface water inflows are not necessarily stored, limited in part by the pipehead dam capacity.

Accordingly, all other factors remaining the same, the changes to the LRMC for the aforementioned adjustments result in a range of \$1.36/kL to \$1.80/kL. It is therefore proposed that the metropolitan residential prices reflect the new range with:

Taper	Usage	Price	Calculation Methodology
1	0 – 150 kL	\$1.36 / kL	Lower-End of LRMC calculation
2	151 – 500 kL	\$1.80 / kL	Upper-End of LRMC calculation
3	Over 500 kL	\$2.00 / kL	Full cost of the SSDP with energy purchased from renewable energy generator

It should be noted that in the above proposal, the Corporation has accepted the ERA’s recommendation to reduce the first consumption range from 0 – 300kL to 0 – 150kL. While this will result in a higher usage charge between 150kL – 300kL, it would be accompanied by a reduction to the service charge of approximately \$35 by 2013.

1.3 Short Run Market Clearing Pricing Model

The usage charge for metropolitan business and for residential consumption between 150kL and 500kL are the two most important volumetric charges in terms of sending price signals to consumers. The ERA’s has proposed a charge of \$1.73/kL for both these charges based on their prototype SRMCP model.

The Corporation does not support the use of a SRMCP as:

- the underlying economic justification is poor; and
- the results are unstable and highly dependent on assumptions (such as the price elasticity of demand for water) which are difficult to estimate with any firm degree of accuracy.

The volume charge can only be set to send one price signal to customers. This signal can either reflect the long-term value of water or it can reflect the short-term supply conditions, but not both. It is the view of the Corporation that a price reflecting the long-term cost of augmenting supply is a more important economic signal than one which indicates the short-term storage in dams.

While a short-term signal may be appropriate to encourage some behavioural change, it is longer-term decisions on investing in efficient industrial processes, garden layouts and water efficient appliances that will result in the overall efficient use of water resources. When short-term behavioural decisions need to be managed to maintain supply security, these are managed with more certainty, efficiency and equity using restrictions.

From a practical perspective, the ERA's proposed model is not well specified, calibrated or tested, and provides highly unstable results under a wide range of foreseeable circumstances. Without a strong theoretical driver, adopting a methodology that has a high probability of being abandoned at the next price review (due to the potential for unreasonably high or low prices) is not good regulatory practice.

When considering the appropriateness (or otherwise) of using a short-run pricing model, the Corporation emphasises the following:

- i) Using price to manage demand is fundamentally flawed, as it assumes overall community value is maximised in times of temporary shortage by providing water to those who can afford to pay more at the expense of lower socioeconomic customers. Demand management initiatives (which may include sprinkler rosters) are more effective in managing short-term supply shortfalls associated with climate uncertainty. These initiatives are also better at addressing the distributional impacts of supply uncertainty.

It should be noted that this point relates only to short-term circumstances. Supply variability means that occasionally demand needs to be reduced, and one customer's consumption will impact on the water available to another. This is fundamentally different from longer-term considerations, when source capacity can be augmented and paid for by those wishing to use it.

- ii) Prices which focus on balancing short-run markets do not effectively signal the long-term value of water to customers, potentially resulting in inefficient long-term investment decisions by those customers;
- iii) Short-run prices have the potential to be highly volatile, largely dependent on the surface water inflow of any one year. Annual inflows fluctuate significantly compared to long-term inflow averages. This volatility would not be sought by customers who have shown a preference for price stability where possible.

The use of potential volatile short-run prices may lead to unintended pricing results if the rationale for the ERA's proposed tariff structure is maintained. For example, after three high rainfall years, the second taper price for residential customers may be much lower than both the first and the third tapers.

The Draft Report recognises some of these disadvantages but manages to dismiss them with little analysis. For example, the report suggests that pricing volatility is “not typically considered a concern in other markets, such as petrol”. The Corporation believes that pricing volatility is a significant concern. This view is consistent with both the ERA’s past recommendations and the Government’s decisions to phase-in many of the tariff changes over extended time periods.

The reference to petrol prices is an interesting one when considering the long-term decisions that need to be made with a short-term pricing signal. Not only does the car buying public struggle in deciding to buy large “V8s” or small diesel vehicles on the basis of short-term price fluctuations, there is concern regarding whether the global community is achieving the best long-term value of oil based on short-term supply and demand conditions. The long-term efficiency of markets that focus on short-term resource exploitation is receiving widespread criticism.

The above points summarise the Corporation’s concerns with adopting any short-run pricing model. However, should the ERA still wish to recommend a consumption charge that incorporates this approach, the Corporation has identified additional issues with the SRMCP model, as presented for discussion in the Draft Report.

These issues would need to be addressed or at least thoroughly examined prior to establishing any meaningful price:

1. The model should be adjusted to reflect the actual demand curve demonstrated by IWSS customers. This could be done by estimating an unrestricted demand (an additional 20GL to 30GL with current prices) combined with an assumed price elasticity of demand;
2. The price elasticity of demand (assumed to be -0.15) is very uncertain and difficult to estimate. The Draft Report quotes it as being ‘consistent with research evidence’. The Corporation is aware of many studies that have tried to estimate demand elasticity with widely varying results;
3. The magnitude of the possible fluctuations in the short-run price is highly dependent on the price elasticity of demand and the value needs to reflect the behaviour of consumers supplied by the IWSS. In particular, for the ERA’s proposed tariff structure, the price elasticity needs to be established specifically for non-residential demand and for residential demand between 150 to 500 kL as the short-run price would apply to this consumption;
4. The Corporation does not understand the basis of the \$2.50kL price where supply becomes ‘perfectly elastic’. Presumably this is an arbitrary cap used to ensure prices never exceed this level. In reality, the model should recognise that in very low inflow years, in the absence of restrictions, prices would need to be significantly higher in order to balance the non-existent supply;
5. The model assumes a number of parties are involved in the market, including irrigation co-operatives and the Department of Water. These arrangements do not

currently exist. The willingness and ability of all parties to trade (and at what prices) would first need to be established. This would require the resolution of a number of potentially complicated environmental, social and contractual issues. The availability of potable quality water to trade and the availability and viability of the integration infrastructure required to utilise it would also need to be established;

6. The model assumes a uniform annual surface water inflow and groundwater abstraction. Annual inflows are subject to significant fluctuations with associated variations in groundwater abstractions. A more sophisticated model would need to recognise the likelihood of potential variations in inflow sequences, recognising both the mean result as well as the probability of variations from that mean;
7. The model takes a 3 year average price, commencing in 2 years time. The only rationale for having a short-term pricing model is to reflect the current supply conditions (i.e. the current year). The Corporation would be interested in the ERA's considered view of why this 3 year average, based on assumed inflow and consumption averages, produces a better price signal than the LRMC model. The SRMCP model requires unrealistic assumptions about variables that have far more impact on the SRMCP than uncertainties such as climate have on the LRMC;
8. The model does not easily accommodate the impact (both financial and volumetric) of demand management initiatives. The cost of these would need to be justified relative to the short-run marginal cost of supply options, despite the fact that their benefit includes the delivery of long-term benefits.

Given the ability of the above issues to have a significant impact on the price, and the amount of effort required to resolve them accurately and effectively, it seems very premature to use this SRMCP model as the basis for setting prices in 2010/11. This is of particular concern for non-residential customers as the SRMCP model is used as the sole determinant of their single consumption charge.

The Corporation acknowledges the ERA's Draft Report as being a commendable first step for discussions but considers that its application in the current price inquiry is inappropriate. This is the type of issue that the ERA could initially address outside of the limited timeframe of a pricing inquiry, allowing the time necessary to articulate and test a theoretical basis for the approach, if and when it could be productively used, and to develop a robust, well calibrated model.

LRMC has a sound theoretical base, is far more stable than a short-term model, and has previously been endorsed by the ERA and other economic regulators. The upper end of the LRMC model (based on a likely scenario) gives a similar price to that which the ERA wants to adopt for this inquiry and provides a sound justification for this price. This would also provide regulatory continuity from the ERA's 2005 inquiry.

1.4 Definition of Equity

There are three commonly understood definitions of “equity” in relation to prices:

- Cost reflective prices – where a customer’s charge is either based on the additional cost they impose or a measure of their share of total cost;
- Uniform prices – where all like customers pay the same charge; and
- Ability to pay – where prices are related to some measure of a customer’s income or wealth.

There is an underlying assumption carried through the recommendations of the Draft Report that equity is achieved with cost reflective prices. The Corporation is aware that many people in the community have alternative views on equity, including support for uniform charges and charges based on ability to pay.

Government has continued to reinforce the concepts of uniformity and ‘ability to pay’ as important concepts of fair prices through numerous pricing decisions.

If evidence of prevailing public opinion or alternative reasons for adopting cost reflective tariffs (e.g. effective price signals, administrative simplicity) is not provided, the ERA should clearly identify when they have made a value judgment, and outline other value based options available. This would improve the perception of the impartiality of the advice. This would also provide the Government with the option to adopt different policy positions without being seen to be simply rejecting the ERA’s advice.

Current examples in the ERA’s Draft Report incorporating cost reflective pricing as the equity driver include:

- A tariff cap policy for country usage charges reflects a value judgement that the uniform pricing policy is in place to protect customers from the adverse impact of cost reflective prices. This is different from the view that it is equitable for all customers to pay the same amount for a service, regardless of the cost.

The outcome of the proposed tariff cap policy would be that a small number of country customers could pay very low volumetric charges (30c/kL). The lower prices would increase the cost to the taxpayer of supporting the uniform pricing policy. Additionally, many in the community would challenge whether there should be an incentive to encourage higher consumption just because the current cost of the scheme is low;

- Reducing the uniform tariff threshold from 300kL. This embodies an assumption that it is equitable to protect customers from cost reflective prices for essential water use, rather than it being equitable for all customers to pay the same for average water use.

Is the policy about providing the same level of lifestyle and amenity for country customers, or just insuring an essential volume of water is available at an affordable price?

- Basing residential sewerage charges on winter water consumption embodies an assumption that sewerage costs should be distributed between customers on the basis of the volumetric use they make of the scheme. The ERA's proposal is that this method of charging should replace valuation based charges, which embody the idea that cost should be distributed based on ability to pay;
- Allocating the cost of residential and non-residential wastewater charges on the basis of volumes discharged, rather than recovering the cost in total across both customer groups;
- Replacing uniform wastewater charges for non-residential country customers with scheme specific charges;
- Decreasing the non-residential water service charge and increasing the residential charge so that all 20mm customers pay the same rate.

The Corporation recognises the merits of cost-reflective prices, but stresses that it is only really important when attempting to send an effective pricing signal. Annual fixed service charges which are predominately required for revenue sufficiency do not typically send a pricing signal.

2. ERA Draft Recommendations

The following section details the Corporation's response to each of the individual recommendations made by the ERA in their Draft Report.

2.1 Water Tariffs for Perth, Bunbury & Busselton

- 1) *Following consideration of a number of options, the Authority proposes that usage charges for Perth residential customers be transitioned by 2012/13 to \$1.13 per kL up to 150 kL, \$1.73 per kL from 151 kL to 500 kL and \$2.57 per kL above 500 kL. Perth commercial customers would be charged \$1.73 per kL from 2010/11.*

Tariff Thresholds

The Corporation had previously proposed a tariff structure with a first tariff threshold of 0 to 300kL. The ERA has proposed a threshold of 0 to 150kL. The Corporation is willing to support the 0 to 150kL threshold as proposed by the ERA, acknowledging that while it will result in a higher usage charge between 150kL and 300kL, the higher price will:

- encourage more efficient water consumption;
- not result in more revenue for the Corporation as the additional revenue from increases in volume charges will be offset by reductions to the water service charge. Consumers using small volumes will therefore pay less under the proposed tariff structure, while large consumers will pay more.

However, there is a valid counter-argument that since average metropolitan residential consumption is approximately 280kL, a step at 300kL has the potential to signal to the consumer that they are going beyond a normal level of consumption. There is no such signal if the second step is 150kL to 500kL.

Tariff Levels

The key price signal that has the potential to influence customer behaviour is the volume charge for water. The target volume charges proposed by the ERA for metropolitan business and residential customers are similar to those proposed by the Corporation. The proposed prices represent significant increases that should encourage more efficient use, and are generally supported.

There are several concerns regarding the tariff levels proposed for residential customers. These have been discussed in Part A of the Corporation's submission and also under Sections 1.1, 1.2 and 1.3 of this submission.

The ERA has justified their recommended charges based on unconventional prototype modelling. In particular, the Corporation does not support the use of the SRMCP model, either from a theoretical or a practical perspective. While the model has been calibrated to produce a similar price at the moment, it is unlikely to result in acceptable tariffs in subsequent price determinations.

While the Corporation offers support in principle to the concept of an externality adjustment for the consumption charge, it does not agree with the basis of the calculation.

As previously discussed in Section 1.2, the Corporation has revisited its LRMC calculation and proposes the following charges:

Taper	Usage	Price	Calculation Methodology
1	0 – 150 kL	\$1.36 / kL	Lower-End of LRMC calculation
2	151 – 500 kL	\$1.80 / kL	Upper-End of LRMC calculation
3	Over 500 kL	\$2.00 / kL	Full cost of the SSDP with energy purchased from renewable energy generator

Timing of Tariff Changes

The Corporation supports the timing as proposed for residential customers.

However, the Corporation’s concerns should be noted with the misalignment of the timing for usage and annual service charges for non-residential customers. The significant (~50%) once off increase in the usage charge is not matched with a corresponding decrease in the annual service charge. As the service charge reduction is phased in over 10 years, the impact of this reform on large commercial customers will be significant. Either the adjustment to the service charge should be recognised immediately or phased in (at the very latest) with the timing of the other adjustments to metropolitan tariffs (2012/13).

2) *Usage charges for Bunbury residential customers be transitioned by 2012/13 to \$0.63 per kL up to 150 kL, \$1.23 per kL from 151 kL to 500 kL and \$2.07 per kL above 500 kL. Commercial customers in Bunbury would be charged \$1.23 per kL.*

No comment.

3) *Usage charges for Busselton residential customers be transitioned by 2012/13 to \$0.38 per kL up to 150 kL, \$0.98 per kL from 151 kL to 500 kL and \$1.82 per kL above 500 kL. Commercial customers in Busselton would be charged \$0.98 per kL.*

No comment.

- 4) *The Authority recommends that the annual fixed charges for Water Corporation, Aqwest and Busselton Water be transitioned by 2012/13 to \$144.15, \$36.41 and \$34.45 respectively.*

The Corporation supports the methodology of using the annual service charge as the balancing charge to ensure revenue sufficiency. In this regard, the recommendation is therefore supported.

However, this support is subject to the comments made on recommendation 40 (alignment of 20mm meter charges) and the possible changes to the volumetric charge and timing of the non-residential phase-in as discussed in recommendation 1.

2.2 Country Water Tariffs

- 5) *The uniform pricing policy be changed to a tariff cap policy to avoid customers in low cost country towns paying charges significantly higher than the cost of providing the water service.*

As discussed in Section 1.4, this recommendation incorporates an assumption about the purpose of uniform pricing that is based on a cost reflective definition of equity. It is for Government to state its intended objective of the uniform pricing policy.

A tariff cap policy for country usage charges reflects a value judgement that the uniform pricing policy is in place to protect customers from the adverse impact of cost reflective prices. This is different from the view that it is equitable for all customers to pay the same amount for a service, regardless of the cost.

The outcome of the proposed tariff cap policy would be that a small number of country customers could pay very low volumetric charges (30c/kL). The lower prices would increase the cost to the taxpayer of supporting the uniform pricing policy. Additionally, many members of the community would challenge whether there should be an incentive to encourage higher consumption just because the current cost of the scheme is low.

Further comments on the suggested band price for “low cost” schemes are made in recommendation 6 below.

With regard to the ERA’s request for submissions on reducing the 300kL uniform tariff threshold, again it is for Government to state what it intends this threshold limit to be. It is a social policy decision, with the impact of a reduced threshold weighed up against the potential benefits of sending a more efficient pricing signal.

Similar to the tariff cap, reducing the uniform tariff threshold from 300kL embodies an assumption that it is equitable to protect customers from cost reflective prices for essential water use, rather than it being equitable for all customers to pay the same for average water use.

Is the policy about providing the same level of lifestyle and amenity for country customers, or just ensuring an essential volume of water is available at an affordable price?

One difficulty in using the 150 kL based on the average internal usage of an “average” house is that large families will have to pay a higher price for some of their non-discretionary use.

6) *For the purpose of calculating residential water usage charges, country towns be classified into 15 groups with the classification based on the relative cost of providing the water service to each town.*

The idea of increasing the number of classes contradicts the Corporation’s aim of simplifying its tariff structure where possible.

There is no reason why there needs to be same number of scheme bands for residential and non-residential charges, and it shouldn’t be implemented simply for the sake of “modelling symmetry”. The additional number of classes needs to be justified by comparing the cost of the administrative requirements against the potential efficiency benefits from more cost reflective price. These benefits would be minimal, particularly if the uniform tariff threshold remained at 300 kL.

Increasing the residential scheme classes to 15 groups actually means increasing it to 30 groups because of the split into the north and south country regions. This is technically feasible, but will become administratively complex and costly to implement and maintain.

Under the current tariff structure, which caters for 5 classification groups, there has been a need to establish 55 associated rate schedules in Grange (the Corporation’s billing software) for both north and south country regions. This is due to the variation in billing business rules applicable to such scenarios as community/residential, common supply and master/sub-meter arrangements. Increasing the number of classes from 5 to 15 will mean an additional 110 new rate schedules will need to be created. This will effectively triple the administrative effort required to maintain the rate schedules for country water use, add additional operating costs and cause a greater risk of errors.

There will also be a need to maintain and update the individual rate schedules attached to each property account to support water use billing whenever a change in class is required. This is currently a time-consuming process, involving team members from Systems Administration, Systems Development and Information Services, monitoring reading programs for any towns requiring changes. An increase in the number of classifications will extend the time involved (and the volume of changes) within this process, again increasing costs and the risk of billing errors.

Should the decision be made to have the 15 bands, the Corporation does not agree with using \$0.30/ kL (for any level of usage) as the starting point for the price of Band 1 schemes. Such a low price would be counterproductive to the Government’s state-wide water efficiency initiatives introduced in October 2007 and is unlikely to provide an accurate signal to customers of the actual cost of their usage.

The few “low” cost schemes identified in the report are predominately the result of a combination of factors associated with the methodology adopted by the ERA’s pricing model, rather than reflecting the actual average cost of supply. These factors include:

- The treatment of special agreement revenue – which is calculated based on the notional cost of scheme augmentation. A scheme with a high proportion of special agreement usage / revenue can underestimate the actual average cost of supply, particularly if special agreement customers negotiate to make their capital contributions through their volumetric charge;
- The determination of the initial asset value – which may not reflect the optimised replacement cost of the assets;
- The assumption that all assets are the same average age and have the same remaining useful life; and
- The limitations inherent in any model that seeks to apportion shared costs between integrated schemes.

The points noted above are not intended as a criticism of the pricing model (which the Corporation supports) but are noted simply to highlight pragmatic constraints inherent in any approach.

While it is impractical to estimate the LRMC for all country schemes, it is highly unlikely that a very low consumption charge would reflect the marginal cost of source augmentation, especially in light of the evolving impacts of climate change which necessitated the state-wide water efficiency initiatives in the first instance.

Unless there is an explicit change in the Government’s interpretation of the Uniform Pricing Policy, Class 1 customers should pay the same as metropolitan customers for consumption up to 300kL (or 150kL if the uniform price threshold is reduced). For consumption above the uniform price threshold, prices in Class 1 can be set below the equivalent metropolitan tariff (as is the case at present), but the tariff should remain a flat or inclining block tariff, not a declining block tariff, to support the objectives of the state-wide water efficiency initiatives.

2.3 Wastewater Tariffs

7) *Residential wastewater charges be no longer based on property values but instead be based on estimated winter water usage, which is a reasonable proxy for discharge into the sewer.*

As noted in its response to the Issues Paper, the Corporation supports decoupling wastewater charges from property values (Gross Rental Value).

It is widely acknowledged that valuation based charges are poorly correlated to ability to pay as many high income households occupy low value property. A similar type of criticism could also be made of a charge based on winter water consumption, as this will only be loosely correlated to the actual annual discharge to the sewer.

The Corporation has proposed a fixed service charge, which would result in a uniform distribution of costs between customers. The advantage of this charge is that it is administratively simple and would generally be perceived as fair by most customers. Importantly, it will not be perceived as grossly unfair by a few customers (which is currently a problem with valuation based charges) and would be the case with charges based on winter water consumption.

There are both administrative and technical reasons why basing the charge on estimated winter water usage is problematic. Examples of the administrative and technical problems include:

- adjustments required for change of ownership / tenants – basing the charge of one occupant on the previous winter discharge of another occupant is inappropriate, particularly if there is a large discrepancy between the water usage patterns of the occupants, e.g. a single person replacing a large family;
- adjusting charges for leaks or bursts on the property;
- adjusting charges where households have a rainwater tank that is plumbed inside the house, or a grey water system that separately discharges part of the wastewater; and
- estimating winter discharges essentially forces the Corporation to adopt more frequent meter reading, a decision that is still being considered because of the significant financial cost to the Corporation. This decision should be based on the merits of such a change, rather than being forced by a pricing outcome.

Additionally, if the approach was to be recommended for each of the various country schemes, of particular concern is:

- determining the winter discharges for differing seasonal variations across the State's numerous country schemes; and
- making adjustments for towns with peak seasonal demands – basing charges on winter discharge for towns with peak summer flows (for example tourist towns) would shift a large portion of the burden of payment onto the permanent residents, despite the system being designed to meet the summer peak capacity requirements.

While there are these administrative concerns listed above, the Corporation acknowledges one advantage of moving to such an approach is the potential to encourage more efficient internal water use. The cost of water as well as the subsequent cost of the wastewater disposal is signalled with the use of the volumetric charge for each service. Establishing the magnitude of this advantage however, would first require:

- an estimate of the potential volumetric charge; and
- understanding the responsiveness of customers to that pricing signal.

If the majority of wastewater costs are fixed and customers' internal usage is inelastic, then there is little justification for such an approach. Furthermore, in consideration of the public health benefits of providing a wastewater service, customers should not be discouraged from using that service unless they are able to appropriately dispose of their wastewater by alternate means.

Should the ERA still wish to recommend a charge based on winter water usage, and if the charge is to be anything more than a cost allocation methodology, the charge would need to be a combination of a fixed and usage charge that recognises that many of the wastewater system costs are fixed, and that some are designed for both peak capacity and ultimate development flows.

Additionally, the issue of transition to the new charge should be considered. While not entirely accurate, the move away from valuation based charges will be perceived by the public as an increase in charges for the poor and a reduction for the rich. If this change is coupled with a volumetric charge, some customers will be moving from below average GRV based charges to above average volumetric based charges. This would include large, low income families currently occupying a low value houses.

8) The transition away from property valuation-based residential wastewater charges be over a period of at least three years.

Agreed – the Corporation supports this recommendation due to the potential of alternatives to adversely impact customers in low valued properties.

It should be noted that the Corporation's Customer Advisory Council has expressed the view that customers can become confused and lose perspective with transition periods greater than three years.

9) The current fixture-based method of charging non-residential customers for wastewater services is appropriate.

Agreed

2.4 Drainage Tariffs

10) Developers be charged the costs of any drainage infrastructure that is required to service developments (with the developer charge based on the average costs to the Water Corporation of expanding the drainage network over the last 10 years).

Agreed – using recent actual, historical expenditure to estimate the cost impact of new development on the drainage system is a pragmatic approach.

However, the Corporation notes that the approach is a departure from the water and wastewater recommendations in the ERA's final report on the Inquiry into Developer Contributions (June 2008). While an efficient pricing signal is focused on future expenditure requirements, an equitable charge should also recognise the historical cost incurred when constructing assets with future customers in mind.

11) Residential and commercial customers within the main drainage system provided by the Water Corporation in Perth be charged the costs that remain after the costs attributed to developers have been deducted.

Agreed

12) Customers within the Water Corporation's main drainage system in Perth be charged for drainage on the basis of land area.

- a) All residential customers plus non-residential drainage customers with land area less than 1,000 square meters be charged \$73.17 per year.*
- b) Non-residential drainage customers with land area from 1,000 square meters to 10,000 square meters be charged \$365.85 per year.*
- c) Non-residential drainage customers with land area above 10,000 square meters be charged \$731.70 per year.*

Agreed – in accordance with recommendation 11, the Corporation supports the methodology used to derive the charges in recommendation 12.

13) The proposed drainage charges be introduced in 2010/11 and then be held constant in real terms.

Agreed – the Corporation supports this recommendation for the current 3 year pricing determination.

14) In future, any expenditure on drainage quality be recovered through a levy on all of the Water Corporation's water customers in the scheme.

Agreed

For the avoidance of doubt, the Corporation wishes to clarify two points in relation to expenditure on drainage quality:

- (1) The Corporation's potential drainage water quality charges should only reflect the cost of expenses incurred by the Corporation. The charge should not (and under the current legislation, cannot) be a mechanism by which the Corporation recovers the cost of drainage water quality expenditure incurred by other organisations;
- (2) The Corporation's 10 year capital program (2008/09 to 2017/18) included provision for expenditure on drainage water quality in the last 5 years of the forecast. This was a general provision for potential projects. As part of the

2009/10 budget process (and forward estimates) recently completed, this provision has since been removed until such time as the State's direction on drainage water quality has been established and the extent to which the Corporation plays a part in this direction is known.

2.5 Water Corporation's Other Tariffs

15) *Where practical, charges for minor tariffs associated with water, wastewater and drainage services should reflect the efficient costs of service. The Authority will examine the cost reflectivity of the Water Corporation's minor tariffs for its final report.*

Agreed – this is the current basis for these charges.

16) *Subsidies to public and charitable institutions for water and wastewater services be either paid for by a CSO or discontinued, rather than be paid for by other customers. For the purpose of this report, it has been assumed that these subsidies are funded by a CSO.*

Agreed – this is the current basis for the Community Service Obligation (CSO) payment calculation.

The CSO payment for non-residential customer concessions is based on the actual discount afforded to these concession customers. This amount is accounted for annually based on the actual discounts provided. The concession is paid for by taxpayers, not other customers.

17) *Residential caravan bays be charged the standard residential fixed charges for water and wastewater services.*

While the Corporation agrees with this recommendation in principle, implementation issues would need to be overcome before it could be supported in practice. Implementation would need a mechanism for providing concessions to long-term caravan bay occupants who are typically concession card holders.

The current charging was implemented as a “second best” solution in the absence of a better alternative. In considering any charge, it is useful to appreciate its history.

Specific charges were first introduced for strata caravan bays in 1987/88, when the first developments of this type occurred. The water annual charge was set at \$80.00 per bay (roughly 85% of the standard charge), the annual sewer charge was set at \$60.00 per bay and the annual drainage charge was set at \$10.00. No information on the exact basis for setting the sewer and drainage charges exists, although anecdotal evidence suggests it was set at a level that ensured a reasonable charges return for the few properties involved.

Between 1987/88 and 1994/95, these charges were subject to annual percentage increases. Water charge reforms for commercial property commenced in the

metropolitan area in 1994/95. As a result of these reforms, concerns were raised about the charges to long-term residents of caravan parks.

The water tariff reforms for commercial property were extended into country areas in 1995/96. At the same time, adjustments were made to apply a standard charge to both strata titled and long-term residential bays in commercial caravan parks, recognising the concerns raised by customers.

A reduced service charge applied to recognise that many residents in long-term bays were pensioners and seniors. These residents were not able to register and receive concessions on service charges in their own right because they did not own the unit they occupied, even though strata lot owners could.

Where park owners declare long-term bays, the commercial service charge based on meter size is adjusted on a pro-rata basis. Also, the charge for the first 150kL of water use for each long-term bay is tied to the residential rate, with use over that level charged at the appropriate rate for the water scheme.

In 1995/96, sewer tariff reforms commenced for metropolitan commercial customers. Following complaints from a number of customer groups, amendments were made to the structure of this tariff in 1996/97. One of those groups was the Caravan Industry Association.

A long-term bay tariff was introduced as part of these amendments. This recognised the residential nature of long-term bays and applied a reduced fixed charge together with a discharge allowance of 75kL per annum per long-term bay. The long-term bay tariff was phased-in over three years, with the long-term caravan bay tariffs aligned over the same period.

Like the water tariff, the long-term bay tariff for sewer recognised that many of these customers were not able to register and receive concessions on service charges because they did not own the unit they occupied, even though strata lot owners were.

Reforms commenced in 2003/04 for commercial sewer charges in country areas. These reforms adopted the same basic structure of charges for long-term residents of caravan parks.

Since 1 July 2005, long-term residents of caravan parks with qualifying life lease arrangements have been able to register for pensioner and senior concessions. However there are still a number of lease or rental agreements in villages that do not qualify, or situations where the owners see no value in registering.

While some of these customers are eligible to apply for concessions and others are not, no moves have been made to adjust the charges to a normal equivalent. To do so would disadvantage those not able to apply for concessions in their own right.

18) Water usage charges for farmland, local government standpipes and stock watering be set cost reflectively, and include a quota for residential use set at residential prices, with commercial pricing for usage above the quota.

Disagree – farmland supply is not a potable water source and is not provided with the same service supply guarantees as governed by the operating licence requirements and drinking water guidelines.

Most of the farmland and stock watering infrastructure was constructed in the 1960's and 1970's, provided as a means of drought-proofing country regions. The supply is not intended to be used as a potable source with all farms expected to maintain their own permanent water sources for both the household and stock. Pricing provision for joint commercial/residential usage is therefore inappropriate.

Past governments have determined that the water be provided at a reduced rate. For reasons of equity, a uniform rate was applied to all country regions. This approach also reflects the sentiment that this water is expected to be used in times of drought, which is perhaps not the appropriate time to burden farmers with high water charges.

Furthermore, there are administrative difficulties in estimating the cost of farmland supplies, with apportioning of shared costs required. This could include ensuring the cost associated with guaranteeing a scheme's water quality and service standards are first removed from the calculation, and an assessment of the cost to provide standby capacity, rather than sharing costs simply based on volume used.

19) Small mining customers be charged for water usage at the country non-residential tariffs.

Agreed

20) Wastewater charges for non-residential vacant land be based on a fixed charge, and the additional GRV-based component removed.

Agreed

2.6 Method for Calculating Revenue Requirement

21) The tariffs of the Water Corporation, Aqwest and Busselton Water be set for a three year regulatory period, and no longer be revised on an annual basis (other than to adjust for inflation).

Agreed, subject to an adjustment to the prices for the next regulatory period (potentially either positive or negative) for changes that were the result of unmanageable risk (e.g. growth), regulation or Government policy (e.g. demand management, restrictions), or changes in the Corporation's budget.

22) *The Water Corporation, Aqwest and Busselton Water be able to retain, for the length of the regulatory period, any operating expenditure savings that are greater than the savings required to achieve the operating expenditure efficiency target.*

Disagree – the Corporation’s charges should be based on actual expenditure, provided it is incurred efficiently. The Corporation’s justification for this position is as follows:

- Encouraging the Corporation to achieve outcomes that are consistent with those expected by a private company in a competitive market is only effective for companies that can reward shareholders (and management) with higher financial returns. They are unlikely to be effective for a company primarily motivated by maximising service levels within a budget constraint, such as the Corporation;
- In reality, the Corporation manages to a constrained operating budget and any above-target efficiency gains are spent on improving levels of customer service, or investing in management initiatives that improve the long-term efficiency and effectiveness of the business. The Corporation’s financial performance and efficiency incentives will not be altered as a result of this recommendation;
- There are better options available for encouraging the efficient delivery of services. Efficiency targets and robust internal prioritisation approaches for example, both of which are currently in place. As concluded by Halcrow Pacific in January 2009 while undertaking a review on the ERA’s behalf:

“We are satisfied that the Corporation has developed a series of robust and rigorous operational planning and delivery process that align appropriately with the Corporation’s Risk Framework and its overall corporate and strategic objectives (p. 80)”

There is little point in introducing a requirement simply because it is considered standard regulatory practice. The merits of the requirement need to be demonstrated in the context of the specific circumstances applicable to the organisation.

23) *For the length of the three-year regulatory period, the Water Corporation, Aqwest and Busselton Water should not be compensated whenever actual demand varies from forecast demand. Instead, the service providers should bear this demand risk.*

Disagree – the Corporation’s revenue should be sufficient to cover the total cost of providing the service.

The Corporation’s forecast demand can vary from actual results for reasons that are both unpredictable and out of the Corporation’s control:

- Seasonal weather variations – demand for water varies each year depending on the length and severity of summer’s hotter months, and the extent to which spring rains continue. The uncertainty to which weather patterns are varying with climate change casts further doubt over predicting annual demand; and

- The level of land development activity – while information is available regarding the intended level of land development activity, the reliability of this data does not extend for 4 years, subject to the partially unpredictable nature of the level of economic activity.

Consistent with points raised for recommendation 22, objections include:

- While the Corporation agrees with a three year price path, there should be provision to retrospectively adjust for efficient variants as companies are seldom committed to forecasts several years out. If the objective is to replicate the conditions for a private company in a competitive market, it should be acknowledged that participants can adjust their prices to the prevailing conditions. For long-term contracts, private companies take on manageable risks, and the unmanageable risks are either: left with the customer; hedged; or compensated for with higher prices;
- Recommendations 22 and 23 would introduce the concept of “regulatory gaming”. That is, they provide incentives for a regulated company to manipulate their forecasts in order to retain greater profits. Introducing the incentive for regulatory gaming is not in the long-term interests of the Corporation’s customers. Although it may be considered standard regulatory practice, adoption of these recommendations would encourage forecasts and outcomes that are likely to result in higher customer charges and lower standards of service.

The ERA would therefore be required to employ additional resources (or private consultants) at additional expense, to attempt to ensure that regulatory gaming does not occur as a result of their own recommendations. In other words, adoption of these recommendations would result in additional costs for greater, currently unnecessary, regulation to provide oversight to protect customers from the consequences of this recommendation;

- Recommendation 23 would also establish conflicting motives for the Corporation’s demand management campaign. The Corporation could be provided with a financial incentive to fall short in meeting water efficiency targets. Under this recommendation, below-target demand management behaviour would be rewarded with additional retained profits. As a result, this incentive has the potential to compromise the Government’s efforts to encourage the efficient consumption of water, an approach identified as a key prong in making the State’s water supply climate resilient;
- Exposing the Corporation financially to partially unpredictable risks should require compensation in the form of a higher WACC than would otherwise be the case. Essentially then, the Corporation’s customers will be required to absorb this risk in the form of higher charges and/or conservative demand forecasts. It is unclear how this is in the customer’s best interests;

- The additional administrative costs to both the Corporation and the regulator in meeting this objective are questionable, especially when the benefits to the customer are uncertain and unnecessary for a state-owned utility without profit seeking as its primary motivation.

The Corporation acknowledges and endorses one of the objectives of this recommendation, being to encourage an organisation to examine its cost structures and be prudent in its planning. Achieving this objective however, does not necessitate exposure to (and compensation for) demand risk. Robust planning and budgeting processes are of primary importance to the Corporation, both of which were examined and favourably endorsed by the ERA's consultants.

24) Any significant capital expenditure proposal that exceeds a certain threshold amount be subject to a capital expenditure efficiency test, conducted by the Authority under its inquiry function (submissions are invited on the appropriate level of the threshold).

Disagree – the Corporation does not wish to propose an ‘appropriate level of the expenditure threshold’ as it considers the more pertinent question to be whether the ERA should be involved in the approvals process in the first instance.

As a state-owned service organisation, the Corporation operates under the financial constraints of the State Government. While an independent review of expenditure commitments may be warranted for an organisation that has access to unlimited funding and incentives to over-invest, this is not the situation with the Corporation.

Regulatory oversight as proposed by the ERA is only required if there is an incentive for a monopoly service provider to “gold-plate” or over-invest to receive a guaranteed regulated return on their larger investment. There is no incentive for gold plating or early delivery as this would reduce the funding available for other necessary projects, and would not result in higher returns.

With financial constraints in place, projects that can be justified on a stand alone basis need to be prioritised and some are deferred to meet budget targets. Projects are prioritised against multiple objectives to achieve the best outcome with the available funding. For example, the Corporation's capital budget was reduced by \$560 million in the latest State Budget, requiring many projects to be deferred. This was undertaken using the Corporation's risk based prioritisation process.

Existing approved capital funds are prioritised across all potential projects. The extent to which one project is funded not only depends on the merits of that initiative, but on the competing demands of other projects. Likewise Cabinet, after considering the advice of the Department of Treasury and Finance, approves and allocates new capital funding by assessing the various competing demands on the Government to deliver a suite of services. Specifically:

- The ERA is not in the best position to make the necessary trade-offs in terms of information and the context of the decision, especially with regard to alternative projects competing for the same funds;

- New business cases for additional funding are already provided to the Government via the Department of Treasury and Finance, and reflect Ministerial and Government priorities. Again, the ERA is not in the position to best assess Government's competing priorities.

The Board of the Water Corporation has in place sophisticated and well resourced processes to ensure optimised planning, option selection, capital prioritisation, business case development, and procurement and delivery strategies. The outcomes from these processes will be far more robust than any the ERA could put in place to make similar judgements. The ERA undertaking a capital efficiency test on the projects that are to proceed makes as much sense as the ERA undertaking a capital efficiency test on the projects that are delayed.

The quality of these processes is demonstrated in the review undertaken on the ERA's behalf by Halcrow Pacific for this inquiry. It appears that the recommendation is based on a standard regulatory approach without recognising the need (or otherwise) in the current situation.

Given the robust processes that are currently in place to achieve the same objective, the Corporation would expect that if the ERA had to subject their proposal to a Regulatory Impact Assessment it would fail to prove that the benefits exceeded the costs.

Finally, the Corporation is conscious that this recommendation has the potential to delay the approval process, adding another layer of administration and hence cost to the Corporation, the State Government and the regulator itself.

25) Reviews of service standards for Water Corporation, Aqwest and Busselton Water be aligned with, and incorporated into, tariff reviews.

The Corporation supports a proposal to review the service standards of the three utilities at the same time. It notes the advantages of doing this every three years prior to completing the periodic pricing review – provided the magnitude of the task does not compromise the effective review of either process. The ERA is best placed to determine this.

In reviewing the service standards, the Corporation encourages the ERA to consider:

- The degree to which the Corporation should be permitted to exercise its professional judgement and discretion in the provision of services. Meeting the minimum service standards is not always optimal;
- The budgeting approach by the Corporation and the context in which expenditure items are prioritised relative to the competing demands of numerous internal and external pressures;
- In some instances, efficient operating expenditure needs to be considered relative to the impact on capital requirements or alternative capital intensive solutions.

Asset maintenance and demand management initiatives are good examples of this; and

- The numerous additional service standards either imposed or recommended by a multitude of other agencies, not just the Department of Water, the Department of Environment and Conservation, and the Department of Health.

26) Tariffs should be escalated on an annual basis in line with the annual increase in the eight city average Consumer Price Index.

Agreed

The escalation by CPI is to convert a target real rate of return into a nominal outcome, and recognises funding is provided in the Australian market, not the Western Australian market.

The target rate of return is to be applied to the Corporation's past and forecast expenditure. The forecast capital and operating expenditure projections should continue to be based on cost indices that reflect the market conditions in Western Australia.

27) For the purpose of calculating revenue requirements, gifted assets be excluded from the calculation and cash contributions be offset against capital expenditure in the year in which the cash contributions are received. However, any revenue adjustment associated with changing the regulatory accounting treatment of developer contributions would not commence until the next regulatory period (and would then be recovered as a real annuity spread over the life of the Water Corporation's capital expenditure).

Agreed with the treatment of the gifted assets, however the Corporation does not understand the reason for the recommendation to 'not commence the recovery until the next regulatory period'.

If an adjustment is warranted, then what is the logic in waiting three more years for this to begin to occur? Further delays increase the overall magnitude of the adjustment when it is finally made.

The Draft Report mentions that delaying the adoption avoids the associated "price shock". This justification appears inconsistent when compared to the magnitude and the timing of the other recommendations, specifically:

- i) the Draft Report recommends that the 43% price increase to water charges should be phased in over 4 years, but the additional 14% associated with the adjustment in recommendation 27 is described as a "price shock" and should be delayed by 10 years; and
- ii) the 4 year price decrease of 11% to wastewater charges could easily accommodate a 14% increase from changing the treatment of developer contributions without causing any significant customer impact.

The merits of this recommendation are recognised as it considers the impact on customers, but appears inconsistent with the approach taken in the Draft Report for the timing of other pricing adjustments.

28) Cash contributions from developers be calculated consistent with the recommendations of the Inquiry into Developer Contributions to the Water Corporation (e.g. by excluding any contributions to source expenditure).

The Corporation agrees with the methodology for determining the standard headwork contributions, as detailed in the ERA's inquiry on developer contributions.

In that submission the Corporation supported the methodology, but noted its preference for its application at a state-wide level to determine a uniform standard headwork charge.

The ERA should incorporate the position adopted by Government on developers' contributions for this inquiry.

29) CSO payments be set for a three year regulatory period using the same financial model as is used to calculate tariffs.

Disagree

While the Corporation agrees with the principle that total revenue (including the CSO payment) should equal the total cost, it does not agree with the recommendation to use the financial model to calculate that payment, nor should the amount be set for a three year regulatory period.

Multiple models are required to do multiple tasks properly. Attempts to develop universal models result in overly complex, cumbersome "black box" models that are not useful for specific tasks. The Corporation will not adopt the ERA's financial model to manage our CSO payments as it is a blunt instrument and would result in a suboptimal outcome.

This position is justified as follows:

- A significant advantage of the CSO process is the transparency it provides of the cost to the State each time a relevant decision is made.

Depending on the magnitude of the decision, adjustments to the CSO forecasts must be endorsed by the Minister for Water or Cabinet. Rolling the payment into a pricing model that gets considered once every three years (along with a plethora of other issues) will mean this transparency is lost;

- Accurately determining the CSO payment is a complicated and resource intensive requirement. It involves the use of several models (e.g. new CSO model, Country Loss model), annual submissions and quarterly updates. These are in addition to the annual "wash-up" process that accounts for variances between differences in forecast and actual concessions and infill sewerage expenditure.

The Corporation is concerned that the current pricing model is not capable of managing the range of CSO process requirements and may result in the accuracy being compromised for the sake of modelling simplicity. For example, as the model currently stands, it does not:

- Adequately reflect the annual changes in residential wastewater revenue when a town's GRV is re-valued. This effectively underestimates the rate at which increases in customer revenue is possible; and
- Take into account the phase-in period for country commercial water charges. The model assumes all schemes are immediately classed in their target band (instead of a phase in of up to 14 years). This results in a lower CSO forecast than is actually required.

Furthermore, no model can replicate the wash-up process which ensures the CSO payment reflects the actual concessions and cost of the infill sewerage expenditure;

- The CSO payment is an agreement between the Government (represented by the Department of Treasury and Finance) and the Water Corporation, to compensate the Corporation for non-commercial service provision and pricing decisions that are not cost reflective. It reflects an agreed position on the determination of CSOs. While the ERA needs the outcome of this agreement to be an input into its pricing model, the need for the ERA to be involved in the process is unclear.

The financial model could treat actual historical CSO payments as an input into the revenue requirements and adjust future price paths as required. This approach would accommodate (and retain the benefits of) the current arrangement while ensuring total revenue equals total costs over time.

2.7 Operating & Capital Expenditure

30) Water Corporation's revenue requirement be set on the basis of reductions in base real operating costs per connection of 1.88 per cent per year.

Consistent with this recommendation the Corporation will continue to support the same efficiency level currently targeted.

In the midst of the current global financial crisis, the Corporation recognises the State's financial concerns and will endeavour to deliver the efficiency target for the current 3 year regulatory period. It notes however, that this target may be difficult to sustain indefinitely.

Furthermore, in response to the points raised by Halcrow Pacific and noted in the Draft Report on the Corporation's macro budgeting process, the Corporation would add that it constantly seeks opportunities to improve the macro budgeting process and has implemented a number of process improvements over the past few years.

The Corporation acknowledges that the level of information and detail provided by process owners in the Action Briefs could be improved, and has introduced a requirement for process owners to submit additional support for large funding requests in the form of a business case or briefing note attachment.

Work has now commenced on replacing the Action Brief form with a more comprehensive Operating Business Case (OBC) that better aligns to the business case requirements currently in place for capital projects. Either a short-form or long-form version of the OBC to be used depending on the dollar value of funding required. Long-form OBCs will be assessed with the same approach used for capital business cases prior to submission. The introduction of the OBC will enhance the level, quality and consistency of information submitted and achieve greater alignment with capital business cases.

31) Aqwest's and Busselton Water's revenue requirements be set on the basis of their operating and capital expenditure projections.

No comment.

32) Customers should not pay for any premium associated with the Water Corporation's strategy to procure up to 20 per cent of the energy requirements of the Southern Seawater Desalination Plant from renewable energy sources that are untested at a commercial scale.

This recommendation highlights a dilemma presented to the Corporation in the Draft Report. Recommendations 23 and 32 only permit or encourage the Corporation to focus on short-term financial gains. The Corporation prefers to target long-term sustainable objectives which include long-term economic efficiencies.

Sourcing the lowest cost renewable power in the short-term may not necessarily provide the lowest cost, whole-of-life water service to customers. With drying climate and tighter environmental and social constraints on new water sources, reliance for future sources is shifting to alternative options including desalination and water recycling both of which can have a greater power consumption per kilolitre than traditional surface and groundwater sources.

The Perth Seawater Desalination Plant and now the SSDP have set community expectations for greater use of energy from renewable sources in water service provision. The Corporation anticipates this trend to continue. To date Western Australia's renewable sources for power are predominantly wind generated. There are engineering constraints on the quantity of wind generation that can supply the overall South West Integrated Network. Therefore without new technologies in Western Australia, the cost for renewable power in the future will increase dramatically in real terms as demand outstrips supply.

The procurement strategy which includes allowance for up to 20% non-commercially proven renewable technology (Tranche 2) is intended to facilitate the introduction of such new technologies and partly address future cost pressure. It will also provide the

Corporation with commercial benefits in regards to utilising these technologies in the future which will be locked in by the contractual arrangements proposed for Tranche 2.

The Corporation is one of the largest users of power on the South West Integrated Network and the largest single end-user purchaser of electricity from renewable generation. While its core business is water services it is a major player in the power industry as a result, and therefore has a significant vested interest in ensuring a cost optimised power industry. Given the reliance of the Corporation on the renewable power industry it would be commercially inept not to support it.

The Corporation is not directly undertaking research and development as it does not possess this expertise but is supporting this industry via off-take arrangements which encourage development of new renewable source technologies. The level of support offered in the off-take arrangements has been established with the view that in the long-run the Corporation expects a positive return on any premiums paid over current mainstream renewable power.

If the ERA does not recognise this cost in the current price determination, how does it propose to recognise the resulting benefits in future price determinations?

2.8 Rate of Return

33) For Water Corporation, the rate of return (pre-tax real) be set at 5.41 per cent.

The reduction recommended in the WACC appears counter-intuitive at a time when global financing costs have increased significantly and when other recommendations by the ERA transfers more financial risk onto the Corporation.

The outcome appears to be the result of the cumulative impact of selecting conservative inputs to the WACC calculation. In particular, the equity beta of 0.65 is the lowest in Australia relative to the risks assessed by regulators for gas and electricity utilities.

Despite the concern with the counter-intuitive result, the Corporation does acknowledge that a lower WACC will result in minimising the potentially significant price impact on customers. Furthermore, while the current global conditions have made sourcing capital funds more difficult (and expensive), they have also made relatively safe investments (such as water utilities) more attractive despite their relatively low returns.

As noted in its response to the Issues Paper for this inquiry, this result has the greatest impact on the Corporation's shareholder (the State Government). The Government will need to balance the impact on customers against the State's financial position, while recognising the need to maintain competitive neutrality.

34) *For Aqwest and Busselton Water, the rate of return (pre-tax real) be set at 5.72 per cent.*

Comments made in Recommendation 33 apply equally to the WACC recommended for Aqwest and Busselton Water

35) *The rates of return for Water Corporation, Aqwest and Busselton Water should be updated in 2010 prior to the tariffs being set for the regulatory period.*

Agreed

2.9 Regulatory Asset Values

36) *The initial asset values used for the purpose of determining tariffs be set at \$11.3 million for Aqwest and \$9.0 million for Busselton Water (as at 30 June 2005, in real dollar values of 2005).*

No comment.

37) *The initial regulatory asset value for Water Corporation was set in 2005 and should not be revised.*

The Corporation acknowledges the ERA's position that there may be numerous items that are subsequently identified which could impact on the initial Regulatory Asset Value (RAV) calculation. For the sake of drawing a line in the sand, once determined, only exceptional circumstances would warrant it being revised.

Exceptional circumstances by their nature would be rare and in most instances, would only be warranted by virtue of their magnitude. Two examples relevant to the Corporation that could require a revision of the RAV are changing the method of:

- treating contributions from developers; and
- calculating the asset value from deprival value to one which is more cost reflective.

Rather than simply netting these adjustments off as a NIL overall impact, each one should be considered in turn and an adjustment made individually where warranted.

2.10 Demand Management

38) Demand restrictions be reconsidered once the Southern Seawater Desalination Plant is operational.

As detailed in the Corporation's response to the Issues Paper, the completion of the SSDP is not the only requirement for revising watering roster. The current sprinkler roster should not be relaxed unless and until:

- The current stress on groundwater resources has been relieved, with the overdraw in the last few years paid back to the environment;
- The sources (including dam levels) are sufficient to accommodate the additional demand without compromising supply security;
- Water efficient behaviours have been instilled in the community as a matter of habit; and
- There is community support to modify the sprinkler roster.

Furthermore there are economic and environmental arguments for continuing to apply the sprinkler roster even if the State's water supplies are in a position to accommodate increased demand.

The Corporation's demand management target detailed in the Water Forever Direction's Paper aims at reducing per capita consumption by a further 15% by 2030. Demand reductions of this magnitude would save an estimated \$1.1bn in the cost of future source development. These savings need to be appreciated in the context of a capital constrained organisation.

39) Rebates for water efficient products (other than rain sensors, garden assessments and flow regulators) be discontinued, as the water savings achieved are more costly to society than the alternative of producing more potable water.

The decision to discontinue with the rebate program has been made by Government, preferring to address the water efficiency targets through other means.

The Corporation maintains that the Waterwise Rebate Program has been a successful initiative, providing supply security to the State's potable water service. It has helped raise awareness in the community for the need for water efficiency, providing a direction to that end. The scheme has also encouraged suppliers to introduce more water efficient appliances into the market (for example, washing machines).

Following the conclusion of the rebate program in June 2009, the Corporation's intention is to undertake a robust cost / benefit analysis of the merits of the rebate program. This would address a number of the shortfalls in the approach and information

availability of the review recently conducted. The Corporation would be pleased to share the results of this review with the ERA.

Finally, the Corporation notes that there are a number of non-financial benefits from the purchase of waterwise products which are not captured in traditional cost benefit analyses. For example, people purchase rainwater tanks for taste reasons. Pool covers not only save water, but heat the water, reduce chemical use and keep the pool clean. While these benefits may accrue privately to the individual, the rebate program has facilitated their awareness.

2.11 Cost Allocation

40) The annual fixed charge be set at the same level for all small-use water customers (those using a 20mm meter), whether they are residential or small business customers.

This recommendation reflects a bias for modelling symmetry rather than reflecting the underlying cost of service provision, and previous subsidy decisions that are built into the regulatory asset value.

The Corporation has several additional concerns with this recommendation:

- (i) Simply because the non-residential service charge is higher than the residential charge, does not mean commercial customers are paying too much. This determination would need to be made by reference to the written down replacement cost of the assets servicing the customers as opposed to the regulated asset value (RAV) that is currently used for pricing.

The service charges were originally calculated assuming an 8% rate of return on commercial customers, while metropolitan business was achieving an average of 4%. These returns were deemed appropriate at the time and reflected Government's explicit desire to less than full cost recovery prices for residential customers.

When the ERA recalculated the RAV in 2005, this residential discount was embedded in the value of the assets. The recommendation to now align the 20mm service charges effectively takes part of the residential discount embedded in the initial regulatory asset value and transfers it to non-residential customers.

It should also be noted that the consumption charge and demand characteristics for residential and non-residential customers are different. This would suggest that there is no reason for the service charge to be aligned.

- (ii) The Corporation is concerned about the timing over which the ERA has chosen to align the 20mm charges. This timing has been determined by review of the tariff tables.

The tariff tables align the 20mm service charges in 2018/19 for commercial customers. This same customer group face a significant (> 50%) increase to their consumption charges in 2010/11. Ordinarily, tariff reforms of this nature are timed so that changes in the volumetric charges are matched by corresponding (although opposite) changes in the fixed charge.

In this instance however, the large increase in consumption charges will not be matched with decreases in the service charge, resulting in increases for business on average, and significant increases for some high consuming businesses for a number of years.

It is understood that the reason for the chosen timing is to shield residential customers from the increases they would otherwise face as a result of this recommendation. The ERA has since advised the Corporation that these increases would be approximately \$15.

Given the potential magnitude of the adverse impact on some commercial customers, a customer impact analysis is recommended. This should include alternative options to the current timing recommended.

41) The uniform approach to charging metropolitan and country commercial wastewater customers be removed.

The uniform approach to charging for metropolitan and commercial customers was initially chosen by Government so that country businesses were not disadvantaged relative to metropolitan businesses, together with the recognition of the advantages of the metropolitan tariff structure over valuation based charges.

Removing this uniformity will increase the commercial wastewater charge in most schemes, dependant in part on the manner in which costs are allocated to commercial and residential customer groups.

Furthermore, while having scheme specific wastewater charges in country regions for commercial customers is technically feasible, it would be administratively complex and costly to implement, especially if the existing method of calculating limitations on increase continues. The idea of separate tariffs for each scheme also contradicts with the Corporation's aim of simplifying its billing system and tariff structure.

Charging is implemented in the Corporation's billing system by attaching a series of individual rate schedules to each account for each service charged for. These rate schedules outline how each charge is calculated. Currently, increases in non-residential customers sewer charges are limited to a 10% plus GPI increase in charges overall, to the same level of discharge in the last full year. Limiting the magnitude of annual increases means that the calculation of sewerage charges is not implemented solely using rate schedules to drive the calculation of charges, but by calls to external programs that enable the correct calculation of the charges, taking into account these limits on increase, and presenting that information on the bill.

If separate rate schedules were required and limits on increase continue to apply on the current basis, a maximum of around 630 separate rates schedules will be required to store the basic charge attributes for the 90 schemes we currently operate. In addition, the programs called will need to be able to calculate and apply limitations correctly for each scheme annually. Once created, each additional rate schedule will need to be updated, audited and tested each year to ensure that charges are being calculated correctly.

It is unclear whether these billing system and administrative costs are justified having considered:

- The potential of the changes to adversely impact businesses in country regions; and
- That there is no clear argument of economic efficiency gains from a fixed charge with no effective pricing signal.

42) *The costs of providing wastewater services within a scheme be allocated between residential and commercial customers in a way that is reflective of relative estimated discharge into the sewer.*

Accurate cost allocation between customer groups would need to consider the quality and the quantity of the discharge, as well as peak capacity requirements and potential capacity requirements. There are practical limitations to accurately estimating these for each scheme. Cost apportioning using estimated quantity discharged may be the best pragmatic option.

Consideration should first be given to a potential adjustment for the cost and associated revenue of industrial waste. It may be appropriate to net this revenue off the total cost before apportioning the remaining costs between customer groups. This adjustment would partly account for the quality difference between industrial and domestic waste.

Prior to doing any calculation however, the Corporation would argue that there is no reason why this recommendation is better than the current tariff approach. Whether costs are apportioned between customer groups depends on the preference for:

- (i) Cost reflective prices: recovering the wastewater service cost incurred by each customer group from that customer group; or
- (ii) Recovering the cost of the total scheme from all customers within that scheme regardless of their individual costs. The resulting pricing structure may produce some instances of cross-subsidisation between customer groups within the scheme, but has the advantage of accommodating uniform prices or those reflective of a customer's ability to pay.

The preference for either alternative depends upon the extent to which cost reflectivity is pursued as in end in itself, or whether the merits of uniform prices and/or prices based on capacity to pay are recognised. Each of these definitions of equitable prices is equally as valid, especially where there is no potential for an effective price signal to be conveyed (such as an annual wastewater service charge). For this reason,

recommendation 42 is only partially supported by the Corporation to the extent that it is one of a range of valid alternatives.

2.12 Draft Tariff Recommendations

43) The tariffs of the Water Corporation, Aqwest and Busselton Water be set in accordance with the tariffs in Schedules 1, 2 and 3 of Appendix H.

The Corporation's support of the tariffs in Appendix H is limited to the instances where the draft recommendations are endorsed.

Prior to finalising all tariffs, it is recognised that they will need to be adjusted for potential changes to the WACC and ensuring the prices reflect the Government's agreed 2009/10 budget and forward estimates.