

# SUBMISSION TO THE ECONOMIC REGULATION AUTHORITY'S INQUIRY INTO PRICING OF RECYCLED WATER IN WESTERN AUSTRALIA

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# 1 Executive Summary

The Water Corporation ("the Corporation") is pleased to submit this response to the Economic Regulation Authority's ("the Authority") Issues Paper: *Inquiry into Pricing of Recycled Water in Western Australia (1 August 2008)*.

The Corporation supports water recycling as one of a number of ways of meeting the community's water service requirements. The Corporation makes an assessment of treated wastewater as a potential resource, rather than simply a disposal problem.

In general, the level of water recycling is expected to grow in the future due to:

- the reduced availability of other self supply water sources including groundwater;
- the increased cost of augmenting scheme water supplies;
- greater regulatory certainty for the use of recycled water due to more transparent and effective national and state regulation;
- increased technical and operating capacity and experience;
- supportive government policy, promoting fit for purpose water use;
- strong community preference for increased use of recycled water;
- the perceived corporate social responsibility value that major customers place on using recycled water as part of their triple bottom line objectives;
- potential reductions in treatment costs due to innovations in related technology such as membranes;
- third party access may result in greater private sector entry for specific reuse opportunities.

The Corporation has entered into a number of arrangements with customers for recycled water and in so doing, applies a set of pricing principles in the negotiations. These pricing principles are consistent with those developed by the Water Services Association of Australia (WSAA) (provided on page 22 of the Issues Paper), which result in efficient and equitable prices.

The Corporation does not believe that the efficient use of recycled water would be enhanced by a greater level of price regulation. This position is supported by the comments provided below against the three situations where price regulation may be justified (as outlined by the ERA on page 16 of the Issues Paper).

The Corporation supports a "light-handed" approach to price regulation, where "regulation" requires adherence to specific principles that are approved by government, rather than regulation that sets prices for each scheme or sets a methodology or directly intervenes in commercial arrangements. The Corporation also supports the publication of the pricing principles.

#### Market Power

The Issues Paper correctly points out that there are many substitutes for recycled water services, but there will be some circumstances where, due to a lack of alternatives, the Corporation will have market power in its dealings with recycled water customers. It should also be noted that there other circumstances, where the Corporation is limited in the alternative disposal methods available, where it is the recycled water customer who has the market power.

The key issue to consider in determining whether regulation is required is the consequences of any market power. The ERA suggests that market power is likely to result in higher prices than would otherwise occur. However, as reuse is generally a joint product of a price regulated service, higher prices for one group of customers will result in either lower prices for other customers, or lower subsidies through the Community Service Obligation (CSO) payments the government makes to the Corporation to cover scheme losses. The issue becomes one of equity between customers and/or taxpayers in sharing the cost of the scheme. The Corporation has no financial incentive to misuse market power, and every incentive to implement fair and equitable charges.

In a manner similar to the application of the Corporation's framework for negotiating water supply agreements with major consumers, the Corporation is comfortable with an external review of its pricing policy for recycled water and how it is applied.

The Corporation does not support regulation that sets prices for each scheme, sets a methodology or directly intervenes in commercial arrangements. Our experience in negotiating with major water customers and for recycling schemes such as the Kwinana Water Reclamation Plant (KWRP) is that the outcome of negotiations for both parties would be compromised if the Corporation was not free to negotiate to the specific circumstances of each customer and the unique elements of the scheme.

There will be circumstances where there are many customers receiving a similar service from a recycled water scheme. In these circumstances, a uniform service standard and price may be administratively efficient and an equitable means of recovering scheme costs. The terms for the provision of these schemes will generally be negotiated with a land developer or another single party, with subsequent ongoing application of the terms of such an agreement applied to the future customers. The Corporation or other recycled service suppliers should be able to rely on these contracts to recover the cost of providing the service. External oversight should be limited to any unresolved contractual dispute.

Very large schemes in the Eastern States have adopted a pricing approach of taking a percentage of the by-law potable water price, with any shortfall in costs being met by the utilities general customer base, eg. IPART determined price of recycled water for the Rouse Hill Development Area to be 80% of potable water price. The Corporation does not support this approach, and it should only ever be considered by Government on a project basis, not as a general pricing principle.

The Issues Paper suggests that there may be a possibility for service providers to use market power to avoid passing on the savings made when developers implement water sensitive urban design. The Corporation's support for recycling is reflected in its support for an adjustment to its developer charges to reflect the cost savings made where new developments implement water-sensitive urban design. This position was expressed in the Corporation's submissions to the ERA's inquiry into the Corporation's developer charges. Again, there would be no financial benefit to the Corporation from not passing on the savings as the added revenue would result in lower prices to other customers, not higher profits for the Corporation. The ERA is also in a position to review these charges in its periodic price inquiries.

#### Externalities

Externalities are normally difficult to quantify in dollar terms, are often subjective and do not apply equally to all recycling schemes. Additionally, externalities can be both positive (e.g. reduced environmental impact) or negative (e.g. greater risk to health or greater environment impact).

The Corporation does not support the regulation of water recycling prices to account for externalities. Negative externalities are normally best managed through specific regulation (e.g. health, environment) and are then directly incorporated into the cost of the project. The Corporation's preference is for positive externalities to be identified and dealt with through specific project subsidies (e.g. CSO payments), but concedes that an alternative is for the cost to be passed on to the entire customer base. It should be noted that specific price regulation for positive externalities would require similar subsidies or cross-subsidies.

#### Social Objectives

The Corporation's pricing policy for recycled water aims to achieve a positive contribution to the joint costs of a sewerage scheme where possible. The policy does not look at recycled water customers in isolation, and does not discriminate against other customers of the sewerage scheme in favour of recycled water customers.

The pricing policy is also designed to ensure that viable recycling projects will proceed (where their value is higher than the marginal cost), subject to consideration of the longer-term scarcity value of the resource.

The Corporation does not support a simple marginal cost pricing approach to reuse pricing. Such an approach does not take into account the value of the resource to the customer, their fair contribution to joint costs or the efficient allocation of the resource where the potential for recycling is limited and there are competing uses.

#### Other issues

The Corporation supports:

• the faster phase-in of tariffs to LRMC by 1 July 2010 for commercial customers using more than 20,000 kL per annum;

- the State Government's target to recycle 30% of wastewater by 2030. The target provides a focus for innovation, supports fit-for-purpose water use, assists in the timely development of supporting regulation and builds technical capacity;
- the use of rebates as part of broader water policy that positively influences changes in behaviour and ultimately encourages more efficient water use;
- the reservation of recycled water for public water supply and other high value uses.
- the appropriate use of mandatory building standards, including standards that promote water efficiency and consumer choice; and
- a State-based third party access regime with access charges based on a retail minus avoidable cost approach.

# 2 Background

The Water Corporation's recycling schemes are a joint product with wastewater collection, treatment and disposal.

Revenue from wastewater schemes is regulated. Revenue from recycling sales is part of scheme revenue, and recycling pricing decisions will impact on the prices paid by other scheme customers (sewerage rates) and/or the subsidies paid by taxpayers (Community Service Obligation payments).

Recycling schemes vary in the costs they impose on the wastewater scheme. Some recycling schemes can provide a disposal method that can reduce the overall cost of providing wastewater services. Others add to the cost and complexity of the wastewater scheme operation.

Recycling is a potential substitute for and/or competitor with potable scheme water supply, other self supply options such as groundwater and with water use efficiency. Consideration needs to be given to the appropriate pricing approach where the price of substitutes does not reflect their cost of supply.

Recycled water is becoming a more valuable resource as cheaper substitutes are becoming fully committed. Consideration needs to be given to the highest long-term use of these resources for the community, rather than making long-term commitments to immediate but low value applications. Temporary or short-term contracts should be considered for low value use.

Governments around Australia have set reuse targets. These targets should be achieved in the most efficient manner available. Ideally, any short-fall between revenue and costs in meeting reuse targets should be met by an explicit CSO payment. Alternatively, the cost could be met by the Corporation's general customer base as a "cost of doing business". This cost should be explicitly recognised and endorsed by Government so that it is recognised by the ERA in their price recommendations.

The State Government has through the State Water Plan set a target to recycle 30% of wastewater by 2030. Two major reasons for recycling are that it reduces demand for potable water and promotes the efficient use of water. The Corporation's view is that there are substantial opportunities for wastewater recycling to industry in both established and new areas across the State, and potentially for new residential developments.

# The Corporation's Response to the Authority's Issues Paper

# 3 Range of Water Recycling Options

#### Issue number

1) What other recycling projects are currently underway that the Authority should be aware of?

#### **Corporation's Response**

In addition to the examples of recycling schemes listed by the ERA, the Corporation has identified three recycling opportunities which it is developing with customers of existing projects or projects under consideration.

A new project in the State's south is planning to transport product via a slurry pipeline from mine site to Port. Negotiations are in progress to secure a long term supply of wastewater from the Corporation. This project is potentially in competition with an alternative lower value recycling opportunity.

In addition to the Kwinana Water Reclamation Plant, the Corporation is negotiating the supply of wastewater, which requires no additional treatment, to two existing companies (located at Kwinana and the mid-west) for industrial purposes. The Corporation's Sepia Depression Ocean Outfall Line is a significant potential source of recycled water in the Kwinana area.

At Kambalda, in the eastern Goldfields, all water from the Corporation's wastewater treatment plant is supplied directly to a major customer for industrial purposes.

All the above examples incorporate commercially negotiated terms and conditions, including charges.

#### Issue number

2) What other significant sources are currently being used that the Authority should be aware of?

#### **Corporation's Response**

The following is a list of categories of potential alternative supplies as well as alternative supplies currently being used. Recycled water is a potential alternative source for these customers:

• Groundwater use for self supply, e.g. industrial, mining and agricultural

users, e.g. industrial customers in Kwinana, mining customers treating saline water in the eastern Goldfields to supplement potable scheme water from the Integrated Scheme, horticultural customers on the Gnangara mound.

- On site reuse (capture and recycle their own wastewater) with no additional treatment.
- On site recycling (capture and recycle their own wastewater) with self treatment.
- Water allocation trading (ie: Kwinana industrial customers trading groundwater allocations)

#### Issue number

3) What is the scope for additional water recycling in WA?

#### **Corporation's Response**

There is significant scope for increased water recycling in Western Australia, particularly from wastewater.

On the supply side, the current flows from wastewater treatment plants in WA are 150 GL of which approximately 12% is currently recycled. About 6% is recycled in the metropolitan area, where most wastewater flows are concentrated. The volume of wastewater flows is expected to double over the next 50 years.

In particular, areas for increased water recycling include:

- expansion of the Kwinana Water Reclamation Plant for industry at Kwinana;
- Gnangara Groundwater Replenishment Trial;
- proposed horticultural precinct in Carabooda;
- new housing developments may utilise recycling with third pipe schemes for public open space or water features, and can also access alternative water supplies such as rainwater tanks and community bores;
- commercial and industrial customers in both established and new areas across the State; and
- depending on community acceptance, the use of recycled water for drinking.

As the Issues Paper notes, the scope for stormwater recycling is much less as most is already recharged to local waterways and aquifers where it has environmental value. Stormwater is also rainfall dependent (less secure than wastewater recycling) and can be difficult and expensive to treat due to a wide range of contaminants including nutrients and petrocarbons.

# 4 Current Policy Settings and Directions

#### Issue number

4) What other State and National Water recycling initiatives should the Authority be aware of?

#### **Corporation's Response**

The Corporation is not aware of any other significant National Water recycling initiatives.

#### **Issue number**

- 5) To what extent do service providers have market power in the provision of water recycling services?
- 6) If providers of water recycling services have market power, should prices be regulated, and if so, how?

#### **Corporation's Response**

It is noted that the ERA's motivation for considering the regulation of prices stems from their concerns about the ability of monopolies to exercise market power to the detriment of their customers.

The ERA correctly points out that there are many substitutes for recycled water services, but there will be some circumstances where, due to a lack of alternatives, the Corporation will have market power in its dealings with recycled water customers.

It should also be noted that there other circumstances, where the Corporation is limited in the alternative disposal methods available, where it is the recycled water customer who has the market power.

The key issue to consider in determining whether regulation is required is the consequences of any market power. The ERA suggests that market power is likely to result in higher prices than would otherwise occur. However, as reuse is generally a

joint product of a price regulated service, higher prices for one group of customers will result in either lower prices for other customers, or lower subsidies through the Community Service Obligation (CSO) payments the government makes to the Corporation to cover scheme losses. The issue becomes one of equity between customers and/or taxpayers in sharing the cost of the scheme. The Corporation has no financial incentive to misuse market power, and every incentive to implement fair and equitable charges.

The Corporation has been supplying water from its monopoly infrastructure in country areas to major customers under commercially negotiated arrangements, ie. non by-law charges, in accordance with its Major Consumers Framework, for almost half a century. This Framework entails guidelines approved by government which has not required independent regulation.

From a public policy criteria, the pricing principles contained in the Framework

- are clear in its rationale and objectives;
- send efficient price signals which reflect variations in the costs of servicing different locations;
- maintain equity between similarly situated customers;
- ensure fair, cost reflective charges from monopoly infrastructure; and
- are applied consistently to all major customers in country areas.

In a manner similar to the application of the Corporation's framework for negotiating water supply agreements with major consumers, the Corporation is comfortable with an external review of its pricing policy for recycled water and how it is applied.

The Corporation does not support regulation that sets a methodology or directly intervenes in commercial arrangements. Our experience in negotiating with major water customers and for recycling schemes such as the Kwinana Water Reclamation Plant (KWRP) is that the outcome of negotiations for both parties would be compromised if the Corporation was not free to negotiate to the specific circumstances of each customer.

The Corporation supports the approach recommended by IPART in its review of "Pricing arrangements for recycled water and sewer mining, Sydney Water Corporation, Hunter Water Corporation, Gosford City Council and Wyong Shire Council: September 2006": where if the use of recycled water is discretionary, the market should be permitted to operate to determine the price.

There will be circumstances where there are many customers receiving a similar service from a recycled water scheme. In these circumstances, a uniform service standard and price may be an administratively efficient and an equitable means of recovering scheme costs. The terms for the provision of these schemes will generally be negotiated with a land developer or another single party, with subsequent ongoing

application of the terms of such an agreement applied to the future customers. The Corporation or other recycled service supplies should be able to rely on these contracts to recover the cost of providing the service. External oversight should be limited to any unresolved contractual dispute.

The ERA suggests that there may be a possibility for service providers to use market power to avoid passing on the savings made when developers implement water sensitive urban design. The Corporation's support for recycling is reflected in its support for an adjustment to its developer charges to reflect the cost savings made where new developments implement water sensitive urban design. This position was expressed in the Corporation's submissions to the ERA's inquiry into the Corporation's developer charges. Again, there would be no financial benefit to the Corporation from not passing on the savings as the added revenue would result in lower prices to other customers, not higher profits for the Corporation. The ERA is also in a position to review these charges in its periodic price inquiries.

As noted in some papers on recycled water, there has been limited regulatory intervention in setting prices for recycled water in the past. However, there has been a clear trend now in the eastern States for independent regulators to get more involved in ensuring prices for recycled water adhere to certain principles.

This trend, together with the National Water Initiative which requires water service providers to develop pricing principals for (metropolitan) recycled water that are comparable with pricing for potable water, was the impetus for the Corporation to develop sound underlying principals to apply to pricing of recycled water associated with the Water Corporation's wastewater schemes.

The Corporation supports a "light-handed" approach to price regulation, like the Major Consumers Framework, where "regulation" requires adherence to specific principles that are approved by government, rather than regulation that sets prices for each scheme or sets a methodology or directly intervenes in commercial arrangements. The Corporation also supports the publication of the pricing principles.

#### Issue number

- 7) What is the nature and magnitude of any externalities associated with water recycling?
- 8) If there are significant externalities, should water recycling prices be regulated to account for these, and if so, how?

#### **Corporation's Response**

Externalities are normally difficult to quantify in dollar terms, are often subjective and do not apply equally to all recycling schemes. Additionally, externalities can be both positive (e.g. reduced environmental impact) or negative (e.g. greater risk to health or greater environment impact).

There are a number of positive externalities associated with recycled water:

- Avoidance / deferral of need to build a new potable water source such as a dam where potable water prices don't capture the added cost;
- Reduce pressure on natural systems;
- Community preference;
- Reduction in the release of effluent to oceans.

There are also negative externalities:

- Increased public health risk associated with incorrect use and management;
- The application of recycled water can impact the environment, particularly due to nutrients and other contaminants;
- Where carbon costs are not included, recycling can be more energy intensive than other water sources.

The Corporation does not support the regulation of water recycling prices to account for externalities. Negative externalities are normally best managed through specific regulation (e.g. health, environment) and are then directly incorporated into the cost of the project.

The Corporation's preference is for positive externalities to be identified and dealt with through specific project subsidies (CSO payments), but concedes that an alternative is for the cost to be passed on to the entire customer base. It should be noted that specific price regulation for positive externalities would require similar subsidies or cross-subsidies.

#### Issue number

- 9) What is the nature and magnitude of any distributional or other social policy issues associated with the pricing of water recycling?
- 10) If there are significant social costs, should water recycling prices be regulated to account for these, and if so, how?

#### **Corporation's Response**

The key distributional issue associated with pricing of recycled water is the relative share of joint scheme costs borne by recycled water customers compared to other customers of sewerage schemes. A related consideration is whether the recycling scheme adds to overall scheme costs or saves cost by providing an efficient disposal option.

In most cases, the level of recycled water supplied is relatively small compared to sewerage rates. Regulation of pricing of recycled water to include the recovery of a proportion of the base cost of the wastewater system would usually have little impact on other sewerage prices. In many cases the cost savings associated with disposal are more significant.

As the value and the price of competing water sources continue to increase, the potential contribution to scheme costs of revenue from recycled water will increase. A potential distributional issue is who obtains the benefit of this increasing value. Care should be taken to retain the long-term resource rights with the scheme owner so that all customers benefit from increases in resource value. Passing control to customers with low value but short-term opportunities not only leads to potential windfall gains, but is more likely to lock in lower value uses (watering ovals and golf courses) as these customers are likely to resist change (e.g. the reluctance of communities to allow irrigation water to be traded to higher value use due to local impacts).

The Corporation's pricing policy for recycled water aims to achieve a positive contribution to the joint costs of a sewerage scheme where possible. The policy does not look at recycled water customers in isolation, and does not discriminate against other customers of the sewerage scheme in favour of recycled water customers.

The pricing policy is also designed to ensure that viable recycling projects will proceed (where there value is higher than the marginal cost), subject to consideration of the longer-term scarcity value of the resource.

The Corporation does not support a simple marginal cost pricing approach to reuse pricing. Such an approach does not take into account the value of the resource to the customer, their fair contribution to joint costs or the efficient allocation of the resource where the potential for recycling is limited and there are competing uses.

Unlike potable water and sewerage services, recycled water is not an essential service. The Corporation agrees with the ERA that concessions to pensioners and seniors are not relevant to the pricing of recycled water and not a reason to regulate prices. The Uniform Pricing Policy may be relevant in determining the need for a matching

subsidy for recycled water if an economically viable recycled scheme is not competitive to the subsidised by-law price, but this is not an issue of affordability, and is therefore only indirectly an issue of social policy.

#### Issue number

11) If water recycling prices are to be regulated, what are the principles that should apply?

#### **Corporation's Response**

The Corporation's view is that generally recycled prices should not be regulated, but should be negotiated based on an agreed and consistent set of principles.

The key issue to consider in determining whether regulation is required is the consequences of any market power. The ERA suggests that market power is likely to result in higher prices than would otherwise occur. However, as reuse is generally a joint product of a price regulated service, higher prices for one group of customers will result in either lower prices for other customers, or lower subsidies through the Community Service Obligation (CSO) payments the government makes to the Corporation to cover scheme losses. The issue becomes one of equity between customers and/or taxpayers in sharing the cost of the scheme. The Corporation has no financial incentive to misuse market power, and every incentive to implement fair and equitable charges.

In a manner similar to the application of the Corporation's framework for negotiating water supply agreements with major consumers, the Corporation is comfortable with an external review of its pricing policy for recycled water and how it is applied.

The Corporation does not support regulation that prescribes specific principles, sets prices for each scheme, sets a methodology or directly intervenes in commercial arrangements. Our experience in negotiating with major water customers and for recycling schemes such as the Kwinana Water Reclamation Plant (KWRP) is that the outcome of negotiations for both parties would be compromised if the Corporation was not free to negotiate to the specific circumstances of each customer.

There will be circumstances where there are many customers receiving a similar service from a recycled water scheme. In these circumstances, a uniform service standard and price may be an administratively efficient and an equitable means of recovering scheme costs. The terms for the provision of these schemes will generally be negotiated with a land developer or another single party, with subsequent ongoing application of the terms of such an agreement applied to the future customers. The Corporation or other recycled service suppliers should be able to rely on these contracts to recover the cost of providing the service. External oversight should be

limited to any unresolved contractual dispute.

The following outlines the Water Corporation's approach to determining the pricing for water recycling services from the Corporation's wastewater schemes. The Corporation prices recycled water based on the following guiding principles which are aligned to the principles outlined in the Water Services Association of Australia's Occasional Paper No. 12 "Pricing for Recycled Water" (February 2005).

- Prices for recycled water should be set within a price band, with (whole of system) incremental cost as the floor and willingness to pay (as defined by the lesser of stand-alone cost or by-pass price of the alternative) as the ceiling.
- Commercial judgments should determine whether prices are set at the lower end of the efficient price band (ie. just covering system incremental costs) or towards the higher end (where recycled water users make an increasing contribution towards joint/common costs).
- Prices for recycled water should be set in a way that broadly tracks the price of substitutes, but not locking in artificially low prices for an unnecessarily long time into the future.
- Prices for recycled water should be set as part of any longer term pricing reform strategy encompassing the suite of products provided by the industry (rather than a short-term position based on the current charges for potable and other services).
- In the case of mandated targets, any subsidies provided to recycled water products at the expense of the broader customer base should be fully and transparently costed. Preferably, these subsidies should be paid from general revenue since they constitute a CSO.
- In some cases, efficient prices may require different prices for different users, reflecting different qualities of recycled water and associated costs of supply which may vary by user and/or location and willingness to pay. Failure to price differentially may result in viable recycling projects not proceeding.

While the particular circumstances of each recycling project will vary, the key elements of determining an approach to pricing should involve the steps below:

#### Assessment of willingness to pay

This will include understanding the users willingness to pay by having regard to:

- The value of the product or activity to which the particular class of recycled water is being used as an input;
- Any other costs that the user must incur in order to be able to use the recycled water;

- The price ceiling provided by substitutes;
- The value placed on the particular attributes of recycled water (that in some cases may make it more valuable to users than potable water);
- The surety of users having access to water over a sufficient period to enable the recovery of their investment; and
- Attitudes and perceptions of users.

### Key elements of the costs and benefits of the recycled supply

The key cost elements involved in a recycled supply are:

- The direct incremental capital and operating costs for the construction and operation of the recycled water infrastructure;
- Any system-wide costs or benefits associated with the recycling scheme (e.g. the ability to defer or avoid costs of upgraded wastewater treatment or disposal);
- Any external cost or benefits accruing beyond the Corporation and its customers (e.g. environmental benefits) and the availability of CSO funding;
- The costs associated with alternative scenarios without the recycled water scheme; and
- Any risks that may ultimately translate into higher costs (e.g. contingent liabilities for claims arising from inappropriate use of recycled water).

#### Determine the appropriate structure of charges

The price structure should:

- Provide appropriate signals as to the cost of providing additional water (i.e. the long-run marginal cost of providing potable and recycled water);
- Ensuring customers have sufficient control over the level of their bill (which assists with equity considerations);
- Ensuring the appropriate relationship between the volumetric rates for potable water and recycled water, to avoid perverse incentives (e.g. using the recycled water for inappropriate purposes); and
- Appropriate management of risk via the structure of prices and nature of the contractual agreement.

The above approach supports current Government policy for the greater use of recycled water.

It may be beneficial in some cases to indicate to the market the outlook for the availability and price water for recycling. For example, where the resource is not scarce and project proponents would benefit from certainty in costs, prices could be signalled to the market in advance of negotiations. For example, as a method to encourage the maximum level of recycling to meet Government targets, a decision could be made that effluent would be made available at a resource value of zero.

Where there is scarcity or potential scarcity, the resource should be managed and priced to achieve its greatest long-term value. The experience of allocating water resources on a no-cost, first come first served basis lead to locking resources into low value uses. The sunk investment associated with utilising these resources means that they are not available to shift to higher value use. Care should be taken not to make similar mistakes in allocating recycled water to low value use to meet short-term targets.

To illustrative the above pricing principles, following is a case study of a recent recycled water agreement that the Corporation has entered.

- A review of disposal options for a wastewater treatment plant identified that water recycling represented the most efficient option.
- In order to be able take the recycled water for irrigation purposes, a customer had to upgrade its facilities to comply with DoH & OSH requirements. The Corporation also had to construct infrastructure to deliver the recycled water to the customer.
- The agreement included a contribution from the Corporation towards the customer's upgrades and a loan.
- The recycled water will initially be provided free of charge, eg. have a zero resource value and no contribution toward the existing wastewater system.

To recognise that the customer's financial position may change in the future, the agreement provides for an annual review to determine the customer's capacity to pay for the recycled water.

- The agreement provides that if a third party requests use of the recycled water whilst the Corporation is providing the recycled water free of charge to the customer, the customer will be provided the opportunity to accept and agree to the commercial terms of the request by the third party but if the customer does not accept these terms, the customer's entitlement will be reduced by the amount requested by the third party.
- In the event the customer's entitlement is reduced and the reduction impacts its ability to adequately irrigate, the Corporation will reimburse the customer for any part of the customer's reticulation upgrade which is rendered redundant, or on a proportionate basis, to the extent of the redundancy is caused solely by the reduction in entitlement. Any reimbursement will be

included in the charges to the third party.

This provision does not apply for a specified number of years of the agreement so as to give the customer the opportunity to become more financially viable.

# 5 Assessment of Pricing Recommendations of State Water Recycling Strategy

#### Issue number

12) Should major industry be treated in a way different to other metropolitan commercial customers for the purpose of setting water usage charges, and if so, how?

#### **Corporation's Response**

The ERA has recommended in previous inquiries that volumetric prices for commercial customers, including major industry, should reflect the long-run marginal cost of supply augmentation.

The Corporation supports this pricing policy as it will provide incentives for businesses to adopt water efficient practices or utilise efficient alternative water sources in preference to the more costly expansion of potable water supply sources.

The Government has adopted this recommendation, with increases in volumetric charges being phased-in over 8 years to reduce the year-on-year impact on customers. While service charges are being reduced to balance the overall revenue from these customers there are some distribution impacts of the pricing change.

The consequence of this phase-in policy is that the incentive for industrial customers to move to viable alternative water sources, such as the expansion of the Kwinana Water Reclamation Plant is delayed.

The Corporation would support a faster phase-in of the volumetric charge for large customers as this would provide an earlier incentive to implement water efficient processes and alternative water sources.

The Corporation recommends that this be achieved by creating a temporary step in the charging structure from 20,000 kL per annum, with customers paying the LRMC for consumption above this amount from 2010/11, and the price for consumption below this amount being gradually increased to LRMC by 2013/14.

The advantage of this approach is that it provides an early incentive to large customers,

while maintaining the phase-in approach for smaller customers. It also avoids the need to create a separate industrial tariff, with the associated problems of classifying customers and incorporating changes to the billing system.

Approximately 250 commercial and industrial customers use more than 20,000 kL per annum. It is recognised that these customers have greater scope to invest in water use efficiency, recycling, trading or development of alternative water supplies. Further, water consumption charges are a very small part of their cost structure. These customers are required to submit a Water Efficiency Management Plan by 1 July 2009.

# 6 Other Factors Relevant to Adoption of Water Recycling & Alternative Water Supplies

Issue number

13) What role should recycling targets play in the adoption of recycled water?

#### **Corporation's Response**

The policy to set the target to recycle 30% of wastewater was developed through an extensive, state wide consultation process during the development of the State Water Plan (not Recycling Strategy as per Issues Paper). The target was endorsed by Government and announced by the Minister for Water Resources in May 2007.

The Corporation notes the extensive community consultation process undertaken to develop the plan and the Government's authority to set water policy objectives.

The recycling target is supported as it drives innovation, supports fit for purpose water use, assists in the timely development of supporting regulation (including pricing policies) and builds technical capacity.

The target is aspirational and no penalties are associated with any failure to meet it. It has not resulted in the inefficient investment in recycled water in Western Australia. It is acknowledged that there some circumstances where the target makes no sense. For example, in the East Kimberley where significant water resources can be developed at a far lower cost with less environment impact.

#### Issue number

14) What role should rebates play in the adoption of recycled water?

#### **Corporation's Response**

None of the rebates in question relate to recycled water (as they do not involve the further treatment of water). They are perhaps out of the scope of this inquiry.

The rebate program was established by the State Government in 2003 further to the State Water Symposium and Strategy. Rebates have assisted in reduced reliance on scheme water by the community who have adjusted to reduced watering regimes.

There has been a reduction in residential consumption of about 20% since 2001 in Perth, without the need for severe water restrictions. Overall savings of 50 GL pa have been achieved that represents the avoided cost of more new sources such as desalination plants. The Corporation has undertaken costing on all of the rebates that show the cost to be less than \$1 a kilolitre for all rebates. Demand management represents a very low cost demand / supply alternative.

The Corporation supports the use of rebates as a part of broader water policy that positively influences changes in behaviour and encourages more efficient water use.

#### Issue number

What role should the reservation of recycling targets play in the adoption of recycled water?

#### **Corporation's Response**

The State Water Plan, developed through an extensive process of community consultation was released by the Minister for Water Resources in May 2007.

Objective 5 "Enhance the security of water for the environment and use" recognises that environmental water provisions have security to ensure sustainable ecosystems. The next principle states that "Water may be reserved for future public water supply and other high value uses".

These principles reflect water policy nationally, and more broadly, internationally. The provision of water to safeguard ecosystems and provide essential water to communities is a high priority for Governments' and communities around the world and in Australia.

This is reflected in legislation in other states where town water supplies have highest security. In Western Australia, it is also reflected in water allocation plans that reserve water for public water supply.

The role of water policy is to address issues where market mechanisms are inadequate or may fail to safeguard the public interest. The auctioning of water for public water supply is overly simplistic.

The Corporation supports water policy of the State Water Plan 2007 and the State Water Recycling Strategy that have been endorsed by Government and released by the Minister for Water Resources.

It should also be noted that the State and Federal governments are jointly funding a \$37.5 million investment in the Groundwater Replenishment Trial at Beenyup. The reservation of water from Beenyup wastewater treatment plant for possible future use in public water supply was approved by Government in the State Water Recycling Strategy to ensure the maximum return of investment in this trial.

The reservation of recycled water for public water supply and other high value uses, is supported.

#### Issue number

What role should mandatory standards play in the adoption of recycled water?

#### **Corporation's Response**

Mandatory standards, such as Building Codes, play an important role in ensuring appropriate standards that reflect the needs of the community. These standards may pertain to public safety, public health, durability, liveability and sustainability. Cost effectiveness is one consideration in the setting of building codes.

There is a long history of association with water standards in building codes including plumbing standards and water efficiency. The mandating of dual flush toilets is one example.

The changes to the Building Codes announced by Government that ensure homes are "alternative water source ready" reflect community support for increased access to alternative water sources. While the additional cost of the standard is minimal, the cost of retrofitting for these changes is prohibitive. Mandating standards for homes protects consumers from inappropriate and poor design and construction, excessive future costs and promotes future flexibility and choice.

The Corporation supports the appropriate use of mandatory building standards, including standards that promote water efficiency and consumer choice.

#### Issue number

17) What views do interested parties have on access regimes as means for facilitating the adoption of recycled water?

#### **Corporation's Response**

Currently, third parties can access the Corporation's infrastructure through commercial negotiation. A recent example is Harvey Water agreeing to a temporary water trade in exchange for access to the Wokalup to Harvey transfer pipeline during summer.

In 2007, the Corporation, in consultation with other Western Australian government agencies, explored models for third party access in the WA water sector and examined the possibility of establishing a formal regime that is consistent with the Trade Practices Act.

The Corporation supports a State-based third party access regime with access charges based on a retail minus avoidable cost approach.

In relation to wastewater, the Corporation envisages the scope of services for a State based access regime to incorporate:

- Main sewers;
- Conveyance and reticulation mains (including pump stations and other conveyance infrastructure);
- Wastewater treatment plants; and
- Ocean outfalls.