

# Opportunities for Competition

Submission to the Economic Regulation Authority

Issues Paper – Inquiry on Competition  
in the Water and Wastewater Services Sector





## About the Department of Water

The Department of Water is the lead agency in the Government of Western Australia for the management of the State's water resources and lead adviser to the Minister for Water Resources on water policy and governance. These responsibilities include:

- water resource management and planning;
- water source protection;
- water governance;
- water services policy;
- water reform including the National Water Initiative, State Water Strategy and State Water Plan; and
- Indigenous water services.

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### Disclaimer:

The views expressed in this Submission are those of the Department of Water and should not be taken to reflect the views of the Minister for Water Resources or the Government of Western Australia.



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# 1 Introduction

- 1.1 This Submission is made in response to the *Issues Paper* released by the Economic Regulation Authority on 20 July 2007 to outline the direction of its *Inquiry on Competition in the Water and Wastewater Services Sector*. The approach taken in the Submission is to examine and guide the Authority on the issues and other matters that the Department considers relevant, rather than recommend any changes to the current arrangements or identify a preferred industry structure.

## Issues and challenges

- 1.2 The water industry in Western Australia is facing a number of issues and challenges that have raised the profile and scrutiny of the current industry structure. The issues and challenges include:
- supply constraints from traditional water sources due to reduced rainfall in the populated south-west region of the State as a result of climate change;
  - the greater need for sustainable water management practices to protect the environment and water supply for future generations of West Australians because of climate change;
  - increased demand for water services due to population growth and high business activity;
  - higher demand in regional areas due to population growth, business activity and potential higher demand through the relocation of agricultural activities;
  - cost pressures in the supply of infrastructure and the higher cost of services through measures such as targeted levels of water recycling; and
  - improving water supply and services to Indigenous communities.
- 1.3 There have been a number of State and Commonwealth Government initiatives in response to these issues and challenges - the *National Water Initiative [NWI]*, *State Water Strategy*, *State Water Plan* and the *Government Response to the Blueprint on Water Reform*.
- 1.4 The NWI has breathed new life into the development of a more market-based approach to water resource management and water services.





Under the NWI the State has an obligation to continue with the 1994 COAG Water Reform Agreement framework for best practice pricing principles [including pricing to signal full water costs] and institutional arrangements would continue to be further defined. The development of an institutional framework for water resource management, including water trading, is an important part of the States' NWI obligations.

## Expected benefits of competition

1.5 The expected benefits of competition include:

- greater efficiency in service provision and lower cost structures;
- innovation in water technology, management practices and water use;
- an increase in available funds for investment in infrastructure;
- deepening of the capacity of the water industry, adding to security of supply and services;
- improved response by water service providers to customer needs;
- improved risk management practices in water service provision; and
- greater flexibility in water supply and service options in a period of greater uncertainty.

1.6 An underlying benefit is that the dynamics of competition can create and grow community wealth through new businesses, enhanced business opportunities, shareholder wealth and employment opportunities. It is this beneficial impact on the broader economy - allocative and dynamic efficiency - that has been a major reason for past competition reform and not just, for example, the prospect of lower prices to consumers of the utility/industry.

1.7 Not all of the benefits of competition can be prescribed in advance as they depend very much on dynamic pressures that are characteristic of a competitive market.

## Precedents with National Competition Policy

1.8 The main outcome of a decade of change under the National Competition Policy [NCP] framework has been to change the command and control approach to the provision of what can be loosely described



as “essential services” to a market-based approach to service provision. More than anything else this approach has required a change in the mindset of the public, service providers and importantly Government. What have previously been considered “essential” services are now being successfully provided by private and government-owned commercial organisations in a competitive market environment supported by effective regulation that addresses the public interest.

- 1.9 Under the NCP framework there has occurred the separation of the operations of vertically and horizontally integrated government monopolies in electricity, gas and other industries into new entities, contestable market segments and the introduction of competition. In these infrastructure industries the creation of contestable markets and the influence of competition have in many cases stimulated investment, significantly lowered prices and improved services as the benefits of competition and efficiency gains have been passed on to consumers.
- 1.10 So far, the reform of the water sector in Western Australia and elsewhere has lagged behind other essential service industries. Traditional arguments to explain this slow progress sometimes emphasise that water has higher natural monopoly characteristics that do not readily lend themselves to exposure to competition [for example, pipe networks and large scale infrastructure such as wastewater treatment facilities]. Also, water is not typically a direct cost to business in the same way as say, energy, and as a consequence there has been less pressure for reform. There may also be an underlying concern that water is the most essential of essential services for which there is no substitute and because of this characteristic only Government can be trusted to provide the service in the public interest.



- 1.11 There have been past attempts to achieve greater efficiency, value for money and innovation in the water sector in Western Australia through competitive pressures under the NCP framework. A review of these past attempts forms part of this Submission.

## Recommendation 1

The Authority recognize in the Inquiry:

- that competition is generally a better model of service delivery than monopoly and that precedents exist for capturing the benefits of competition in other essential services industries;
- the benefits of competition can be difficult to foresee and assess as they often involve unexpected outcomes that emerge through dynamic market pressures;
- any costs associated with competition and/or the transition to a competitive environment need to be assessed against the costs of monopoly service and no change; and
- that service delivery models vary from jurisdiction to jurisdiction and it is a matter to develop the model that best suits the needs of the Western Australian environment and market.





## 2 Public and commercial interests

- 2.1 Competition policy is traditionally driven by economic criteria that are based on achieving economic outcomes considered to improve the overall welfare and prosperity of the community. In times of water scarcity, social and environmental criteria may be more important to the community than traditional economic criteria, although they may not necessarily be mutually exclusive. For example, while price and cost of service are important, they would not necessarily be ranked ahead of security of supply and safety of drinking water [although it needs to be recognised that a price and cost structure that results in a profitable business can be an important path to security of supply]. Further, competition criteria such as promoting efficient and competitive outcomes in upstream and downstream markets may be of limited relevance in some sectors of the water industry where there are few markets for water as a commercial product and many businesses rely on self-supply. The community might rank recycling and sustainability of water use ahead of these types of efficiency gains.
- 2.2 Recognition of the public interest is paramount in not only guiding the focus of this Inquiry but also in addressing any community concerns that might arise through a proposed process of reform to existing industry structures to capture the benefits of competition.
- 2.3 The Department believes that the public interest in the water sector can largely be defined by the following outcomes:

### Security and reliability of supply

Access to reliable potable water is a basic human right. The drying of the climate, a growing population and high levels of business activity have meant that new potable water sources have to be found and developed. Access to and security of supply has always been an issue in regional Western Australia, especially in remote regions, but has also become critical for the populated regions such as Perth and the South West.

Security and reliability of supply involves:

- planning supply capacity and demand growth;



- evaluating the capacity of existing water sources;
- identifying and evaluating potential new water sources;
- equitable access and licensing arrangements;
- investment in infrastructure and capacity;
- operational management; and
- risk management

To achieve these outcomes requires a dedicated and coordinated approach to water resource management and bulk water supply with clear responsibilities and accountabilities. While sound governance arrangements can greatly diminish the risk of failure in supply, there is a general community expectation that Government be the supplier of last resort.

### **Quality and safety**

The community has a right to expect safe drinking water and water use that does not adversely impact on either the health of the public or the environment.

### **Sustainability of supply**

The environment and future generations of Western Australians are stakeholders in sustainable water resource management practices. Water resource sustainability requires sound knowledge of existing and potential water resources and sustainable management practices. Part of the sustainability framework is the use of recycled wastewater and more efficient water use.

### **Prices based on efficiency and scarcity**

As an essential service, the cost of water affects most households in Western Australia. Efficiency through all phases of the total water cycle is an essential part of keeping prices and price increases to a minimum. In times of relative water scarcity recent research [*Water for a Healthy Country – the Economics of Supplying Water to 5 million more Australians*, CSIRO 2006] has the suggestion that the public has a greater willingness to pay more for water. Hence, greater efficiency in the provision of water services that results in lower prices would be a perverse result during a period of water scarcity.



## Responsiveness to customer needs

A “one size fits all” approach to the provision of water services or a “take it or leave it” approach limits customer service options and diminishes innovation in water supply development and use. The industry structure should encourage the innovative and timely development of water supply options and water service and use practices. Innovation is hard to achieve in a rigidly planned or monopoly environment and develops best through the workings of competition in a market environment.

## Impartial, transparent and effective governance

Governance arrangements that are not impartial, clear and easily understood are an impediment to sound water resource management and diminish public confidence in the water industry, irrespective of its structure. Impartiality involves not only fairness to the customers of water services, but also supports a level playing field in the provision of water services.

## Commercial interests

- 2.4 In addition to the above criteria, the Authority may want to consider commercial criteria such as **profitability** as a key objective in the context of competition. A profitable industry will foster competition and ensure that there is sufficient capital and revenue for sound risk management, service provision and investment in the industry.
- 2.5 The Department sees balancing the public interest with commercial interests as a key issue in any proposals for reform of the industry to foster competition. In this regard, the attention of the Authority is drawn to the segmentation of the industry in other State jurisdictions and discussed in Section 10 of this Submission.

## Recommendation 2

The Authority recognize the need to develop criteria that account for both the public and commercial interests to assess the relative merits of alternative approaches to competition.



## 3 Early attempts at competition

- 3.1 When the COAG competition policy reforms and the water service licensing framework were first being developed in 1995, the Water Industry Restructure Implementation Group [WIRIG] sought to design a new structure for the water industry in Western Australia. Part of the framework envisaged in Policy Paper R-4A was for the operating licensing policy to provide a means “*by which other providers can enter the market*” and more generally that “*the corporatised utility [the Water Corporation] is in the same situation as other licensed service providers*”. The only concern raised at the time was that new service providers were not just given access to the low cost areas of the Water Corporation [that is, cherry picking]. For this reason, the WIRIG recommended that the newly created Office of Water Regulation publish performance comparisons between various water service providers and using these benchmarks to assess whether companies are inefficient or achieve excess profits as a substitute for market competition.
- 3.2 In support of the perceived need for competition and industry development, the *Water Services Coordination Act 1995* provided a statutory duty on the Coordinator for Water Services to promote competition. In these duties the Coordinator was supported by the Office of Water Regulation, a small office of about 25 people.

### Emergent opportunities

- 3.3 The emergent opportunities for competition and new entrants were seen to be:
- the development of greenfield sites – that is, new residential developments that required water services. Under the licensing system the new development site could be declared a controlled area and assigned to the successful water service provider;
  - “inset” appointments, in which part of an existing controlled area would be excised out and created as a new controlled area and assigned to a different service provider; and





- boundary opportunities, whereby competitive opportunities might occur at the boundaries of operating areas serviced by alternative water service providers.

## Competitive processes

3.4 The competitive processes run by the Office of Water Regulation included:

- Dalyellup [won by Water Corporation];
- Kemerton [won by Water Corporation];
- Coral Bay [won by Kaiser Engineering, but subsequently transferred to the water/sewerage scheme now run by the Water Corporation]; and
- Preston Industrial Estate [won by Aqwest]

3.5 None of the early attempts at competition in the water industry proved successful and with the exception of Dalyellup were not of any significance in terms of scale. Reasons for this outcome include:

- lack of participants in the industry of any significant size relative to the Water Corporation;
- the Water Corporation is the only service provider eligible for Community Service Obligations to support loss-making services;
- the Bunbury and Busselton Water Boards can not compete on equal terms with the Water Corporation and are only able to service their locality with potable water supplies under very restrictive operating legislation.

More general impediments to competition included:

- the vertically integrated structure of the Water Corporation ensures that it is involved in the complete water cycle – source location, planning, supply, treatment, distribution and retail services. This vertically integrated structure gives the Corporation an advantage over potential new entrants and competitors;
- until recently, service providers had exclusive service rights within their operating areas. These operating areas were effectively regional monopolies; and





- statutory provisions that favour or empower a particular service provider [refer Appendix 1].

## Need for a level playing field

- 3.6 The past experience and limited opportunities for competition highlight the importance of a level playing field in the regulatory, legislative and institutional framework to foster competition that does not either unfairly advantage or disadvantage existing and potential industry participants.

### Recommendation 3

The Authority:

- examine and assess the failure of earlier efforts to develop a competitive environment in the water industry; and
- examine the need for a level playing field to support the development of competition in the water industry.



## 4 Creating a level playing field - water law reform

- 4.1 The Department of Water is currently undertaking a major water law reform project. This project is looking at the legislative framework for water resource management and the provision of water services in Western Australia. Bills are presently being drafted and it is intended that they be introduced to Parliament from November 2007.

### Water Services Reform

- 4.2 In summary, the following Acts are included in the water services reform process:

- *Water Agencies [Powers] Act 1984;*
- *Country Areas Water Supply Act 1947;*
- *Country Towns Sewerage Act 1948;*
- *Land Drainage Act 1925;*
- *Metropolitan Water Authority Act 1982;*
- *Metropolitan Water Supply, Sewerage and Drainage Act 1909;*
- *Rights in Water and Irrigation Act 1914;*
- *Water Corporation Act 1995;*
- *Water Boards Act 1904;* and
- *Water Services Licensing Act 1995.*

- 4.3 It is intended that the 10 existing water-service related acts will be replaced by two - a "*Water Corporations Act*" that will cover the governance of Government owned water utilities and a "*Water Services Act*" that will set out the provisions for regulating and providing water services that will apply to all utilities.

The primary focus of water service legislation reform is the modernisation and streamlining of a range of water service Acts that have been introduced and amended over the past 100 years. Most of this legislation, although subsequently amended, was put in place at a time before corporatised or private sector participation in the water industry was considered possible.



As recommended by the National Competition Review of the *Water Board Act 1904*, the new legislation will:

- remove barriers to competition imposed by that Act. The Bunbury and Busselton Water Boards are to be brought under a water corporations Act which will enable them to provide the full range of water services and operate outside their currently constrained areas of operation. The existing arrangements for extending provisions to new entrants to the water services industry will be streamlined and simplified;
- specifically recognise Community Service Obligations and enable these to be provided to all licensed service providers;
- give the Minister authority to regulate prices for all licensed service providers; and
- strengthen the capacity of the Economic Regulation Authority to undertake audits and investigations into water service providers.

## Water resources reform

4.4 In relation to water resource management legislation, part of the legislative reform programme is the *Water Resources Legislation Amendment Bill 2006*. The Bill has been passed by the Legislative Assembly and is before the Legislative Council in the current Session. The Bill:

- abolishes the Water and Rivers Commission by repealing the *Water and Rivers Commission Act 1995* and makes necessary consequential amendments to various Acts;
- establishes the Water Resources Council to facilitate representative engagement in water resource management, water use and conservation across a wide range of people;
- allows the Minister to establish advisory committees to advise the Minister on the administration of water legislation;
- establishes a Water Resources Ministerial body through which the Minister can exercise statutory functions that are more conveniently undertaken by a body corporate, such as dealings in land, property and assets. The Commission's freehold land will be transferred to this Ministerial body;
- requires the Minister administering the Water Corporation to consult with the Minister for Water Resources before approving



the statement of corporate intent and the strategic development plan for the Corporation;

- enables the Minister for Water Resources to direct the Water Corporation and the Bunbury and Busselton Water Boards to have regard for the general policy of the Government relating to water resources. Also, the Bill enables the Minister for Water Resources to obtain information relating to water resource management; and
- sets out the functions of the Minister, providing a formal basis for cooperation and information exchange between the water resource manager and water service providers.

4.5 Further and more significant legislative change is anticipated to occur in 2008 through dedicated water resources legislation. The legislation will consolidate and reform the law of water resource management. It will incorporate certain legislative amendments proposed under the *Water Resources Legislation Amendment Bill 2006* and replace the water resource management provisions of the:

*Rights in Water and Irrigation Act 1914 [RiWI Act];  
Metropolitan Water Supply, Sewerage and Drainage Act 1909 and  
Metropolitan Water Authority Act 1982;  
Country Areas Water Supply Act 1947;  
Land Drainage Act 1925;  
Waterways Conservation Act 1976; and  
Water Agencies [Powers] Act 1984.*

The consolidated water resources legislation will address:

- statutory requirements for water resource management;
- water entitlements;
- water management planning;
- water sharing;
- water trading;
- volumetric meter charging regimes; and
- water allocation licensing



## Recommendation 4

The Authority note the extensive water legislation reform program currently being undertaken in the context and directions of the Inquiry.





## 5 Comparative competition and performance monitoring

- 5.1 Comparative competition is an attempt to use industry best practice for regulatory outcomes in the absence of competition. The intention is to use actual performance outcomes to assess industry and firm performance as a basis for regulation rather than rely on regulatory assumptions and theoretical modelling.
- 5.2 An ideal situation with comparative competition is to have identical or very similar utilities with at least one operating in a competitive market. Through a direct comparison of costs and services between utilities the regulator is able to track and assess the relative efficiency of the regulated utility. The intention is to encourage the transfer of least cost practices and/or highest service standards to the regulated utility. There needs to be regulatory incentives for a utility to profit from lower costs vis-à-vis the comparative utility or lose profit if it fails to reduce costs vis-à-vis the comparative utility. The larger the number of utilities then the better the chance the regulator has of reaching an economically efficient outcome rather than just a relatively efficient outcome.
- 5.3 One advantage that comparative regulation may have over, for example, regulation that focuses on measuring an efficient cost of service and targeting an efficient price such as one equal to the long run marginal cost, is that comparative regulation does not require the same degree of information identification and there is less risk of encountering problems of asymmetric information.

### The UK Experience - Ofwat Approach

- 5.4 Comparative competition regulation has been used most notably in the UK by the national economic water regulator Ofwat [Water Services Regulation Authority]. In assessing the use of comparative benchmarking in Western Australian water industry it is instructive to consider the Ofwat methodology and experience.
- 5.5 In the UK there are 10 water and wastewater companies and 12 water only companies. Within the areas of operation each company has a



monopoly and customers have no choice of supplier. There is limited scope for competition. The *Water Act 2003* introduced scope for new entrants to supply customers using at least 50ML per year [of which there are about 2,200]. So far only 5 licences have been granted to new entrants and it is understood that as at December 2006 there are no customers being serviced. Inset appointments [that is, excising part of the operating area to allow for servicing by a new operator] have been available since 1992 but so far only 11 customers have taken advantage of them. Hence, there is minimal competition in the industry and the regulator sees the need for comparative regulation as essential.

- 5.6 For comparative regulation to work, Ofwat sees the need for a significant number of companies to be grouped according to size, reflecting the existence of economies of scale. In addition, Ofwat makes use of econometric modelling that requires a minimum number of observations to be statistically meaningful.
- 5.7 A number of indicators are used to assess the relative performance of each company and to drive competitive pressures. The indicators cover the areas of:
- operating expenditure and efficiency;
  - capital maintenance;
  - security of supply;
  - quality enhancement for drinking water;
  - customer service;
  - tariffs;
  - revenue;
  - financial performance;
  - transfer pricing;
  - ring fencing;
  - corporate governance; and
  - competition.
- 5.8 Details of the methodology are set out in *Ofwat's initial submission to the Competition Commission following the acquisition of South East Water by United Utilities Trust of Australia and Hastings Diversified Utilities Fund* [2006]. In practice, Ofwat uses a series of measures and scales by which to rank a utility within each indicator. For example, in assessing overall operating performance, Ofwat uses a scale in which



the maximum score is 288 and the bottom score was 241. For operating cost efficiency, companies are ranked on a scale of A to E, with A the most efficient. The serviceability of a company's assets is assessed on a scale of deteriorating, marginal, stable and improving. Ofwat requires all companies' assets to be ranked as stable by 2007-8.

- 5.9 Ofwat sets a maximum price that companies can charge for their services. Companies must keep the year-on-year weighted average price rise for water and sewerage services within a limit of the Retail Price Index plus or minus and adjustment factor called K [RPI plus or minus K].
- 5.10 Each year Ofwat issues five annual monitoring reports on how the companies are performing and a set of actions that the poor performers must undertake to improve.

## Comparative competition v performance monitoring

- 5.11 Comparative competition should not be confused with performance monitoring, such as that being undertaken under the National Water Initiative. Under the NWI framework there is annual reporting of prices and service quality for urban and rural water utilities. The reporting provides a comparison over time and between utilities but does not report against predetermined or regulatory outcomes or benchmarks. Moreover, there is no suggestion that the benchmarking be used to establish targets and incentives such as those which occur under comparative competition. Hence, the NWI initiative cannot be interpreted as a move towards comparative competition but rather as performance monitoring which may provide useful benchmarks for both internal administration and external scrutiny.
- 5.12 The National Water Commission's Consultation Paper: *Draft National Benchmarking Framework: Performance Reporting Model for Urban Water Utilities, 2006* emphasises the difficulties and challenges in designing a national benchmarking framework. Issues include:
  - different and complex legislative and policy arrangements;
  - reconciling the obligations imposed on water utilities by Governments, regulators and customer service needs and preferences;



- striking an appropriate balance in the approach to benchmarking between the needs of customers, businesses, policy makers and regulators;
- different operating environments and the need to account for these differences in the benchmarking exercise; and
- ensuring the data collections are efficient given the existing reporting requirements [that is, not adding an additional layer of red tape].

5.13 In addition to the above issues, comparative competition within Western Australia would be impractical because of the lack of industry participants, especially of a similar size to the Water Corporation. This lack of industry participants makes it difficult if not impossible to establish regulatory benchmarks that are robust and statistically meaningful.

## International performance benchmarking

5.14 It is understood that there is an increasing focus of the use of performance benchmarking in countries such as France and Germany and the Authority may find the benchmarking methodology of the International Water Association of some interest. In this context, performance benchmarking is being used for both internal contract management as well as external assessment.

### Recommendation 5

The Authority recognize:

- that true comparative competition is not a practical option for the regulation of the water industry in Western Australia; and
- that performance benchmarking offers the opportunity for some external assessment but needs to be undertaken on a level playing field.





## 6 Third party access

6.1 The development of a third party access regime for water has been part of the COAG reforms from the mid 1990s. Since that time there has been a significant number of reports and studies about the introduction of a third party access regime for water. A general focus has been an assessment of which components of the water industry meet the six criteria prescribed under Part 111A of the Trade Practices Act. These criteria are:

- that access to the service would promote competition in at least one market other than the market for the service;
- it would be uneconomic for anyone to develop another facility to provide the service;
- that the facility is of national significance;
- that access to the facility can be provided without undue risk to human health or safety;
- that access to the service is not already the subject of an effective access regime; and
- that access to the service would not be contrary to the public interest.

6.2 There are three mechanisms to facilitate third party access:

- an effective State or Territory access regime;
- an owner or service supplier developing a framework for access negotiation. If such a framework is approved by the Australian Competition and Consumer Commission [ACCC] then it is not open to declaration [see below];
- if there is no effective State or Territory regime and no owner access arrangement the infrastructure can be “declared” by the Australian Competition Tribunal on application by a consumer. Under the declaration arrangements, the ACCC becomes the arbitrator in any dispute on terms and conditions.

6.3 This early work has identified the most suitable areas for the introduction of a third party access regime to be:





- potable residential water in metropolitan regions such as Perth. Regional water supply might not meet the national significance test;
- wastewater treatment and distribution networks, especially if there is a prospect of lowering the cost of recycling water; and
- irrigation for agricultural production.

6.4 Concurrent with the development of a third party access regime, it was recognised that there was a need for other water reform initiatives to be developed, especially pricing reforms and at least the ring-fencing of the water business subject to a third party access arrangement to identify relevant assets and costs.

## Precedent with Services Sydney

6.5 On 21 December 2005 the Australian Competition Tribunal “declared” three sewage transport services supplied by Sydney Water for a period of 50 years:

- a service for the transportation of sewage provided by means of the North Head Reticulation Network, from a customer’s boundary trap to points of interconnection;
- a service for the transportation of sewage provided by means of the Bondi Reticulation Network, from a customer’s boundary trap to points of interconnection;
- a service for the transportation of sewage provided by means of the Malabar Reticulation Network, from a customer’s boundary trap to points of interconnection.

6.6 In declaring these services the Tribunal identified three separately defined markets that are dependant on the declared services – the sewage collection market, the sewage treatment market and the recycled water market.

6.7 Services Sydney intention is to intercept and divert sewage to a new sewage treatment plant and water reclamation infrastructure that will extract water from the sewage for reuse. The ACCC reports that Services Sydney stated :

*“Services Sydney proposes to construct a deep tunnel between these three major Sydney ocean out-falls. This tunnel would transfer sewage*



*that normally goes out to sea to new world-class water reclamation facilities.”*

Further, Services Sydney is reported to have stated that the recycled water could be transferred back to the Hawkesbury-Nepean River for environmental river flows and a range of other uses, with future use determined by community choice.

- 6.8 On 6 December 2006 Services Sydney notified the ACCC of an access dispute with Sydney Water in relation to the methodology for pricing access. Services Sydney proposed a bottom-up building block approach methodology whereas Sydney Water proposed a retail-minus methodology [with avoidable costs calculated using a building block approach].

A bottom-up methodology calculates access prices by building up the various “blocks” of costs associated with providing declared services. These costs include capital costs [including a rate of return], operating costs and indirect costs.

A retail-minus methodology is a top-down methodology that calculates access prices by subtracting from retail prices the cost of contestable activities associated with supply in the downstream market.

The prices that Sydney Water may charge for sewerage are regulated by IPART. Sydney Water may not charge a price higher than the IPART determination and it may only charge less than the determination with the approval of the NSW Treasurer. IPART’S determination on Sydney Water’s sewage services are based on a notional annual revenue requirement for Sydney Water for the provision of sewage services that are derived from the building block model. Separate notional revenue requirements are determined for water supply, sewage and stormwater functions.

For residential services the price of sewerage comprises an annual fixed charge per property of \$378.86. This charge is uniform throughout the Sydney region. Sydney Water sought a contribution towards the maintenance of the uniform prices on the grounds that the declared services made a significant contribution towards the maintenance of the uniform prices. Services Sydney opposed the contribution.



- 6.9 On 22 June 2007 the ACCC determined that the access price is to be Sydney Water's regulated retail price for those customers minus Sydney Water's avoidable costs, plus any facilitation costs associated with providing access. This determination is the first application of access pricing to the water and sewerage industry in Australia. The determination is also the first made in respect of an access dispute under Part 111A of the *Trade Practices Act 1974*.
- 6.10 Services Sydney has applied to the Australian Competition Tribunal for a review of the determination by the ACCC.

## Issues with Access Pricing

- 6.11. Access pricing is problematic in designing an effective third party access regime. Issues include:
- an access regime that seeks to apply an efficient pricing structure has an underlying assumption that may not be a true reflection of risk and hence a fair return. In an efficient price structure, the rate of return on capital approximates a risk free return. Yet third party access typically requires significant capital outlays that would not be considered a risk free investment by the proponent. That is, the access regime has an inherent assumption that there is a level playing field with risk and this might not be the case;
  - the incumbent has market and production knowledge that would allow for what can be described as margin squeeze – that is, the transfer of costs out of the infrastructure/service for which access is being sought to make it appear to be lower cost than occurs in normal operations. Creative accounting could accommodate a similar outcome that impedes access; and
  - competition and third party access is not just about price but the aim should be to capture the whole dynamics of competition. These dynamics include innovation in technology and management practices, new product development, public choice, stimulation of secondary industries and so on. It is difficult to see how an access regime based on price alone can capture these broader elements of competition.



It is understood that price of access based on retail minus approach has proved to be an impediment to the introduction of third party access in the UK.

## Towards a third party access regime for Western Australia

6.12 A template for the development of a third party access regime for Western Australia is provided below.

### Recommendation 6

The Authority:

- note the precedent set by the Services Sydney/Sydney Water access dispute;
- develop an effective State-based access regime that is tailored to the industry in Western Australia, based on the NCP criteria; and
- recognize that access pricing arrangements have proved to be an impediment to access in other jurisdictions.



## Towards a Third Party Access Regime for Western Australia

1. Recognise that a precedent has occurred with Services Sydney/Sydney Water which can be expected to have flow-on effects throughout Australia.
2. Seek to design a Western Australian access regime that is considered to be effective rather than through a declaration by the Australian Competition Tribunal.
3. Review and strengthen the regulatory regime to ensure that it supports a third party access regime.
4. Develop a pricing policy that supports access through a) the recognition of risk in the undertaking b) uses incentives on all parties to encourage efficiency, improved service standards and innovation.
5. In the absence of industry segmentation, ensure that there is appropriate ring-fencing of the infrastructure/service subject to the access arrangement to minimise margin squeeze and to determine the true assets and costs relevant to the access arrangement being sought.
6. Recognise that competition and market development take time.





## 7 Water trading

- 7.1 The aim of water trading is to convert water into a commodity of commercial value so that water use will become more efficient through market mechanisms that should result in higher value water use.
- 7.2 Water trading involves the voluntary sale of water from a willing seller to a willing buyer and requires the development of a formal system of access entitlements and a water registry to assign property rights. Under the National Water Initiative [NWI], statutory water plans are to become the vehicle for the development of trading, with the plans addressing both water resource access and the regulatory requirements.
- 7.3 The introduction of water trading is central to the NWI and has been a major focus of State-based initiatives such as the *Government's Response to the Blueprint for Water Reform in Western Australia 2007*. Increasing trade in water has the potential to deliver improvements in:
- the way water resources are allocated [by facilitating the movement of water to high value uses];
  - improving access to water supply thereby opening up water resources; and
  - creating incentives to improve the efficiency of water use.

An effective and functioning water market depends upon a number of underlying conditions being met. At a fundamental level, there will be little or no incentive to trade water entitlements or seasonal allocations where water is freely available, and/or where existing water use is unmeasured.

### NWI - Principles for trading rules

- 7.4 *Schedule G* of the *NWI Guidelines* provides principles for water trading that include the types of restrictions that are permitted under the NWI. These principles include:
- water access entitlements may be traded either permanently, through lease arrangements or through other trading options that may evolve over time;



- all trades are to be recorded on a water register;
- restrictions on extraction, diversion or use of water resulting from a trade can only be used to manage a] environmental impacts b] hydrological, quality and hydrogeological impacts c] delivery constraints d] impacts on river and aquifer integrity e] features of major indigenous, cultural heritage or spiritual significance;
- a trade may be refused on the basis that it is inconsistent with the relevant water plan;
- trades must not result in unsustainable yields being generated;
- trades in over-allocated areas may be permitted subject to long term management conditions;
- where necessary water authorities will facilitate trading by specifying trading zones and providing information such as exchange rates to apply to trades;
- trades in water allocations may occur within common aquifers or surface water flow systems consistent with water plans;
- immediate removal of barriers to permanent trade out of water irrigation areas up to an annual threshold limit of four per cent of the total water entitlement in that area, subject to a review by 2009 with a move to a full and open trade by 2014 at the very latest [except for the Murray-Darling]; and
- where appropriate, the implementation of measures to rationalise inefficient infrastructure or unsustainable irrigation supply schemes.

7.5 Legislation in other jurisdictions tends not to contain explicit provisions for water trading regimes. Instead, the legislation contains a list of principles that are to guide the overall implementation and interpretation of the governing legislation or specific principles that are to guide the development and application of water resource management plans [or their equivalent].

One of the main objectives of the NWI reforms is to better define and strengthen the property rights attached to water entitlements and allocations. The eventual design of water entitlements and the rights and restrictions attached to them will be critical to determining the success of a water trading market. The separation of land and water, and the unbundling of existing rights and licences provides for the improved definition and ownership of the 'rights to water'. Greater security of water entitlements is to be achieved through strengthened registries, which provide security of title, investment and financing.



Statutory water plans based on the best available information will provide increased certainty of access to entitlements.

## Impediments to trading in Western Australia

7.6 Impediments to water trading in Western Australia include:

- limited water resources and a more scientific focus on the environment's share of water resources will put pressure on water allocations and hence water availability for trade [a converse outcome is that limited water availability will increase the incentive to trade];
- the trading framework is still under development, including the separation of water and land titles, and will require legislation;
- many aquifers and catchments in Western Australia are not over-allocated or in high allocation bands (refer Appendix 2); and
- lack of natural connectivity between groundwater systems will result in higher infrastructure costs and is likely to impede trade between regions and over long distances, although this cost needs to be balanced against the price of the water.

7.7 In a 2006 report commissioned by the Department, Marsden Jacob notes that the much greater importance on groundwater in WA and the necessity to restrict trade within each groundwater management zone means that the potential for multiple, small monopolies in water may be much higher than it is in the large surface water systems of the eastern States. However, it is also noted that there are a number of factors that are likely to limit the emergence of small monopolies, including:

- a reluctance for users in these regions to permanently sell their water when they are not selling their land [meaning there may be limited opportunities for the accumulation of large volumes of unused water entitlements];
- regional peer pressure among user groups; and
- meaningful pricing regimes which charge for the entitlement to access the resource rather than the volumes actually taken provide a signal against hoarding.

In addition, Marsden Jacob claim restrictions on entitlements as to who may hold titles to the assets in question may simply limit the size of the markets which will often already be inherently small, restricting its



efficiency and increasing the potential for monopoly rents to be gained by those favoured by the restrictions [typically irrigators].

- 7.8 In other jurisdictions there are restrictions on who may participate in the market. For example, in Victoria no more than ten per cent of the total water share in any system is permitted to be held unattached to land. Marsden Jacob counsel in the report on water trading that *'further consideration might be given to the desirability and practicality of setting, a percentage limit in the volume of permanent entitlement that a single individual or corporate entity might hold for trading purposes over and above productive purposes'*. The *Government Response to the Blueprint on Water Reform* indicates that Western Australia will not be restricting ownership of entitlements, but instead will rely on regulatory provisions to protect against anti-competitive behaviour.
- 7.9 Regardless of the regulatory restrictions, in practice there will be a number of restrictions on who can participate in water trades as a result of the peculiarities of the water market. For example, inter-sectoral and inter-regional trade will be limited by water availability, lack of natural connectivity between groundwater systems and infrastructure costs. Trade may also be inhibited because of restrictions in movements out of water areas detailed in the statutory management plans and under environmental considerations. In practice, trading is most likely to occur in agricultural and mining regions where there is local water availability and business demand.

## Recommendation 7

The Authority note that:

- water trading may become important in some regional areas but is not expected to be a significant source of potable water for the large population areas of Western Australia unless new water sources are developed from, for example, the recycling of wastewater and stormwater collection; and
- windfall gains will be made by the sellers of water where the water has been sourced at no or little cost.





## 8 Regional services and community service obligations

- 8.1 The geography and population dispersion of Western Australia is problematic for the provision of any essential service outside the populated regions. Typically, there are higher costs in service provision, limited sources of revenue and difficulties in governance. Many services are loss-making and in most cases will remain so.
- 8.2 Community Service Obligations or CSOs paid to a service provider are intended to compensate for the provision of these loss-making services. Under current legislative arrangements the only water service provider eligible for CSO payments is the Water Corporation and the Corporation receives approximately \$350m per year under a formal agreement with the Government administered by the Department of the Treasury and Finance. Earlier in this Submission, the Authority is advised that part of the Government's legislative reform program being undertaken by the Department of Water is to extend eligibility for CSOs to all licensed water service providers.
- 8.3 Water services eligible for CSOs payments are: potable water supply development and service connections, sewerage and wastewater treatment, drainage. In the *Statement of Corporate Intent* the Water Corporation reveals the following breakdown of CSOs expected for 2006-07:

Non-commercial country services	\$232m
New or changed CSOs [for new services]	\$ 24m
Revenue concessions	\$ 80m
Infill sewerage program	\$ 32m

- 8.4 Payments of the order of \$350m per year are large enough for the public to want to get value for money and under current arrangements there are no incentives for this to occur. Competition for the payments from alternative service providers offers the opportunity to increase value for money, although in practice this outcome will depend on a] the existing level of efficiency b] the existence and willingness of alternative service suppliers c] the independence and transparency in the process of payment allocations and d] ongoing assessment and governance of the arrangements.





## Regional service model

- 8.5 In the *Issues Paper*, the Authority has suggested that one alternative service delivery model for regional areas could be the establishment of a regional service provider involving the horizontal separation of parts of the Water Corporation's operations and functions. The Authority also suggests that this type of service delivery model might be more effective in a multi-utility such as those that exist in the Northern Territory and the ACT where power and water services are supplied by one utility, where economies of scale are more achievable.

The re-structure of regional electricity supply/services in Western Australia was based on a model of horizontal separation and offers a template for water reform through the amalgamation of regional electricity and water services. The Department encourages the Authority to investigate this service delivery model in detail in the Inquiry. The establishment of such a utility would not only introduce the opportunity for competition in the provision of CSO payments and other water programs but through a dedicated regional service provider offer the prospect of improved service standards and greater efficiency. A further prospective benefit would be the water industry having greater diversity and capacity for competition in other areas.

- 8.6 An alternative or complementary approach to regional service provision is the encouragement of regional service providers such as the two water boards. This model has proved very effective in regional service delivery in limited form but is dependent on access to water supply and sufficient earning capacity to remain viable. Locally based wastewater treatment and reuse entities would be a variation on this approach.

## Indigenous water services

- 8.7 There are about 300 discrete Indigenous communities comprising about 17,000 people in Western Australia, typically located in regional and remote areas. The Department of Water has established a dedicated indigenous water service program to improve the overall standard of services to indigenous communities. Details of this initiative, including service provision are contained in the *Report to the Minister for Water Services on Water Services to Discrete Indigenous Communities, 2006* and the Report is available from the Department's



website. This Report highlights the need for a whole-of-government Action Plan to support the delivery of essential services to Indigenous communities as part of the *Bilateral Agreement on Indigenous Affairs*.

## Models of service delivery

- 8.8 There is currently a large variation between the models of water service delivery for these communities.

Aboriginal town-based communities [ATBCs] usually receive town-based services to the boundary, leaving the community responsible for infrastructure within the community [some support is provided in response to emergency breakdowns through the Department of Housing and Works' Town Reserves Regularisation Program [TRRP]].

Large and mid-sized communities located in remote areas and with populations greater than 50 are generally managed under the Remote Area Essential Services Program [RAESP], whereby Regional Service Providers [RSPs] maintain infrastructure, monitor and treat water supplies and conduct emergency repairs.

The water services for small communities of less than 50 people were in the past supported by the Commonwealth through ATSIC, but currently only receive support for emergency repairs through RAESP.

- 8.9 Meeting an agreed level and standard of service is an essential means of improving water services for Indigenous communities and thereby achieving health outcomes. The Department of Water has accepted a lead role in coordinating the agencies involved in water supply and plans to facilitate the improvement in water services to Indigenous communities by developing a single model of service delivery. This approach has State and Commonwealth support through the *Bilateral Agreement on Indigenous Affairs*.

It is also considered prudent to develop a single workable model in light of the proposed new Public Health Act which is likely to bind the State with respect to achieving prescribed water quality standards in Indigenous communities. The Department of Water's role will involve policy development, establishment of standards, coordinating and prioritising action and securing funding in conjunction with other agencies.

- 8.10 The developing model may include a 4-tier standard for water servicing, for Town-Based communities, Large Sustainable Remote communities, Medium Sustainable Remote communities and Small Sustainable Remote communities. The model will also incorporate



elements of the Sustainability Measurement Index, currently being developed by the Sustainable Environmental Health and Infrastructure Senior Officers Group [SEHISOG] and consistent with the State Planning Framework.

- 8.11 To achieve sustainable outcomes in supplying water to Indigenous communities into the future, the Department of Water is liaising with the Water Corporation as a potential water service provider that would be capable of delivering such a model. The Department of Water is also working with the Water Corporation, Horizon Power and Office of Energy to service communities together and achieve synergies between water and power service deliver.
- 8.12 In the context of this Inquiry it would be important to consider Indigenous service needs as a separate market segment and for the Inquiry to be cognisant of the Government response when considering alternative models of service delivery.

## Recommendation 8

The Authority:

- note the legislative proposal to extend eligibility for CSO payments to all licensed service providers; and
- examine if the lack of transparency in the current CSO payment arrangements are a serious impediment to determining value for money and the evaluation of alternative arrangements.

## Recommendation 9

The Authority is encouraged to evaluate the establishment of a multi-service utility to provide water services in regional areas.

## Recommendation 10

The Authority consider the needs of Indigenous communities as a special market segment for water services in the Inquiry and note the alternative models of service delivery.



## 9 Competitive tendering/procurement

- 9.1 Competitive tendering/procurement is a management practice that traditionally aims for either increasing value for money or the acquisition of skill and expertise rather than target the broader benefits usually associated with direct competition – innovation, upstream and downstream efficiencies – that lead to greater allocative and dynamic efficiency. As a result, the use of competitive tender/procurement models to capture competitive pressure needs to be carefully constructed and undertaken in an environment in which there is a clear definition of outcomes and the expected targets need to be clearly defined, measured and assessed.
- 9.2 Greater prospect for a competitive outcome will occur when there is significant competition in the procurement market and interest from potential bidders. Hence, there is a need to assess competition in the procurement market before going to tender. Other pre-tender assessments include:
- determining the cost of undertaking the function in-house, which might involve ring-fencing the function[s];
  - determining whether the function is a contestable function. If not and there are natural monopoly elements then the competitive tendering/procurement risks becoming a monopoly; and
  - the capacity to assign risk and responsibilities.

### Flexibility in application

- 9.3 The competitive tendering/procurement approach offers flexibility in both infrastructure provision and service delivery. For example, competitive tenders can be called for the supply of infrastructure such as wastewater treatment plants, desalination plants or pipe networks. The approach can also be used for the provision of services in part or whole and/or with a mix of infrastructure and service components in the tender.
- 9.4 The approach also allows for choice in ownership of assets and can accommodate both public or private ownership.





- 9.5 A further potential benefit is that the tender and subsequent contract arrangements can prescribe regulatory outcomes such as customer satisfaction standards, price and price increases, risk management standards and so on. In this context, there would be a need to reconcile the contract responsibilities with statutory and licensing obligations and responsibilities.

## Water Corporation model

- 9.6 It is understood that in 2004-05 payments to external parties accounted for approximately 50 per cent of the Water Corporation's total operating costs. The type of competitive tendering contracts used by the Water Corporation include:

- design and construction contracts;
- supply and procurement contracts;
- consultancy contracts;
- service contracts;
- agency contracts;
- manned plant hire contracts; and
- information technology contracts.

- 9.7 In 1995 the Corporation extended its competitive tendering arrangements by entering into two 'alliance contracts' for the maintenance and operation of the water distribution and sewerage infrastructure for the Perth metropolitan region.

The contracts, which are separated geographically by the Swan River, were awarded for five years with an option for a two-year extension. In 2002, the alliance contracts for operation and maintenance in the Perth region were put to tender for a second time. Thiess was awarded the contract for service provision to the North of the Swan River, while United KG, operating as Western Water Services, retained its contract for service provision to the south of the river.

## Closed tender model

- 9.8 A variation on the tender/procurement model is the closed tender model. Under such an arrangement, the incumbent would be ineligible to compete if the intention was to encourage market deepening in the





supply of services. A closed tender model raises other considerations, namely concerns around allocative efficiency and whether excluding a major player leads to a sub-optimal allocation of resources. These issues and others would need to be considered in any evaluation of this approach.

## Avoiding conflicts of interest

- 9.9 The scope for competitive outcomes is impeded through inherent conflicts of interest in the tendering process. For example, having a major retail provider responsible for or heavily involved in tenders for bulk water supply may raise concerns about commercial criteria for the retail sector having greater importance than the public interest criteria for the bulk water sector.

## Limitations on competition benefits

- 10.0 The competitive tender/procurement approach offers the opportunity for more efficient service provision in limited form. There are still elements of the command and control approach that is not necessarily conducive to innovation in services and by itself would not capture the expected benefits of competition reform that go well beyond reducing cost and capturing technical efficiencies.

Two examples of how the model can be of limited value in achieving an efficient outcome are:

- assume a monopoly service provider charges for a service at cost, say \$100, and then goes to competitive tender for the supply of the service and is able to reduce the cost to \$80. There is no guarantee that the more efficient outcome will be passed on to the customer and the cost reduction could result in higher profit. The uniform pricing arrangements are of particular relevance here as this arrangement makes efficiency gains achieved through competitive tendering profit to the service provider and effectively negates the value of competitive tendering as an instrument of competition policy; and
- assume that a service provider goes to tender for the supply of infrastructure and a bidder reveals new technology/processes that would be of benefit to the community through more efficient water use. However, to use the new technology the service



provider must invest in its own infrastructure or change its management practices but is unwilling to do so at this time. The successful bid may be for the supply of old technology that is not the highest value to the community in the longer term.

Some of the potential conflicts of interest and uncertainties may be lessened through contract specifications, which in a public sector environment could be prescribed by external agencies and legislation. However, there are inherent weaknesses in the model as an instrument of competition policy and the Authority would need to differentiate between tendering that is designed to be an outsourcing arrangement and tendering that is designed to capture the benefits of competition.

Also, the model may involve issues about the ownership and provision of water infrastructure, similar to the issues that emerge in consideration of the general use of public-private partnerships [ie PPPs]. If this were the case, then the model would need to be considered in the broader context of Government PPP policy.

## Recommendation 11

The Authority:

- consider the broader allocative and dynamic benefits of competition in assessing the competitive tender/procurement model of competition;
- assess the limitations and potential conflicts of interest of the model in securing bulk water supply through water service providers; and
- consider the broader issues associated with the use of PPPs.



## 10 Segmentation and contestable markets

10.1 In other utility industries such as gas and electricity, there has been a dedicated regulatory focus to unbundle the services into contestable and non-contestable markets in high population areas. However, there has not been similar systematic reform of the water sector although there is noticeable segmentation of the metropolitan urban market into bulk water supply/management and retail water services:

- **NSW** – vertical disaggregation has occurred with the establishment of the Sydney Catchment Authority [for bulk water] and Sydney Water Corporation with responsibility for water retailing and wastewater services;
- **Victoria** – the supply of bulk [wholesale] water, wastewater and management of water catchments is through the Melbourne Water Corporation and there are three government-owned water retailers in the Melbourne metro area [the Victorian Government has recently announced a review of the industry arrangements aimed at competition in the retail water sector];
- **Qld** – the State Government is in the process of implementing major reforms to the industry structure in south-east Queensland. The restructuring includes: the segmentation of the market into bulk supply [with integrated water and wastewater treatment], bulk transport, water grid manager, single water distribution and sewage collection, potential for competition in the retail water market.
- **South Australia** – a government authority owns the infrastructure but service provision is by way of a private company operating under an agreement;
- **Tas** – some segmentation into bulk water and retail water services; and
- **ACT and NT** – multi-utilities provide power and water services.

10.2 The potential benefits of separating the bulk water segment of the market from the retail segment may include:

- security of supply and sustainability decisions not necessarily driven by retail and/or commercial reasons;



- water transfer from one market to another provides clear opportunities to apply differential pricing to account for environmental costs and scarcity;
- enhanced opportunities for competition in discrete market segments; and
- independent and transparent regulation and governance.

10.3 Importantly for this Inquiry, the separation of the water industry in other jurisdictions into contestable and non-contestable market segments has not been in conflict with concerns about the security and sustainability of supply. Rather, the segmentation has occurred as a response to concerns about these two outcomes and to quarantine the bulk water segment from the commercial retail market. The Department is not aware of attempts to replicate a vertically integrated commercial water service provider such as the Water Corporation in urban metropolitan areas.

## Recommendation 12

The Authority:

- note and examine the reasons for the segmentation of the water industry into bulk and retail water in other jurisdictions ; and
- identify a preferred industry model for Western Australia that balances public interests with commercial interests.



## 11 Conclusion

- 11.1 The Department of Water is broadly supportive of the direction of the Inquiry as set out in the *Issues Paper* and sees the approach as a reasonable balance of alternative frameworks to capturing the benefits of competition within the Western Australian environment and market.
- 11.2 In this Submission the Department has sought to guide and advise the Authority on a number of issues:
- assessment criteria to be cognisant of social and environmental criteria as well as commercial/economic criteria;
  - key strengths and weaknesses in alternative paths to competition set out in the *Issues Paper*;
  - a characteristic market structure in other urban jurisdictions that balances community expectations about the security and sustainability of supply with commercial needs;
  - the importance of the regulatory and governance arrangements in fostering competition through a] the establishment of a level-playing field b] being independent and transparent, and c] pricing arrangements that are transparent and encourage new entrants;
  - the special needs of regional Western Australia and Indigenous communities. The Authority is encouraged to examine the establishment of a dedicated regional water service provider to service regional needs and consider the existing approach to Indigenous water services; and
  - the current pricing arrangements and the lack of transparency in commercial information about the water markets may be an impediment to fostering competition and new entrants.
- 11.3 The Department looks forward to the report of the Authority.





## Appendix 1

### Water Services Licensing Framework

The operation of the water services industry in Western Australia is governed by the *Water Services Licensing Act 1995*. In respect of water services, the *Act*:

1. prescribes four types of water services that require for operating licenses: water supply services, sewerage services, irrigation services and drainage services. Only irrigation services are defined in the *Act* and the meaning of what constitutes the other water services can become problematic in considering the scope of the licensing system – for example, potable and non-potable water supply, drainage services;
2. requires a service provider for each type of service to have an operating licence issued by the Economic Regulation Authority [ERA]. In granting a licence, the ERA must be satisfied that the prospective licence holder has and is likely to have the financial and technical ability to provide the water service[s] to the controlled area and that it would not be contrary to the public interest to grant the licence. A licence can be issued for a maximum period of 25 years;
3. the Governor may by order published in the *Gazette* provide for exemptions from the licence requirement provided that he is satisfied that it is not contrary to the public interest;
4. prescribes that a licence is only valid in a controlled area. A controlled area is declared by the Governor by order published in the *Gazette*. The declaration can determine the constituency of a controlled area, add or excise an area from a controlled area or cancel the status of a controlled area. An order is not to be made to excise an area from a controlled area unless the Governor is satisfied that the standard of water services will not be lowered in the area;
5. new water services cannot be provided outside a controlled area unless the water service provider gives the ERA 3 months notification of the intention to provide the service; and



6. provides for terms and conditions to be part of a licence. The *Act* limits the terms and conditions that can be included in the licences of the Water Corporation and the Bunbury and Busselton water boards.

## Legislative Overlaps

The legislative framework for the governance of water services is complicated by overlapping legislation. The main water services provider in the State – the Water Corporation – is governed by its own statute – the *Water Corporation Act* – which provides statutory functions and accountabilities. Similarly, the *Water Boards Act* governs the operations of the two water service boards – the Bunbury and Busselton Water Boards. The *Water Agencies [Powers] Act* provides the Corporation with various powers such as powers to enter land, construct works.

Parts IV, VI and VII of the *Rights in Water and Irrigation Act* provide for the constitution of irrigation districts and the supply of irrigation water by the Water Corporation.

The *Metropolitan Water Supply, Sewerage and Drainage Act* relates to the construction of works, the supply of water and the provision of sewerage within the Metropolitan Water Supply Sewerage and Drainage Area by the Water Corporation. In country areas, equivalent provisions are provided in the *Country Areas Water Supply Act* and the *Country Towns Sewerage Act*.

Statutory agencies are also subject to a wide range of external legislation and governance arrangements.

### *Drainage services*

The legislative framework for drainage services is the most complicated with overlapping responsibilities between government agencies and local government. The legislative authority for drainage includes:

- the *Metropolitan Water Authority Act 1982* – Sections 98 and 99, Section 100 gives the Water Corporation statutory responsibility for the control of main drains and main drainage works;
- the *Metropolitan Water Supply, Sewerage and Drainage Act 1909*;
- the *Water Services Licensing Act 1995*; and
- the *Water and Rivers Commission Act 1995*.



Local governments are significant managers of local drainage networks in the Swan Region, with drains under their control delivering water into main drains managed by the Water Corporation.

Six country drainage districts have been proclaimed under the *Land Drainage Act 1925* – Mundijong, Waroona, Harvey, Roelands, Busselton and Albany districts. In the country drainage districts, some of the drainage works were constructed by the Government in the first half of the 20<sup>th</sup> century. The drainage network has been maintained by the Water Corporation and local governments.

Local governments have legislative authority to undertake drainage activities within their jurisdictions through *Schedule 3.2* of the *Local Government Act 1995* which authorises local governments to:

- carry out works for the drainage of land; and
- do earthworks or other works on land for preventing or reducing flooding.

The *Town Planning Development Act 1928* also provides legislative authority for local government drainage activities.

The Water Corporation may construct and maintain drainage works within the drainage districts, with funding for its drainage activities in the country drainage districts supported by CSO payments.

## Compromise of licensing system

The overlapping statutory requirements and accountabilities have compromised the application of the water service licensing system to statutory water service providers such as the Water Corporation and to a lesser extent the Bunbury and Busselton Water Boards. In these cases the licensing requirements are subordinate to the primary provisions of the agencies' own governing legislation and governance framework. The licensing system has been most effective in dealing with non-statutory service providers.

While there continues to be statutory service providers and statutory obligations then the licensing system will always be a secondary form of governance to those agencies' statutory requirements. The realisation of this limitation has resulted so far in a very passive licensing framework. As non-statutory service providers emerge and there is less statutory overlap and potential for conflicts then the licensing framework will become more effective.



## Administration

*The Water Services Licensing Act* provides for the Economic Regulation Authority [ERA] to administer the water services licensing system. In this regard:

- licensees are required to conduct an operational audit every 2 years;
- the ERA may impose penalties for non-compliance. The penalties include fines up to \$100,000, independent rectification of the service at cost to the service provider or cancellation of the licence; and
- the ERA may appoint inspectors with statutory powers under the Act.

## Transparency in the licensing processes

The regulatory overlaps and potential conflicts in the governance arrangements raise concerns that a potential water service provider would be confused about both where to seek a water service licence and the regulatory requirements and impost. As a minimum, an effective licensing regime should have certainty and be transparent in operation so that potential and existing water service providers can be confident about the obligations and operations of the regulatory environment and focus on the business of water services.

## Exemption for pricing authority

Prices for water services are not included in matters that can be determined under the licensing regime. Instead, pricing powers for water and wastewater are vested in the respective Minister through the *Water Agencies [Powers] Act* in respect of the Bunbury and Busselton Water Boards and the Water Corporation. In practice, the Minister has the authority for approval of prices following submission from the respective agencies. Under the current arrangements, the Minister seeks the advice of the Department of Treasury and Finance and the Department of Water before approving prices.

## Pending legislation

The *Water Resources Legislation Amendment Bill 2006* is currently before Parliament, having been passed by the Legislative Assembly. The Bill seeks to extend the powers of the Minister for Water Resources to joint Ministerial authority over the statement of corporate intent and the strategic development plan for the Water Corporation. In addition, the Bill inserts new powers into the *Water Agencies [Powers] Act 1984* to enable the Minister to direct the Water





Corporation or the water boards to have general regard to the policy of the Government relating to water resource management. Also, the Minister is to be empowered to obtain information relating to water resource management. If a licensee objects to the request for information, the Minister will be required to consult with the Minister administering the ERA Act 2003 before confirming the direction. The Bill sets out the functions of the Minister, providing a formal basis for cooperation and information exchange between the water resource manager and water service providers.

### Consolidation of water services legislation

One part of the Government's water reform agenda is the consolidation of various legislation relating to water service provision. This task is being undertaken by the Department of Water, with the intention of legislation being ready for introduction into Parliament from late 2007.

### Existing water service licence holders

There are 31 water service licence holders. Other than the Water Corporation, water service providers that have been issued with licenses by the ERA are:

*Potable water* - Bunbury and Busselton Water Boards, Rottnest Island Authority, Hamersley Iron and Nilgin Services Company;

*Non potable and wastewater* - 21 local governments, Hamersley Iron, Rottnest Island Authority;

*Irrigation* - Gascoyne Water Cooperative, Ord Irrigation Cooperative, South West Irrigation Management Cooperative and Preston Valley Irrigation Cooperative; and

*Drainage* - Rottnest Island Authority

### Competition impact of licensing arrangements

After a decade of operation the current licensing arrangements have made no discernable impact on the structure or productivity of the water industry in Western Australia. A reason for this outcome is the lack of capacity in the licensing framework.





## Appendix 2

### Water Allocation Licensing Framework

Most water resources in Western Australia are vested in the State through the *Rights in Water and Irrigation [RIWI] Act 1914*. Persons or organisations wanting to access water resources are required to have a water allocation licence issued under this *Act* and managed by the Water and Rivers Commission [with this function to form part of the Department of Water under legislation currently before Parliament].

#### *Rights in Water and Irrigation Act 1914*

The *Rights in Water and Irrigation Act 1914*, is the principle legislation in relation to the allocation and management of water resources in Western Australia. Under this *Act*, watercourses, wetlands and underground water sources are vested in the Crown. The taking and using of water without appropriate authorisation [in the form of a licence or other right provided for under the *Act*] is prohibited. A licence would be required to take groundwater from all artesian wells throughout the State, non-artesian wells located within groundwater areas proclaimed under the *Act* and the taking of surface water in proclaimed surface water areas, streams or irrigation districts.

Licences to construct or alter wells and permits to interfere with the bed and banks of watercourses may be granted in addition to a licence to take water. The regulatory controls of the *Act* are designed to:

- encourage the responsible development of water resources by limiting abstraction from a water source [aquifer or catchment] to a level which can be sustained over the long-term;
- allocate resources for beneficial private and public purposes and to meet environmental requirements;
- enable the resources to be shared in an equitable manner; and
- protect existing water users from unacceptable impacts.

Any application for a licence to take and use water is considered under *Schedule 1, Clause 7[2]* of the *Act*. The Commission/Department's general practice is to licence water use up to sustainable limits where a need for using the water has been demonstrated.



All licences to take and use water contain a set of terms and conditions detailing the licensee's responsibilities for the use and management of the water resources to which the licence applies. These conditions normally specify the volume of water that may be taken in any given year, the requirement to use the water within a specified period and in some cases require the licensee to monitor, manage and report any impacts that the taking of the water may have on the water resources, the environment and other water users.

Licensees may transfer all or part of their water entitlement on a permanent basis or through an agreement allowing another person to temporarily access their entitlement. The ability to transfer water entitlements enables the reallocation of water resources to higher value uses, benefiting the wider community.

The *Act* has provisions for charging of fees related to the licence application process and the charging of annual licence fees has recently been introduced.

The *Act* also contains provisions for the introduction of statutory plans for managing the water resources. It describes the content and consultation requirements of the statutory plans which may be developed at a regional, sub-regional or local level. The objective of the plans is to guide water resource management by clearly detailing the management approaches that will apply within a specified area.

To increase the level of community participation in water allocation and management decisions, the *Act* provides for the establishment of Water Resource Management Committees created to provide assistance and advice to the Commission/Department regarding the management of the water resources in the area. It also provides for some licence applications to be advertised seeking comments from persons likely to be affected by the application. Any comments received are considered by the Commission/Department when making a determination on the granting of the licence.

The Minister is empowered to make by-laws that are applicable to a particular locality within the State. Local by-laws can address matters such as the construction of works relating to water resources, the manner in which water can be taken, the exemption of persons from certain provisions of the *Act* authorisation to take water and the responsibilities of water entitlement holders.



Another mechanism for managing and regulating the taking and use of water permitted under the *Act* is to issue water users with directions that can override previously granted rights under the same *Act*.

## Other related legislation

In addition to the *Rights in Water and Irrigation Act 1914*, several other Acts have been passed to address various aspects of water management.

The *Water and Rivers Commission Act 1995*, establishes the Water and Rivers Commission and sets out the general functions and powers of the Commission. The *Water Agencies [Powers] Act, 1984* provides the Water and Rivers Commission with the various general powers such as entry onto land necessary for the Commission to undertake its statutory functions. The *Country Areas Water Supply Act, 1947* [and associated by-laws] provides for the protection of water quality within catchment areas and water reserves established under the *Act*, including controlling the clearing of native vegetation and controlling recreational activities within these areas. Similarly, the *Metropolitan Water Supply, Sewerage and Drainage Act, 1909* [and associated by-laws] provides for the protection of water quality within catchment areas, water reserves, underground water pollution control areas and public water supply areas established under the *Act*. The *Metropolitan Water Authority Act 1982*, confers responsibility of the overall administration of the arterial drainage system on the Commission and the management of main drains on the Water Corporation.

## Implementation approach

The *Rights in Water and Irrigation Act 1914* is currently administered by the Water and Rivers Commission. Subject to approval of Parliament, it is envisaged that the Department of Water will take on the responsibility of administering the Act and of granting water entitlements under that Act. In administering the *Rights in Water and Irrigation Act 1914* the Commission/Department seeks to achieve:

- the long term security of the State's water resources and their beneficial uses;
- equitable sharing of the State's water resources between competing beneficial uses and water users;
- maximisation of economic benefit to the State and its population within the limits of acceptable social and environmental consequences; and



- intergenerational equity [preserving the development and lifestyle options of future generations].

These objectives are reflected in the development of principles, policies, processes and practices that supplement the common and statutory law framework. These aim to treat those in the same circumstances in the same manner and avoiding arbitrary and capricious decision making in the administration of the legal framework.

The Commission/Department is also responsible for identifying and assessing the water resources of the State. This involves undertaking groundwater drilling investigations, establishing surface water monitoring stations, evaluating monitoring information and studies to determine the ecological, social and economic values of the water resources for specific areas of the State, so that sustainable yields for consumptive use can be determined. Due to the size of Western Australia, these studies are normally undertaken on a regional basis with localised studies carried out in exceptional circumstances. This information is necessary to ensure that an appropriate management approach is adopted reflecting the particulars of the water resource, the local climate and considerations of the environmental, social and economic values the community assigned that particular water resource.

To account for the various groundwater and surface water systems, flow directions, and characteristics and the required management approaches and policies, the Commission/Department proclaims specific areas as groundwater or surface water areas under the *Rights in Water and Irrigation Act, 1914*. This allows the Commission/Department to licence the taking of water with the intention of:

- preventing problems before they occur;
- monitoring the extend of water extraction;
- limiting the taking of water to within the limits of the sustainable yield of specific water resources;
- identifying and securing the rights of users; and
- sharing the resources equitably.

Currently there are 45 groundwater and 22 surface water management areas proclaimed under the *Rights in Water and Irrigation Act, 1914*. These management areas are further divided into 237 sub-areas to allow more focused management of the local water resources. Some of the groundwater sub-areas may have up to three or more aquifers.





## Licence processes and conditions

Licences to take and use water are generally granted on a first in first served basis, although other methods such as merit selection have been trialled in some parts of the State in highly allocated areas. Licence applicants are required to provide sufficient information in support of their application to enable the Commission/Department to make a determination. The information requested may vary depending on the location, the information already available about the water resource, the volume of water proposed to be taken and water quality and management issues associated with the proposed development. In some cases, licence applicants may be requested to undertake investigations that may include drilling of bores and test pumping to determine the proposal's potential environmental and sustainability impacts and issues.

A recent initiative has been to introduce water allocation licence fees. In addition, applications for transfers or agreements are subject to a \$200 statutory fee for each application. The price of water subject to the transfer or the agreement must be disclosed on the application form.

Most licences to take and use water are granted for a maximum period of 10 years. This period was selected as a compromise between the need to provide security to licence holders and the Commission/Department's level of confidence that the long term impacts of taking the water are acceptable. In the future, as the Commission/Department's knowledge of the water resources increases, it is likely that licences may be granted for longer periods.

A licence may be granted for a shorter period reflecting the duration of the development, the need to ensure the development will proceed, or to align the term of the licence with other government processes or lease agreement tenures. A licence is renewed if the licensee has abided by the conditions of their licence and the water is used productively.

The terms, conditions and restrictions define the water entitlement as an annual volumetric allocation, address any specific local management issues and generally require the licensee to utilise the entitlement within a reasonable time period. This addresses the community concerns of speculation or any 'water in the bank' issues, as the water is currently not valued highly.





Licensees taking large volumes of water or from locations near environmentally significant features, are required to operate with an agreed operating strategy and/or install and frequently read water meters. The information is used to confirm adherence to the licences conditions and increase the Commission/Department's knowledge of water use and the response of the resource to the taking of the water.

## Policy framework

To ensure equity and fairness when assessing applications for a licence or a permit under the *Rights in Water and Irrigation Act 1914*, or in dealing with licensees or the community, the Commission/Department has developed extensive policies that are publicly available. These policies address a variety of issues such as the conditions that may be included in some licences, to how the Commission/Department would address certain situations, or the information the Commission/Department would request from the licence applicant before it can make a determination on the application.

One of these policies, *Statewide Policy No 6 Transferable [Tradeable] Water Entitlements for Western Australia*, details the Commission/Department's position on transferring or approving an agreement on the use of water entitlements by another person. The policy complements the sections of the *Rights in Water and Irrigation Act 1914*, that address the transferability of water entitlements. Under that policy a water entitlement may be transferred [permanently or by agreement] within the same management area and water resource as the water entitlement was originally granted.

To reduce speculation, a water entitlement that has never been used is generally not allowed to be transferred. However, any savings achieved due to the introduction of water use efficiency measures can be transferred. Any applications for transferring a water entitlement must be approved by the Commission/Department and the licence holder must also have legal access to the land the water is taken from to comply with the *Rights in Water and Irrigation Act, 1914*.

To facilitate the transfer of water entitlements, the Commission/Department has developed a register of water licensees that is available to persons requesting the information. However, not all water uses are licensed. The Commission/Department does not licence the more than 140,000 garden bores found in and around the Perth metropolitan area. The cost of licensing and managing such a large number of bores is prohibitive. Instead of licensing, the Commission/Department undertakes a public awareness



campaign to inform garden bore users of the issues associated with the construction and use of such bores. Similarly, bores used for stock watering purposes are not licensed as their location and the small volumes of water taken from individual bores are unlikely to impact the environment, other water users or introduce competition issues.

The Commission/Department does take into account all such non-licensed water use when developing policies and strategies for managing and allocating the State's water resources.

## Water resources

Most of the useable water resources in Western Australia are found in groundwater systems. Large sedimentary basins that contain significant volumes of easily accessible fresh groundwater exist along the west coast of the State where the major population centres were established. Further inland, groundwater exists in fractured rock aquifers and old river beds and is mainly used to support mining activities.

Compared with the other States and Territories of Australia, few large river systems exist in Western Australia. A significant number of rivers and streams flow only during the wet season and some may not flow at all for several years. As a result, the surface water resources are not a reliable source of water and not utilised to the same degree that groundwater is.



### Groundwater resources by allocation category: licensed volumes, licence numbers and aquifer numbers<sup>1</sup>

<b>Classification: Allocation as a proportion of sustainable yield</b>	<b>Licensed Volume [KI/a]</b>	<b>Number of Licenses</b>	<b>Number of groundwater resources</b>
C1 : 0-30%	194,099,559 [12%]	2,890 [13%]	336 [55%]
C2 : 30-70%	464,955,702 [29%]	4,686 [21%]	92 [15%]
C3 : 70-100%	726,368,568 [45%]	13,130 [59%]	137 [22%]
C4 : >100%	243,419,800 [15%]	1,386 [6%]	47 [8%]
<b>Total</b>	<b>[100%]</b>	<b>[100%]</b>	<b>[100%]</b>

<sup>1</sup> As at 2006. Since that time there has been a program of licence consolidation.



## Appendix 3

### Summary of recommendations

#### Recommendation 1

The Authority recognize in the Inquiry:

- that competition is generally a better model of service delivery than monopoly and that precedents exist for capturing the benefits of competition in other essential services industries;
- the benefits of competition can be difficult to foresee and assess as they often involve unexpected outcomes that emerge through dynamic market pressures;
- any costs associated with competition and/or the transition to a competitive environment need to be assessed against the costs of monopoly service and no change; and
- that service delivery models vary from jurisdiction to jurisdiction and it is a matter to develop the model that best suits the needs of the Western Australian environment and market.

#### Recommendation 2

The Authority recognize the need to develop criteria that account for both the public and commercial interests to assess the relative merits of alternative approaches to competition.

#### Recommendation 3

The Authority:

- examine and assess the failure of earlier efforts to develop a competitive environment in the water industry; and
- examine the need for a level playing field to support the development of competition in the water industry.



## Recommendation 4

The Authority note the extensive water legislation reform program currently being undertaken in the context and directions of the Inquiry.

## Recommendation 5

The Authority recognize:

- that true comparative competition is not a practical option for the regulation of the water industry in Western Australia; and
- that performance benchmarking offers the opportunity for some external assessment but needs to be undertaken on a level playing field.

## Recommendation 6

The Authority:

- note the precedent set by the Services Sydney/Sydney Water access dispute;
- develop an effective State-based access regime that is tailored to the industry in Western Australia, based on the NCP criteria; and
- recognize that access pricing arrangements have proved to be an impediment to access in other jurisdictions.

## Recommendation 7

The Authority note that:

- water trading may become important in some regional areas but is not expected to be a significant source of potable water for the large population areas of Western Australia unless new water sources are developed from, for example, the recycling of wastewater and stormwater collection; and
- windfall gains will be made by the sellers of water where the water has been sourced at no or little cost.





## Recommendation 8

The Authority:

- note the legislative proposal to extend eligibility for CSO payments to all licensed service providers; and
- examine if the lack of transparency in the current CSO payment arrangements are a serious impediment to determining value for money and the evaluation of alternative arrangements.

## Recommendation 9

The Authority is encouraged to evaluate the establishment of a multi-service utility to provide water services in regional areas.

## Recommendation 10

The Authority consider the needs of Indigenous communities as a special market segment for water services in the Inquiry and note the alternative models of service delivery.

## Recommendation 11

The Authority:

- consider the broader allocative and dynamic benefits of competition in assessing the competitive tender/procurement model of competition;
- assess the limitations and potential conflicts of interest of the model in securing bulk water supply through water service providers; and
- consider the broader issues associated with the use of PPPs.

## Recommendation 12

The Authority:

- note and examine the reasons for the segmentation of the water industry into bulk and retail water in other jurisdictions; and
- identify a preferred industry model for Western Australia that balances public interests with commercial interests.



Department of Water  
Government of Western Australia

