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

20 July 2007

Economic Regulation Authority
WESTERN AUSTRALIA

A full copy of this document is available from the Economic Regulation Authority web site at www.era.wa.gov.au.

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Foreword

The State Government of Western Australia has requested the Economic Regulation Authority (**Authority**) to undertake an inquiry into competition in the water and wastewater services sector.

The Authority will examine the extent to which increased competition could improve the efficiency, effectiveness and sustainability of the provision of water and wastewater services, focussing on:

- the processes for future water source procurement and capital investment;
- third party access to water and wastewater infrastructure; and
- other reforms to the water and wastewater market, including the establishment of water trading mechanisms and the arrangements for community service obligations paid for by government.

The Authority, in its investigations, will consider the roles and responsibilities of industry participants, both government and private sector, recognising that there are strong monopoly elements in some services. The approaches used in other jurisdictions will inform the inquiry. The Authority will examine the costs and benefits of alternative industry structures, taking into account that industry restructuring also has costs.

In making its recommendations, the Authority will consider any impacts on existing asset owners and operators, and on the Government's social, economic and environmental policy objectives.

The purpose of this Issues Paper is to provide background information and outline the issues to be investigated. It is intended to assist stakeholders to understand the nature of the issues under review and to facilitate public debate.

The Issues Paper summarises the manner in which competition in the water and wastewater industry has been fostered in Australian and international jurisdictions. A framework for classifying these approaches is then developed. This is followed by a discussion of the institutional and legislative arrangements necessary to allow for these 'forms' of competition.

Throughout the paper questions are raised, highlighted in boxes, seeking input from interested parties. Respondents should feel free to comment on any of these issues, or other issues they consider relevant to the inquiry. Submissions should be submitted no later than 31 August 2007 to watercompetition@era.wa.gov.au.

or addressed to:

Inquiry on Competition in the Water and Wastewater Services Sector
Economic Regulation Authority
PO Box 8469
Perth Business Centre
PERTH WA 6849

Section 1.5 of this paper provides further information regarding the process for making a submission.

Interested parties and stakeholders will have further opportunity to make submissions following the release of the Authority's Draft Report on the inquiry, expected to be released in November 2007. The Final Report for the inquiry is due to be delivered to Government by 31 March 2008.

I encourage interested parties to consider the terms of reference and the matters raised in this Issues Paper and prepare a submission to the inquiry.

LYNDON ROWE
CHAIRMAN

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1 Introduction

On 6 July 2007, the Treasurer of Western Australia gave written notice to the Economic Regulation Authority (the **Authority**) to undertake an inquiry into competition in the water and wastewater services sector.

1.1 Terms of Reference

This inquiry has been referred to the Authority under Section 32 of the *Economic Regulation Act 2003* (**Act**), which provides for the Treasurer to refer to the Authority inquiries on matters related to regulated industries (i.e. water, gas, electricity and rail).[1]

A full text of the Terms of Reference is provided in Appendix 1.

In accordance with the Terms of Reference, the Authority is to provide advice on possible competitive enhancements for the delivery of water and wastewater services. Key areas of focus are to include:

- enhancing the efficiency of future water source procurement (and other significant capital investment) processes, including issues associated with current market structures and mechanisms, such as competitive tendering models, and determining the trigger conditions for committing to the acquisition of a new source;
- opportunities for enhanced competition by introducing third party access regimes to existing water and wastewater-related infrastructure, including identifying appropriate principles and mechanisms to implement efficient and effective regimes; and
- other reforms to the water and wastewater market which may enhance competition, including the establishment of water trading mechanisms and the benefits, costs and issues associated with them (e.g. inter-regional trades, market dominance and water hoarding) and arrangements for community service obligations paid by the State Government to service providers.

In examining the matters raised in the Terms of Reference, the Authority is required to have regard to:

- the roles and responsibilities of participants in the industry, both Government and private sector, recognising that certain services (e.g. water transmission and distribution) have strong natural monopoly characteristics;
- approaches taken in other jurisdictions;
- the costs and benefits of alternative industry structures, including transitional costs that may be incurred in changing to a new structure;
- any impacts, including service provision, operational or financial impacts, on existing asset owners and operators; and
- any impact of these reforms on the Government's social, economic and environmental policy objectives, including ensuring environmental and social criteria are taken into account in market structures, tendering processes and access regimes; commitments to the National Water Initiative and the Government's response to *A Blueprint for Water Reform in Western Australia* compiled by the Water Reform Implementation Committee.

[1] Section 38 of the Act also provides for the Treasurer to refer to the Authority inquiries on matters related to other industries (i.e. not only the regulated industries of water, gas, electricity and rail).

In undertaking the inquiry, the Authority recognises section 26 of the Act, which requires the Authority to have regard to:

- the need to promote regulatory outcomes that are in the public interest;
- the long-term interests of consumers in relation to the price, quality and reliability of goods and services provided in relevant markets;
- the legitimate business interests of investors and service providers in relevant markets;
- the need to promote competitive and fair market conduct;
- the need to prevent abuse of monopoly or market power; and
- the need to promote transparent decision making processes that involve public consultation.

1.2 Background to the Inquiry

Water and wastewater services, as well as electricity and gas services, have traditionally been provided by State Governments due to their essential nature and large infrastructure costs. During the 1980s and 1990s, concerns regarding the appropriate pricing of these services led to the corporatisation of many of these government owned businesses. These businesses were established on a stand-alone basis and were required to operate at arms length from government. The aim of these reforms was to expose the businesses to more rigorous commercial pressures and establish prices that more accurately reflect the cost of service provision. In the case of water, this has occurred through a shift away from a rates-based approach (an annual fixed charge for water often based on land value) to the installation of water meters and usage charging. The pricing of wastewater services has lagged behind that of water with these services still often charged on the basis of property values.

In addition to the corporatisation of many government businesses and the introduction of prices that more accurately reflect costs, governments have maintained an active policy development role at both a national and State level. The national arrangements set the broad policy framework within which water resources are managed. The two key agencies responsible for implementing national arrangements are the Department of Environment and Water Resources and the National Water Commission. These agencies are responsible for initiatives such as the $10 billion National Water Security Plan aimed at improving water efficiency and over-allocation of water in rural areas, and the National Water Initiative, which addresses matters such as urban and rural water pricing, water trading, water access entitlements, and water resource accounting.

In Western Australia, the Department of Water oversees water policy development. The Department of Water is responsible for implementing reforms which have resulted from the inquiry undertaken by the Irrigation Review Steering Committee during 2005. These reforms address matters such as water entitlement systems, water trading, and water metering. The implementation of these and other reforms will assist in meeting the requirements of the National Water Initiative. An overview of recent legislative and institutional developments is contained in Appendix 2.

It is within this context of national and State reform that the Authority has received the Terms of Reference to undertake an inquiry and provide advice on the ways in which competition can provide water and wastewater services in the most efficient, effective and sustainable manner.

1.3 Structure of Issues Paper

The structure of this Issues Paper is as follows:

- Chapter 2 contains a general discussion of the role of competition in providing better outcomes for consumers and some of the situations where markets can fail to deliver benefits to consumers.
- Chapter 3 discusses the water and wastewater industry in general and then with specific reference to Western Australia.
- Chapter 4 provides a summary of Australian and international experiences regarding the introduction of competition and competitive pressures in the water and wastewater industry.
- Chapter 5 presents a summary of the themes which have emerged from experiences elsewhere and develops a framework within which different forms of competition can be assessed.
- Chapter 6 outlines the institutional and legislative arrangements which are required to facilitate the introduction of competition and competitive pressures into the water and wastewater industry.
- Chapter 7 addresses further matters related to the inquiry.

1.4 Review Process

The Authority intends to follow the following timetable in undertaking this review of competition in the water and wastewater services sector.

- Submissions on the Issues Paper are due by 31 August 2007.
- Release of a Draft Report is expected in early November 2007.
- Submissions on the Draft Report are expected to be due early January 2008.
- In accordance with the Terms of Reference, the Authority must present its Final Report to Government by 31 March 2008.

The exact date for submissions on the Draft Report will be contained in the Draft Report.

In accordance with section 45 of the Act, the Authority is acting through the Chairman and member in conducting this inquiry.

1.5 How to Make a Submission

Submissions on any matters raised in this Issues Paper or in response to any matters in the Terms of Reference should be in written form and electronic form (where possible) and addressed to:

Inquiry on Competition in the Water and Wastewater Services Sector
Economic Regulation Authority
PO Box 8469
Perth Business Centre
PERTH WA 6849

Email: watercompetition@era.wa.gov.au
Fax: (08) 9213 1999

Submissions must be received by 31 August 2007.

In general, submissions from interested parties will be treated as in the public domain and placed on the Authority's web site. Where an interested party wishes to make a confidential submission, it should clearly indicate the parts of the submission that are confidential. For more information about the Authority's submissions policy, see the Authority's web site.

The receipt and publication of a submission shall not be taken as indicating that the Authority has knowledge either actual or constructive of the contents of a particular submission and, in particular, whether the submission in whole or in part contains information of a confidential nature and no duty of confidence will arise for the Authority in these circumstances.

Further information regarding this inquiry can be obtained from:

Mr Greg Watkinson
Director, References and Research
Economic Regulation Authority
Ph (08) 9213 1900

Media enquiries should be directed to:

Mr Paul Byrne
Byrne & Byrne Corporate Communications
Ph (08) 9385 9941
Mb (0417) 922 452

2 Competition

The application of competition in the provision of goods and services is usually the most effective way to deliver efficient prices and quality service to customers. Competition and competitive pressures exist in situations where there is rivalry between two or more companies seeking to secure the business of a customer. In order to obtain the business of any individual customer, the companies are under pressure to offer the most attractive product in terms of price, quality and level of service. This competition for customers drives companies to provide products and services at low prices and with high levels of service. Even in situations where a market is served by a single company, the threat of an additional business entering the market can exert competitive pressure leading to efficient outcomes for customers.

Competition, in whatever form, drives companies to continually seek more efficient methods of providing products and services through efficiency and innovation. The effect of competition and competitive pressures in delivering more efficient production and service delivery can be thought of in three ways.

First, competition for customers requires that companies continually seek the lowest cost way of producing products and services (productive efficiency). Consider an established company selling a given product. If a competing company can enter the market and produce and sell the same product at a lower price, the established company can expect to lose market share and may be forced out of business. Competition and competitive pressures guide companies to continually seek to reduce costs.

Second, competition for inputs among competing companies offering alternative products or services encourages and can direct resources to be allocated to where they are most valuable (allocative efficiency) – any company seeking to use resources in other ways can usually expect to be outbid by competitors seeking higher value uses. This ensures that society as a whole is better off because the limited resources of the economy are being used in the most effective and efficient manner.

Third, competition compels companies to seek new and improved ways of doing things (dynamic efficiency). If a company is able to invent a new and cheaper way of manufacturing its product (or create an entirely new product), the company stands to benefit by attracting additional customers.

While the overall effect of competitive pressures is to drive companies to produce goods and services at least cost, allocate goods and services to where they are most valued, and to seek new and improved ways of serving customers, competition is not an end in itself. Rather, competitive pressure is an effective mechanism by which customers receive low priced quality products suited to their needs and delivered with high standards of service. Hence, competition delivers outcomes that are in the long term interests of consumers.

However, there are instances where the ability of competition to deliver benefits to consumers is constrained. This failure of the market to deliver benefits to consumers may be for a variety of reasons. One such example is where a single business, or monopoly, is the only provider of a good or service. In situations where the monopoly is free from government oversight and/or regulation, it has an incentive to price above the cost of production. A monopoly position can allow businesses to make excess profits or to pad out costs in ways that are beneficial to management. In either case, this leads to the under-provision of the good or service, even where there is a willingness by consumers to pay the 'efficient' cost of service delivery.

The existence of a monopoly can be for a range of reasons. Government may prescribe that only a single provider of a service exists. Alternatively (and sometimes as a trigger for government prescription), a monopoly may be the most efficient way in which to provide services if large economies of scale and/or scope exist. Economies of scale exist where

average production costs for a single product fall as output increases. Economies of scope are similar to economies of scale but refer to cost savings that result from efficiencies generated by producing a range of similar products or undertaking a variety of related tasks.

Economies of scale or scope can create conditions in which a monopoly provider could, in theory, deliver services at least cost – though this possibility still needs to be weighed against the risks associated with opportunities for pricing above the cost of production and, possibly more importantly, the diminished incentives for innovation and dynamic efficiency over time. The theoretical benefits from size or scope economies could, over time, be outweighed by the loss of benefits from innovation.

While monopoly can, in a productive efficiency sense, produce products and services highly efficiently, this alone does not ensure that the products and services are those either sought by the market or allocated between consumers efficiently. Markets are capable of achieving technical, allocative and dynamic efficiencies simultaneously.

Competition of itself can in some cases fail to deliver efficient outcomes – and can sometimes prove counterproductive – where the consequences of business decisions can impact third parties, such as when environmental and public health risks are prevalent. This may sometimes count against the encouragement of competition, though more often requires attention being given to improving the institutional/regulatory environment within which competition operates.

There are also circumstances where, without regulatory or other intervention, competition simply does not work. This arises, for example, where unrestricted consumption leads to over utilisation such as in the case of access to natural water sources.

Economic efficiency achieved through competition requires that environmental and other related factors are appropriately brought to account to ensure sustainability.

In this inquiry, the Authority will be examining potential ways in which competition and competitive pressures can be applied to the water and wastewater industry in Western Australia. The aim is to explore the opportunities for furthering the positive influence competition and competitive pressures can play in the water and wastewater industry in order to deliver benefits to customers, while being mindful of practical constraints.

3 The Water and Wastewater Industry

This Chapter examines the nature and structure of the water and wastewater industry in general. This is followed by a summary of the water and wastewater industry in Western Australia.

3.1 Overview of the Water and Wastewater Industry

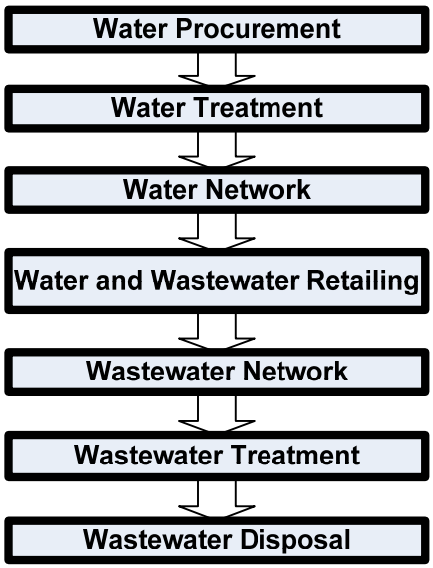
The water and wastewater industry is often described as a 'natural monopoly'. A natural monopoly is said to exist in situations where it is cheaper for a single company to provide a service or range of services relative to the cost that would be incurred should more than one company provide the service or services. Natural monopolies are often the result of economies of scale or scope in production whereby the average cost of production falls as output increases or the range of outputs increases. This tends to create both a cost hurdle for new entrants and active incentives for mergers and acquisitions to exploit the size/scope economies, leading towards a monopoly, where more than one supplier already exists.

As was noted in the last chapter, the fact that a monopoly is natural does not imply that it is efficient – especially where there is on-going scope for innovation and/or scope for sustaining prices above costs of production and delivery. In these (usual) circumstances, there is a trade-off between competing sources of efficiency for customers – size/scope economies competing with dynamic efficiency and full pass through of cost reductions.

In the water and wastewater industry, size and scope economies flow from the significant cost associated with installing infrastructure such as pipe networks and the relatively low cost of serving additional customers. In such instances, it is typically considered that duplication of the network is uneconomic and that it is therefore cheaper for a single entity to provide the service. Other industries often considered to exhibit the characteristics of natural monopolies include electricity and gas networks.

Natural monopoly services have historically been provided by vertically integrated businesses often supported by legislation. That is, a single business is empowered to undertake all tasks associated with providing the service. A vertically integrated water and wastewater business is responsible for the provision of all elements of the water and wastewater services supply chain, including water procurement tasks, water treatment, water network services, water and wastewater retailing, wastewater network services, wastewater treatment, and wastewater disposal. This supply chain can be represented as follows.

Figure 1 Water and wastewater supply chain



It is argued that economies of scope that exist due to similarities and overlaps between these segments of the supply chain support a vertically integrated business with sole responsibility for the delivery of the service.

However, not all elements of the water and wastewater supply chain preclude duplication and therefore not all of these exhibit the characteristics of a natural monopoly. The only elements of the supply chain which exhibit natural monopoly characteristics are the water and wastewater pipe networks. The introduction of competition and competitive pressures into the remaining non-natural monopoly segments of the supply chain, such as water procurement, water and wastewater treatment and retail services, is feasible, and could potentially lead to new and better ways of operating and lower prices for customers.

In considering the introduction of competition into these elements of the water and wastewater network, it is necessary to be mindful of the many practical matters which affect the industry. For example, if adverse impacts on third parties, including the environment, are to be avoided in the use of aquifers as a source of bulk water, rights to access the water have to be clearly assigned and enforced.

Another example is the role of water in the creation of a healthy, disease-free environment, which provides a significant benefit to the community as a whole. As such, it is not considered desirable to turn off the supply of water should someone be unable to pay for the service. A further consideration is that, even if it is deemed appropriate, there is often no practical way to exclude customers from the use of the wastewater service.

The introduction of competition into the water and wastewater network requires careful consideration of all aspects of the industry. These considerations need to include matters that relate to the water and wastewater industry specifically, as well as other matters such as government policy and environmental, social, and economic concerns. In addition, the benefits and costs of altering the existing Western Australian water and wastewater industry structure need to be carefully considered with regard to the potential for, and impacts of, changes to existing economies of scale and scope within the sector. Only once all these issues have been addressed can decisions regarding alternative approaches to the delivery of water and wastewater services be made.

3.2 The Western Australian Water and Wastewater Industry

Of all water used in Western Australia, 87 per cent (by volume), is non-potable. That is, it is not treated to drinking water standard. This non-potable water is used in industries such as:

- irrigated agriculture (40 per cent);
- mining (24 per cent);
- services (7 per cent);
- garden bores (5 per cent);
- other industry (4 per cent);
- parks and gardens (4 per cent); and
- water for stock (3 per cent).

The remaining 13 per cent of water is treated to drinking water quality and is referred to as potable water.[2]

While potable water accounts for only 13 per cent of all water used in Western Australia, it is the area of the water industry where the greatest potential benefits from increasing the level of competition exist, due to the high costs of treatment and delivery. As such, the provision of potable water and the treatment of any wastewater produced is the focus of this report. However, it is expected that the principles and recommendations to be developed from this inquiry will also be applicable to the non-potable water sector.

It is worth noting that of this 13 per cent of potable water, only a proportion needs be treated to drinking water quality, given that much potable water is used in activities where non-potable water is adequate. These activities include outdoor use on gardens, ovals, etc, and indoor activities such as toilet flushing systems. The potential to substitute non-potable water for potable water creates opportunities for competition. This is demonstrated by the increasing take up of dual reticulation systems allowing the use of non-potable water for outdoor use, and grey water recycling systems.

The supply of water and wastewater services in Western Australia is undertaken by monopoly service providers. The provision of potable water and treatment of wastewater in Western Australia is dominated by the Water Corporation (**Corporation**). The Corporation serves the major metropolitan areas of Perth and surrounds as well as numerous regional centres and towns. In total, the Corporation provides 94 per cent of potable water and wastewater services. Other water service providers include Busselton Water and AQWEST, which serves Bunbury.

3.2.1 Water Corporation

The Corporation is a statutory corporation operating under the *Water Corporation Act 1995*. The Corporation was established as a commercially focused utility on 1 January 1996 following a restructuring of the water industry that also saw the roles of water resource manager (now the Department of Environment) and regulator (now the Authority) separated from the functions of the utility. The Corporation is governed by a Board of Directors acting in accordance with Corporations Law, and the Board is accountable to the Minister responsible for the *Water Corporation Act 1995*.

The Corporation is a vertically integrated water and wastewater business. It was established in 1995 and given the task of providing "sustainable water services to make Western Australia a great place to live and invest".[3] Prior to the creation of the Corporation, water and wastewater services were provided directly by the Western Australian Government. In undertaking the

[2] Irrigation Review Steering Committee, *State Water Strategy – Irrigation Review Final Report,* July 2005, pg 5.

[3] http://www.watercorporation.com.au/C/company_index.cfm?uid=6135-9990-9046-5900

tasks associated with water and wastewater services, the Corporation must comply with the relevant health and environmental regulations.

The prices the Corporation charges for its services are determined by the Western Australian Government. In making its final determination of prices, the Government takes into account advice that is provided to Government through public processes by the Authority.

During the 2005-06 financial year, the Corporation had revenues of approximately $1.4 billion (including $340 million from the Western Australian Government for the provision of community service obligations) and an after-tax profit of $474 million. A dividend of $362 million was paid to the Western Australian Government, the Corporation's owner.[4]

Much of the remainder of the Issues Paper will focus upon the Corporation, given its relative dominance in the market. However, the discussions can just as easily be applied to the other significant Western Australian water and wastewater businesses, AQWEST and Busselton Water.

3.2.2 AQWEST

Bunbury Water Board, trading as AQWEST is a statutory authority established under the *Water Boards Act 1904*. The Bunbury Water Board was established in 1905 and was operated in association with the Bunbury local government authority until 1997 when it was re-formed as a separate entity.

AQWEST provides potable water services to the Bunbury-Wellington region, including water sourcing, treatment, distribution and retailing operations. Water is sourced from the Yarragadee aquifer through 13 production bores and supplied to about 14,000 connections through 332 kilometres of water mains. About 72 per cent of water produced is supplied to residential customers and the remaining 28 per cent is supplied to non-residential customers. AQWEST does not provide wastewater services, which in AQWEST's region of operation are provided by the Corporation.[5]

During 2005-06, AQWEST had total revenues of approximately $8 million and an after-tax profit of approximately $2 million.[6]

3.2.3 Busselton Water

Busselton Water Board, trading as Busselton Water, is a statutory authority established under the *Water Boards Act 1904*. The Busselton Water Board was established in 1906. Busselton Water is governed by a Board of Directors appointed by the Minister for the Environment and acting under powers created by the *Water Boards Act 1904*.

Busselton Water provides a potable water service to the town of Busselton and to surrounding areas, including water sourcing, treatment, distribution and retailing operations. Water is sourced from the Yarragadee aquifer through 8 production bores and supplied to about 8,700 connections through 232 kilometres of water mains. About 82 per cent of water produced is supplied to residential customers and the remaining 18 per cent supplied to non-residential customers. The business has an employee workforce of around 23 full-time-equivalent staff. Busselton Water does not provide wastewater services, which in Busselton Water's region of operation are provided by the Corporation.[7]

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4 Water Corporation Annual Report 2006 pg 44.

5 ERA, *Final Report on the Inquiry on Urban Water and Wastewater Pricing,* November 2005, pg 117.

6 AQWEST Annual Report 2006 pg 20.

7 ERA, *Final Report on the Inquiry on Urban Water and Wastewater Pricing,* November 2005, pg 151.

During 2005-06, Busselton Water had total revenues of approximately $7 million and an after-tax profit of approximately $2 million.[8]

[8] Busselton Water Annual Report 2006, Financial Statements pg 2.

4 Competition in the Water and Wastewater Industry

This Chapter provides an overview of some of the relevant experiences in a range of Australian and international jurisdictions. It includes an overview of different market structures, ways in which competition and competitive pressures have been introduced, and recent developments in the water and wastewater industry.[9]

4.1 Western Australia

The Corporation is responsible for the day-to-day operation and maintenance of the majority of the water and wastewater networks in Western Australia as well as for the construction of additional infrastructure as required. In fulfilling these duties, the Corporation undertakes operating tasks and capital works on an 'in-house' basis. In addition, the Corporation sources a significant proportion of these works from the private sector through competitive tendering processes. During 2006, the Authority understands that the Corporation put out to tender 90 per cent of capital projects, representing approximately $550 million, and 50 per cent of operating expenditure, representing approximately $203 million.

Competitive tendering is the most readily available way in which competition and competitive pressures can be introduced into a natural monopoly supply chain. Competitive tendering means that instead of the Corporation undertaking works and operations on an in-house basis, it tenders for the construction of specific works, projects or operations, to private companies which bid for the right to provide the services. Competition between rival bidders attempting to win the contract seeks to achieve the provision of services in the most efficient manner.

The construction of the desalination plant is a further example of private sector involvement in major operations. The plant was completed under a 'Design, Build, Operate' framework via an alliance between the Corporation and a private sector business.

Competition in Western Australia is also evident in the development of greenfields infrastructure. For example, a developer constructing a new suburb may engage either the local water business or an alternative provider. Competition between the possible infrastructure providers results in the developer contracting with the business able to provide the best value for money. This occurred in the provision of water services to Dalyellup, to the south of Bunbury. In the construction of a new development, the developer sought tenders from both AQWEST and the Corporation for the provision of water and wastewater services. Competition between the two water businesses saw a reduction in the price charged for these services with the services eventually provided by the Corporation.

4.2 South Australia

SA Water is a wholly government owned entity responsible for the provision of water and wastewater services throughout South Australia.[10] SA Water adopts a similar approach to that of the Corporation in that it makes extensive use of contracting arrangements. In the provision of water and wastewater services for Adelaide, SA Water issued a 15.5 year contract with a private company, to provide these services.[11] The contract included the management of water

[9] The jurisdictions identified and the examples included have been chosen to illustrate specific examples of where possibilities exist to introduce competition and competitive pressures. It is not the intention of this Chapter to provide a complete summary of each and every instance where competition and competitive pressures have been introduced.

[10] http://www.sawater.com.au/SAWater/

[11] http://www.uwi.com.au/frames_adl.php

and wastewater treatment plants, water and wastewater mains, the undertaking of billing, and the operation of call centres.

A further example of SA Water taking advantage of contracting arrangements was in the provision of a wastewater treatment plant at Victor Harbour near the Mouth of the Murray on the South Australian coast.[12] SA Water contracted with the same private business under a Build, Own, Operate, and Transfer model for the construction and operation of the treatment plant for a period of 20 years, after which time the plant is to be transferred to SA Water.

4.3 Australian Capital Territory

The arrangement in the Australian Capital Territory is similar to that in Adelaide where ACTEW, the 100 per cent government owned water and wastewater business, contracts with ActewAGL to provide all of the management and operation of the water and wastewater network.[13]

4.4 New South Wales

The structure of the water and wastewater industry in New South Wales differs from the structure of the jurisdictions mentioned previously. The reason for the adoption of this alternative market structure is discussed below. This is followed by a discussion of the introduction of competition into the NSW water and wastewater market.

In 1998, an outbreak of *Cryptosporidium* and *Giardia* occurred in Sydney's drinking water.[14] Following the outbreak, an independent inquiry found that the management of Sydney's catchments were fragmented between a range of government agencies with overlaps and gaps in responsibilities. The inquiry recommended that a separate catchment management authority be established with responsibility for managing the catchments, dams and associated infrastructure.[15]

In response, the Sydney Catchment Authority (**SCA**) was established in 1999 and now provides bulk water to Sydney Water, which in turn manages the water and wastewater distribution network. The price of bulk water supplied by the SCA to Sydney Water is regulated by the Independent Pricing and Regulatory Tribunal (**IPART**), the State's economic regulator, which also determines Sydney Water's prices.

The next major development in NSW concerned the introduction of competition. In 2004, Services Sydney, a private company, applied to the National Competition Council (**NCC**) to have Sydney Water's sewerage transmission and interconnection services 'declared' under Part IIIA of the *Trade Practices Act 1974*. Part IIIA of the *Trade Practices Act 1974* allows alternative parties to gain access to essential natural monopoly infrastructure. Declaration of Sydney Water's sewerage transmission and interconnection services would provide Services Sydney with access to the relevant infrastructure.

Services Sydney intended to provide sewage treatment services in competition with Sydney Water. It was Services Sydney's aim to contract with customers and use Sydney Water's network to transport these customers' sewage to a pipeline installed by Services Sydney. The sewage would then be transferred to Services Sydney's treatment plant to be processed. The reclaimed water could then be used for agriculture, industrial and domestic uses, and for environmental flows.

[12] SA Water Annual Report 05-06 pg 64

[13] http://www.actew.com.au/about/profile.aspx

[14] *Cryptosporidium* and *Giardia* are parasites which can cause gastroenteritis in humans.

[15] Sydney Catchment Authority Annual Report 1999-2000, pg 3.

The NCC recommended that Sydney Water's sewerage transmission and interconnection services be declared. However, this recommendation was not implemented by the NSW Government. In early 2005, Services Sydney went to the Australian Competition Tribunal, which agreed with the decision of the NCC and required that third party access to Sydney Water's sewerage transmission and interconnection services be allowed.[16]

During the time that the Australian Competition Tribunal was hearing Services Sydney's case, IPART was conducting a review of water and wastewater service provision in the Sydney region. The Final Report was released in October 2005 and made a total of 22 recommendations regarding pricing principles and alternative arrangements for the delivery of water and wastewater services, including private sector involvement.[17] The key recommendations included that:

- water authorities use competitive sourcing to procure additional supplies;
- each water authority separate its competitive sourcing activity from its operations;
- Sydney Water consider using a more innovative, outcomes-based competitive procurement program, and expand its current program;
- a state-based access regime for water and wastewater infrastructure be established;
- the government not undertake structural disaggregation of Sydney Water at that time, but continue to examine the benefits and costs of such reform; and
- a licensing regime be established to ensure health and environmental concerns arising from the new arrangements are addressed.

In 2006, the NSW Parliament passed the *Water Industry Competition Act* based upon the recommendations of the IPART review. The Act establishes a framework which will support entry of the private sector into the water and wastewater industry. The Act allows for access to wastewater systems, effectively reinforcing the decision of the Australian Competition Tribunal. However, the Act goes beyond the decision of the Australian Competition Tribunal by establishing an access regime for the remainder of the network. This enables private sector businesses to access water and wastewater storage and transport networks in the hope that this will promote competition in the provision of these services. The Act also contains licensing conditions to ensure that those entering the industry meet the necessary environmental and health requirements.

The establishment of a third party access regime has created an environment which will allow businesses to provide water and wastewater services in competition with Sydney Water and other water and wastewater providers should they deem it to be worthwhile.

4.5 South East Queensland

Throughout South East Queensland, which includes the Brisbane and Gold Coast regions, water and wastewater services are provided by local councils, in comparison to the situation that exists in Perth, where a single entity provides all services. However, the recent large increases in population and reductions in water storage levels have caused the State Government to investigate options for alternative approaches to the management of the water and wastewater network.

In August 2006, the Queensland Government issued the Queensland Water Commission with a reference seeking advice on institutional and pricing matters regarding water and wastewater

[16] See Australian Competition Tribunal, 'Application by Services Sydney Pty Limited [2005]ACompT 7' for a discussion of the hearing as well as the background.

[17] IPART, 'Investigation into Water and Wastewater Service Provision in the Greater Sydney Region – Final Report', October 2005.

service delivery. The scope of the reference was subsequently expanded to include an investigation of different ownership structures. The final report was provided to Government in May 2007 and made a series of recommendations.[18]

The recommendations included:

- grouping together bulk water supply assets with water and wastewater treatment assets based upon catchment boundaries and reducing the number of owners from 25 local councils to two State owned entities;
- establishing a further bulk water supplier responsible for operation of the desalination plant and the Western Corridor Pipeline;
- establishing a bulk transport business owning all the major pipelines (except the Western Corridor Pipeline);
- establishing a non-profit, State owned Water Grid Manager to manage water security across the region with responsibility for contracting with bulk suppliers, transporters and retailers;
- establishing a single distribution business owning all water reticulation assets, service pipes, meters, and sewerage reticulation assets;
- consolidation of the local council retail businesses from 17 to three; and
- that prices charged at each level of the supply chain be determined via more robust economic regulation.[19]

The aim of the recommendations was to create a more efficient and accountable water and wastewater industry.[20] The final report stated that the recommended structure would allow a range of opportunities for the introduction of competition. These included:

- the use of a competition based approach to sourcing future water options;
- the potential introduction of competition between retailers for customers;
- third party access to natural monopoly segments of the supply chain; and
- scope for the use of 'comparative competition' between bulk suppliers and potentially retailers. Comparative competition is a concept developed in the regulation of water and wastewater utilities in England and Wales (see Box 1 below for further discussion). Under this approach, the performance of a given business relative to that of similar businesses determines the prices to be charged.

The Queensland Government has stated that it will accept the findings of the report and introduce the market structure and arrangements as recommended by the Queensland Water Commission.[21]

[18] Queensland Water Commission, 'Our Water: Urban water supply arrangements in South East Queensland, Final Report', May 2007.

[19] Queensland Water Commission, 'Our Water: Urban water supply arrangements in South East Queensland, Final Report', May 2007, pp ix - x.

[20] Queensland Water Commission, 'Our Water: Urban water supply arrangements in South East Queensland, Final Report', May 2007, pg 1.

[21] http://www.abc.net.au/news/newsitems/200705/s1932150.htm

4.6 Tasmania

Tasmania is in the process of undertaking a review similar to that which has occurred in South East Queensland. One of the aims of the review is to consider whether a consolidation of the numerous local councils responsible for providing water and wastewater services would provide benefits in terms of long-term improvements in the provision of water and wastewater services.

4.7 Victoria

Similar to the arrangements in NSW, Victoria has a separate catchment management entity, Melbourne Water. Melbourne Water provides catchment management services, bulk water supply and wastewater treatment for the three distribution and retail businesses operating in Melbourne: Yarra Valley Water, South East Water, and City West Water. These distribution and retail business buy bulk water from Melbourne Water, distribute this water to their customers, collect wastewater, and bill customers, before returning the wastewater to Melbourne Water for treatment.

This arrangement with a single bulk water provider and three retail businesses was introduced following a 1994 restructure of Melbourne's water and wastewater industry. The restructure took place in an attempt to achieve efficiencies in service provision and maximise benefits to customers. There is no direct competition between the three retailers for customers as each retailer is confined to distinct geographic areas. In the regulation of these businesses, the economic regulator (the Essential Services Commission) has the opportunity to use some form of comparative competition regime, although at the moment only a benchmarking approach is used. Benchmarking refers to the situation where the performance of a business is considered relative to other businesses to gain an idea of appropriate costs. However, there is no direct link between the performance of the business and its revenues (again, see Box 1 for a comparison of benchmarking with a comparative competition regime).

4.8 New Zealand

In New Zealand, regional councils are responsible for water supply to smaller local councils. In the provision of water, these regional councils contract with the private sector to assist in the operation of the network. One such example is the contract between the Wellington Regional Council and a private company for assistance with the management of the water supply network.

The Wellington Regional Council engaged a private business to develop and install a new computer operating system capable of making more efficient use of the four available water sources and associated infrastructure. The computer system selects the most cost effective water supply source, or combination of sources, able to deliver the necessary volume of water based upon an analysis of the availability of supply, water treatment costs and pumping costs. It is claimed that the adoption of this approach has resulted in a significant reduction in energy and chemical costs associated with water treatment and transfer.[22]

4.9 England and Wales

There are ten vertically integrated combined water and wastewater companies and 16 water only companies operating in England and Wales. These companies are regulated by Ofwat, the economic regulator for the water and wastewater industry in England and Wales.

[22] http://www.derceto.com/cms/public-site/clients/44.html

Ofwat's mission is to "regulate in a way that provides incentives and encourages the companies to achieve a world-class service in terms of quality and value for customers in England and Wales".[23] Ofwat states that it believes "that consumers interests will be protected if we promote effective competition wherever possible in the water and sewerage sectors".[24]

To this end, Ofwat has sought to introduce, wherever possible, competition and competitive pressures into the regulation of natural monopolies. Ofwat has introduced competition in the following ways.[25]

First, Ofwat uses comparative competition when determining the prices that each water and wastewater monopoly may charge (see Box 1).

Box 1: Comparative Competition versus Benchmarking

A comparative competition regime can be thought of as a competition between each of the businesses. The performance of each business is considered in terms of the costs incurred and the service levels achieved and is ranked against the performance of all other businesses.

The ranking process seeks to take into account each business's specific circumstances (for example, any operational circumstances that may differ across the businesses and justify either higher or lower costs).

The ranking process requires the use of detailed financial and economic modelling to account for the differences in operating circumstances and is therefore more straightforward where the differences are few.

The companies which are able to keep to a minimum their operating costs and the costs of maintaining their assets are rewarded by being able to retain these cost savings through higher relative prices for a set period of time. These cost savings are later passed on to customers in the form of lower prices. Those companies whose costs are deemed to be excessive relative to the other businesses see their prices reduced.

Comparative competition is not benchmarking alone.

- A comparative competition regime implies that there is a direct link between the historical performance of a business relative to its counterparts and its future revenues.
- A benchmarking approach typically consists of simply comparing the costs of a business with similar businesses and making a judgement call as to whether the performance of the business is reasonable.

The intention of a comparative competition regime is to recreate the conditions of a competitive market where efficient businesses are rewarded via higher profits and inefficient businesses are punished.

[23] http://www.ofwat.gov.uk/aptrix/ofwat/publish.nsf/Content/protecting_interests280905

[24] Ofwat, 2007, 'Outcomes of Ofwat's internal review of market competition in the water sector', pg 3.

[25] See the Department for Environment, Food & Rural Affairs, 'Extending opportunities for Competition in the Water Industry in England and Wales – Consultation Paper' July 2002, for a discussion of the different forms of competition.

Second, there is widespread competition in England and Wales in terms of contracting for the supply of services to the water and wastewater companies. Alliance contracts, where private businesses are engaged on a medium to longer term basis to provide services for specific areas, are common. For example, Yorkshire Water makes extensive use of such contracts. This involvement of external parties to provide best value services is similar to the approach adopted in Australia and New Zealand.

Third, while there is no direct competition for customers given the legislated geographic natural monopolies that are in place, competitors can challenge for the right to be appointed as the sole provider in a specific geographical location, replacing the incumbent company. These appointments are referred to as 'inset appointments'. However, these appointments are limited to large users, unserviced (greenfield) sites, and where the geographic monopoly agrees to alter its boundaries.

Fourth, near the border between the geographic monopolies, customers can elect their water and wastewater supplier. This form of competition is referred to as 'out-of-area supply'. In many instances, it may require the neighbouring monopoly to construct pipes to the customer's premise which may be uneconomical. As such, this form of competition is uncommon.

Fifth, there is competition for the provision of on-site water and wastewater services for large customers. This takes the form of providing more advanced services such as uninterruptible supplies, the introduction of more water efficient processes, and account management for businesses with multiple sites.

Sixth, in England and Wales, anyone may offer to provide water and wastewater services independently of the established networks. The private supply of water imposes some competitive pressures on water and wastewater companies, although this is heavily reliant upon the location of the sources.

These arrangements were modified in May 2004 with the addition of 'self-lay provisions'.[26] These provisions allow for developers to select between having the geographic monopoly or a contractor of their choice lay pipes as part of a new development. A survey was conducted in mid to late 2006 which indicated that approximately 25 per cent of new connections were made under this self-lay provision.

On 1 December 2005, the regulatory regime was amended further. The main change was the introduction of a licensing regime whereby companies could apply for either a retail licence or a combined licence. A retail licence allows a licensee to purchase wholesale water from the geographic monopoly, transport the water through the relevant supply network, and sell this water to the premises of its customers. A combined licence allows a licence holder to not only use the network of the geographic monopoly but to also introduce water into the system.

Regardless of the type of licence issued, there is a need to determine the charge payable by the licence holder for the use of the geographic monopoly's network. The charges are determined in accordance with a 'Costs Principle' approach and form the basis of the 'access agreement' between the monopoly and the licence holder.

There are restrictions on the type of customers that licence holders may serve, related to the expected volume of water to be consumed. The threshold is currently set at 50 Megalitres (**ML**) per year which means that around only 2,200 large water users are eligible to receive suppliers from licence holders.[27] To date, no customer has switched suppliers under the licensing regime. Ofwat is currently reviewing the licensing arrangements and the appropriateness of lowering the current 50 ML threshold.

[26] See Ofwat, 'Outcomes of Ofwat's internal review of market competition in the water sector', April 2007 for a discussion of this amendment, the licensing regime, and the current review.

[27] A megalitre (ML) of water is one million litres.

4.9.1 Welsh Water

Welsh Water provides water and wastewater services to customers throughout Wales and some adjoining parts of England and is one of the 10 water and wastewater businesses regulated by Ofwat.[28] Welsh Water is owned by Glas Cymru, a business established in 2000 with the sole intention of purchasing Welsh Water and providing water and wastewater services to Wales and neighbouring parts of England. Glas Cymru is run exclusively for the benefit of customers and in effect operates as a not-for-profit business. There are three points regarding the structure and operation of Welsh Water which are worth noting.

- The assets and capital investments of the business are financed through the issue of bonds as well as retained earnings. This financing structure was adopted to 'reduce Welsh Water's asset financing cost, the water industry's single biggest cost'.[29] The issue of bonds is able to reduce the cost of financing as the required payments to bond holders are typically less than those that would be incurred in the payment of interest on debt raised in the normal debt market and that required by equity holders.
- Welsh Water undertakes little, if any, of the capital, operating or day-to-day management of the business itself. Rather, these activities are undertaken via contracts with private sector parties following competitive tendering processes. Welsh Water does not contract for specific projects. Instead, it enters into long term contracts (up to 15 years in length) for the provision of services in each distinct activity of the business, for example, the provision of water supply or wastewater services.[30]
- Glas Cymru has no shareholders. As such, any profits the business is able to generate from its reduced financing costs and tendering processes are either returned to customers in the form of lower bills or invested back in the business. During 2005, the customer dividend was £18 per customer. It was increased to £19 during 2006 and it is expected that dividends will continue to be paid into the future.[31] Investing profits back into the business or returning profits to customers means that customers only pay for the cost of the services provided.

The results of this approach to the provision of water and wastewater services has been impressive. In 2000/01, Welsh Water was ranked eighth of the ten main water and wastewater businesses regulated by Ofwat. Welsh Water was ranked first in 2004/05.[32] The rankings are based upon performance indicators such as levels of service, financial performance, expenditure on operations, and tariff structure and charges.

4.10 Scotland

Scotland is in the process of introducing retail competition for water and wastewater services for non-domestic customers.[33] Currently, Scottish Water and its retail business Scottish Water Business Stream, provide all water and wastewater services, including bulk water supply, water treatment, water distribution, retail services, wastewater removal and wastewater treatment and disposal. However, from April 2008, all non-domestic customers will have the opportunity to select their retail service provider. The function of a retail service provider includes the billing process (meter reading, bill calculation, collection of payments) and liaison with customers with

[28] http://www.dwrcymru.com/English/Company/index.asp

[29] http://www.dwrcymru.com/English/Company/Glascymru/index.asp

[30] See http://www.dwrcymru.com/English/Company/Operations/Partners/index.asp for access to a detailed procurement plan.

[31] http://www.dwrcymru.com/English/Company/Glascymru/dividend/index.asp

[32] http://www.dwrcymru.com/English/Company/investmentplan/performance/index.asp

[33] Water Industry Commissioner for Scotland, 'Implications of the Water Services etc. (Scotland) Act 2005: A consultation on the principles of licensing', April 2005.

regard to questions, queries and complaints. The establishment of such a regime is designed to seek cost savings in the provision of retail services.

The price of wholesale water supply and wastewater treatment to be charged by Scottish Water will be set by the Water Industry Commission for Scotland. A condition of the introduction of retail competition was the separation of retail services from the incumbent monopoly, Scottish Water. This newly created retailer is to operate under a different name (Scottish Water Business Stream) and at arms length from Scottish Water. Scottish Water Business Stream will have to purchase water from Scottish water in the same manner as any other retailer.

Issues

1) The Authority is seeking further examples of ways to achieve greater economic efficiency and sustainability, through increased competition, in the water and wastewater industry.

5 Emerging Themes

There are a range of approaches adopted to the provision of water and wastewater services including differing levels of private sector involvement, alternative market structures, and a variety of regulatory arrangements. This is demonstrated by the scope of approaches adopted in the jurisdictions discussed in Chapter 4. However, an analysis of these approaches identifies a range of common elements. This Chapter seeks to identify these commonalities and provides a framework for classifying the different ways in which competition and competitive pressures can be introduced to the provision of water and wastewater services.

Figure 2 attempts to encapsulate the various forms of competition that are conceivable within each element of the water and wastewater supply chain. The potential forms of competition can be summarised as:

- centralised procurement (e.g. for bulk water or wastewater treatment services or to provide services for an entire market);
- trading and retail competition; and
- comparative competition.

Although not a form of competition, third party access is a mechanism that facilitates decentralised procurement (whereby investments are triggered by market forces rather than a centralised approach), trading and retail competition.

The aforementioned forms of competition, plus third party access, are discussed in detail below.

The introduction of competition requires that the appropriate institutional and legislative arrangements be in place. The necessary institutional and legislative arrangements are discussed in Chapter 6.

Figure 2 Conceivable Forms of Competition in the Water and Wastewater Supply Chain

Supply Chain	Is competition conceivable?	Examples of competition
Water procurement	Yes	A bulk water market could be established with competing suppliers of bulk water (decentralised procurement achieved via **third party access**). Alternatively, an independent entity could tender for a certain volume of water or for a specific project (**centralised procurement**).
Water treatment	Yes	An independent entity could tender for a specified project or outcome (**centralised procurement**).
Water network	No	If the network is a natural monopoly, which it is likely to be, then by definition competition is not possible, although by-pass by large users is possible. However, **third party access** to the network could facilitate competition in the bulk water and retail/trading markets.
Water and wastewater retailing	Yes	**Trading and retail competition** could be established. Alternatively, a **comparative competition** regime could be introduced with retailing/distribution activities separated geographically. In addition, the service provision for an entire market could be put out to tender (**centralised procurement).**
Wastewater network	No	Competition is unlikely given the natural monopoly nature of the network, although by-pass by large users is possible. However, **third party access** could facilitate competition in the wastewater treatment/disposal market or the retail/trading market.
Wastewater treatment	Yes	Service providers could compete to treat wastewater for either disposal or recycling (decentralised procurement achieved via **third party access**). Alternatively, an independent entity could tender for a specified project or outcome (**centralised procurement**).
Wastewater disposal	Yes	There is already, to some extent, a market for treated wastewater by-products, e.g. for use in the agricultural sector.

5.1 Centralised Procurement

Under a centralised procurement arrangement, there is competition between those wishing to supply the product or service. As will be discussed in Section 6.1, the entity responsible for the procurement may not be the water business itself. Within this category, there can be competition and competitive pressures introduced for specific projects, overall outcomes or the entire market.

Competitive Supply for Projects

The use of centralised procurement for the provision of a specific project or service is the traditional and most commonly used form of competitive supply and can be thought of as a tender for a specific project. Under such an approach, a project is specified and tenders sought from interested contractors. The contractor offering the best value for money is employed to complete the designated task. In a competitive supply for projects framework, the water and wastewater service provider can be considered as the customer seeking the provision of a service.

In Western Australia, the Corporation adopts this approach in its 'Traditional Delivery' and 'Partner Delivery' capital works programs.[34] The construction of the desalination plant through a tendering arrangement is one such example.

The process undertaken by SA Water for the construction of the wastewater treatment plant at Victor Harbour is another example of a tender for a specific project. Similarly, the employment by the Wellington Regional Council of a private business to manage the pumping and operating arrangements of its water network is a further example of competition in the provision of a specific project.

Competition between companies for the right to undertake specific projects encourages productive efficiency as the competition to win tenders forces rival companies to provide the works and operations at least cost.

The form of tendering and contracting adopted can have substantial implications for the extent of effective competition and especially the 'competition in ideas' as a basis for system innovation. Relevant considerations include the degree of prescription imposed in the tender documents, the flexibility offered by the assessment processes to value outcomes and system flexibility not originally envisaged in the services, and the way in which risks are allocated. This is true even in the context of project-level competitive supply where the broad approach – such as a new dam or desalination plant – is set.

For example, tenders for a desalination plant could afford substantial flexibility including scale and operational trade-offs, forms of system interconnection, and the nature of the commercial arrangements in relation to supply of either or both of water supply and system reliability/security services.

Competitive Supply of Outcomes

An alternative approach to that of competitive supply for specific projects is introducing competitive supply of outcomes. Rather than specifying the actual project to be completed, an outcome is stipulated. A competitive supply for outcomes approach is best demonstrated by way of an example.

Consider a situation where an additional bulk water source is required. Under a competitive supply for outcomes approach, rather than tendering for the construction of a dam with capacity to provide 10 ML of water a year, competitive bids for the supply of 10 ML of water a year are

[34] http://www.watercorporation.com.au/C/capital_works.cfm?uid=5324-4976-9683-1652

issued. This would allow rival bidders to suggest alternative ways to provide 10 ML a year. Some may suggest the construction of a dam while others may propose recycling initiatives, obtaining water via trading, or to fix leaks in the system. Such an approach would increase competitive pressures within the water and wastewater industry and lead to new and innovative solutions, providing customers with lower prices and higher standards of service.

Taking this same thinking even further, rather than specifying a supply requirement, there might be scope for seeking alternative ways of boosting system yield by 10 ML/annum or of reducing the assessed risk of supply shortage below a specified threshold. These requirements might be met through supply augmentation as above, but might also be met via the establishment of short lead-time 'readiness' capability to be called upon under specified trigger conditions – such as was proposed for Sydney as the role for desalination and groundwater strategies in the 2006 Metropolitan Water Plan. The possibility of markets delivering a solution quite different from any already identified by the tendering agency should not be ignored.

In the case of bulk water supply, a competitive supply for outcomes methodology supports a 'centralised' approach to determining the trigger point at which additional supplies, or supply capability, are needed – or at least in specifying and assessing acceptable system risk. A central agency would generally determine the need for additional water supplies or supply capability before seeking bids for its provision.

A competitive supply for outcomes approach need not be restricted to the provision of additional bulk water supplies. Rather, such an approach can be used to drive dynamic efficiency in all aspects of the water and wastewater industry. The adoption of a competition for outcomes approach was one of the recommendations of the IPART investigation of water and wastewater service provision in the Sydney region.

Welsh Water has adopted a competition for outcomes approach. Welsh Water outsources all of its day-to-day functions to external contractors and retains only a small number of staff which co-ordinate the contracts and monitor performance against its statutory duties. This approach allows for the involvement of competing service providers in all stages of planning and development and leads to alternative approaches and cost savings.

Competitive Supply of Services for an Entire Market

A further form of centralised procurement is competitive supply of services for an entire market. Under this approach, bids are sought from private businesses for the provision of all services for a distinct market. Competition between those trying to win the right to serve the area leads to low cost solutions to service provision. A competition for the market approach was adopted by SA Water when it contracted with United Utilities to provide all water and wastewater services for Adelaide for a period of 15.5 years.

A competitive supply of services for an entire market approach has also occurred in the provision of services to Dalyellup, to the south of Bunbury in Western Australia. In the construction of a new development, the developer sought tenders from both AQWEST and the Corporation for the provision of water and wastewater services. The competition for the provision of services to the market saw a reduction in the cost of these services in the development.

A competition for the market approach could also be appropriate in remote and/or regional areas. For example, in relatively small remote areas, there may be economies of scale and scope that could be achieved by allowing the local electricity retailer to also provide water and wastewater services.

Depending on the conditions attached to the bid, the successful bidder may be made responsible for sourcing additional water supplies. In this situation, a trigger point at which additional sources are needed could be determined by the central agency (possibly the entity

responsible for seeking the provision of the services) and included as part of the conditions of the contract.

5.2 Third Party Access

Third party access allows an entity other than the infrastructure owner to use the network. In the case of a water and wastewater monopoly, this infrastructure is the water and wastewater transmission and distribution network. Such regimes are common in the gas, electricity and telecommunication industries in Australia and abroad. Third party access allows for the introduction of competition into the non-monopoly elements of the supply chain. This competition would not have occurred otherwise due to barriers to entry posed by prohibitive network duplication costs that are characteristic of natural monopoly industries.

For example, in the National Electricity Market operating in the Eastern States, the establishment of third party access regimes allow access to the transmission and distribution network facilitating competitive entry both upstream and downstream of the wires network. Upstream, new privately owned generation provides new sources of supply while downstream new traders and retailers compete with restructured previously-integrated monopoly suppliers. These new generators are able to input electricity directly into the pre-existing network supplying a competitive trading and retail sector, avoiding the need to duplicate the network.

The *Water Industry Competition Act* in New South Wales is an example of a third party access regime in the water and wastewater industry. This Act allows access to Sydney Water's water and wastewater infrastructure, allowing alternative businesses to use the network to provide services in competition with Sydney Water. Third party access in the water industry also exists in England and Wales in the form of Ofwat's 'combined licence'. This licence allows businesses other than the incumbent to insert water into the system for sale to large customers.

Third party access regimes allow for a 'decentralised' approach to water and wastewater planning and foster dynamically efficient outcomes. Under a decentralised approach, planning decisions, such as the need for additional bulk water sources or treatment plants, are driven by market forces. The 'trigger point' at which new investment occurs is the point at which it becomes profitable to do so.

For example, consider the introduction of an additional bulk water source where a private company is deciding whether or not to invest in a desalination plant. For the plant to be profitable, access to the existing network is needed so that the company can transport water to its customers as the cost of duplicating the network is prohibitive. Investment in such a plant would benefit the new company's customers due to the competitive price they would receive. Existing customers would benefit as pressure on existing water sources would ease.

Given the specific characteristics of the water and wastewater industry, including its essential nature and the relevant social and environmental considerations, it may be overly optimistic at this time to consider a fully decentralised approach to planning. However, the establishment of a third party access regime would introduce market forces to planning decisions and allow for the involvement of the private sector in situations where it is economic.

In considering a third party access regime for Western Australia, it is necessary to be conscious of the decision of the Australian Competition Tribunal to declare Sydney Water's sewerage transmission and interconnection services. While this decision was related specifically to Sydney Water's sewerage and interconnection services, the ruling provides an insight into likely decisions regarding other water and wastewater networks across Australia.

5.3 Trading and Retail Competition

Under a typical competitive regime, competing traders and retailers purchase water and wastewater services from bulk water and wastewater network operators and on-sell services to customers. Retail services include services such as meter reading, bill processing, and call centre operation for household customers. Traders are businesses that provide services to large commercial and industrial users and do not generally provide services at the retail level.

Traders and retailers may find it profitable to enter the market if they are able to secure a market niche such as by providing services at a lower cost than the stand-alone water and wastewater business. This may be possible if, for example, the entrant had other retail or trading operations in similar markets such as electricity or gas and is able to spread the cost of providing these services across a larger customer base than a stand-alone water and wastewater business.

Scotland is in the process of introducing retail (including trading) competition for water services. To facilitate competition between retailers, the water retail function of the water and wastewater operator will be separated from the network function and given an alternative name. Retail competition also exists in England and Wales under Ofwat's 'retail licence' provisions, where non-incumbent businesses are able to provide retail services to large customers.

The ability to purchase water from the incumbent as is necessary for retail competition and trading could also allow an entrant to construct its own distribution network and provide services to customers without service, such as greenfield sites, or those with poor services.

5.4 Comparative Competition

Comparative competition is the model adopted by Ofwat in England and Wales.[35] Under this approach, the performance of each water and wastewater business is compared to the performance of the other businesses regulated by Ofwat. In essence, a competition is run between all of the businesses regulated by Ofwat. Those that are able to do better than their counterparts in terms of reduced costs and improved service are rewarded by being able to keep part of these cost reductions for a period of time through relatively higher prices – as could the more cost competitive providers in most markets. Alternatively, those that are unable to match the performance of the other businesses are punished through reduced prices.

The approach adopted in Victoria, and Melbourne in particular, allows for similar comparison between competing water providers. The market structure being developed in South East Queensland also allows for comparative competition between bulk suppliers and retail businesses. However, neither of these jurisdictions has yet introduced a comparative competition regime. Rather, a benchmarking approach is adopted whereby the performance of a business relative to other businesses gives a guide to reasonable costs. This differs from a comparative competition regime where there is a direct link between relative performance and revenues.

[35] In conjunction with comparative competition, England and Wales allow for competition in a range of other forms including through third party access, retail competition and tendering arrangements.

Issues

2) The Authority has identified the following broad types of competition: centralised procurement, trading and retail competition, and comparative competition. In addition, third party access is a mechanism that facilitates decentralised procurement, trading and retail competition. The Authority is seeking comments on whether this framework encompasses all of the potential commercial opportunities that might exist.

6 Institutional and Legislative Requirements for Competition

The means by which competition and competitive pressures can be applied to the water and wastewater industry were identified in Chapter 5. These approaches were:

- centralised procurement;
- third party access;
- trading and retail competition; and.
- comparative competition.

In order to facilitate the introduction of any of these approaches, it is necessary that appropriate institutional and legislative arrangements be in place. This Chapter discusses these institutional and legislative requirements.

In addition, this Chapter identifies the matters which must be considered when assessing the benefits and costs regarding the establishment of alternative market structures or regulatory regimes. The benefits and costs of altering the current market structure and/or regulatory regime are two-fold. First, the establishment and on-going costs in operating the new arrangements relative to those of the current system must be considered. Second, the change in any economies of scale and scope, and other synergies due to the change in arrangements, must also be considered. These considerations should include an analysis of likely impacts on existing asset owners and operators in terms of service provision, operational and financial impacts, impacts on sustainability including environmental impacts, and impacts on innovation and efficiency. In the decision regarding the possible adoption of any alternative arrangements, it is necessary that the expected benefits associated with the regime change outweigh the expected costs.

6.1 Centralised Procurement

Centralised procurement arrangements were identified as a way in which competition and competitive pressures could be introduced to the completion of works and operations. The three forms of tendering identified in Chapter 5 were:

- competitive supply for projects (which could range from the construction of a water main through to a desalination plant);
- competitive supply of an outcome (such as securing an additional volume of water); and
- competitive supply for an entire market.

Regardless of the form adopted, there is a need to ensure that the institutional and legislative arrangements in place allow for the appropriate determination of the scope of works for which competitive supply of services is to be sought. Service standards, to underpin the scope of works, are themselves matters that might usefully be informed by competitive market operations. However, in some supply systems, of a ‘one size fits all’ type, the scope for directly using markets to guide the setting of these standards can be limited.

The type of competitive supply model may affect whether the competitive sourcing entity is located within the existing water and wastewater businesses or as a separate stand-alone entity.

The competitive supply of a specific minor project such as the construction of a water main is typically conducted via a tender by the incumbent water and wastewater business. In the case

of the Corporation, it uses competitive tendering arrangements for approximately 90 per cent of its capital works and 50 per cent of its operating works. In these instances, the Corporation is acting as a customer and benefiting from competition between companies for the right to provide the works and operations. However, there may benefits from seeking competitive supply for the remaining 10 per cent of capital and 50 per cent of operating works. In deciding against the use of competitive supply for these remaining works, it would need to be demonstrated that the cost of making use of competitive supply arrangements would outweigh the potential benefits.

Based on the principle that there is an opportunity to implement competitive supply into the provision of all services, IPART recommended that the water authorities operating in NSW separate their competitive sourcing activities from their regular operations. Under such an arrangement, the entity responsible for competitive sourcing would determine the extent of work to which competitive supply is sought and would assess each bid received on an objective basis. The competitive sourcing entity could potentially tender for the provision of all works and operations and require that the incumbent water and wastewater provider submit bids in competition with any private companies wishing to undertake the works and operations.

The creation of a separate entity with responsibility for competitive sourcing is similar to a 'single buyer' model where a single entity is responsible for purchasing supply. This is the water sourcing model which has evolved in Victoria where the three retail and distribution businesses have responsibility for sourcing water for their customers. In this instance, the retail and distribution businesses have no upstream ownership of assets. Such an approach in Western Australia would require organisational separation of the distribution and retail functions from the ownership of dams and other water resources. This approach may drive efficiencies in bulk water procurement as potential bulk water providers would compete for the right to provide the next source of supply.

Alternatively, Welsh Water adopts a competitive supply of outcomes approach for all its works and operations and essentially operates as a tender review committee.

The Independent Market Operator in the electricity industry in Western Australia is an example of a stand-alone entity responsible for determining when additional capacity is required and running a competitive supply program for its provision. Such a central body may also be responsible for ensuring compliance with any wider government policy objectives (for example, the introduction of private sector generators in the electricity market).

In the case of the water and wastewater industry in Western Australia, a similar agency could make decisions regarding competitive supply of specified works and operations as well as the need for additional water sources, including that available from dams, groundwater, or desalination. The agency would act as a centralised decision making entity, with responsibility for weighing up the costs and benefits of possible usage restrictions versus expenditure on additional water sources when determining the trigger point at which additional supplies are to be introduced. In addition, the agency could be responsible for assessing the various environmental, social, and economic concerns related to competing water sources.

Responsibility for determining the scope of works and assessing any submissions is a matter which must also be considered in the case of competitive supply of services for an entire market. In seeking the provision of all services to a distinct geographic market, an independent competitive sourcing entity would be in the best position to determine the scope of works and assess all tenders on an impartial basis. Once again, bids could be sought from the incumbent water and wastewater providers as well as other companies.

Water Trading

A source of additional supply is the transfer of water currently used in agriculture to residential use via water trading. Under a water trading regime, those with a water entitlement can elect to trade their entitlement for use elsewhere as opposed to using their entitlement. While water

trading is feasible in theory, there is a requirement that the necessary legislative and institutional arrangements be in place to support its adoption in practice. Practical constraints to water trading include the establishment of appropriate property rights and metering arrangements as well as other real and perceived problems concerning matters of market dominance and 'water hoarding'. These practical constraints to water trading have been identified and the Western Australian Government, through the Department of Water, is currently in the process of developing a series of bills and policies to address many of these issues.

Community Service Obligation Payments

A consideration regarding competitive supply arrangements for an entire market is which entities can submit a tender. Currently, the Corporation provides water and wastewater services to customers in country WA, even though the supply is technically uneconomical, as a matter of Government policy. These supplies are deemed uneconomical since the price the Corporation is able to charge does not recover the incremental costs incurred in providing the service. In these circumstances, the shortfall in revenue is recovered from the Western Australian Government in the form of a Community Service Obligation (**CSO**) payment. A CSO is defined by the Western Australia Government as follows.

> A CSO arises when a government specifically requires a public enterprise to carry out activities relating to outputs or inputs which it would not elect to do on a commercial basis, and which the government does not require other businesses in the public or private sectors to generally undertake, or which it would only do commercially at higher prices.[36]

The case of service provision to uneconomical customers is no different to any other instance where goods or services are sought. Competition between rival businesses seeking to win the right to provide services to a particular geographic area could help ensure that the services are provided in the most effective manner.

However, in the provision of uneconomical services, the definition of a CSO restricts their payment to public enterprises. As private businesses are unable to bid for the right to provide uneconomical services, there is no competition or competitive pressures applied to their delivery.

There is, however, currently an indirect means of providing subsidies to private businesses. For example, the Public Transport Authority receives funding from the State Government which it passes on, via contracts, to providers of metropolitan bus and country school bus services. It may be possible to establish a similar mechanism to indirectly provide funding to private water and wastewater service providers via contracts with a department or statutory authority.

The Corporation is the only recipient of water and wastewater CSO payments. These payment have been increasing over recent years. The Corporation received CSO payments of $240 million in 2000-01, increasing to $340 million in 2005-06.[37]

[36] Western Australian Treasury Department, 'Community Service Obligations Policy in Western Australia' April 2000, pg 3.

[37] Water Corporation Annual Report 2006, pg 44.

Issues

3) Centralised procurement approaches can take the form of competitive supply for a project, an outcome or the entire market. The key institutional and legislative consideration identified thus far relates to determining where responsibility lies for determining the scope of works for which tenders are to be sought and the assessment of any submissions received. The Authority is seeking comments on the most appropriate institutional and legislative arrangements to ensure effective use of competitive supply opportunities.

4) What barriers to competitive procurement need to be removed?

5) The Authority is seeking comments on any constraints to the use of water trading as a source of bulk water.

6) The Authority is seeking comments on the most appropriate way to ensure efficient service provision in uneconomical areas.

6.2 Third Party Access

The benefits of third party access arise from the introduction of competition and competitive pressures into the non-monopoly segments of the supply chain. Under the arrangements that exist currently in Australia, any party can enter into discussions with owners of infrastructure of national significance, such as a water and wastewater network owner, seeking access to any section of infrastructure. However, there is no obligation that the parties reach an agreement. In instances where negotiations fail, the party seeking access can apply to the National Competition Council (**NCC**) to have the infrastructure declared under Part IIIA of the *Trade Practices Act 1974,* thus granting them access to the natural monopoly infrastructure. Should the approach to the NCC be unsuccessful, or the findings of the NCC be rejected by the relevant government, as occurred in the case of Services Sydney when the NSW Premier did not implement the decision of the NCC, the access seeker can apply to the Australian Competition Tribunal for review of the State or Commonwealth Minister's decision not to grant access to the infrastructure.

As such, there are no current institutional or legislative restrictions on seeking third party access to water and wastewater networks in Western Australia. However, on a practical level, the process outlined above is time consuming, costly, and risky for a business seeking to enter the market. In the case of Services Sydney, it took from 1999, when the first formal negotiations took place with Sydney Water, until 2005 before the services were declared by the Australian Competition Tribunal.[38]

The introduction of a State-based third party access regime prior to the receipt of an application by an access seeker would reduce these barriers to entry and facilitate the further introduction of competition into the water and wastewater industry. The detail and level of prescription of the access regime would depend upon an analysis of the benefits and costs of various regimes and could range from assessing applications for access on a case-by-case basis through to the development of a more comprehensive third party access regime.

Following the establishment of a State-based access regime, some form of contestable retail market is required to allow the business seeking access to sell its water and/or wastewater

[38] Australian Competition Tribunal, 'Application by Services Sydney Pty Limited [2005]ACompT 7', pg 25.

services to customers should it determine it to be worthwhile. Without this ability to provide services to customers, there is no incentive for a business to seek third party access.

In addition to the establishment of an access arrangement and some form of contestable retail market, there is a need for any business wishing to provide services to be licensed. A licensing regime ensures those businesses providing services meet the necessary technical, financial, and public interest requirements. In the case of water and wastewater services, these requirements relate to having the business expertise to provide the services to the necessary standard while meeting the various health and environmental standards associated with water and wastewater treatment. The current licensing regime administered by the Authority does not preclude the entry of alternative retailers in the metropolitan area, and this arrangement will in future apply to other areas in Western Australia. In the case of additional licence holders, the regime needs to address matters related to the protection of customers should a licence holder fail.

Depending on the form of third party access regime developed, it may be necessary to determine a reasonable price for access to the network, probably with the aid of an independent regulator.

A range of approaches could be adopted to determine an access price. A report prepared for the Department of Agriculture, Fisheries and Forestry on third party access for water and wastewater infrastructure identified five possible approaches.[39]

- First, access prices could be determined on the basis of short-run marginal cost. Under this approach access is priced at the short-term increase in costs incurred by the incumbent as a result of the additional demand placed on the system by the new entrant.
- Second, access prices could be based on long-run marginal, cost where the price is set at the long-term incremental cost associated with demand incurred as a result of the new entrant.
- Third, the 'building block approach' could be adopted. Under this approach, the cost of the network is spread across all users on the basis of usage. This is the approach adopted in the determination of access prices in the electricity and gas industries.
- Fourth, a 'retail minus' approach can be used, whereby the access price is determined as the retail price less the cost of providing the service. This approach is most relevant where the entrant is simply on-selling services and as such has been used in the telecommunications sector in the pricing of calls for resale.
- Finally, the 'efficient component pricing rule' can be used to determine access prices. Under this approach, access charges are determined by taking the current retail price charged by the incumbent as a starting point. To this, the costs incurred in providing access to the access seeker are added. The costs avoided in not having to provide the service are then subtracted. This approach is used by Ofwat in England and Wales and was recommended by IPART in its recent review.

Regardless of the approach adopted to the calculation of access prices, separation of the natural monopoly segments of the supply chain would make the calculation of access prices less problematic as it would minimise the need to determine the contribution of joint costs across the organisation. For example, should a building block approach be adopted, it is a more straightforward task to determine the costs associated with a stand-alone water and wastewater network compared to attempting to determine the contribution to total costs a water and wastewater network makes within a vertically integrated business. Similarly, the creation of a stand-alone water and wastewater network avoids the need to determine the relative

[39] Marsden Jacob Associates, 'Third Party Access in Water and Sewerage Infrastructure: Implications for Australia – Research Paper prepared for the Australian Government Department of Agriculture, Fisheries and Forestry', December 2005, pg 79.

contribution of retail costs to the overall price charged, as is necessary under a retail minus or efficient component pricing rule approach.

In addition, structural separation of the monopoly and non-monopoly segments of the supply chain ensure that businesses entering the contestable elements of the supply chain are competing on a level playing field with the existing business. This occurs as separation removes any incentive for differential treatment by the network infrastructure owner of the different businesses operating in the contestable elements of the supply chain. This form of structural separation, where the monopoly segments of the supply chain are separated from the contestable elements, can be classified as vertical separation, as it occurs between different segments of the vertically integrated supply chain.

A further advantage of vertical separation is that the roles and responsibilities of the various entities can be clearly established and monitored. The clear assignment of roles and responsibilities allows each entity to focus on achieving their specific goals. In addition, vertical separation reduces the likelihood of an entity being faced with conflicting objectives which may occur in a vertically integrated entity with responsibility for many tasks.

Structural separation can also take the form of horizontal separation. Horizontal separation occurs within a specific segment of the supply chain. For example, the separation of a single bulk water supplier into various competing entities, or the establishment of competitive retailers, would be classified as horizontal separation. As discussed in section 5.2, the existence of competing bulk water suppliers would support a decentralised approach to additional water source procurement. Such an approach would encourage competition in the provision of additional bulk water supplies with decisions regarding additional water sources influenced by profitability considerations. The establishment of competing bulk water suppliers would assist in revealing a 'market' price for water and therefore aid in achieving cost reflective pricing.

In any decision regarding the establishment of alternative market structures or regulatory regimes, it is necessary to establish that the expected benefits associated with the regime change outweigh the expected costs.

Issues

7) The introduction of a State-based third party access regime would require a decision about the comprehensiveness of the regime, a contestable retail market, appropriate licence conditions, an access price, and a consideration of structural issues. The Authority is seeking comments on these and other matters that would assist in an assessment of whether the benefits of a State-based access regime outweigh the costs.

8) Would a State-based access regime result in commercial operators entering the market?

6.3 Trading and Retail Competition

Trading and retail competition may involve water and wastewater services being purchased from the incumbent water and wastewater business and on-sold to customers. This creates a benefit if the new business is able to provide the retail services at a lower cost to the incumbent. Trading and retail competition does not rely on third party access, but such access would be likely to enhance trading and retailing.

Currently, service providers, such as the Corporation, AQWEST and Busselton Water, are the main providers of retail services to customers. While the current legislative arrangements do

not specifically preclude the introduction of alternative retailers, in a practical sense, there is no retail competition given the difficulties associated with negotiating the purchase of services and obtaining customers.

The meaningful introduction of retail competition would require that a contestable retail market be established to enable customers to elect freely their water and/or wastewater retailer of choice. Contestable retail markets have been introduced for electricity and gas in many jurisdictions in Eastern Australia.

As discussed in section 6.2, the current licensing regime is designed to ensure those businesses providing retail services meet the necessary technical, financial, and public interest requirements. In addition, the licensing regime may need to be amended to allow for customers to transfer between retailers and to protect customers in the event that a retailer fails.

To assist in the introduction of competition and to ensure that all retailers are operating on the same basis, vertical separation of the retail business, as discussed in section 6.2 and as is occurring in Scotland, could be considered.

A further requirement of retail competition, where there is no third party access, is the ability of retailers to purchase water and wastewater services to on-sell to customers. The methods discussed in relation to determining a third party access price can be applied in this form of retail competition.

Before introducing retail competition, an assessment of the benefits and costs of implementing such an arrangement would need to be undertaken. This assessment would need to consider the costs associated with the above matters as well as addressing any issues related to any customer switching costs, any additional metering costs and additional administrative services.

Issues

9) The introduction of trading and retail competition would require the establishment of a contestable market, appropriate licensing conditions and a consideration of structural issues. The Authority is seeking comments on these and other matters that would assist in an assessment of whether the benefits of trading and retail competition would outweigh the costs.

10) Would the removal of barriers to trading and retail competition result in commercial operators entering the market?

6.4 Comparative Competition

The introduction of a comparative competition regime similar to that in operation in England and Wales would require several changes to the Western Australia water and wastewater industry. The first of which would be the establishment of comparable businesses. This could be achieved by the structural separation of the Corporation into, as a minimum, two businesses responsible for providing roughly similar services. These services could involve all aspects of the supply chain or be restricted to particular segments such as the water and wastewater pipe networks. Depending on entities created, AQWEST and Busselton Water could be included in the regime.

In addition to the establishment of comparable businesses, the details of the regulatory regime would need to be established clearly. The regulatory regime would need to include the method and criteria against which the businesses were to be assessed. Furthermore, the manner in

which prices were to be determined based on the performance of each business would need to determined. Other matters such as appropriate licence conditions would also need to be considered. Prior to the adoption of a comparative competition regime, the benefits and costs of these matters would need to be considered, and this would need to include an analysis of any sacrifice of size economies. It is arguable that the model, as enacted elsewhere, fits more naturally into the much higher population, higher density of development UK setting than it does in WA with only one moderately large urban centre.

It is possible to gain some of the advantages of a comparative competition regime without implementing a fully operational regime. For example, benchmarking the performance of a business against similar businesses in other jurisdictions is an approach already adopted in the regulation of water and wastewater services in Western Australia. The recent release by the National Water Commission of the National Performance Report for 2005-06 provides a range of possible benchmarks. However, caution should be taken when directly comparing businesses operating in significantly differing geographic areas.

Issues

11) The introduction of a comparative competition regime would require the creation of comparable businesses and the development of a regulatory regime that would provide incentives for businesses to outperform their counterparts. The Authority is seeking comments on these and other matters that would assist in assessing the appropriateness of a comparative competition regime.

7 Further Matters

The Authority has analysed a variety of ways in which competition can be fostered in the water and wastewater industry and identified some of the institutional and legislative matters which would need to be considered. However, the Authority is conscious that there may be matters which it has failed to identify.

Issues

12) The Authority is seeking comments on any issues interested parties consider relevant to the inquiry which have not been identified in the Issues Paper.

In addition, the Authority notes that there may be other ways in which competition can be increased in the water and wastewater industry of which it is unaware.

Issues

13) The Authority is seeking comments on other ways in which competition can be increased in the water and wastewater industry.

Furthermore, the Authority is seeking comments on where interested parties consider there to be the most benefit to be had from increased competition.

Issues

14) The Authority is seeking comments on the areas to which it should pay most attention when developing its recommendations, to allow for the greatest introduction of competitive pressures and the delivery of the greatest benefits to customers.

APPENDICES

Appendix 1: Terms of Reference

INQUIRY INTO COMPETITION IN THE WATER AND WASTE WATER SERVICES SECTOR
TERMS OF REFERENCE

I, ERIC RIPPER, Treasurer, pursuant to section 32(1) of the *Economic Regulation Authority Act 2003* (the ERA Act), request that the Economic Regulation Authority (the Authority) undertake an inquiry into, and provide advice on possible competitive enhancements for the delivery of water and wastewater services, with a view to making recommendations for providing these services in the most efficient, effective and sustainable way.

Key areas of focus will include:

- enhancing the efficiency of future water source procurement (and other significant capital investment) processes, including issues associated with current market structures and mechanisms, such as competitive tendering models, and determining the trigger conditions for committing to the acquisition of a new source;
- opportunities for enhanced competition by introducing third party access regimes to existing water and waste water-related infrastructure, including identifying appropriate principles and mechanisms to implement efficient and effective regimes; and
- other reforms to the water and wastewater market which may enhance competition, including the establishment of water trading mechanisms and the benefits, costs and issues associated with them (e.g. inter-regional trades, market dominance and water hoarding) and arrangements for community service obligations paid by the State Government to service providers.

In conducting the inquiry and developing recommendations, the Authority is to have regard to:

- the roles and responsibilities of participants in the industry, both Government and private sector recognising that certain services (e.g. water transmission and distribution) have strong natural monopoly characteristics;
- approaches taken in other jurisdictions;
- the costs and benefits of alternative industry structures, including transitional costs that may be incurred in changing to a new structure;
- any impacts, including service provision, operational or financial impacts, on existing asset owners and operators; and
- any impact of these reforms on the Government's social, economic and environmental policy objectives, including ensuring environmental and social criteria are taken into account in market structures, tendering processes and access regimes; commitments to the *National Water Initiative* and the Government's response to *A Blueprint for Water Reform in Western Australia* compiled by the Water Reform Implementation Committee.

In undertaking the inquiry, the Authority is to recognise section 26 of the Act, which requires the Authority to have regards to:

- the need to promote regulatory outcomes that are in the public interest;
- the long-term interests of consumers in relation to the price, quality and reliability of goods and services provided in relevant markets;
- the need to encourage investment in relevant markets;
- the legitimate business interests of investors and service providers in relevant markets;

- the need to promote competitive and fair market conduct;
- the need to prevent abuse of monopoly or market power; and
- the need to promote transparent decision making processes that involve public consultation.

The Authority will release an issues paper as soon as possible after receiving the reference. The paper is to facilitate public consultation on the basis of invitations for written submissions from industry, government and all other stakeholder groups, including the general community.

A draft report is to be made available for further public consultation on the basis of invitations for written submissions.

A final report is to be completed by no later than 31 March 2008.

ERIC RIPPER MLA
DEPUTY PREMIER: TREASURER:
MINISTER FOR STATE DEVELOPMENT

Appendix 2: Western Australian Legislative and Institutional Reforms

The institutional and legislative framework that governs water and wastewater management in Western Australia is in the midst of a two stage reform process.[40]

The first stage of reforms involves disbanding the Water and Rivers Commission by repealing the *Water and Rivers Commission Act 1995*. The powers and statutory functions of the Water and Rivers Commission are to be transferred to the newly created Minister for Water Resources and administered by the Department of Water. The *Water Resources Legislation Amendment Bill 2006* was introduced into Parliament on 17 May 2006 and, if passed, will enact these changes.

The second stage of reforms consists of more wide-ranging legislative reforms with two areas of focus. The first area of focus relates to water resource management legislation. The second concerns water services legislation. The water resource management legislation is aimed at implementing the reforms resulting from the inquiry undertaken by the Irrigation Review Steering Committee during 2005. These reforms relate to matters such as changing the current water entitlement system, facilitating water trading, implementing water metering, and recovering water resource management costs. In addition, the water resource management legislation will assist in meeting the requirements of the National Water Initiative, to which Western Australia became a signatory in 2006.

The water services legislation reforms are aimed at consolidating and updating the legislation that establishes government owned water and wastewater businesses. The legislation will address the manner in which these entities are licensed and regulated, the powers made available to these businesses to undertake their required tasks, and the way in which these entities are managed.

The legislation required to implement this second stage of reforms is currently being developed by the Department of Water.

[40] http://portal.water.wa.gov.au/portal/page/portal/PlanningWaterFuture/WaterLegislation/LegislativeReform

Appendix 3: Summary of Issues

Appendix 3 contains a summary of the issues raised throughout the paper.

1) The Authority is seeking further examples of ways to achieve greater economic efficiency and sustainability, through increased competition, in the water and wastewater industry.
2) The Authority has identified the following broad types of competition: centralised procurement, trading and retail competition, and comparative competition. In addition, third party access is a mechanism that facilitates decentralised procurement, trading and retail competition. The Authority is seeking comments on whether this framework encompasses all of the potential commercial opportunities that might exist.
3) Centralised procurement approaches can take the form of competitive supply for a project, an outcome or the entire market. The key institutional and legislative consideration identified thus far relates to determining where responsibility lies for determining the scope of works for which tenders are to be sought and the assessment of any submissions received. The Authority is seeking comments on the most appropriate institutional and legislative arrangements to ensure effective use of competitive supply opportunities.
4) What barriers to competitive procurement need to be removed?
5) The Authority is seeking comments on any constraints to the use of water trading as a source of bulk water.
6) The Authority is seeking comments on the most appropriate way to ensure efficient service provision in uneconomical areas.
7) The introduction of a State-based third party access regime would require a decision about the comprehensiveness of the regime, a contestable retail market, appropriate licence conditions, an access price, and a consideration of structural issues. The Authority is seeking comments on these and other matters that would assist in an assessment of whether the benefits of a State-based access regime outweigh the costs.
8) Would a State-based access regime result in commercial operators entering the market?
9) The introduction of trading and retail competition would require the establishment of a contestable market, appropriate licensing conditions and a consideration of structural issues. The Authority is seeking comments on these and other matters that would assist in an assessment of whether the benefits of trading and retail competition would outweigh the costs.
10) Would the removal of barriers to trading and retail competition result in commercial operators entering the market?
11) The introduction of a comparative competition regime would require the creation of comparable businesses and the development of a regulatory regime that would provide incentives for businesses to outperform their counterparts. The Authority is seeking comments on these and other matters that would assist in assessing the appropriateness of a comparative competition regime.
12) The Authority is seeking comments on any issues interested parties consider relevant to the inquiry which have not been identified in the Issues Paper.
13) The Authority is seeking comments on other ways in which competition can be increased in the water and wastewater industry.
14) The Authority is seeking comments on the areas to which it should pay most attention

when developing its recommendations, to allow for the greatest introduction of competitive pressures and the delivery of the greatest benefits to customers.

Appendix 4: Glossary

Term	Definition
Act	*Economic Regulation Act 2003*
Authority	Economic Regulation Authority
Corporation	Water Corporation
CSO	Community Service Obligation
IPART	Independent Pricing and Regulatory Tribunal
ML	Megalitre (1,000,000 litres)
NCC	National Competition Council
NSW	New South Wales
Ofwat	Water Services Regulation Authority (England and Wales)
SCA	Sydney Catchment Authority