



**Government
of South Australia**

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Urban Water Inquiry
Productivity Commission
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Dear Sir/Madam

Thank you for the opportunity to provide a submission for the Inquiry into Australia's Urban Water Sector.

Please find enclosed the Government of South Australia's submission for your consideration.

The submission includes information on State Government policy arrangements and future plans for reform of the Urban Water Sector as detailed in our State Plan, Water for Good.

Yours sincerely

PAUL CAICA
MINISTER FOR WATER

Encl.

PRODUCTIVITY COMMISSION INQUIRY INTO AUSTRALIA'S URBAN WATER SECTOR

SOUTH AUSTRALIAN GOVERNMENT SUBMISSION TO ISSUES PAPER

NOVEMBER 2010

1. Introduction

The South Australian Government welcomes the opportunity to provide a submission to the Productivity Commission's Inquiry into Australia's Urban Water Sector.

The Government is committed to ensuring that the State's water supplies are secure, safe and reliable and able to sustain continued growth for at least the next 40 years.

Over the last decade the South Australian Government has implemented a range of reforms for the urban water sector including:

- Corporatising the Engineering and Water Supply Department in the form of SA Water;
- Outsourcing the management and operations of the metropolitan water and wastewater system to a private company for 15 years from 1996;
- Giving the Essential Services Commission of South Australia (ESCOSA) responsibility for reviewing the process for the setting of metropolitan and regional water and wastewater pricing for SA Water, through a Transparency statement review process;
- Separating water resources planning and management from service provision, with the Department for Water being responsible for the former and SA Water for the latter;
- Implementation of the various water reforms agreed through COAG, such as the National Water Initiative.

Further reform of the urban water sector is planned and the Government is committed to an extensive reform agenda, outlined in its water security strategy *Water for Good*.

The Terms of Reference for this Inquiry are extensive. Our submission therefore does not attempt to answer each of the questions posed in the Productivity Commission's Issues Paper, but rather provides an overview of the current policy position of the Government for the urban water sector and our plans for the future.

2. The South Australian Government's Objectives for the Urban Water Sector

Water is vital for the preservation of both quality of life and the environment for all South Australians. It also underpins growth in population and the economy – which are of course both critical for the State's future. There is also a clear need for government to ensure the provision of an affordable minimum level of water services for South Australians.

Water for Good was released in June 2009 and sets out the broad objectives for water security and the urban water sector over the coming years. Importantly, it establishes an adaptive management approach to water security issues to ensure South Australia is well placed to meet new challenges and manage future demands for water until 2050, including the management of the impact of climate change on water resources.

The urban water sector is critical for the achievement of water security, given its role in delivering water and wastewater services to a majority of the State's population. In addition, given the inherent characteristics of water (that is, it is heavy and costly to transport), it is important for governments to have specific policy agendas for water, particularly in the urban context, which are also aligned with broader policy objectives for the environment and energy use.

Water for Good establishes key objectives for water security for South Australia and a number of commitments for 2014, 2025 and 2050, including an ultimate aim of ensuring that the Greater Adelaide region will not require water restrictions (beyond Permanent Water Conservation Measures, now termed Waterwise Measures) more than once in every 100 years. The Government is working to ensure that the State's water sector provides its services in the most efficient and transparent manner possible.

In summary, the South Australian Government has the following key objectives for the State's urban water sector:

- Supplementing Adelaide's water supply by 2012 (with a 24 month liability period until December 2014) through the provision of capacity for the production of 100GL of water annually through desalination;
- Increasing the harvesting of stormwater and its use in fit for purpose (non-potable) activities (target of 60GL per annum of water to be harvested in Greater Adelaide and 15GL in regional areas by 2050);
- Increasing the recycling of wastewater and its use in fit for purpose activities (minimum 75GL per annum target by 2050);
- Supplementing water sources on the Eyre Peninsula, including consideration of desalination (subject to site and environmental investigations);
- Maintaining permanent water conservation measures (now termed Water Wise Measures);
- Establishing regular water demand and supply statements for each Natural Resources Management region of the State and utilising these as a strategic instrument for assessing the need for water supply augmentation and / or demand management measures;
- Increasing the adoption of water sensitive urban design, including through a legislative mandate;
- Establishing the best possible legislative arrangements for the water industry, to promote innovation, competition, ensure safety and support water conservation;
- Establishing strong working relationships with the local government sector for stormwater management;
- Establishing independent economic regulation of the water industry;
- Maintaining Government ownership of SA Water, with improved third party access arrangements for urban water infrastructure;
- Continuing to enhance community awareness of water issues and the need for appropriate conservation approaches;
- Ensuring that cities and urban areas are net contributors to the water cycle, through improved water use and diversification of water supplies.

The South Australian Government also has specific policy priorities for the Murray-Darling Basin and is engaged in the current discussion on this resource as part of the Basin Plan consultation process

and through the Murray-Darling Basin Ministerial Council and Basin Officials' Committee. While these policy positions are related to the urban water sector in South Australia, given the State's high reliance on the Murray as an urban water source, they are not discussed in detail in this submission.

3. An Overview of the Urban Water Sector in South Australia

Water and wastewater services in South Australia are primarily provided by SA Water, a Government owned vertically integrated public corporation. SA Water supplies 98% of the State's population with potable water and is therefore the largest participant in the water and wastewater industry in South Australia. It also provides recycled water and other non-potable water supplies to various communities, as well as reticulated wastewater services to Adelaide and other major regional centres and towns.

There are some other water suppliers using small, localised networks to provide potable water supplies and a range of largely council run schemes that provide wastewater services to townships and regional areas. Further, independent suppliers offer alternative water products within the urban and regional area.

Several service providers (principally local government) have implemented stormwater capture and reuse schemes across metropolitan Adelaide and in regional areas and are responsible for their individual management.

Much of the State relies on water sourced from storages in the Mount Lofty Ranges and the River Murray. Other surface water resources are available across the rest of the State, while some regions rely on groundwater for water supply.

The provision of water services to the Greater Adelaide region is complicated by the lack of significant storage capacity and the variability of run-off in the Mount Lofty Ranges. Reservoirs around Adelaide only have a combined storage capacity equivalent to Adelaide's requirements for one year. Supply is therefore supplemented through pipelines from the River Murray. Without this, the run-off collected in the Mount Lofty Ranges would not be sufficient or reliable enough for the city's supply requirements.

The Government therefore has approved the construction of a 100GL desalination plant that is scheduled for commissioning in early 2011. This will reduce Adelaide's reliance on rainfall and alleviate additional pressure on supplies from the River Murray.

4. Governance for the Urban Water Sector in South Australia

The Government established revised governance arrangements for the water sector in early 2010. Central to this reform was the establishment of the Department for Water as the lead planner and manager of the State's water resources and main driver of government water policy.

Other State agencies also play important roles in water policy. Key agencies and their relevant responsibilities are detailed in Table 1.

Table 1 – South Australian Government Governance Arrangements for the Water Sector

Agency	Responsibilities
Department for Water	<ul style="list-style-type: none"> • Urban water policy. • Murray-Darling Basin operations and policy. • Other water policy. • Water science, monitoring and evaluation. • Water planning and management. • Major water programs. • Water Allocation Planning.
SA Water	<ul style="list-style-type: none"> • Provides water and wastewater services to a majority of South Australians. • Maintains and invests in water and wastewater service infrastructure. • Provides recycled water and laboratory services.
Commissioner for Water Security	<ul style="list-style-type: none"> • Provides independent advice to the Government on water security policy and options. • Responsibility for overseeing the implementation of <i>Water for Good</i>.
Department of Environment and Natural Resources	<ul style="list-style-type: none"> • Legislative responsibility for the Natural Resources Management Act. • Natural Resources Management Board administration.
Department of Treasury and Finance	<ul style="list-style-type: none"> • Economic, financial and regulatory policy matters. • The implementation of independent economic regulation of the water industry.
Department for Transport, Energy and Infrastructure	<ul style="list-style-type: none"> • Coordination and planning of State Infrastructure requirements.
Essential Services Commission of South Australia	<ul style="list-style-type: none"> • Economic regulation under proposed water industry legislation.

5. The South Australian Government's Policy Agenda for Urban Water

Water for Good is the Government's overarching water policy and outlines 94 actions for delivering improved water security to the South Australian community. It is also the blueprint for future urban water reform, complementing and embedding the various national reforms already agreed to by COAG.

Key elements of *Water for Good* and the State's policy agenda for the urban water sector follow. These policy commitments link to and build on the Government's objectives for the urban water sector as highlighted in Section 2.

Maintaining Government Ownership of SA Water

The South Australian Government is committed to maintaining its ownership of SA Water. In the immediate term, SA Water will be retained as a vertically integrated service provider. However, *Water for Good* calls for the merits of further innovative and competitive arrangements to be explored in the medium term.

These arrangements will be underpinned by improved third party access arrangements and the introduction of independent economic regulation in order to encourage efficient pricing, innovation and competition in the sector.

Establishing New Regulatory Arrangements for the Water and Wastewater Service Industry

Central to the objectives of *Water for Good* is the Government's commitment to introduce a more appropriate and efficient regulatory regime for the water sector. This reform package recognises the developing nature of the water supply and wastewater service industry and will provide a single legislative focus for water planning and service delivery. It will promote efficiency, public safety and effective environmental regulation.

The changing nature of the sector means that legislative reform is necessary. Key changes being experienced in South Australia include:

- A heightened recognition that fresh water is a scarce resource and must be carefully managed;
- More extensive use of recycled water from wastewater treatment plants;
- Increased interest in the use of stormwater for non-potable purposes;
- A maturing of the concept that water is a tradable commodity with a market reflecting the principle that water should be traded to ensure highest value use;
- An increase in the use of cost reflective pricing;
- The attraction of new industry participants;
- The introduction of new and emerging technologies, such as cutting edge desalination methods, and aquifer storage and recovery;
- The utilisation of alternative (green) power sources for pumping and the operation of treatment facilities;
- Increased interest in demand side behaviour change, efficiency of water use and conservation measures.

A proposed new Water Industry Act is currently being developed by the South Australian Government, which will replace existing legislative arrangements and provide a more efficient and appropriate framework for the regulation of the water industry. It is proposed that the legislation will be tabled in the South Australian Parliament by the end of 2010, as a basis for further consultation with stakeholders.

The proposed Water Industry Act will cover the following matters:

- Water demand and supply planning arrangements;

- Appointing ESCOSA as the independent economic regulator of the South Australian water industry;
- Licensing arrangements for retail service providers;
- Technical regulation (initially for the plumbing sector).

Economic Regulation, Pricing and Third Party Access

The South Australian Government currently determines prices for drinking water supplies and wastewater services provided by SA Water. A new process will be used to set prices for 2011-12 as a lead in to independent economic regulation. This process will involve a pricing submission from the SA Water Board to the South Australian Treasurer and the Minister for Water, who will then draw on expert advice from ESCOSA in order to set price levels. Price arrangements for 2011-12 will be considered and approved by Cabinet. Following this, ESCOSA's first pricing determination on the water industry will cover the four year period from 1 July 2012 to 30 June 2016.

The current pricing structure in South Australia includes the following elements:

- A fixed supply charge and a volumetric water usage price, which rises with consumption under a three tier inclining block structure (other non-residential customers having a higher fixed charge and a two tier usage charge);
- The price for each inclining block is below the cost reflective price, based on the long-run marginal cost;
- A lower price applied to the first declining block (this price applies to approximately one third of all water used by SA Water customers);
- Uniform water prices applying to SA Water's urban and regional customers through a state-wide pricing policy;
- SA Water charges for potable water services levied on a quarterly basis;
- A fixed charge for SA Water's commercial water and sewerage customers based on property values.

The introduction of ESCOSA as the independent economic regulator seeks to ensure the protection of the long-term interests of South Australian consumers with respect to the price, quality and reliability of essential water services. In doing this, ESCOSA will also have regard to the need to:

- Promote competitive and fair market conduct;
- Prevent the misuse of monopoly or market power;
- Facilitate third party entry into relevant markets;
- Promote economic efficiency;
- Ensure consumers benefit from competition and efficiency;
- Facilitate maintenance of the financial viability of entities in the water industry and provide incentives for long term investment;
- Promote consistency in regulation with other jurisdictions.

The Government believes that this arrangement will provide the best means of ensuring the State's water security, while improving efficiency in the sector.

Once these reforms have been sufficiently bedded down, the Government will also request ESCOSA's advice on a number of matters relating to pricing structures, including the effect of state-wide pricing and transition arrangements for any possible changes to pricing. The Government will also be monitoring the impact of pricing reform on low income households, with any issues to be tackled by separate targeted concession arrangements.

Improvements to third party access arrangements for significant infrastructure services in the South Australian water industry are also being considered. SA Water already has in place a number of voluntary access arrangements, including with Barossa Infrastructure Limited for bulk water transfer from the River Murray to the Barossa region

The specific details of the Government's new third party access arrangements are still being finalised. Nevertheless, it is anticipated that such arrangements will be consistent with the relevant provisions of the *Trade Practices Act 1974* and would include:

- Provisions for the right to negotiate access to significant water infrastructure in South Australia;
- Provisions for dispute resolution;
- Regulatory pricing principles.

An Adaptive Management Approach to Water Supply and Demand

Water for Good commits the Government to an adaptive management approach to water security, as represented in Figure 1. To ensure that timely and appropriate decisions are made in regard to the State's future water security requirements, the adaptive management approach will be developed to encompass the following:

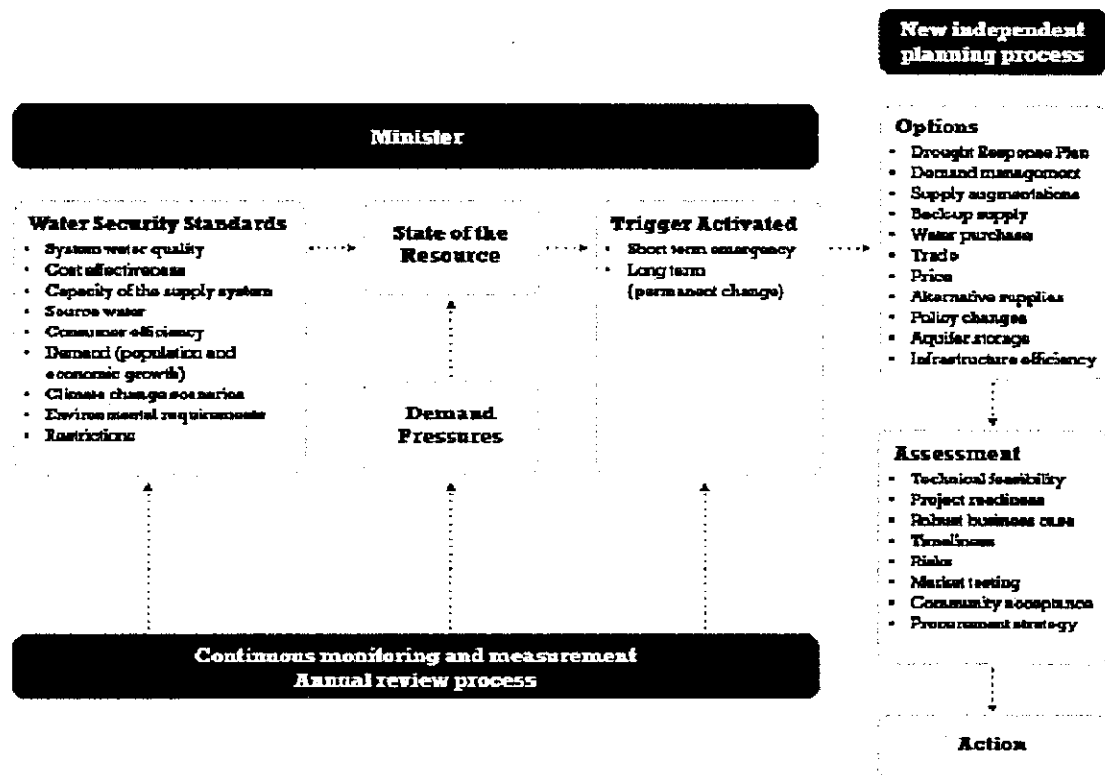
- A set of water security standards;
- An assessment of the state of the resource;
- An analysis of demand pressures;
- Governance and management arrangements;
- An options and assessment process;
- Measuring and monitoring arrangements.

The water security standards will define the risk points that would threaten water supply and require decisions on options to augment supply or manage demand (or both). These standards are still in development, but will be based on the following parameters:

- System water quality;
- Capacity of the supply system;
- Water sources (including diversity, reliability and security);
- Consumer efficiency;
- Demand factors (population and economic growth);
- Climate change scenarios;
- Environmental requirements;

- Standards of service;
- Restrictions (including timing, frequency, severity and duration).

Figure 1 – Adaptive Water Security Management Arrangements



Supporting these standards are a State Water Demand Statement and regional demand and supply statements for each of the State's eight Natural Resources Management regions. These statements will provide assessments of the future demand and supply pressures on water resources and help identify the timing and need for any water supply augmentation, or demand management response.

A demand and supply statement for the Eyre Peninsula is currently being finalised, with other regional plans expected to be progressively developed up to 2014. The statements will be reviewed annually and comprehensively updated every five years.

An independent planning process will be triggered by the South Australian Minister for Water, should an emerging demand and supply imbalance be identified. The planning process will assess the costs and benefits of the range of options to address the issue, including supply augmentation possibilities and demand management responses.

A range of factors will influence decision making about supply augmentation, such as the timeframes to plan and implement, volume requirements and costs of construction and operation (where an infrastructure solution is considered). Options may be developed with the assistance of market input and testing.

The Minister has the discretion to establish an independent water planning body to deliver on this role. This body will be established on an as needs basis and will be sufficiently resourced.

In addition to this institutional approach, SA Water also prepares long-term plans to ensure that its bulk water systems, including water sources, treatment plants and transfer pipelines, have sufficient capacity over a 25 year period. A long term plan for the Eyre Peninsula has been prepared and other plans are in development. SA Water's long-term plans are one input to the regional demand and supply statements discussed above.

Stormwater and Wastewater Management and Water Sensitive Urban Design

The South Australian Government plays a collaborative role in stormwater with Local Government and other stakeholders for the purposes of flood risk mitigation and also as an alternative non-potable water supply. The Government's position is that stormwater is suitable for non-potable use, but that there is insufficient knowledge of the hazards and net benefits and costs of allowing treated stormwater to be used in the drinking water supply. *Water for Good* states that augmentation of drinking water supplies can not proceed without:

- An appropriate understanding of the risks, and confidence that they can be managed;
- Knowledge of the net public benefits, especially when stormwater is compared to other recycling options;
- Strong community support for the option.

Adelaide is a leader nationally with regard to the capture and reuse of stormwater and wastewater. The Urban Stormwater Harvesting Options Study report, released in 2009, identified Adelaide as already having approximately 6GL of stormwater harvesting capacity from existing operational schemes. Including additional committed projects, Adelaide's stormwater harvesting capacity is expected to exceed 20GL by 2013.

On 30 September 2010, the Minister for Water announced the establishment of a Stormwater Taskforce, including representation from the Department for Water, Local Government Association, Stormwater Management Authority, Mount Lofty Ranges Natural Resources Management Board, the Goyder Institute and SA Water to provide input into the development of a Government Stormwater Strategy to more clearly articulate the Government's overall policy imperatives for stormwater management.

Adelaide also recycles the highest percentage of treated wastewater of any Australian capital city at present. *Water for Good* includes a commitment to increase this further, and to encourage decentralised wastewater recycling schemes in new developments.

Water for Good commits the Government to implementing a best practice regulatory approach to mandating water sensitive urban design and establishing targets for water sensitive urban design. The Department for Water is currently working with the Goyder Institute for Water Research on policy options for accelerating the use of water sensitive urban design, particularly in the Greater Adelaide region.

Water Restrictions and Permanent Water Conservation Measures

Level 2 variable water restrictions were introduced from 1 July 2003 for most supplies receiving water from the River Murray and Myponga Reservoir. These were replaced by Permanent Water Conservation Measures (PWCM), introduced on 26 October 2003.

In response to worsening drought conditions, Level 2 water restrictions were again introduced for most areas of the State on 23 October 2006, increasing to Level 3 water restrictions from 1 January 2007 and enhanced Level 3 water restrictions from 1 July 2007. Level 3 restrictions, with modifications, have applied since that time.

Given recent improvements in storage levels following substantial rains and inflows into the River Murray and the progressive commissioning of the Adelaide Desalination Plant from early 2011, variable water restrictions will be lifted for most of the State from 1 December 2010 and WaterWise Measures will recommence for most areas previously subject to more stringent variable restrictions. These measures have been relabelled 'Water Wise Measures'.

From 1 December 2010 the State's new Water Wise Measures will be those detailed in Table 2.

Table 2 – South Australia's Water Wise Measures Applicable from 1 December 2010

Domestic Gardens and Lawns	<p>Watering is permitted at any time by hand (through a hand held hose fitted with a trigger nozzle, from a watering can or bucket) or through a drip feed irrigation system.</p> <p>Sprinklers can be used on any day after 5pm and before 10am.</p>
Washing Cars and Boats	<p>Water can be used to wash motor vehicles or a boat provided the water is applied:</p> <ul style="list-style-type: none"> • From a bucket or watering can; • By a high pressure, low volume water cleaner; • From a hand held hose fitted with a trigger nozzle; or • At a commercial car wash
Driveways, Paths, Verandas and Entertaining Areas	<p>The hosing down of external paved areas with water is permitted with a hose fitted with a trigger nozzle only:</p> <ul style="list-style-type: none"> • To protect public health; • To ensure the safety of people using the area; • To ensure the health and welfare of animals using the area; • To deal with fire, accident or other emergency.

Swimming Pools and Spas	New pools and spas can be filled under a permit from SA Water. Before a permit is issued, SA Water requires proof of purchase of an approved pool cover.
Construction Sites	Water can be used for dust suppression and compaction when it is applied from: <ul style="list-style-type: none"> • A hand held hose fitted with a trigger nozzle; or • Directly from a motor vehicle designed and approved to carry/deposit water
Sports Grounds and Recreational Facilities	Sports grounds and recreational facilities can be watered under an Irrigation of Public Open Space (IPOS) permit as negotiated with SA Water.

Community Understanding of Water Issues

Water for Good places a priority on improving the community's understanding of water issues, so that they can play a continuing role in water conservation and understand the implications of water consumption. Central to this objective is the availability of accurate and sound information. Key communication activities of the Government include:

- A new water information website which provides information on the State's water resources and information to help improve water use practices;
- Providing additional information on SA Water bills, including comparisons with previous use and use in similar homes;
- Developing new curriculum resources to help lower and middle school students learn more about water resources, the water cycle and what can be done to reduce water use;
- Developing targeted water education programs for various ethnic communities.

6. Key Issues for the Productivity Commission's Review

This Inquiry of the Productivity Commission provides an opportunity to consider possible future urban water reforms and present a case for adoption. The South Australian Government does not believe that there is sufficient justification for further reform in the short to medium term beyond that already committed to in *Water for Good* and through COAG.

However, there are a number of areas which the Government believes could be assessed by the Productivity Commission through this Inquiry. These include:

- The need for and benefits of improved consistency of consumer education and communication activities across jurisdictions;
- The possible role for the Commonwealth in future reform of the urban water sector;

- Current barriers to rural and urban trading of water entitlements as a cost effective option for supplying water to urban areas.

The South Australian Government would appreciate the views of the Productivity Commission on these areas.