

Mr Peter Harris
Chairman (Presiding Commissioner)
Public Infrastructure Inquiry
Productivity Commission
LB2 Collins Street East
Melbourne Victoria 8003

Dear Peter

Inquiry into public infrastructure

The Water Services Association of Australia welcomes the opportunity to contribute to the Productivity Commission's inquiry into funding public infrastructure.

WSAA is the industry body which supports the Australian urban water industry. Our members include the largest water utilities in Australia, providing urban water services to over 20 million Australians. The Association facilitates collaboration, knowledge sharing, networking and cooperation within the urban water industry. We also provide a forum for debate on issues important to the industry and a voice for communicating the members' views.

The urban water industry has assets with a value well over \$120 billion comprising over 260,000 km of pipes and hundreds of water and wastewater treatment facilities.

The private sector is playing an increasing role in urban water and WSAA strongly supports greater private involvement in the water industry. WSAA's recent submission to the National Water Commission's triennial assessment of water reform is attached. The submission discusses many of the issues that the PC is investigating. For example it discusses:

- The rationale, role and objectives of alternative funding and financing mechanisms.
- The disincentives to private sector investment.
- The roles of the Australian Government, the States and Territories, Local Government and the Private Sector in the implementation of these mechanisms, and the relationship between each of the parties.

Future efficiency and innovation will be driven in part by greater private involvement in the water industry and by adopting new business models. Private investment can provide access to capital not otherwise available to the industry. Governments are increasingly interested in recycling capital tied up in existing infrastructure.

But as the submission details, the preconditions necessary to support greater private involvement and capital recycling do not yet exist, and there is not the momentum from policy makers to put them in place. For example, there has been no discernable action arising from the recent

recommendations by the NWC or the extensive Productivity Commission report on urban water sector reform.

Therefore, setting the preconditions for the success of private involvement forms the core agenda for state government and national action. WSAA considers that the key test for policy makers is to maintain and enhance the public and private values that are provided by water utilities. This includes preserving the financial value of utilities but also extends to the role they perform in protecting public health, managing the environment and promoting liveability in urban areas. A less than comprehensive reform effort could destroy value and be worse than none at all.

WSAA recommends that COAG develop a new national water initiative for urban water. The most urgent task to enable greater private involvement is improvements to the economic regulation of the industry. However, institutional frameworks to support new players also need to be developed. These include licensing regimes, third party access regimes and market rules for new entrants.

WSAA would welcome the opportunity to discuss the pre-conditions for greater private sector involvement in urban water at the Commissions public hearings which are scheduled for April

Yours sincerely

A handwritten signature in dark ink, appearing to read 'Adam Lovell', with a stylized flourish at the end.

Adam Lovell
Executive Director

23 December 2013

SUBMISSION TO THE NATIONAL WATER COMMISSION'S TRIENNIAL
ASSESSMENT

The future of the urban water industry

DECEMBER 2013



WATER SERVICES
ASSOCIATION OF AUSTRALIA

OVERVIEW OF WSAA

WSAA IS THE INDUSTRY BODY THAT SUPPORTS THE AUSTRALIAN URBAN WATER INDUSTRY

Its members and associate members provide water and wastewater services to over 20 million Australians and many of Australia's largest industrial and commercial enterprises.

The Association facilitates collaboration, knowledge sharing, networking and cooperation within the urban water industry. It is proud of the collegiate attitude of its members which has led to industry-wide approaches to national water issues.

WSAA can demonstrate success in the standardisation of industry performance monitoring and benchmarking, as well as many research outcomes of national significance. The Executive of the Association retain strong links with policy makers and legislative bodies and their influencers, to monitor emerging issues of importance to the urban water industry. WSAA is regularly consulted and its advice sought by decision makers when developing strategic directions for the water industry.

Comments or questions should be referred to:

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Executive Director
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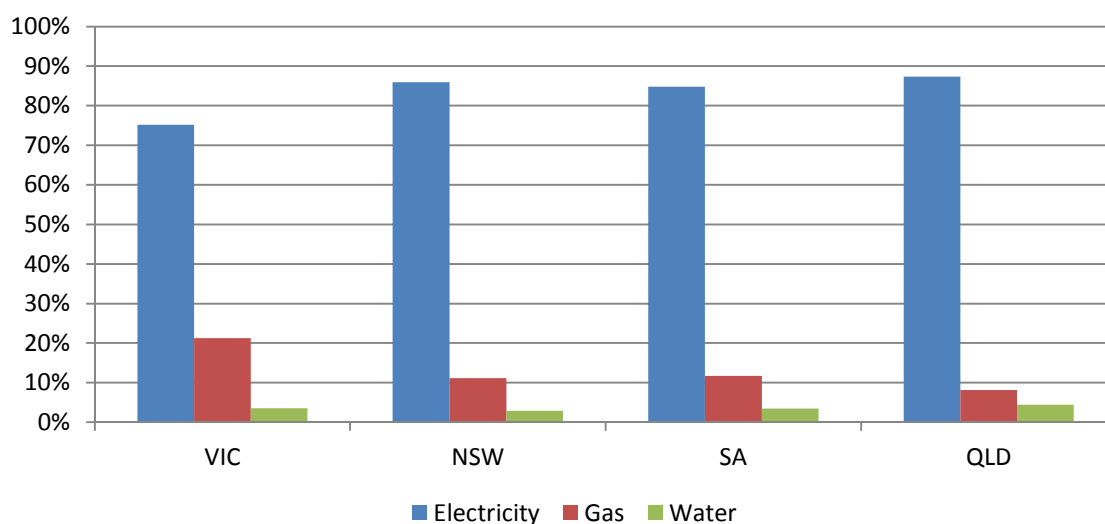
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Executive summary and recommendations

The Water Services Association of Australia (WSAA) and its members have recently released a vision for the urban water industry to 2030: *Customer driven, enriching life*. This vision reflects both the efforts of the industry to ensure the customer is at the centre of all our activities and the vital role water plays in all our lives.

The urban water industry is entering a new era of greater engagement with, and focus on, meeting our customers' needs. This is possible due to the solid foundations that have been built over many years to ensure the urban areas of Australia have resilient, diversified and high quality water supply. When compared with other utility sectors, the urban water industry already performs highly in customer service. For example, complaints to external ombudsmen concerning the water industry — covering all aspects of the customer experience including bills — are very low (figure 1).

Figure 1 Proportion of complaints by sector 2012-13



Note: Latest Victorian data is 2011-12

Source: State Energy and Water Ombudsman annual reports

This submission establishes how WSAA's members are implementing the 2030 vision and identifies the highest priorities for utilities, regulators, state governments and nationally through the Council of Australia Governments (COAG). In line with the National Water Commission's (NWC) focus, we pay particular attention to the role for national action.

For utilities

As a result of recent price rises across the utilities sector there is significant concern about affordability of water services. At the same time there are also increased expectations of the sector to deliver a wider range of services and benefits to the community. The key priorities for water utilities that lie within their control are to:

- Continue to drive efficiency gains in our operations and the utilisation of existing and new infrastructure;
- Further increase productivity by building on the skills of our people and through innovation; and

- Define the role of the urban water industry in promoting the liveability of cities and towns, and, alongside other stakeholders, realise this potential through water sensitive urban design and integrated water cycle management.

However the industry realises that increasing efficiency while doing what we have always done, will not be enough if we are to maintain the liveability of our cities in the presence of a changing and variable climate and a growing population. Moreover, it will not be enough to reconcile affordability concerns with the need for long-term financial sustainability. Notwithstanding ongoing efficiency improvements the industry is concerned that its current revenue base is unlikely to be sufficient to maintain and renew existing assets.

Greater private sector involvement

Future efficiency and innovation will be driven in part by greater private involvement in the water industry and by adopting new business models. Private investment can provide access to capital not otherwise available to the industry. Governments are increasingly interested in recycling capital tied up in existing infrastructure.

But the preconditions necessary to support greater private involvement and capital recycling do not yet exist, and there is not the momentum from policy makers to put them in place. For example, there has been no discernable action arising from the recent recommendations by the NWC or the extensive Productivity Commission report on urban water sector reform.

Therefore, setting the preconditions for the success of private involvement forms the core agenda for state government and national action. WSAA considers that the key test for policy makers is to maintain and enhance the public and private values that are provided by water utilities. This includes preserving the financial value of utilities but also extends to the role they perform in protecting public health, managing the environment and promoting liveability in urban areas. A less than comprehensive reform effort could destroy value and be worse than none at all.

For state and local governments

For state governments the preconditions for private investment involve improving economic regulation of urban water and developing the rules of the game for new entrants to the urban water industry. Some jurisdictions have put in place, or are implementing, third party access regimes. This is but one necessary step. Licensing regimes which protect consumers need to be developed along with market rules for contestability and competition. NSW has progressed the furthest down this path, however its framework lacks overall direction and does not sufficiently define the role of existing utilities and new entrants.

State and local governments also have the ability to integrate urban water planning more effectively with urban development planning in order to maximise the productivity of cities and to create more liveable urban environments. Local government has a particular role working with the water sector to increase the liveability of the communities they serve.

At the national level

Nationally there is also a key role in coordinating improvements in economic regulation. Current economic regulation of the urban water industry does not guarantee a financially sustainable price path for utilities, or the certainty or consistency necessary to support greater private involvement and capital recycling. Reform will not occur, or will be very slow, without a national approach.

The water industry requires a regulatory framework which:

- Has clear objectives – protecting the long term interests of consumers;

- Is customer-centric – the regulator avoids getting unnecessarily between the utility and its customers;
- Establishes a framework where broader costs and benefits can be incorporated into investment decisions for the full range of services it provides across the water cycle;
- Has appropriate risk sharing mechanisms - for example, revenue caps and pass through mechanisms;
- Has strong incentives for efficiency and innovation, including rewards as well as sanctions; and
- Contains an appeal mechanism.

Some state regimes have some of these attributes. No regime has all of them.

The National Water Initiative (NWI) currently only provides broad guidance, with little that is specific to the urban water industry. To date, there is little evidence that the urban water pricing principles have influenced state regulation. Into the future a revised NWI, with incentives for compliance, would provide greater guidance and overall consistency in this area.

WSAA's view of the key areas of future action and respective involvement of different stakeholders is summarised in table 1.

Table 1 Future responsibilities and involvement of key stakeholders

Issue	Utilities	Regulators	State Government	National
Increasing customer engagement	✓✓✓	✓		
Continue improving operational efficiency	✓✓✓	✓		
Industry capability and skills	✓✓✓		✓	✓
Contributing to liveability	✓✓✓	✓	✓✓	
Integrated infrastructure planning	✓✓		✓✓✓	✓✓
Preconditions for private involvement	✓	✓	✓✓✓	✓✓✓✓
Improved economic regulation		✓✓	✓✓	✓✓✓✓
Framework for new entrants	✓	✓✓	✓✓✓	
Market design for contestability and competition	✓	✓✓	✓✓✓	

✓ Some involvement/responsibility; ✓✓ Significant involvement/responsibility; ✓✓✓ Lead involvement and responsibility

RECOMMENDATIONS

WSAA recommends that:

- 1) A revised National Water Initiative be developed for urban water to meet the challenges of
 - a) Climate variability, urban growth and the liveability of our cities and towns;
 - b) Providing the financial sustainability necessary for utilities to deliver the services that customers need and are willing to pay for; and
 - c) Enabling greater private participation in the industry to drive innovation.
- 2) The National Water Initiative should bind state governments to implement a regulatory framework which at least meets the following criteria:
 - a) Has clear objectives – protecting the long term interests of consumers;
 - b) Is customer-centric – the regulator avoids getting unnecessarily between the utility and its customers;
 - c) Establishes a framework where broader costs and benefits can be incorporated into investment decisions for the full range of services it provides across the water cycle;
 - d) Has appropriate risk sharing mechanisms — for example, revenue caps, and pass through mechanisms;
 - e) Has strong incentives for efficiency and innovation, including rewards as well as sanctions; and
 - f) Contains an appeal mechanism.
- 3) The National Water Commission endorse the principle that greater private participation should preserve and enhance the public and private value delivered by water utilities.
- 4) The National Water Commission should commence a program of work examining in detail the preconditions necessary for successful private involvement in the urban water industry. This should include the institutional frameworks that need to be developed at the state level.

Introduction

Key messages

- Urban Australia now has a resilient, high quality and diversified water supply.
- There are significant opportunities brought about by new water sources to deliver integrated water cycle management and promote liveable communities and regions.
- In any discussion of the water industry it should not be forgotten that wastewater is around half of industry costs; is the focus of innovation through recycling, waste-to-energy projects and nutrient recovery; and provides significant opportunities for private sector involvement.
- In a more complex environment there are challenges to ensure that the industry delivers value for money to customers.
- WSAA's vision to take the industry forward is '*Customer driven, enriching life*'.
- This submission sets out how the industry is delivering on the vision. The discussion based around the six themes in the NWC's urban water futures discussion paper.
 - there are strong links between the themes. For example greater efficiency and innovation are inextricably linked to the regulatory environment and ability to attract private investment. Unifying all themes is the need to provide the best possible outcomes for customers.
- The submission also addresses roles and responsibilities. It sets out the priorities utilities, regulators, state governments and the role for nationally coordinated reforms.

The urban water sector is critical to Australia's economy, society, and environment. It provides healthy, safe and reliable water and wastewater services that support Australia's high standards of living and underpin its economic success.

The sector delivers services to over 20 million Australians in more than 9 million connected properties. It manages over \$120 billion in assets. Between 2006-07 and 2011-12 capital expenditure was estimated at over \$33 billion and operational expenditure at \$7.2 billion in 2011-12.

The sector delivers a range of social and environmental outcomes. It protects public health, contributes to urban amenity and recreation, and facilitates urban development. It also ensures environmental health and biodiversity outcomes in catchments and water systems, including estuaries, coasts and bays. In delivering these outcomes, the role of the wastewater component of the industry is often forgotten. Yet it comprises half of the industry's costs and provides opportunities for innovation through converting waste to energy and nutrient recovery.

The sector has a proven record of delivering these outcomes in a dynamic and often challenging environment, including in response to the millennium drought. The sector successfully ensured that no major city ran out of water during this period, has subsequently achieved much greater security and diversity of supply, and delivered innovations that have helped it become a world leader in many aspects of water management.

At the same time, structural, institutional, and pricing reforms embarked on in the 1990s have helped the sector improve productivity, efficiency and private sector participation. Competitive outsourcing now delivers benefits to customers and shareholders, and the cost of capital investments are increasingly recovered in full. Customer perceptions of the value of water are generally high and complaints are very low compared to other essential services.

However despite these achievements and the fact that the pressure of drought has now eased, the sector still faces a range of important challenges. These include managing system complexity, implementing integrated solutions, optimising multiple sources of supply, improving services in

remote and regional areas and the ongoing protection of public health. Managing the cost and utilisation of recent investments in water security and improving future decision making are arguably the most significant challenges.

To respond to these challenges the sector recognises the need for further action. Action to meet customer and environmental needs; to achieve more efficient regulation to facilitate competition and innovation; to better understand liveability and customer value; and to improve adaptive planning, skills and culture, and risk management. Through further action by utilities, regulators, and state and federal government, the sector stands to build on its past successes and deal with future challenges.

To help guide the sectors approach to the future, WSAA recently released its vision for the industry to 2030. The vision is *Customer driven, enriching life*, and is supported by four outcomes. This vision has informed WSAA's submission, which has two broad aims:

1. To demonstrate where the industry thinks further action is required to deliver on this vision; and
2. To identify which areas of action it believes are the prime responsibilities of utilities, state governments or regulators, and where it believes national action is required.

WSAA's submission is structured around the NWC's discussion paper themes. However, it also draws out linkages between themes. For example, efficiency is tied to regulatory frameworks, as is greater private sector involvement. In addition, WSAA sees customer focus and community engagement as a driver of activity across all areas.

WSAA's Vision to 2030: Customer driven, enriching life

Key messages

- This submission should be read in conjunction with WSAA's members vision statement.
- The vision and outcomes were developed over the past 12 months and released in August.
- The outcomes to support the vision are:

Outcome 1: The most efficient, trusted and valued service providers in Australia

Outcome 2: A compelling voice in national policy making

Outcome 3: A valued partner in urban and land use planning to enrich communities

Outcome 4: Providing stewardship of the urban water cycle

Ongoing change in the water sector brings prospects. Cities of the future will need the sector to deliver improvements in water services, liveability and value by continuing to invest in and maintain its assets, harnessing the private sector to drive innovation and investment, and more closely aligning itself with customer and community preferences.

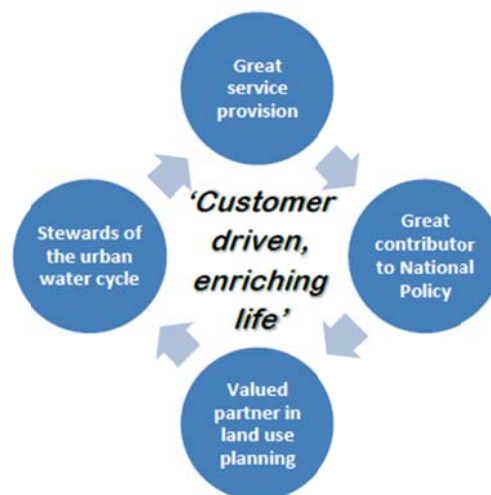
WSAA's Vision to 2030: '*Customer driven, enriching life*' presents its view of the future of the urban water sector. Prepared over the 12 months to August 2013, it represents the views of utilities that collectively provide water and wastewater services to over 20 million people. The vision is for the whole water sector, and was developed by WSAA members, large and small.

The vision reflects the evolving focus of the sector, including the industry's commitment to aligning services with customer values and enriching communities by supporting broad economic, environmental and social outcomes, including liveability. The vision is supported by four target outcomes:

- Outcome 1: The most efficient, trusted and valued service providers in Australia
- Outcome 2: A compelling voice in national policy making
- Outcome 3: A valued partner in urban and land use planning to enrich communities
- Outcome 4: Providing stewardship of the urban water cycle

Our response to the discussion paper reflects the WSAA vision, our commitment to ensuring our members have a voice in national policy making, and our view on the appropriate roles for industry, state and federal government.

This submission should be read in conjunction with the vision statement, which is at attachment 1.



When is national action required?

Key messages

- The urban water industry is well placed to manage its future challenges.
- Urban water is constitutionally a state responsibility, and there are fewer cross border issues in urban water than in industries such as energy. The Commonwealth does not contribute significant funding for urban water.
- Nevertheless, there is a role for national action to: improve economic regulation across the sector; facilitate increased private sector involvement in the industry; and improve the robustness of urban water planning.

Challenges facing the sector suggest that to maintain and improve its performance over the long-term, ongoing action is required. While the industry is nationally significant, not all issues it faces require national action.

The industry is challenged by the complexity and inconsistency of different regulations that inhibit greater innovation. The quality and independence of economic regulation has been questioned, policy bans are preventing optimal outcomes, and roles and responsibilities remain unclear, including for water security and non-commercial obligations. These and many other justifications for action have previously been stated and substantiated by the NWC, the Productivity Commission, Infrastructure Australia, and others.

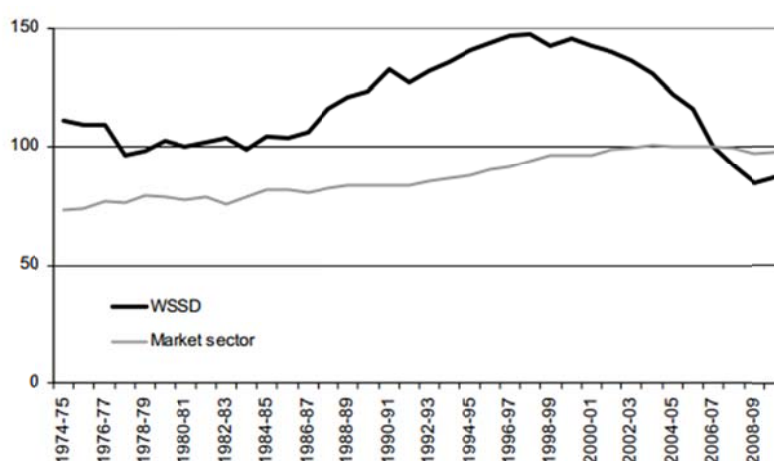
There has been less consideration given to what actions are most appropriate for industry, state and federal government. As stated in WSAA's vision, the industry is focused on things such as improving the efficiency and productivity of operations and core services; engaging with customers to better understand their values and willingness to pay; delivering liveability outcomes; supporting private sector involvement; and offering more choice to customers.

Some matters will best be dealt with at the state level, with different responsibilities best assigned to regulators or state governments. Constitutionally water is a state government responsibility and has operated in this way for over 100 years. Unlike some industries, urban water is generally not traded across state borders, and state ownership has resulted in a diverse range of structural models and significant policy experimentation.

However, some challenges require support or action at the national level. The sector is of national significance. Its services and infrastructure facilitate economic activity and growth that contributes to national GDP, net government revenue and productivity growth. Water is a critical to all our major cities, including as an input to production. A water crisis in any city would severely impact on economic activity and employment within the sector as well as outside; for instance recent declines in national productivity growth have been attributed in part to capital investments in response to drought (see figure 2). This parallels the experience in mining during periods of high investment. That it receives attention indicates the importance of the water sector rather than a decline in performance.¹

¹ Multifactor productivity estimates for urban water are misleading as they do not measure the full output of the urban water sector. Higher water security is the key output of recent investment, yet is not measured. Nor is water efficiency measured as an output of the industry, or the increased investment to improve environmental outcomes such as sewage spills and sewage discharge standards. Indeed in many studies reduces in demand for water is viewed as a decline in output.

Figure 2 Multifactor productivity in the water supply, sewerage and drainage services subdivision and the market sector, 1974-75 to 2009-10



Source: Topp, V. and Kulys, T. 2012, Productivity in Electricity, Gas and Water: Measurement and Interpretation, Productivity Commission Staff Working Paper, Canberra.

In order to capitalise on recent experience and address future challenges, WSAA believes that any reforms undertaken need to focus on promoting investment, innovation and greater delivery of services valued by customers, communities and governments. In developing any future reform agenda it should also be recognised that reform implementation has been most successful where incentives were provided, and the Commonwealth avoided prescribing in detail how services should be provided by states.

Given the drivers for action and specific challenges, the areas of national impact and benefit, and the successes of past reforms, WSAA believes there are a small number of key areas where national action should be focused to help achieve improved outcomes in the sector:

- Improving the framework for economic regulation and pricing;
- Creating an environment for greater private sector investment, and competition; and
- Providing a common point of reference for urban water planning.

The following sections of our submission set out the rationale for national action in each case.

Theme 1: Efficiency

Key messages

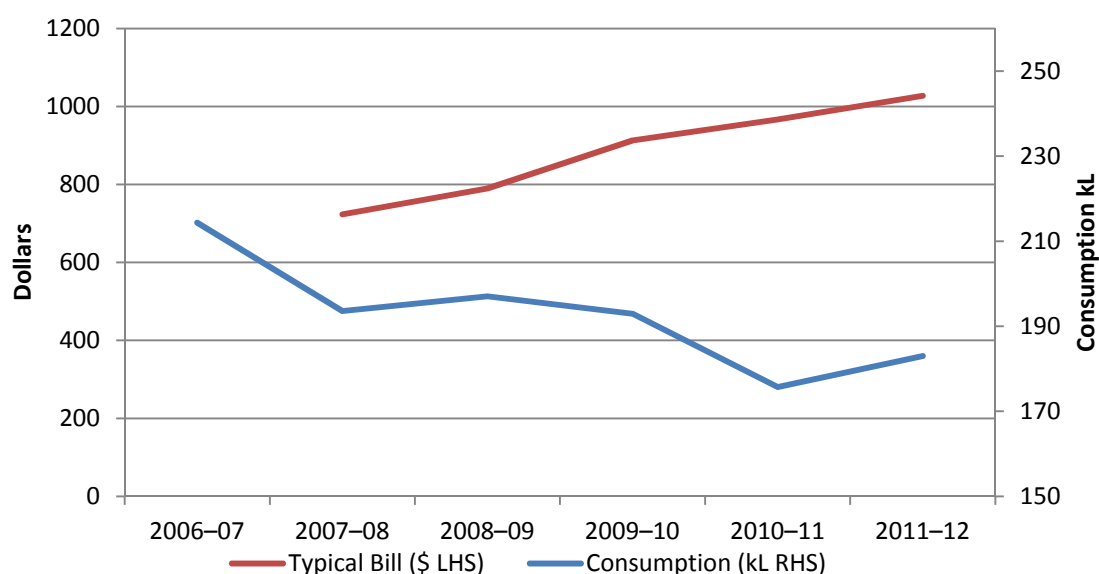
- Continuing to improve efficiency is integral to the vision of the industry to be customer driven.
- Water utilities are primarily responsible for delivering improvements to operational efficiency.
- Utilities extensively use the private sector to deliver services and innovation through outsourcing and alliances.
- However, greater use of the private sector and new business models will require state and national action to provide an environment that maximises efficiency and productivity.

The first outcome of WSAA's vision for the industry is to be the most efficient, trusted and valued service providers that customers deal with. The outcome is the foundation on which other outcomes are built. This is a much broader goal than efficient service delivery that is encompassed in this theme and intersects a number of the NWC's themes. It involves:

- Understanding customer preferences and reflecting them in investment decisions;
- Optimizing the use of new water infrastructure to meet multiple uses;
- Adopting new business models for innovation; and
- A regulatory framework that promotes innovation and efficiency.

In terms of operational efficiency, the imperative for efficiency improvements has always been present in the water industry, but is acute at present. Customers have seen prices and bills rise to fund water security infrastructure, at the same time as they have continued to be efficient in their use of water. There is a sense in the community that they are using less but paying more (figure 3). In 2013-14 the typical water and wastewater bill for a household consuming 200kl of water is around \$1200. Water utilities understand that they must do everything they can to drive further efficiency improvements to minimise costs.

Figure 3: Typical residential water and wastewater bill and water consumption



Part of the challenge is to make the best use of the investments in water security to get the best value for money for customers.

There is also an important link between increasing efficiency and private sector involvement. The industry has always used the private sector to deliver services to efficiently source services and capital through tendering and contracting arrangements. WSAA provided the data in table 2, to the Productivity Commission's 2010 review of urban water. At that time, nearly all capital expenditure by major water utilities was delivered by the private sector, and a significant proportion of operating expenditure was also outsourced. Since then the industry has continued to market test operations and the proportion of outsourced services has increased. For example, in 2013 Sydney Water contracted private providers to provide mechanical and electrical maintenance services, and Melbourne Water has announced the outsourcing of its IT services.

Table 2 Proportion of total expenditure outsourced by WSAA members

WSAA member	2009-10: % Capital expenditure outsourced	2009-10: % Operating expenditure outsourced
Water Corporation	93	30
Sydney Water	94	72
Sydney Catchment Authority	99	64
Melbourne Water	100	73
South East Water	90	42
Yarra Valley Water	98	58 (with further 33% benchmarked)
Hunter Water Corporation	100	65
ACTEW	100 (28 to ACTEW/AGL, 72 to other alliances)	100 (outsourced to ACTEW/AGL)
SA Water	94	65

The focus on improving efficiency is driven by utilities own business plans to improve customer service, supplemented with the targets set by economic regulators.

Reviews of the prudence and efficiency of past capital and operating expenditure and of forecast expenditure are a well-entrenched component of the regulatory framework. For example, the Essential Services Commission set a 1% productivity improvement in operating costs for metropolitan water utilities in the 2013-18 price review, and most utilities exceeded this threshold in their water plans. Similar arrangements are common in other jurisdictions.

The role of improving operational efficiency lies with utilities, overseen by economic regulators. Continuous improvement and cost savings is business-as-usual for the urban water sector. But there is a limit to what the industry can achieve on its own. There needs to be a range of regulatory and institutional reforms if it is to capture the range of broader efficiency and productivity gains.

These specific requirements are taken up in the following sections.

Theme 2: Aligning institutions and regulatory frameworks

Key messages

- The economic regulation of urban water needs to be improved across Australia.
- It is not delivering outcomes that are in the long term interests of customer.
- Nor does it provide the certainty and consistency to support greater private sector investment in the industry.
- Enhanced national principles are necessary to create a binding framework that:
 - > Has clear objectives – the long term interests of consumers;
 - > Is customer centric – the regulator avoids coming between the utility and the customers;
 - > Establishes a framework where broader costs and benefits can be incorporated into investment decisions for the full range of services it provides across the water cycle;
 - > Has appropriate risk sharing mechanisms, (eg. revenue caps, and pass through mechanisms to share risk);
 - > Has strong incentives for efficiency and innovation; and
 - > Contains an appeal mechanism
- There continues to be a light handed role at the national level in relation to COAG's national urban planning framework, but planning will remain the prime responsibility of state governments.
- There is also an ongoing role for the Commonwealth Government to maximize the benefit from a decade of unprecedented research in urban water.

WSAA considers that regulatory frameworks need to evolve to maximise the potential of the sector to innovate and deliver efficiency gains for customers. Much of the regulatory effort appropriately remains at the state level. For example, aligning service standards more closely with customers' preferences and willingness to pay should be progressed by utilities and their state economic regulators. In other areas — particularly the framework around the Australian drinking water guidelines — national arrangements are working well.

However, there are a range of areas where WSAA considers that greater national involvement is important. These are:

- A nationally consistent approach to economic regulation;
- A light handed role to disseminate urban water planning frameworks; and
- Streamlined environmental approvals.

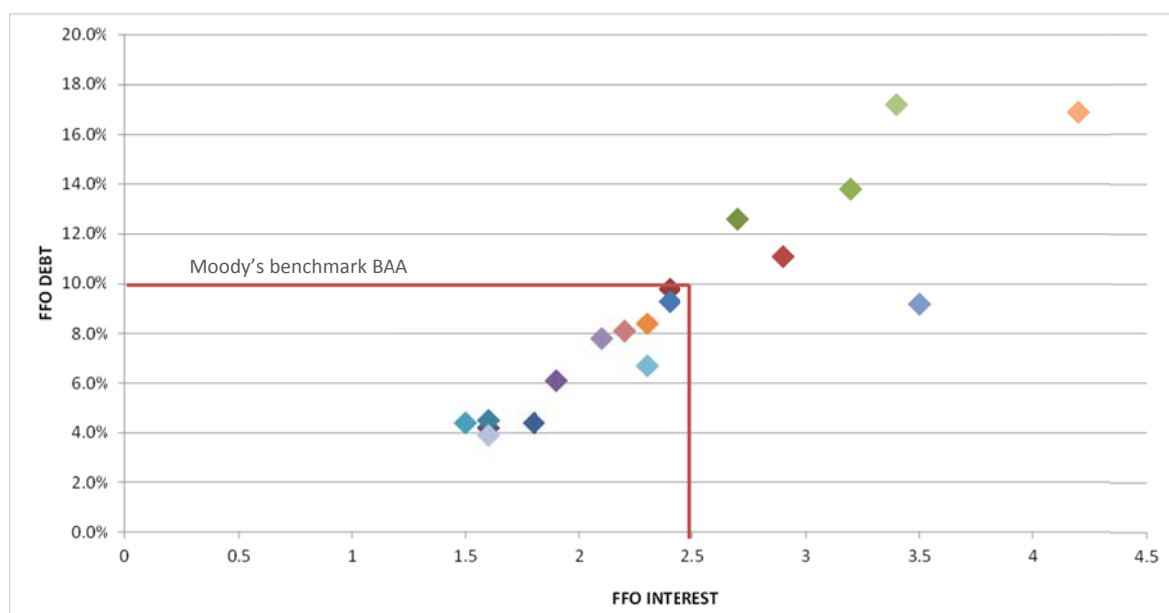
Nationally consistent economic regulation

In each state and territory separate economic regulators set or recommend prices, maximum allowed revenues, and assess the efficient costs of water utilities. WSAA supports independent economic regulation of the water industry to provide assurance to customers that prices are efficient and fair. However economic regulation can be significantly improved to provide greater consistency of outcomes.

Prices have recently been determined in most jurisdictions for the next three to four years. There are significant concerns among member about the outcomes from these processes:

- In Western Australia the state government decided not to adopt the recommendation of the economic regulator as the recommended price reductions could have set customers up for future price shocks.
- In the ACT, ACTEWAGL is appealing the merits of decision of the ICRC. In isolation appeals are not evidence of a problem with a regulatory system. However, it is noteworthy that ACT is the only jurisdiction where the utility has a right of appeal.
- In Queensland the government itself has recognized the burden imposed by regulation and is reviewing the framework with a view to introducing a more light handed approach.
- After significant price rises to fund water security expenditure some regulators have set future prices below the level of inflation. Real price falls are not financially sustainable in the long term and could lead to future price shocks for customers.
- There has been a steady decline in key financial metrics that measure the ability of utilities to service debts. These include the ratios of funds from operations FFO to interest and FFO to debt across the water industry. While on average credit metrics are not at critical levels the trend is clear and some utilities have little room to move (figure 4). WSAA does not consider that economic regulation is delivering outcomes that will avoid price shocks at some point in the future, or cuts to service levels.
- Finally, the regulatory outcomes are significantly below what a private water utility would expect. As discussed in the next section the regulatory framework is not sufficiently robust to support significant private investment beyond the current outsourcing models.

Figure 4 Individual utility outcomes against key financial ratios (forecast 2016)



Note: Funds from operation is defined as net cash from operating activities (often adjusted for working capital). It is net of tax and interest payments. FFO to interest measures the amount of “headroom” afforded by the company’s cash flows in servicing its debt burden. FFO debt compares cash flows to the stock of debt.

Source WSAA. 19 Utilities covering a high proportion of urban water revenue participated in the study

WSAA considers that there is a strong case for national involvement to improve economic regulation:

1. Firstly it is likely to be more efficient to have a more coordinated national approach. Regulatory resources are constrained in each jurisdiction and it would improve outcomes if there was a greater consistency of approach and less duplication of effort;
2. Only national action is likely to provide the certainty required for greater private sector involvement (see next section); and

3. A more consistent national approach may increase the perceived independence of regulators from short term political pressures.

The industry made strong advancements under the Council of Australian Government (COAG) 1994 Water Reform Framework and National Competition Policy reforms, and more modest gains under the National Water Initiative (NWI). Further reforms are now required to maintain and extend the benefits of this vital sector.

The NWI contributes little by way of guidance to the urban water sector and few specific reform commitments in this area; the NWI does not present the required vision or set of outcomes for the urban sector nor the outline the reforms required in support of this.

More comprehensive national principles could cover:

- Has clear objectives – the long term interests of consumers;
- Is customer centric – the regulator avoids coming between the utility and the customers;
- Establishes a framework where broader costs and benefits can be incorporated into investment decisions for the full range of services it provides across the water cycle;
- Has appropriate risk sharing mechanisms (eg. revenue caps, and pass through mechanisms) share risk);
- Has strong incentives for efficiency and innovation; and
- Contains an appeal mechanism.

Some state regimes have some of these attributes. No regime has all of them.

Planning frameworks

Revised WSAA water resource planning framework

WSAA is currently reviewing and updating the 2005 WSAA water resource planning framework into a framework better suited to the realities of an industry now faced with greater uncertainty and with the challenge of contributing to liveable cities and communities. The review will incorporate a decade of improved knowledge, data and experience; consideration of new challenges; and key contributions including the COAG's National Urban Water Planning Principles.

In response to climate variability, economic uncertainty and the liveability agenda, the sector is reflecting on the additional drivers which shape its environment. Furthermore, the water services sector has found itself at the intersection of a series of national debates about the urban form, traversing environmental sustainability, climate change and resilience, public sector reform, and liveability. This has prompted a reconsideration of the urban water sector's broader role creating and sustaining liveable cities. This approach emphasises the role for water service providers in supporting urban amenities, including flood management, urban heat island effect, food production, and improved waterway health, while maintaining core functions associated with the provision of safe drinking water and wastewater disposal. The implications of this integrated approach require a broadening of the services provided by water utilities and a much stronger integration between water service organisations and other urban planning institutions.

The updated urban water planning framework will also reflect the knowledge and tools that have been developed to enable a more systematic approach to the broader social, environmental and economic considerations underpinning all decision-making. For example, see a description of the Social Environmental Tool below.

It is intended that the 2014 WSAA water resource planning framework stimulate a dialogue between the urban water sector and other stakeholders, and provide a useful synthesis for urban water planners confronting the new challenges, increased knowledge and expanded customer services offering associated with urban water planning.

The framework will have the most relevance to urban water utilities and state government agencies. It would be strengthened through a complementary update of the COAG National Urban Water Planning Principles, which we understand is also scheduled for 2014.

Water Corporation's Social Environmental Tool (SET)

Water Corporation has invested in the development of the Social and Environmental Tool (SET), which has been designed to estimate the social and environmental costs and benefits of water cycle planning decisions. The outputs from the tool are typically combined with traditional financial analysis of infrastructure options to provide a relatively more rounded view of the costs and benefits associated with water cycle planning.

The basis of SET is a database that contains monetised values for social and environmental outcomes. The values have been sourced from comprehensive and on-going literature reviews and knowledge that is contained within Water Corporation.

An Excel based user interface allows planners to select values that are relevant to the particular circumstances of the water cycle planning option. The tool then estimates the Net Present Value of the social and environmental values. This allows the planner to combine financial cost estimates with the outputs of the SET to arrive at a robust economic cost-benefit analysis of the options being investigated. The SET also allows sensitivity analysis to be undertaken.

Maximising the impact of a decade of unprecedented level of urban water research

Over the past decade substantial investment has been made in urban water research and development across Australia with numerous jurisdictions and programs addressing multiple issues and themes. However, there remains a significant challenge and constraint to the efficient discovery, and therefore actual use and impact, of this information and knowledge.

Many organisations with responsibility for urban water research information have different information systems, access and pricing models and approaches to information and knowledge management. An additional specific concern is the management and legacy of information generated by water R&D centres and programs which have a limited life.

A national web-based urban water research portal will enable end users to better access information and knowledge from diverse sources in a uniform way. The portal would include development and application of national information standards, and development of agreed protocols for the ongoing collection, management and open dissemination of information, projects, models, case studies, tools and publications. The portal would primarily aim to increase access and sharing of information and knowledge but may also help to:

- Improve research efficiency;
- Enable more extensive collaboration;
- Improve communication and adoption of research;
- Reduce the risk of duplication in research; and
- Inform water planning and policy development.

The target audience for the portal would be users from water utilities, federal, state and local government agencies, private companies, and industry associations. They include environmental regulators, policy makers, urban planners, facility operators, suppliers and manufacturers,

engineering consultants, irrigators and catchment managers. Researchers may also find the portal useful.

The conceptual and financial support of the NWC for the development and execution of a national web-based urban water research portal could prove a tipping point for the portal proceeding with buy-in from key stakeholders.

Streamlining environmental approvals

The removal of 'red' or 'green' tape is currently a topic of attention amongst both state and the Australian Government, including clarity about regulatory responsibilities between levels of government. The Australian Government has pledged to abolish red or green tape that is creating unnecessary burden on economic activity, including streamlining regulations that reduce productivity or lead to more cost than benefit, as well as developing a 'one-stop-shop' for environmental approvals.

WSAA members acknowledge that it is important to remove any duplication of effort and improve the efficiency of regulatory arrangements. The urban water sector is not removed from the impacts of duplicated regulation or a lack of clarity regarding roles and responsibilities, either in its capacity to invest in and undertake major projects, or in its ongoing day-to-day operations. Constraints in this regard can limit the sectors ability to efficiently deliver the infrastructure and services required by customers.

As a result, WSAA members believe there is a case for national action to streamline environmental approvals, to the extent that this does not compromise environmental outcomes. It is commonsense that where opportunities exist to reduce duplication or clarify responsibilities, at the same time as ensuring environmental protection, that these opportunities be taken.

Theme 3: Access to capital and private sector investment

Key messages

- Private investment in urban water can provide greater access to capital, and increase innovation and productivity.
- Governments are interested in recycling capital to provide funds for economic and social infrastructure.
- All forms of greater private involvement must preserve and enhance the public and private value delivered by the urban water industry.
- The preconditions to achieve this are not currently in place.
- State governments need to put in place the frameworks to allow effective private participation.
- Nationally improving economic regulation is a key precondition for greater investment.

While water utilities remain government owned they extensively use the private sector where it drives efficiency and innovation. As discussed, the use of contracting and outsourcing for services and infrastructure is extensive. Private sector involvement also extends to privately owned infrastructure, such as water and wastewater treatment plants, and most recently seawater desalination plants.

The private sector is now entering the water sector to service customers directly, potentially in competition with existing utilities.

For utilities, private players and competition can drive innovation and efficiency and provide access to additional sources of capital.

Likewise most state governments are facing significant borrowing constraints and are increasingly interested in recycling capital — selling government owned assets to reinvest in infrastructure for the benefit of the community. The refinancing of the Sydney Desalination Plant is a successful case in point, freeing up around \$2 billion in state borrowing capacity. Government's also have an overriding interest in private involvement as a part of an optimal industry structure to maximise the value of the services of the urban water sector to the community

Maintaining the public and private value within the urban water sector

WSAA considers that it is important to recognise the breadth of values provided by the water industry. Water is the most essential of essential services, and plays a key role in enriching lives. Consistent with WSAA's vision, the overriding test for all forms of greater private involvement in the water industry is to preserve and enhance the private and public value delivered by the water sector. At a minimum these values encompass:

- Urban water's contribution to public health;
- The environmental contribution of the wastewater industry as the largest urban waste manager;
- The contribution to waterway health and flood protection;
- The contribution water makes to the liveability of our urban environment (see theme 6); and
- The enterprise value of water utilities as businesses.

Preconditions for private investment in the urban water sector

The NWC asks the question '*What are the preconditions for attracting private capital investment into the urban water sector?*' This is a critical question as currently few of the preconditions are being

met. There is a role for state and national government to ensure that the private sector can access the water industry in ways that promote rather than reduce the total value of urban water.

In broad terms the preconditions for attracting private investment into the water industry include:

- Stable, consistent and predictable economic regulation (a minimum requirement for capital recycling);
- Addressing the tax equivalent regime arrangements, corporate tax arrangements between the Commonwealth and State governments;
- The architecture for private involvement including third party access, licensing regimes, and critically a market design for geographic contestability, or retail competition or bulk water competition.

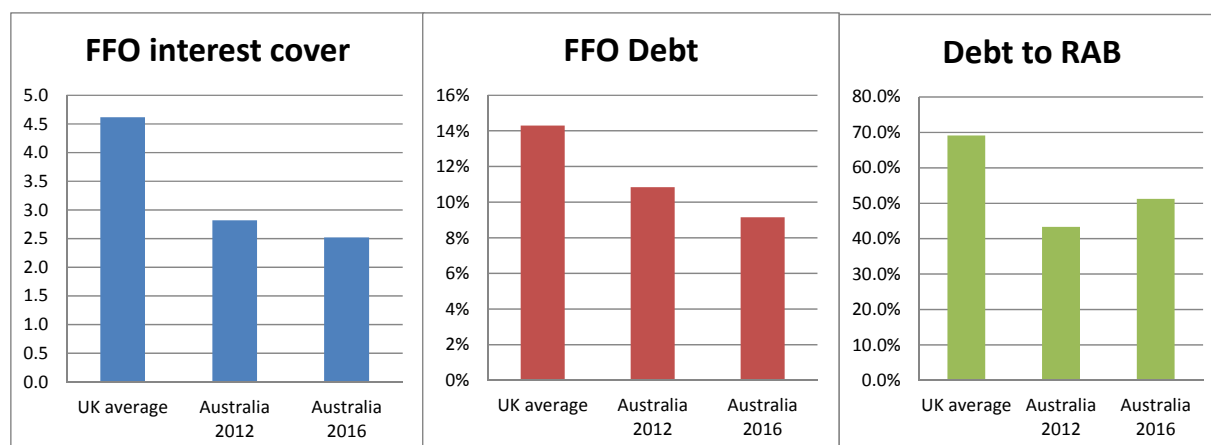
Economic regulation and returns necessary for private involvement

In relation to economic regulation WSAA wishes to reiterate the analysis in the previous sections. Improving economic regulation is a fundamental pre-condition to attract greater private investment into the water sector.

A comparison with the UK water sector reinforces the link between economic regulation, long term financial sustainability and private sector investment. The UK water sector is relevant as it is entirely privately owned. Under the regulatory framework operated by the UK water regulator Ofwat, the industry has attracted \$100 billion pounds of private investment.

WSAA has compared the financial ratios achieved by UK water utilities with those in Australia (figure 5). The comparison is stark, even if there were to be a tightening of ratios over the next UK price period. Long term financial viability is an integral requirement to protecting the long term interests of consumers. It can only be guaranteed by comprehensive reform to the economic regulation of water.

Figure 5 Key financial viability ratios for Australian and UK water utilities



UK results are for 2012

Capital recycling and the national tax equivalent regime.

Most corporatised government owned businesses, including water utilities, operate under the National Tax Equivalent Regime (NTER). The primary objective of the NTER is to promote competitive neutrality, through a uniform application of income tax laws, between the NTER entities and their privately held counterparts. The NTER is a successful element of the corporatisation model. It is an administrative arrangement under which relevant Commonwealth taxation laws are applied notionally as if they were subject to those laws.

Corporatised water utilities are assessed annually as to their income tax equivalent liability and pay the liability to the state government treasury instead of the Commonwealth Government.

As a result a state government receives two revenue streams from their businesses. It receives dividends as the shareholder and they receive the income tax on profits that an equivalent private company would pay to the Commonwealth Government.

If assets belonging to a corporatised entity are sold to the private sector, the income tax liabilities would then be paid by the private company to the Commonwealth. The state government potentially loses part of the revenue stream associated with the assets. There is no loss of value associated with the transfer — what the state government loses the Commonwealth Government gains. However, the loss of the tax stream to the state government weakens the incentives to undertake such transactions.

A number of state governments have suggested that the Commonwealth and states should reach agreement on sharing of the tax revenue stream to overcome this potential impediment.

New private players in urban water — competition and contestability

Private involvement in urban water does not necessarily require competition or contestability. For example, the UK has been served by private water monopolies for many years and is only now introducing limited retail competition. Nevertheless, unless full privatisation of utilities is being considered governments will need to develop comprehensive frameworks to allow private and public utilities to co-exist, and carefully define the boundaries of competition and collaboration.

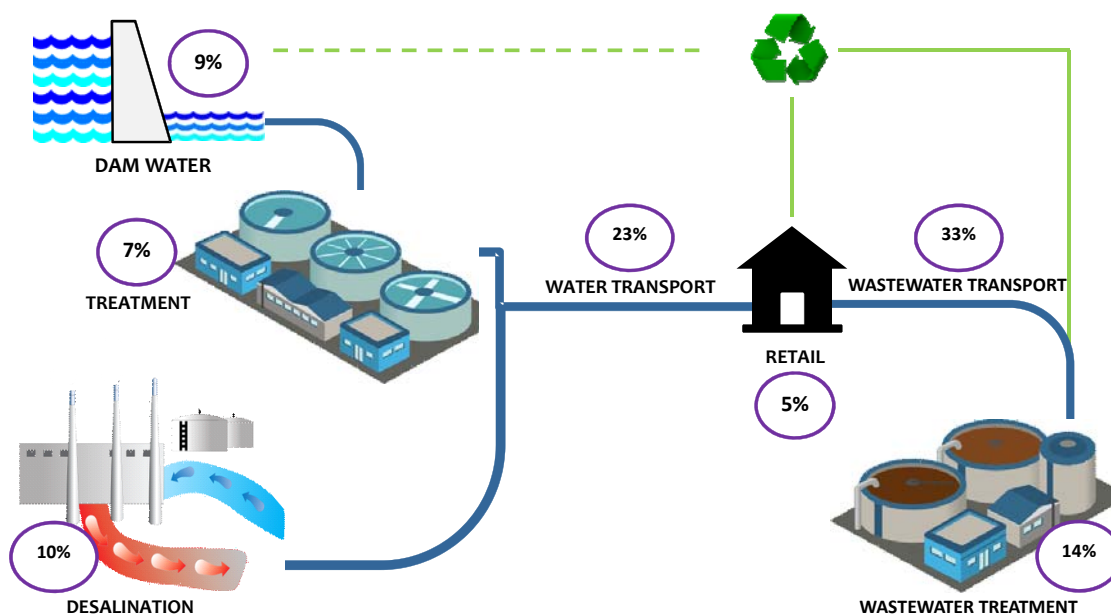
An understanding of the water industry value chain is necessary to understand the scope and preconditions for competitive forms of private sector entry. Policy makers concentrate overwhelmingly on the water supply services provided by the industry, and then primarily on bulk water supply. Important though this is, the value chain is much more complex.

A stylised value chain is presented in figure 6. It shows the percentage of costs of each major component of the water industry. Bulk water costs represent around one quarter of costs, but are likely to vary significantly among utilities, depending on the sources available to each community and the level of treatment required.

Other features of the indicative cost structure are that:

- The wastewater component of the industry is generally around half of the total cost (and customer bills);
- Underground assets – water and wastewater networks also comprise around 50 per cent of costs; and
- The retail component of the industry is small in comparison to total costs.

Figure 6 Indicative value chain for the water industry (% of total costs of each stage)



Source: Sydney Water

Competition across the value chain

The water and wastewater networks comprise over 50 per cent of the costs of the industry and are widely regarded as natural monopolies. It would be uneconomic and wasteful to duplicate elements of the network. As recognised by the Productivity Commission's Urban Water Report, it is not straightforward to introduce competition into the urban water industry. To use the Productivity Commission's phrase large components of the value chain are not "naturally competitive" in the traditional sense.

The retail segment of the industry can be competitive. Scotland has introduced retail competition for non-residential customers and the UK is now developing a seamless Anglo-Scottish retail water market for the non-residential sector. Owing to the complexity of the issues it is not expected to commence operations until 2017.

In Australia, retail margins tend to represent a small proportion of a utility's total costs and retail competition has not yet commenced. However, with new bulk water players, such as the privately financed Sydney Desalination Plant, retail competition is likely to occur at some point in the future.

Contestability

The area where private entry is currently most focused is on contestability for segments of the market. There is increasing interest from new players in servicing fringe areas of urban developments, not currently served by utilities, serving entire greenfield developments or servicing infill redevelopments. For example, the NSW Government is introducing contestability assessments for all new growth infrastructure to 'ensure greater efficiency in infrastructure delivery and operation'. Under the NSW water industry competition act a number of licenses have been issued for new private entrants to provide services to particular geographic areas.

While NSW has the most developed regime to encourage new players, its framework lacks overall direction and does not sufficiently define the role of existing utilities and new entrants.

What is needed to ensure value creating private involvement?

Beyond effective economic regulation, figure 7 summarises WSAA’s view of the necessary steps for effective private entry and competition in water, whether it be competition, contestability or capital recycling.

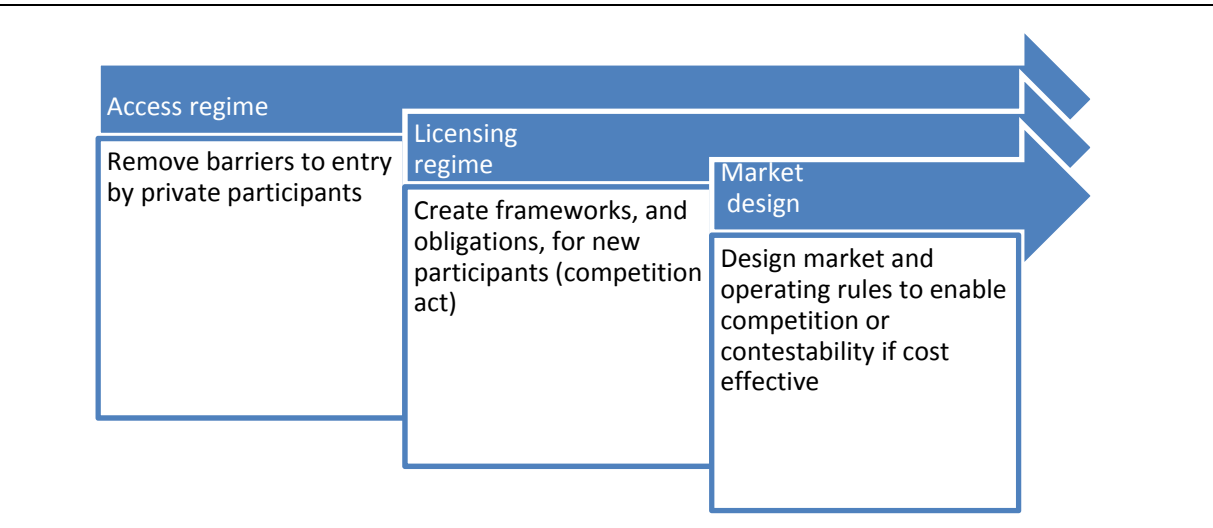
Removal of barriers to entry as provided by an access regime is a first step but not sufficient for competition. For an essential service such as water a minimum requirement is a licensing regime for all players to ensure health standards are met and infrastructure meets appropriate technical standards, and to ensure appropriate levels of consumer protection. Last resort arrangements are also necessary to define who will provide services in the event of withdrawal or financial failure by new entrants.

However, both the access regime and a licensing regime presuppose a degree of natural competition. If this is absent, the third stage — market design and market rules — would be necessary. For example, to allow scope for the Sydney Desalination Plant to sell directly to customers, the NSW pricing regulator, IPART, included a range of mechanisms in its price determinations for the Sydney Desalination Plant, Sydney Water and the Sydney Catchment Authority. The timelines for the development of retail competition in Scotland and England illustrate the complexity of the issues.

Geographic contestability while seemingly simpler than head-to-head competition still needs clear market rules. Developing such rules needs to underpin changes to market structure. Without it value is likely to be lost rather than gained. These market arrangements are also required for capital recycling if infrastructure is to meet tests under accounting standards to be removed from utility and state government balance sheets.

The heavy lifting for this detailed policy development and implementation is one that sits primarily with state governments.

Figure 7 Institutional requirements for competition in the water industry



Theme 4: Investing in people skills and culture

Key messages

- The urban sector does face workforce challenges, but many of these are not unique to the sector
- The industry has been working hard to address many challenges itself in this area, including through people related strategies that focus on key issues such as productivity.
- While the industry is generally best placed to manage workforce challenges, there are important supporting roles for both state and national governments to assist industry and utilities.
- The frameworks provided and managed by governments in regard to skills and training, and education, are critically important in this regard.

As the NWC has identified, the sector faces workforce challenges. Some of these, such as competition with other sectors, are broad, economy wide challenges, while others, such as knowledge of complex treatment technologies, are more specific to the water sector. Issues such as the ageing workforce have been known about for some time, while others, such as transitioning from a built infrastructure to a customer focus, are a function of more recent developments in the sector.

Recent scans of the operating environment suggest current issues or drivers in this area include ageing workforce issues, but also include improving productivity, levels of professionalism, up-skilling and multi-skilling, new technologies, workplace health and safety, and recruitment and retention for specific skillsets. WSAA observes that recent people related strategies are focused on productivity, by improving capability, engagement, acquisition and retention. Workforce planning is also a key issue, as is ensuring a zero harm culture, procurement and contract management skills, leadership, training and development, and customer focus or service. Literacy (including digital literacy) and numeracy deficiencies have also been identified.

WSAA members are very aware of the challenges in this area and have been acting to address them. For example, many WSAA members are growing data and analytics capability to support decision making and planning around workforce productivity. This provides insights on emerging trends, better monitoring of metrics, and informs reviews of risks, strategic analysis and development of workforce plans. Workforce planning is a key priority for industry as there is a perceived lack of understanding and application of workforce planning, something WSAA is helping members to address through development of an industry guide. Many WSAA members also have an active cultural agenda and are reviewing culture and engagement surveys to better track productivity aspects like effort and intent to stay.

Many utilities have been assessing the ageing workforce issue, including analysing data and trends. Recent analysis suggests a slow flattening of the workforce age profile, that age is broadly productivity neutral across the workforce, and that there is benefit in focusing on individual productivity rather than age. While the ageing workforce is still an issue, many utilities have downgraded their risk assessments in this area. Smaller regional entities are expected to continue to face this challenge due to difficulties filling vacancies and the loss of intellectual property.

WSAA is also contributing directly including by investing in an Urban Water Industry Workforce Development Project. A component of this project is the development of a National Competency Framework to define competencies for specific roles and inform qualifications and training. This will also assist in addressing occupational data issues and workforce planning. WSAA has also supported a workforce development survey as part of this wider project, the results of which suggest that the industry is committed to the vocational education and training system and that there is increasing demand for water and wastewater treatment training.

WSAA members' future workforce is likely to be driven by prevailing economic conditions and the sector's ability to retain specialists such as engineers, asset managers, electricians and IT specialists. Preliminary analysis suggests that in the future there is likely to be a decrease in the volume of engineering skills in non-core roles driven by cost reduction and availability, with correspondingly more science, analytical and business professionals, who are more commercially astute and customer focused. Continued improvements will be required in political skills, relationship management and community engagement, while efficiency gains will be required and linked to automation and scheduling, as well as business performance systems, new technologies and alternative work models. There will also need to be an expanded skill base around water re-use and recycling and advanced water treatment.

In order to attract and retain the right people, fill skills gaps, and manage required transitions in the workforce, the urban water sector may continue to substitute specialist skills for more generic skills, such as environmental or chemical engineers instead of civil, science-based skills or analysts instead of asset engineers, or operations management skills from other industries. It may need to work with alternative labour markets, including recruiting from industries against which the urban water sector is cost competitive. It may also need to continue building capability in-house, including through career entry programs, strong training for water industry operators and policies aimed at developing people internally.

The development of a certification framework for water treatment operators is also considered necessary to address variations in standards and practices that may present a public health risk. The Water Industry Skills Taskforce now has carriage of this project, and is working to address implementation barriers, complete pilot studies, and clarify roles and responsibilities. However, this area may benefit from renewed national support and leadership.

The discussion and examples above highlight the level of awareness and work already going on in the industry to address workplace related challenges. This reinforces WSAA members' broad view that the industry is best placed to manage workplace issues in the first instance. It is WSAA's view that there is not a case for new national water specific reforms in this area, but there remains a strong need for ongoing state and national arrangements and supporting frameworks in regard to skills and training, and education, including the vocational education and training system.

Theme 5: Customer engagement

Key messages

- The interests of customers underpin WSAA's suggested actions under all other themes.
- WSAA members have a good record of service delivery upon which they would like to build in the future.
- The main responsibility for improving customer service and engagement lies with the industry.
- The industry is already implementing a range of actions to improve engagement and provide greater choice.
- Further work could be done to ensure regulatory frameworks reflects a more customer-centric approach – useful examples exist in other sectors and internationally

Customers are at the centre of the water industry's vision to 2030. As the vision states:

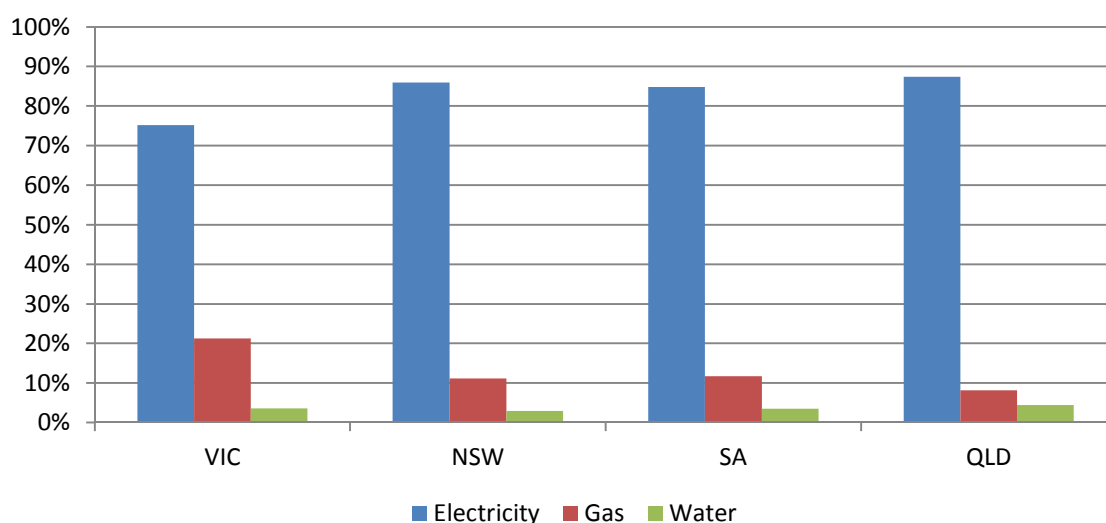
The urban water industry is seen by its customers as conservative, trustworthy and reliable. It is also seen as slow to change and compliance driven. Our aim is for customers' values and willingness to pay for services to determine how services are delivered and the tradeoffs that are made between risk, reliability and affordability. We expect this to drive the industry to provide a greater range of services and more choices for customers.

The interests of customers underpin the actions recommended under all other themes. For example:

- WSAA considers that the long term interests of customers should be the main objective for economic regulation;
- Financial sustainability is required to ensure continuation of reliable service delivery and to enable a long term sustainable price path that avoids price shocks for customers; and
- The role of increased private involvement in the industry is to preserve and increase the private and public value delivered by water utilities.

The prime responsibility for customer engagement lies with the water industry itself. However, it is entering a new era of engagement with our customers built on solid foundations that have been developed over many years. The urban water sector is proud of the quality of the services it delivers. In comparison with other utility sectors it performs highly in customer service. Complaints to external ombudsmen concerning the water industry — covering all aspects of the customer experience including bills — are very low (figure 8).

Figure 8 Proportion of complaints by sector 2012-13



Note: Latest Victorian data is 2011-12

Source: State Energy and Water Ombudsman annual reports

Notwithstanding this strong performance there are significant challenges: particularly surrounding affordability. For customers in financial difficulty, all utilities have well developed hardship policies which offer flexible payment arrangements and other forms of payment assistance.

In partnership with the community, water efficiency improved dramatically during the drought. These behaviours have been preserved, but there is a sense in the community that their water efficiency efforts have not been rewarded. They are using less but paying more. It is incumbent on the water industry to demonstrate the value that it delivers. More fundamentally, the industry recognises it needs to better understand customers' needs, preferences and willingness to pay and reflect these in future investment decisions.

Part of the answer lies in services standards and regulation that better reflect what customers' value. The industry needs to better understand the degree to which customers want choice in their service offerings.

Water utilities currently use a broad array of measures to engage with customers. These include:

- Customer councils to advise utilities directly;
- Sentiment monitoring of the community to observe trends in customer attitudes to water and levels of trust in the community;
- Customer segmentation to assess the different needs of customers; and
- Deliberative forums to examine in depth business plans.

In future utilities will expand the use of these tools and use additional techniques. For example, there is a growing use of decision choice modelling and willingness to pay studies. The industry is also expanding the use of smart water meters. Smart meters are informing customers and utilities "with actionable and timely insights in new, simple and visually rich ways, so you know precisely who, when, and where water is being used, both in dollar terms and volume terms" (Little, L & Flynn, J 2012). There are potential benefits to customers and utilities including:

- Deferral of network capital investment;
- Reduction in under-billing caused by undetected meter degradation;

- Eliminating undetected data errors which can improve leakage figures;
- Earlier identification of leaks; and
- Presentation of more frequent, timely and actionable information can empower customers to better control and understand their water use.

Similarly, industry and government programs such as the Smart Approved Water Mark provide consumers with accurate information to inform their purchases of water efficient products. WSAA considers that there is a strong case for continuing Commonwealth Government support for Smart Approved WaterMark and the Water Efficiency Labelling Scheme.

Smart Approved WaterMark

Smart WaterMark is Australia's water conservation label, identifying and certifying water-efficient products and services. Over 300 technologies and practices have been certified to use the Smart WaterMark label following rigorous assessment by an independent Technical Expert Panel. Set up by industry and government as a not-for-profit partnership, Smart WaterMark delivers water efficiency by:

- Assisting households and businesses to select water efficient products and services, allowing them to achieve water efficiency goals in a manner of their own choosing;
- Providing a common national approach to water efficiency labelling for government, water utilities, industry and retail;
- Promoting innovation and raising efficiency benchmarks to drive market transformation; and
- Developing cutting edge water conservation tools such as the "Every Bucket Counts" online calculators and the iSaveH2O efficiency app.

Finally, water regulators are also seeking to involve customers more in decision making. They are seeking evidence that business plans have the backing of the community. In the UK the water regulator has introduced customer challenge groups for each utility, which will comment to the regulator on the utilities investment plan for the five years of the price setting period. In the Australian energy sector, the government has established a customer advocate, to ensure the customer's voice is not lost in the regulatory process.

While the ideal model is yet to be developed, the water sector strongly supports a move to put the customer at the centre of the regulatory framework.

Theme 6: Liveability

Key messages

- Liveability is an important concept and future driver of action in the sector.
- The industry has always been vital to contributing to liveability outcomes through its core water and wastewater services, but it can play a broader role.
- However, specific roles and responsibilities for delivering liveability outcomes remain unclear, as do benefits, beneficiaries, and the framework for recovering costs.
- Action is required in these areas to ensure the sustainable delivery of liveability outcomes into the future.
- Liveability is primarily a matter for utilities and their customers, as well as state (and local) governments and the communities they represent.
- There is a national role, but this should focus on information, communication, guidance and reporting.

Liveability generally describes the attributes that make a city or region enjoyable and healthy to live in. These can include transport networks, clean air and waterways, affordability of housing and services, appealing surroundings, a sense of place, and strong social networks. Social, economic and environmental sustainability are essential foundations, but liveability also relates to amenity, human preferences towards certain places, services, and a sense of social connection and belonging.

WSAA's draft definition of liveability

WSAA is currently consulting with members on an occasional paper *The role of the urban water industry in contributing to liveability*, which adopts the following draft definition of liveability:

A liveable city or region meets the basic social, environmental and economic needs of its people, and goes beyond this to explicitly address the values and preferences of its communities for amenity, wellbeing and a sense of place.

A liveable city or region secures its longevity and resilience by having regard to the needs of future generations and by using systems thinking to understand and respond to shocks and long term change.

The viability of cities and regions depends on attracting and retaining vibrant, functioning, and productive communities. Liveable cities or regions help to attract diverse people and facilitate business opportunities that underpin long term success. They also help to provide the confidence that businesses need to invest, and people need to commit to their community's future.

Water is a key component of making any city or region liveable. All cities and regions depend on water; it helps to secure both the wealth and the health of their communities, and the way that water is managed and used can help to enhance liveability. As the box below outlines, the sector contributes to liveability in a number of ways.

The Australian Water Industry's contribution to Liveability

We contribute to amenity and community wellbeing

We work to maintain the health of our communities and to understand our customers' values and aspirations to enhance the liveability of our cities and regions, by:

- Providing clean, safe and reliable water and sanitation services;
- Contributing to local amenity, by supporting greenspace, recreation and urban cooling; and
- Supporting affordable water servicing options.

We contribute to productivity, planning and governance

We harness the full productivity of our people and infrastructure to ensure the availability of affordable water services, and underpin our regions' economic prosperity, by:

- Improving the efficiency of our infrastructure and services;
- Supporting growth planning and enabling housing supply;
- Integrating landuse and infrastructure planning for multiple uses and outcomes; and
- Collaborating to improve the planning and management of our cities and regions.

We contribute to sustainability and focus on the future

By applying science and understanding risk we contribute to the sustainability and resilience of our cities and regions, now and into the future, by:

- Protecting the natural and built environment;
- Managing resources sustainably, and providing water stewardship;
- Contributing to energy and food security through resource recovery;
- Increasing our cities' and regions' resilience to climate change and extreme events; and
- Fostering innovation and water industry workforce capability.

Adopting a broad definition of liveability, WSAA submits that the Australian water industry contributes to other key liveability outcomes, particularly those relating to the affordability of water services to our customers, and the resilience of cities and regions. Affordability is consistently identified by Australian liveability indices as a key determinant of cities' liveability. The resilience of our cities and regions in the face of drought, bushfires and flooding is heavily weighted by the ability of water infrastructure to withstand, manage and quickly recover from these events. Resilience in turn underpins communities' experience of their local environment and confidence in their future prospects, key considerations for liveability.

For many years water utilities have delivered safe, reliable drinking and wastewater services to the public. The high standards of liveability enjoyed in many Australian cities can in part be attributed to the provision of these services. More recently, utilities have contributed to liveability through water sensitive urban design, integrated water management, and water sensitive cities. WSAA's members are also working to improve liveability by engaging with customers, communities, planners and all levels of government to build understanding of the role water should play in liveability. WSAA's previously mentioned paper *The Role of the urban water industry in contributing to liveability* aims to support these efforts.

Some water utilities have also contributed to liveability by implementing integrated water management frameworks and integrating concepts such as water sensitive cities into their strategic planning. However, as the NWC observes implementation of these and similar concepts is sometimes characterised by trials, once off approaches, or pilot projects, and driven by informal arrangements and the expertise of individuals, rather than strategic approaches formalised through institutions.

In part this reflects that challenges exist in explicitly defining the sector's role and specific responsibilities in relation to liveability. This includes defining commercial and non-commercial obligations, and identifying benefits and beneficiaries. Quantifying costs and benefits can be challenging, as can determining willingness to pay and ensuring costs can be recovered through

existing economic regulation frameworks. Liveability is strongly influenced by the needs, values and aspirations of specific communities and customer segments. The water industry's ability to provide specific responses to these needs and preferences is not well supported by the current regulatory and pricing frameworks.

Work to address some of these challenges is occurring, including academic and research work on frameworks to quantify costs and benefits of alternate sources of supply and service offerings. There are also opportunities emerging to better integrate institutions, including through the New South Wales review of planning legislation and work in Victoria by the Office of Living Victoria and the Growth Areas Authority. However, for many utilities there is still a lack of clarity about roles and responsibilities in this area, including obligations to the wider community and who should meet the associated costs.

In addition to addressing the aforementioned challenges, the sector's contribution to liveability should also be enhanced by closer integration of water and urban planning. This is necessary to enable the sector to influence decisions to support liveable communities more effectively, particularly at the strategic level. Utilities are already major statutory planning referral agencies, but involvement in strategic urban planning is likely to bring greater benefits. Such integration should help to build resilience to the impact of extreme events, consider the cost of infrastructure required to service growth and its impact on affordability, and ensure consistency in objectives, policy decisions and outcomes.

While specific liveability issues facing communities are likely to differ between cities, regional and remote locations, liveability principles and the nature of the water sector's contribution are likely to be similar. The challenges identified above are likely to apply in most situations, regardless of location, but broader cost-recovery and service delivery matters may be of greater concern in some regional areas. Understanding community and customer needs and preferences through effective engagement, and addressing these challenges could help with the availability of resources to invest in liveability outcomes sought by those communities.

Despite these challenges, the water industry is already active in extending its contribution to liveability beyond traditional water and wastewater services. This does not necessarily mean imposing additional costs on customers. We believe a critical issue is the way that we do our work, and involves:

- **Engaging with our customers and communities** to understand their needs, values and preferences for liveability, and how this relates to the products, services and solutions that the urban water industry can provide.
- **Partnering with state and local government, the private sector, and community groups.** Broad liveability outcomes can rarely be delivered by one party in isolation. Their delivery is often dependent on a number of parties working together – to deliver projects across accountabilities, and to apply available funds more efficiently by multiplying the benefits.
- **Using innovative approaches** such as delivering work in a way that achieves different and broader liveability outcomes. Sometimes contributing to liveability simply involves thinking about a problem differently. We are thinking more broadly and holistically about the role of water in the urban environment, and being open to other ways of doing business and providing solutions. We need to focus on more than just the water and the assets, and think about the services we provide.

The discussion above underscores WSAA's broad view that with the exception of long-term infrastructure planning and its impacts on affordability and resilience, liveability is largely about local urban environments, and the preferences of the communities that inhabit them. While the principles and attributes of liveability are to some degree universal, specific needs and requirements are likely to be context specific. This suggests that for the most part, liveability is a matter for utilities and their customers, as well as state (and local) governments and the communities they represent.

In order to improve their contribution in this area, utilities need to know what liveability outcomes they are responsible for providing, either those demanded by their customers, or required by

governments as services to the wider community. They also need to have the support of regulators to recover costs from identified beneficiaries. These are areas for action at the state level, with a potential national role in the event of more nationally focused economic regulation and urban planning principles.

While action is required, WSAA does not believe there is a compelling case for national reforms aimed at liveability (potential national economic regulation notwithstanding). However, there may still be important roles for national action, including in coordination, information sharing, and communicating best practice; defining frameworks, principles, goals or objectives, and; assessing or reporting on progress and outcomes. Some examples already exist, including COAG's *National Urban Policy*; and *Our cities our future* which WSAA members have been using as a common reference to map their contribution to liveability outcomes.

Attachment 1 WSAA's Vision and Outcomes to 2030



WATER SERVICES ASSOCIATION OF AUSTRALIA__VISION & OUTCOMES TO 2030

CUSTOMER DRIVEN, ENRICHING LIFE

2030



WATER SERVICES
ASSOCIATION OF AUSTRALIA

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The background of the entire page is a vibrant blue. In the upper half, there are several semi-transparent, overlapping squares and rectangles of varying shades of blue, creating a layered, architectural effect. Below this, a solid dark blue horizontal band contains the text. The lower half of the page features a complex pattern of thin, dark blue, flowing lines that resemble water ripples or abstract calligraphy, overlaid on a lighter blue background with more geometric shapes.

The Water Services Association of Australia (WSAA) is the industry body that supports the Australian urban water industry. Its members and associate members provide water and sewerage services to approximately 16 million Australians and many of Australia's largest industrial and commercial enterprises.

**WSAA IS THE INDUSTRY BODY THAT SUPPORTS
THE AUSTRALIAN URBAN WATER INDUSTRY**

OVERVIEW OF WSAA

The Association facilitates collaboration, knowledge sharing, networking and cooperation within the urban water industry.



It is proud of the collegiate attitude of its members which has led to industry-wide approaches to national water issues.

WSAA can demonstrate success in the standardisation of industry performance monitoring and benchmarking, as well as many research outcomes of national significance.

The Executive of the Association retain strong links with policy makers and legislative bodies and their influencers, to monitor emerging issues of importance to the urban water industry. WSAA is regularly consulted and its advice sought by decision makers when developing strategic directions for the water industry.



WSAA'S VISION FOR THE URBAN WATER INDUSTRY

After an unprecedented effort to secure water supplies during the 'millennium' drought, the industry's focus is now on the future. The challenges may be less immediate, but they are no less complex.

The urban water industry is the custodian of 260,000 km of pipes and \$120 billion in assets. It operates hundreds of water treatment facilities delivering safe drinking water, recycled water and returns safe water to the environment.

Customers benefit from our ever increasing utilisation of the private sector in building and operating our assets. Having developed water security for our cities and towns the next generation of change brings exciting prospects:



WSAA members have defined the vision and outcomes they want to achieve by 2030

CUSTOMER DRIVEN, ENRICHING LIFE

- We want to be as easy to deal with, providing customers with a service experience that is second to none.
- We want to engage the communities we serve to understand and influence how they will use water to create attractive, enjoyable and affordable places to work and live.
- We want to truly integrate planning and operations with other sectors such as waste, energy and even transport to create liveable and sustainable communities.

At the same time we know that for water to play its part in liveable cities of the future we will need to continue to invest and maintain our assets. We need to harness the private sector and unlock the industry to new sources of finance such as superannuation to drive future innovation and investment.

The vision highlights the industry's commitment to anchor our services to customers' values, and to enrich communities where water services have broad economic, environmental and social values. To make this happen the focus will be on achieving four outcomes by 2030.

Outcome 1: The most efficient trusted and valued service providers in Australia

Outcome 2: A compelling voice in national policy making

Outcome 3: A valued partner in urban and land use planning to enrich communities

Outcome 4: Stewardship of the urban water cycle

Delivering the outcomes will require new and different skills within the industry. We will be investing in our people to build the capability to embrace the challenges.

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2013



OUTCOME 01

The most efficient, trusted and valued service providers in Australia.



OUTCOME 02

A compelling voice in national policy making.

2030



OUTCOME 04

Providing stewardship
of the urban water cycle.



OUTCOME 03

A valued partner in urban
and land use planning to
enrich communities.



THE MOST EFFICIENT, TRUSTED AND VALUED SERVICE PROVIDERS IN AUSTRALIA

'Who should determine what we do – customers'

We provide one of the most essential services to society. The industry wants customers to recognise us as the most trusted, efficient and valued service providers they deal with. We will not lose sight of the need to keep delivering great core services.

The urban water industry is seen by its customers as conservative, trustworthy and reliable. It is also seen as slow to change and compliance driven. Our aim is for customers' values and willingness to pay for services to determine how services are delivered and the tradeoffs that are made between risk, reliability and affordability. We expect this to drive the industry to provide a greater range of services and more choices for customers.

In the future there will be many new players in the water industry. Private suppliers will work along side and compete with existing utility providers. New business and funding models will emerge. In regional areas the industry will build on economies of scale through amalgamation to capture efficiencies and improve services to regional customers.

Greater private sector involvement can promote innovation, productivity and more service choices. We will support private sector involvement where it contributes to better outcomes for customers.



Better regulation is necessary to support change:

- Service standards should be outcome based and derive from customers' values. Health and environmental regulation needs to be better coordinated to achieve the right balance between health, environmental and affordable outcomes.
- The industry needs to remain financially viable to deliver value for customers. To sustain the community's current standard of living, the billions of dollars' worth of water and sewerage infrastructure across the nation's urban areas must be maintained.
- The regulatory system should support innovation, efficiency and greater private involvement.

KEY RESPONSES

- Focus on the efficiency and productivity of core services to retain the trust of customers over the long term
- Continue to develop the capacity of smaller water utilities and ensure this is matched with appropriate regulatory and pricing models
- Develop a deep understanding of customers' values, needs and willingness to pay for services, and translating this customer understanding to the way services are designed and delivered
- Support private sector involvement where it delivers innovative solutions, more choice for customers and enhances productivity
- Advocate for regulation that provides net customer value — where the benefits clearly outweigh the costs, aligns service standards with customers' values and provides room and incentives for innovation in service delivery; and is transparent, consistent and predictable to support efficient service delivery



A COMPELLING VOICE IN NATIONAL POLICY MAKING

“Urban water fuels growth. It links energy, food, supports new populations, and delivers public health and environmental outcomes”

The urban water industry has the trust and respect of the community and policy makers in its core services areas. These extend to its role in urban development (outcome 3) and its leadership in climate change adaptation. Beyond this, the industry has strong links with the economy and the community across a wide range of policy areas.

There are strong links between energy and water as water efficiency and energy efficiency are intimately linked, both at a household level and water network level. The extensive use of renewable energy to power desalination has driven the development of the wind power markets. Co-generation of electricity from sewerage is growing rapidly.

It supports population growth and development of Australian urban communities



KEY RESPONSES

It is a major employer of a skilled workforce committed to safe operations and continuously improving productivity.

It is a significant component of the national economy. Water security affects national economic performance. The Reserve Bank of Australia estimated in 2006-07 that the drought cost the economy over one per cent in GDP. Our capital expenditure affects state and the national balance sheets.

It is a highly regulated sector and works with the complexities of environmental, health, social and economic regulation.

It interacts directly with customers in financial hardship, and has well developed policies to help people struggling to pay for their essential water needs.

These are just some of the perspectives that the water industry can bring to national policy issues.

- Define the industry's involvement, knowledge and interest in each policy area underpinned by sound evidence
- Influence public policy debate to ensure that the water industry perspective is understood
- Foster and advocate for robust policy development in areas including energy, economic development, climate and extreme events, public health, environment and food

A VALUED PARTNER IN URBAN AND LAND USE PLANNING TO ENRICH COMMUNITIES

“We want a front end rather than a back end approach to urban water services planning for communities”

Australia’s cities top the liveability stakes. However, as they become more complex water must be in the front row of planning.

Greater integration of urban water services planning with strategic land use planning is essential to deliver services that meet multiple objectives including improving liveability and urban design.

A strategic approach to planning keeps open the maximum number of options for servicing a community to achieve the best scale, delivery model and development timeframes.



KEY RESPONSES

- Define the industry's role and responsibilities in delivering liveability across levels of service, community and stakeholder perceptions, and defining who benefits, who pays and how much
- Work with government to clearly articulate the roles, responsibilities and objectives of customers, service providers and government when undertaking long term water services planning
- Develop operating and funding models to support the full range of services expected of urban water service providers
- Engage with communities to bring them to the planning table
- Influence public policy debate concerning the form and function of growing cities, towns and regions and determine how best to service their water needs in the short and long term considering population growth and demographic change
- Understand and plan for the interdependencies between energy, water, waste and transport in urban areas and commercial/industrial hubs; protect natural and built water assets from degradation affecting performance and manage the peri-urban interface particularly the water, energy, waste and food nexus
- Place a 'value' on ecosystem services and social benefits/costs in the context of 'who benefits' and 'who pays'

STEWARDSHIP OF THE URBAN WATER CYCLE

“The pieces of the jigsaw all fit,
but we need to put them together”

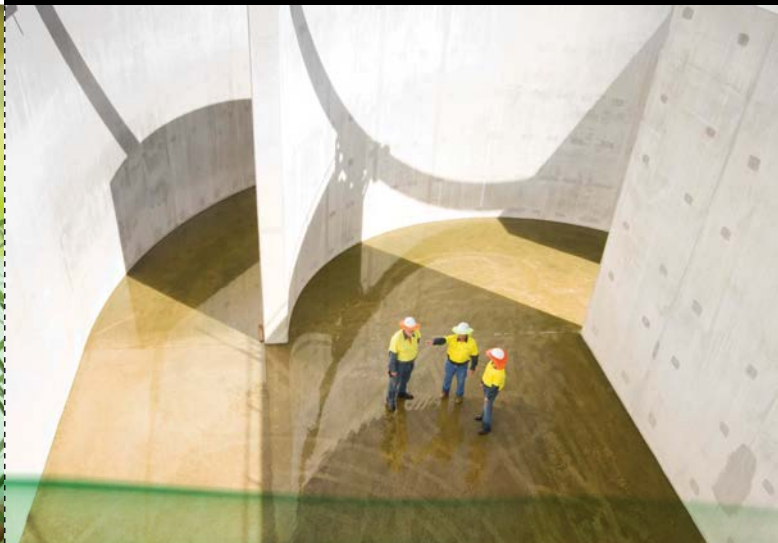
Across the nation, new sources of water have changed the urban water cycle to improve the industry's resilience to climate variability. However, they are a first step.

With new players coming into the market and confusion around ownership and maintenance of some parts of the urban water cycle now is the time to tackle these issues.





KEY RESPONSES



With new water sources, new players and new business models, the challenge now is how to make this all work as a reliable, efficient and productive system. No one entity will own and maintain the entire urban water cycle. However, urban water utilities are well placed to oversee the management of and changes to the overall system, ensuring supply demand balance and network resilience.

Where this will be potentially complex is in the area of stormwater use where utilities, government agencies and local councils all have stakes in ownership, control and management.

- Define the new urban water industry – what is the new value chain, and who are the new players?
- Clearly articulate the value of desalination, dams, water recycling, water efficiency and water conservation in managing the supply-demand balance during emergencies (severe drought, flooding and wildfires), and in the short and long term
- Resolve responsibility for and waterway management issues relating to stormwater
- Identify new business models to ensure ongoing performance of those parts of the urban water cycle that contribute to reducing demand for drinking water but which are not traditionally managed by water utilities, for example, rainwater tanks
- Collaborate with research centres and other national and international partners to leverage research potential and implement key research findings

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