

WATER SERVICES ASSOCIATION OF AUSTRALIA

Developing the Australian Infrastructure Plan

Submission to Infrastructure Australia

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ASSOCIATION OF AUSTRALIA**

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1.0 Overview – Urban water’s role in the National Infrastructure Plan

WSAA congratulates Infrastructure Australia on its release of the Australia Infrastructure Audit, and for embarking on the process to develop the Australian Infrastructure Plan.

Water and wastewater are one of the sectors included in the Audit and WSAA was pleased to participate in Expert Panel meetings as part of the audit consultative process. Among the findings in relation to water are:

- Economic regulation of the sector is fragmented and may not effectively protect the long-term interests of consumers: objectives are often not clearly specified; links between economic, health and environmental regulation are not well identified; and existing economic regulation does not provide the consistency, certainty and transparency necessary to support further private involvement in the sector.
- There is a need for more transparent and competitive pricing of water supply and wastewater treatment services, across urban and regional areas. In encouraging greater competition, careful consideration of the appropriate market structure(s) is required.
- Water quality in urban areas is good, but in parts of regional Australia it does not meet relevant drinking water standards.
- Future climate variability could lead to a need for further water infrastructure to augment supplies.
- A number of urban water utilities have increased their borrowings over recent years, for various reasons, with consequential impacts on their commercial performance and their ability to take on additional debt.
- Underinvestment in maintenance of some water assets, and ageing infrastructure, will require an increased focus on maintenance and renewal.

WSAA welcomes these findings and is keen to see them reflected in the Australian Infrastructure Plan. Over the last year, WSAA has strongly advocated for improvements to economic regulation to ensure that water utilities can continue to provide services that meet the long-term interests of customers. The Harper Review of competition policy also recommended there be a recommitment to water reform with a focus on regulation.

Critically, Infrastructure Australia has recognised that the Australian Infrastructure Plan should not just comprise a project pipeline. Rather, key aspects of the plan will be to set out governance and reform opportunities to improve the productivity and efficiency of Australian infrastructure. However, the urban water reform agenda goes beyond economic regulation.

The main aim of this submission is to set out the case for a prominent place for urban water in the Australian Infrastructure Plan including actions to build on the existing National Water Initiative.

In relation to other infrastructure sectors urban water is often overlooked. The urban water industry is in part a victim of its own success. As recognised by the Audit, the sector delivers high quality water and wastewater services. It recovers the costs of these services from customers and does not rely on budget funding or large announcements to construct infrastructure. While bills to our customers have increased to fund water security, satisfaction levels remain high and complaints are lower than many sectors. In some policy makers’ view urban water lacks a burning platform for reform.

Unfortunately, this perception may be reinforced by the Australian Infrastructure Audit finding that ‘demand for water infrastructure is projected to grow significantly slower than GDP.’ While a strength of

the Audit has been to adopt a common approach across infrastructure sectors, the method lacked the granularity to capture the significant drivers of future water and wastewater capital expenditure.

There are pressures on the sector that are likely to increase the demand for infrastructure independent of population growth. These include:

- New water sources of all types are significantly more costly than dams built 50 years ago
- In many cases, assets built 50 to 100 years ago require increased maintenance and renewal to deliver the same level of service
- The community expects higher standards of wastewater treatment to protect sensitive waterways and greater catchment management
- Providing water and wastewater services to new growth areas on city fringes can be high cost and exceed the revenue that can be generated from those areas, yet are critical to the liveability of new areas
- Urban density can challenge augmentation of current systems
- State balance sheets can constrain the ability of public utilities to invest
- There are still areas of under-pricing among utilities where returns are well below commercial levels
- New players want to enter the industry but there are few mechanisms to allow them to do so while ensuring a net gain to customers
- The water industry is exposed to pressures from climate variability and extreme events.

Unless there are reforms to the governance and regulatory environment in which the urban water industry operates these pressures will have adverse impacts on customers. To tackle these challenges in the Australian Infrastructure Plan will confer long term gains for the economy and communities. To underplay the importance of urban water in the Australian Infrastructure Plan would be an opportunity missed.

WSAA considers that core elements for urban water in the Australian Infrastructure Plan should:

- *Recognise that urban water is essential to the productivity of the economy and critical to the productivity and liveability of Australian cities and regions*
- *In light of the Harper review, recognise that no government has devoted significant attention to the appropriate market structure for water and resolved where competition will drive good outcomes for consumers and where it will not*
- *Reiterate the Australian Infrastructure Audit findings that economic regulation is fragmented and does not provide a framework to ensure the long term interests of consumers are protected or for attracting low cost private capital*
- *Recognise that water and wastewater planning needs to be better integrated with urban planning at an early stage to reduce costs and take advantage of opportunities for creating liveable cities*
- *Against a background of constrained State and utility balance sheets recognise that private sector capital will need to play a greater role in provision of urban water infrastructure*
- *Recognise that integrated water cycle management needs to incorporate the challenges and opportunities presented by the stormwater sector (which was not included in the audit)*
- *Recommend that the Commonwealth Government take a national leadership role in developing the national water initiative to progress urban water reform.*

Infrastructure Australia has identified 10 infrastructure challenges to drive the Australian Infrastructure Plan. These are:

- Productivity
- Population
- Funding

- Competitive Markets
- Governance
- Sustainability and resilience
- Regional
- Indigenous
- Connectivity
- Pursuing best practice.

To underpin the need for national approaches to urban water, WSAA has set out the issues facing urban water against each of these challenges.

2.0 The Productivity challenge

Infrastructure Australia states that ‘national productivity levels need to be increased through regular strategic investment in infrastructure.’ It is widely accepted that productivity across the economy will need to improve if Australia is to maintain its standard of living in the future.

Productivity is critical to the urban water industry at two levels; within utilities themselves and for the productivity of cities and the national economy.

Firstly, water utilities invested heavily to secure the water supply during the drought, which led to significant price rises. All utilities are pursuing internal productivity and efficiency gains. These are driven by a combination of business plan targets, to ensure services remain affordable and in line with community expectations, and in response to regulatory requirements. In some cases this has allowed water bills to moderate or even decline in real terms.

Secondly, urban water is an important influence on the productivity of cities and the national economy. The urban water sector manages assets with a replacement value of over \$150 billion. Annual revenues exceed \$15 billion. In 2013-14, water utilities invested over \$3.5 billion in new capital expenditure¹. Even at this level it was the lowest for a number of years (down from over \$9 billion in 2008-09). This expenditure does not get the same attention as infrastructure funded from budgets. But at this magnitude, how, and where it is spent, is important to the productivity of cities. Planning decisions can influence the effectiveness of water infrastructure investment. For example, if development takes place on too many fronts, the costs of meeting a given level of population growth are increased. Servicing greenfield areas can be many times more expensive than infill growth, so the balance between infill and greenfield expansion needs to be appropriately balanced.

Urban water investment needs to be incorporated in the ‘equation’ for city planning at an early stage when transport and social infrastructure needs are considered. From a productivity perspective, assuming water infrastructure will follow other decisions is no longer an effective approach.

The key to greater productivity in urban water also lies in meeting the other challenges identified by Infrastructure Australia, including funding arrangements, governance and the role of competition.

¹ Source: National Performance Report 2013/14

3.0 Population

The Infrastructure Audit did a good job setting out the population growth likely in Australia over the next 15 years. Australia's population is expected to grow from 22.3 million in 2011 to 30.5 million in 2031. The Audit finds that the four largest cities Sydney, Melbourne Brisbane and Perth will grow by 5.8 million people or 45% by 2031.

All urban populations need to be provided with water and wastewater services. Infill growth in cities can offer the prospect of servicing additional population at modest cost. Even then, when water and wastewater capacity is reached in developed areas, upgrades require significant infrastructure.

But all capital cities are envisaging significant greenfield expansion. For example, the North West and South West Growth Centres in Sydney are expected to each house the population of Canberra over the next 30 years. The previous section discussed urban water investment in terms of productivity. But better urban planning is also necessary to provide the communities that people want to live in and enjoy.

Integration of water into urban planning is not only critical from a cost perspective, but to ensure that new areas have the amenity and are liveable communities for the people who live and work there.

Raw population growth numbers alone do not tell the whole population story for water infrastructure. Shifting populations magnify underlying changes. For example, the Audit suggests that Adelaide and Hobart may grow more slowly than other cities. Even in cities that are not expected to grow significantly it cannot be assumed that water infrastructure needs will not increase. There is the phenomenon of a hollowing of the population in some areas and expansion in others. Reductions in population do not reduce the costs of servicing or maintaining infrastructure, while expansion adds to the total infrastructure requirement. This reinforces the need to integrate water planning better into city planning to ensure the total system is sized appropriately for the population.

4.0 Funding

The Australian urban water industry led the world in developing efficient cost recovery for water and wastewater services with the introduction of consumption charging. The future of urban water lies in the continuation of user charging rather than budget funding.

However, current funding models are under pressure. Infrastructure Australia's finding on economic regulation is accurate:

Economic regulation of the sector is fragmented and may not effectively protect the long-term interests of consumers: objectives are often not clearly specified; links between economic, health and environmental regulation are not well identified; and existing economic regulation does not provide the consistency, certainty and transparency necessary to support further private involvement in the sector.

As monopoly suppliers, urban water utilities rely on economic regulation to deliver appropriate funding through the prices set for customers. Economic regulation has played an important role in the industry's development and it needs to continue to evolve to meet future challenges. Urban water utilities need to be viable businesses so they can invest for future generations.

WSAA considers that all economic regulators should have the objective of determining prices that are in the *long term interests of customers*. Customers are the ultimate beneficiary of reforms to economic regulation. Better economic regulation means:

- Prices are kept as low as possible through:
 - Providing greater incentives for productivity and efficiency
 - Discipline on utilities to demonstrate efficiency
- Services and investments are targeted at areas of highest customer value
- There are greater opportunities for customer engagement and more transparent decision making.

In 2014 WSAA undertook a major project on improving economic regulation which included a position paper and detailed report. There is an opportunity to build on the existing National Water Initiative and put in place clear minimum and agreed standards for economic regulation to be met by all jurisdictions.

Further WSAA recommends that minimum standards be developed around:

- *Establishing regulation which is independent from Governments*
- *Setting clear objectives for regulators to act in the long term interests of customers*
- *Establishing incentives for productivity and innovation*
- *Assessment of financial viability to protect the long term interests of customers and stakeholders*
- *Strong and transparent customer engagement within the regulatory framework*
- *Merits review and appeal mechanisms for water businesses and other stakeholders.*

5.0 Competitive markets

WSAA agrees with the Infrastructure Australia Audit finding that in ‘encouraging greater competition, careful consideration of the appropriate market structure(s) is required.’

A process for resolving the role for competition in urban water should be key element of the Australian Infrastructure Plan. State action to date has been piecemeal. The Water Industry Competition Act in NSW is most advanced but still lacks a vision for the market structure and direction for change. From an efficiency perspective, it is necessary to pool resources and expertise to progress these complex issues.

Some of the specific questions that need to be resolved are:

- Is there a role for bulk water markets?
- Is retail competition viable given the margins available?
- How should contestable infrastructure be progressed?
- Do third party access regimes need to be developed for all jurisdictions?
- Does postage stamp pricing inhibit viable competition, and/or encourage inefficient cherry picking of profitable areas?
- What ‘provider of last resort’ arrangements are necessary to ensure customers continue to receive services if new entrants fail?

The complexities of competition in the urban water industry are poorly understood and will certainly be different for different areas. Too often policy makers claim that reform in the water industry has been slow because it has not implemented the same market structure as the electricity industry.

The Productivity Commission (PC) examined the role of competition in urban water in its 2011 Report, concentrating on the bulk water sector. WSAA considers that the PC reached a balanced view. The PC saw a case to 'introduce greater competition and promote innovation where cost effective' and considered the gains could be substantial, particularly for bulk water supply. However, it noted:

The potential gains in urban water are likely to be more modest [than other utility industries] because:

- limited forms of competition have already been introduced through contracting out and build, own and operate arrangements
- compared with other utility sectors, a greater proportion of costs are in natural monopoly elements of the supply chain (for which competition in the market would be inefficient) (p. 245).

The PC reached the conclusion that competition is unlikely to 'naturally' develop in urban water. It also questioned whether the benefits of established competition via administered markets outweighed the costs at this time.

If well-functioning markets already exist, competition in the market can develop 'naturally'. Alternatively, competition in the market can be administratively established (that is, markets can be created).

Naturally occurring competition depends on a number of preconditions being met, for example:

- many producers offering a relatively similar/homogenous product
- many consumers that can choose between competing providers
- low or no transaction costs
- low or no barriers to market entry or exit (over the long term), and so on.

Where these conditions do not hold, and competition in the market does not occur naturally, there might be a case for *establishing* competition. The National Electricity Market provides an example of this approach.

Administering competitive markets is a complex and costly task, and has relatively onerous preconditions. The Commission is not convinced that there is a compelling case for creating this type of competition in the urban water sector at this time — a view strongly supported by inquiry respondents. The absence of any international precedent of urban water markets compounds the risk and uncertainty associated with establishing competition of this kind in the Australian urban water sector at this time. (p.334)

WSAA was pleased that the PC recognised the complexities of the water industry. A significant proportion of the services in the water industry are subject to competitive tendering, and the industry has shown a preparedness to work with new players. However, competition in the market in its traditional form is more difficult to introduce in the water industry than in most industry sectors and is challenging even by infrastructure sector standards.

The UK is introducing retail competition for non-residential customers. Retail competition in Scotland illustrates that competition can co-exist with public ownership of utilities. However, WSAA notes that in Australia, the retail segment is a very small proportion of the total value chain and comprise less than 5% of the total bill. This means that large bill reductions are unlikely in a retail-only competition model.

Contestability of service provision (competition for the market) in new growth or infill areas is the most likely form of competition in the short term. There are examples of decentralised precinct developments providing an alternative to integrated provision. However, the frameworks are not in place to support efficient investment. This creates problems for new players and for existing utilities.

The absence of market rules makes it harder for new players to undertake projects. Decentralised systems can potentially defer upgrades to networks that have reached capacity or provide cost effective alternatives where it is difficult to extend networks.

On the other hand, the absence of market rules raises two concerns for utilities:

- there is a risk of entrants cherry picking profitable areas leaving fewer customers to bear the costs of maintaining networks in unprofitable areas.*
- the impact on customers if new businesses fail – this concern extends to both the customers directly affected and the general utility customer base if there are high costs to take over failed infrastructure.*

As the Harper Competition Review noted, the NSW Independent Pricing and Regulatory Tribunal has also recognised that national consistent principles should guide the development of competition in urban water.

[I]t [is] important to develop nationally consistent principles in relation to competition and private sector participation in the water market, similar to the reform of water entitlements from the 2004 National Water Initiative. (page 20)

This is significant as by virtue of the Water Industry Competition Act, NSW and IPART are the most advanced in considering competition in urban water, yet recognise there are still benefits in a national approach.

- WSAA considers that an ad hoc state by state approach to progressing competition frameworks for urban water is not in Australia's best interests.*
- While solutions are likely to be different across states a common understanding developed nationally is essential to take the industry forward.*

6.0 Governance

Improved governance is an important element of the urban water reform agenda.

Following the Hilmer competition policy reforms of the 1990s, Governments separated their shareholder, regulatory and policy roles to provide role clarity for government owned businesses. As government owned businesses water utilities generally operate under the corporatisation model. The corporatisation model aims to provide utilities with clear objectives and accountability measures that mimic the competitive pressures faced by private businesses. By improving underlying efficiency, the gains can be distributed in various ways, including lower prices to customers, better service quality or improved returns to government. This model has served Australia well.

However, over time elements of the original governance model have not been fully realised or have been weakened. For example in its Urban Water Futures report 2014 the National Water Commission concluded that:

- Governments are yet to fully achieve the agreed separation of policy, regulation and service delivery functions as outlined in the 1994 COAG Water Reform Framework.
- Major metropolitan utilities capacity to manage operation and investment decisions is being undermined by a shifting policy environment and political interventions.
- A lack of institutional alignment across the urban water cycle is creating a barrier to integrated water management.
- The role of water agencies in delivering integrated water cycle management outcomes and the role of the urban water sector in contributing to liveable cities must be defined to drive innovation

- There is a need to build stronger partnerships with other sectors (i.e. urban planning, catchment management).

Governance is one area of unfinished business in urban water reform that should be progressed in the Australian Infrastructure Plan.

As new players enter the urban water market it will be particularly important to ensure that there is good governance so as not to advantage or disadvantage all participants.

7.0 Sustainability and resilience

The urban water industry is well placed to manage sustainability and resilience itself, so long as the other pressures the industry faces are addressed.

As the driest inhabited continent on earth the Australian urban water industry is highly regarded internationally for its water management expertise. The investment in water security to meet the challenge of drought has significantly increased the resilience of the water supply. Most cities now employ a combination of dams, recycling, desalination and water efficiency measures to draw upon to meet their water needs.

Climate change will provide additional challenges, but the urban water industry is building strategies to handle the impact of rising sea levels and greater extreme events.

Similarly, the water industry is at the forefront of building sustainability of resource use into its business activities. This includes generating electricity from its water and wastewater, and regarding wastewater as a potentially valuable resource. New digital technology and smart metering is enabling the industry to run its infrastructure better.

WSAA has released two papers that seek to integrate sustainability and resilience into decision making - Occasional Paper 29: Urban water planning framework and guidelines and Occasional Paper 30: The role of the urban water industry in contributing the liveability.

In short, the industry is well placed to manage its activities to meet and increase sustainability and resilience. It is the other challenges identified by Infrastructure Australia – productivity, governance, competition and funding - that need to be in place to ensure the industry remains able to do so.

8.0 Regional

Infrastructure Australia itself has taken the lead in highlighting the water challenges facing regional Australia, with the release of its 2010 Review of Regional Water Quality and Security. The report highlights:

- The water quality problems that occur in some regional areas and the difficulty of meeting the Australian Drinking water guidelines
- The inability to price water to recover its full costs and raise sufficient revenue to invest in necessary capital, sometimes exacerbated by declining populations
- The absence of the necessary skills, experience and knowledge in water in many regional communities contributes to compliance problems

- Significant benefits could be achieved by aligning water business reporting, planning and management across regional Australia
- If water governance arrangements for water utilities in NSW and Queensland were on a catchment basis, as is the case in Victoria, significant benefits could be achieved.

These problems are not confined to any jurisdiction. Where water quality and health are concerned there is a clear case for pursuing the recommendation in the review as part of the Australian Infrastructure Plan.

- *Providing services to regional Australia is the area of the water industry where reform needs to go beyond establishing the right institutional frameworks.*
- *Direct funding of some services may be necessary to ensure that regional Australia has access to the same services that city populations take for granted.*

9.0 Indigenous

WSAA commends Infrastructure Australia for its previous work identifying the challenges of providing adequate infrastructure to indigenous communities.

Clean safe water and sanitation are government's first responsibility to remote indigenous communities. WSAA members play a significant role in carrying out this function. However, as with regional issues more generally there significant challenges to providing services.

10.0 Connectivity

Connectivity applies to urban water at a number of levels.

In a real sense water and wastewater networks connect cities. Traditionally there have been significant benefits from the provision of integrated services. However, there is a trend to more decentralised, or precinct, servicing to meet water and wastewater needs. This could imply a move away from the traditional model. There is insufficient work on the pros and cons of decentralisation versus integration. Similarly, the network nature of the industry needs to be appreciated with considering the most appropriate market structure or the appropriate ownership of the network. Benefits of entry by new players need to be weighed against the possible loss of scale or network economies.

WSAA does not have a position on these issues but considers that planners and policy makers owe it to customers to invest the resources to ensuring the right decisions are made as mistakes can be costly with long lived infrastructure.

More broadly, this submission has pointed to the need for greater connectivity between transport, energy, water and social infrastructure to maximise productivity and the liveability of Australian cities and regions.

In relation to liveability, water sensitive urban design helps create vibrant communities and connects people to each other and their environment. One tangible expression of integrating water into urban planning is higher property values in areas where water enhances quality of life. Debate is now turning to 'value capture' mechanisms to enable greater capacity to fund water sensitive urban design.

11.0 Summary

- *WSAA welcomes the release of the Australian Infrastructure Audit and its findings*
- *WSAA would like to see findings related to urban water reflected in the Australian Infrastructure Plan*
- *In relation to other infrastructure sectors urban water is often overlooked. Although identified as a good performer, there are a number of pressures on the industry that are likely to increase overtime*
- *Reforms to the governance and regulatory environment in which the urban water industry operates are required to prevent these pressures having adverse impacts on customers*
- *These challenges need to be addressed in the Australian Infrastructure Plan to ensure long term gains for the economy and communities*

WSAA considers that core elements for urban water in the Australian Infrastructure Plan should:

- *Recognise that urban water is essential to the productivity of the economy and critical to the productivity and liveability of Australian cities and regions*
- *In light of the Harper review, recognise that no government has devoted significant attention to the appropriate market structure for water and resolved where competition will drive good outcomes for consumers and where it will not*
- *Reiterate the Australian Infrastructure Audit findings that economic regulation is fragmented and does not provide a framework to ensure the long term interests of consumers are protected or for attracting low cost private capital*
- *Recognise that water and wastewater planning needs to be better integrated with urban planning at an early stage to reduce costs and take advantage of opportunities for creating liveable cities*
- *Against a background of constrained State and utility balance sheets recognise that private sector capital will need to play a greater role in provision of urban water infrastructure*
- *Recognise that integrated water cycle management needs to incorporate the challenges and opportunities presented by the stormwater sector (which was not included in the audit)*
- *Recommend that the Commonwealth Government take a national leadership role in developing the national water initiative to progress urban water reform.*

12.0 Contact details

WSAA would welcome the opportunity to discuss this submission further.

Adam Lovell, Executive Director
Email: adam.lovell@wsaa.asn.au
Phone: 9221 0082
Mobile: 0417 211 319

Stuart Wilson, Deputy Executive Director
Email: stuart.wilson@wsaa.asn.au
Phone: 9221 0059
Mobile: 0439 450 604