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Infrastructure Australia submission to the Productivity Commission's *National Water Reform* Issues Paper

Infrastructure Australia welcomes the Productivity Commission's ongoing commitment to water reform. We are pleased to make a submission in response to the National Water Reform Issues Paper, and look forward to providing further support to the Commission over the course of this Inquiry.

This submission builds on our work in the *Australian Infrastructure Plan*

Infrastructure Australia's focus in responding to this paper is on the need for reform in Australia's urban water markets. We believe there is a need for strong national leadership on urban water reform, and we are encouraged by the Commission's broadened focus on this important policy area through this Inquiry.

Our position on water reform was laid out in the *Australian Infrastructure Plan*, released in 2016. This provided a number of recommendations to the Australian Government on the reform priorities covering the urban (metropolitan and regional town) and rural productive water sectors. The Plan provides the basis for Infrastructure Australia's ongoing work to support water reform.

In the Plan, Infrastructure Australia illustrated the clear need for Australia's governments to develop, commit to and implement an urban water reform pathway. Our primary focus is on the outcomes of urban water users who could face rising costs, declining service quality or water security issues if governments and service providers fail to address the growing challenges facing the sector.

This submission reiterates the case for reform, and establishes key policy objectives to guide further work on this pathway. Infrastructure Australia will provide more comprehensive advice to governments on an urban water reform pathway through its policy and research agenda in 2017. We will provide this comprehensive analysis and advice to the Commission as part of a subsequent submission to this Inquiry.

The success of the NWI provides a solid foundation for future reforms

Substantial progress has been made to reform Australia's metropolitan water and productive water sectors over recent decades, while some reform has also occurred in the regional urban water space. A series of reform processes, commenced through National Competition Policy, have delivered significant improvements to the efficiency of Australia's infrastructure regulation and service delivery. In particular, the Council of Australian Governments' (COAG) *Water Reform Framework* in 1994 and the *National Water Initiative* (NWI) a decade later have provided the catalyst for Australia's governments, service providers and communities to work together to deliver strong improvements to Australia's water sector.

The benefits of reform are clearly illustrated in the productive water sector. A commitment to strong market reform principles, in particular through development of the NWI and the Murray Darling Basin Plan, has delivered strong efficiency, productivity and environmental benefits to Australia's agricultural sector. Water markets in Australia's Southern Basin now boast a world-leading system of flexible and autonomous water trading.

There remains scope for ongoing reforms to improve the efficiency and fairness of the productive sector. However, Infrastructure Australia has confidence in the existing regulatory and review structures – including the

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Productivity Commission's planned inquiry into the implementation of the Basin Plan in 2018 – to bring about robust, continuous improvements in productive water markets.

Urban water market reforms remain incomplete

In some respects, urban water reform processes have fallen behind the transformation of productive water markets. While many of the productive water reforms of the NWI have been implemented through ongoing cross-jurisdictional initiatives, progress against urban water objectives, such as the move toward cost-reflective pricing and independent pricing regulation, has largely stalled.

The corporatised delivery model first introduced in the 1990s brought some improvements, but productivity benefits from this reform have slowed over time. The subsequent reforms initiated and delivered through the NWI have delivered significant benefits across water resource management, trading and environmental management outcomes. While a number of reforms to water planning have improved security and efficiency across the country, the bulk of benefits of reform from the NWI have been felt outside our cities.

A number of the reforms agreed to through the NWI in the urban sector remain incomplete. For example, progress has stalled against the commitments of moving towards full cost recovery and implementing independent economic regulation. In many areas of Australia, urban water utilities are subject to government interventions that run counter to enduring reform principles, and can impede service providers' capacity to plan for the long-term interests of users.

Strong national leadership is required

The NWI provided an effective vehicle for driving national reforms. Reforms across the water sector should continue to build on the core principles and strong foundations of the NWI.

However, despite the past successes of the NWI, 13 years have passed since it was implemented. Much has changed over this time – priorities have shifted as important reforms have been put in place or drifted from governments' agendas, and broader economic and environmental factors have emerged. While we recognise that significant changes have occurred since the inception of the NWI, now is the time to reassess and reformulate the NWI's aims, and reinvigorate reform momentum.

Water reforms are not always popular and have proven complex for governments to implement. Furthermore, the political capital, bureaucratic and sector resources needed to advance complex reforms are finite. It is difficult to compel governments to embark on a reform journey as the costs are borne up front while the benefits accrue over time.

Even if there was universal acceptance that urban reform is required, charting a reform pathway that will deliver desired outcomes is challenging. The urban water sector is complex in terms of the roles and responsibilities of different levels of government and differences in the structure and operating environment that exists within and between jurisdictions. A one size fits all approach is not always the best approach and, where it is, getting inter-jurisdictional agreement to that approach is a challenge.

Infrastructure Australia believes that strong national leadership is required to advance urban water market reforms. As we clearly stated in the *Australian Infrastructure Plan,* Australia needs a renewed national water reform agenda to ensure the water sector appropriately manages the challenges it faces and delivers the best outcomes for users.

In the absence of an independent national water reform body, COAG remains the most effective vehicle to urban water market reforms across all states and territories. Building on the work of the Productivity Commission

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through this Inquiry, Australia's governments should work together to energise reforms in the immediate and near term.

Australia's evolving economy means our urban water markets must be efficient

Our urban centres are evolving as economic powerhouses, supporting much of the country's projected growth in population and business activity. While much of Australia's prosperity over recent decades has been built on the strength of our manufacturing and resources sectors, changing global markets means we need to create new sources of growth and productivity to provide opportunities for all Australians. Our cities will need to be vibrant, liveable and efficient centres of growth and prosperity.

In this context, having access to efficient, affordable, safe and secure water services will continue to be vital. Our urban water markets, which consists of a potable water, wastewater and stormwater sub-sectors, must keep pace with the growth and change in our cities. The potable water sub-sector harvests and manufactures bulk water, stores water, treats and transports water through transmission networks and then on to distribution networks for delivery. The wastewater sub-sector transports sewage and trade waste from customers to where it is treated and then either disposes or recycles it. The stormwater sub-sector collects stormwater run-off, and transports it to where it is either disposed of or recycled.

Ageing infrastructure will need to be renewed and, in many cases, replaced and expanded to keep up with demand. Other factors such as increasing climate variability and tight fiscal conditions add to this challenge for water sector leaders.

Reform is required to ensure our water sector is equipped to manage these challenges. Now is the time for Australia's governments to kick start urban water market reform to ensure they are ready for this challenge.

Identifying the major challenges facing the urban water sector

The urban water sector faces significant challenges that will likely impact both supply and demand over coming years. Without action, Australia's water users are likely to be exposed to the pressures of rising costs, declining water quality and supply risks. This section summarises the key challenges and risks for the urban water sector.

Population growth

As the Australian Infrastructure Audit noted, Australia's population is projected to increase by 8.2 million people between 2011 and 2031. The majority of this population growth will occur in Australia's four largest cites, which are projected to accommodate additional 5.9 million people by 2031.

Much of this population growth will occur in areas around CBDs and major transport hubs in our cities. Increasing levels of housing density will concentrate demand for water infrastructure in pockets of our cities. Much of this infrastructure was designed and built in the twentieth century for lower-density city layouts.

This growth will put increasing pressure on existing urban water infrastructure, especially in light of increased customer expectations for water intensive green spaces, such as parkland. Substantial capital investment will be required to keep pace with demand, while operational and maintenance costs will also rise.

While the costs of connecting new households and businesses may be offset through developer charges or levies, ultimately the bulk of these costs will be borne by users or the broader tax base. It is therefore essential that investment in urban water infrastructure balances affordability with security and sustainability, and minimises costs over the long term.

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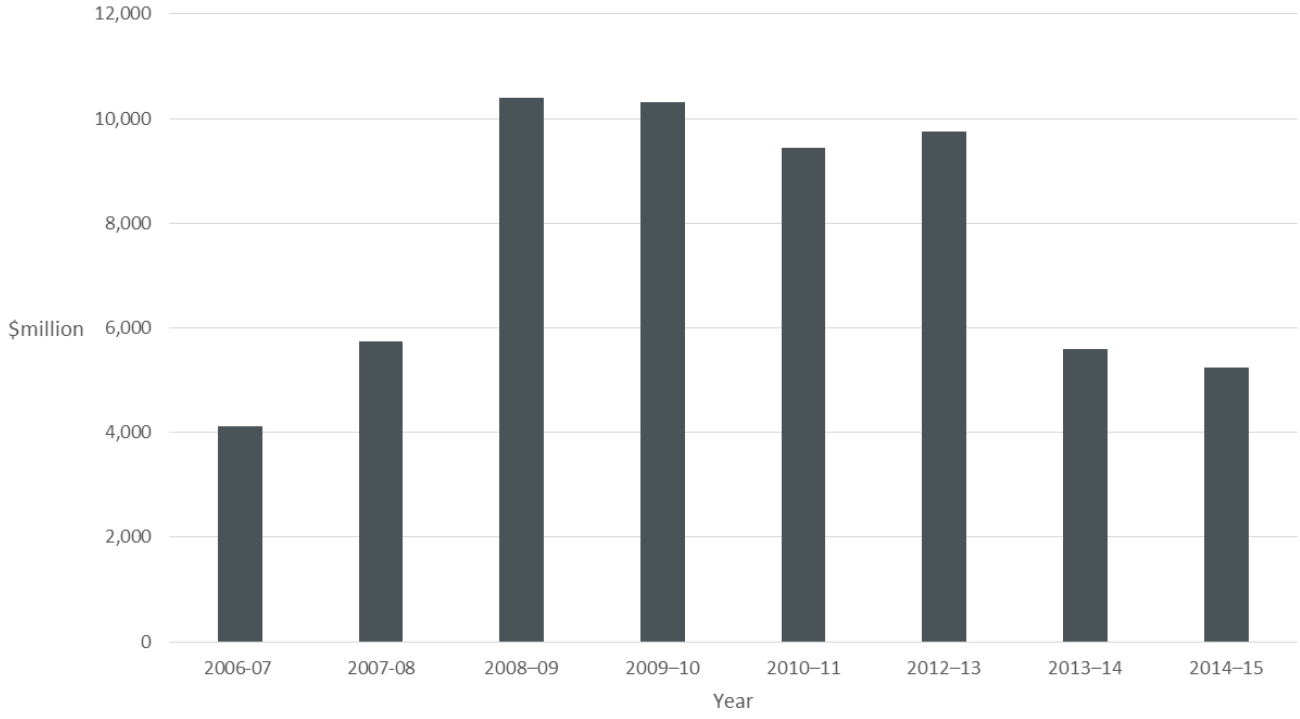
Ageing infrastructure and underinvestment in maintenance

As noted in the *Australian Infrastructure Audit*, much of Australia's urban water infrastructure network is now in a mature state. The combination of ageing infrastructure and a historic underinvestment in maintenance means that maintenance and renewal costs are likely to increase over the coming years.

Current spend is historically low, and may underestimate future requirements. There has been a legacy of underinvestment in urban water infrastructure. Excluding expenditure on desalination plants during the Millennium Drought, urban water sector has experienced period of disproportionally low investment.

Figure 1 shows that annual investment far exceeded the long-term average between 2008-09 and 2012-13 in particular.

Figure 1 Annual capital expenditure in the urban water sector - 2006-07 to 2014-15



Source: Australian Bureau of Statistics, 2016

Climate variability and change

Over the coming decades, climate variability and change will continue to drive the need for additional water infrastructure and will be an important factor in future water supply planning. While changes in climate will manifest in a number of ways, these changes are primarily expected to bring about weather events which are both more frequent and more extreme.

The CSIRO and Bureau of Meteorology project that, over coming years, large parts of southern Australia are likely to experience reduced rainfall, especially in the cooler months, with heightened risk of periods of drought. This could impact water supply and planning – most particularly for the populous south-western areas, including Sydney, Canberra and Melbourne.

The impacts of this trend for the urban water sector could include:

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- significant investment in new, climate independent water infrastructure such as desalination plants and water recycling infrastructure to augment traditional surface water infrastructure
- improved use of existing infrastructure, including optimisation to balance supply and demand.

Climate change may have broader impacts:

- Higher intensity rainfall events will also test the capacity of stormwater systems, sewerage treatment plants and the sewerage network as stormwater enters the sewerage network through manholes, cracks and joins in pipes
- Sewer overflows can present issues for public health and the environment.
- Sea level rise, storm surge and flooding are likely to affect water and wastewater infrastructure and can result in water contamination issues affecting public health and the environment
- Extended periods of hot, dry weather can lead to pipes cracking as a result of changes in soil moisture or temperature or as tree roots spread to source water.

Meeting community expectations

Urban water is an essential service, with changes in services affecting productivity, wellbeing and the environment. Community expectations, which are rising, relate primarily to water quality, affordability, service delivery and environmental sustainability.

Currently, Australia's metropolitan water providers broadly deliver good water quality, however this is not necessarily the case in some regional areas where water quality does not meet safety standards for potable water.

Annual residential bills covering both water and wastewater services are typically circa $1,200. Affordability for water is becoming a bigger political and consumer issue. Between 2008-09 and 2013-14, average household expenditure on water delivered through the mains supply system has increased from $353 per annum to $584 per annum (ABS, 2015). This represents an increase of 49 per cent over five years and reflects, in part, the large-scale investment in water supply infrastructure in response to the Millennium Drought.

This increase is not related to increases in water use. Average household water use during the same period remained constant, even falling slightly from 193 kilolitres per household to 190 kilolitres (ABS, 2015).

Providing water security at the lowest possible cost will be an important and complex task in future years – especially given ageing infrastructure, population growth and climate change.

In addition to price, consumers are also concerned with service delivery standards, including receiving services which are better tailored to their needs. Issues such as the impact of water restrictions on certain sections of the community will need to be considered as part of long-term supply planning.

Lastly, community expectations around environmental sustainability are important. These include broader environmental obligations to manage ecological impacts of water provision and discharge, as well as other services such as urban waterway management and providing water for green open space, especially as new development precincts are constructed to meet population growth.

Complex, inadequate and opaque regulatory and governance structures

The regulatory, governance and delivery structures for urban water remain complex. In many cases, these structures lack efficiency, transparency independence or a focus on users' long-term interests. These settings differ across – and often within – all states and territories. While some jurisdictions have progressed some reforms at a faster rate than others, there is still work to be done across the country.

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The complexity of urban water institutions has resulted in varying opinions across community and political lines. There are often pronounced divisions on water sector objectives, reform principles, priority areas and policy prescriptions. A lack of consensus presents a significant barrier to change, however the forecast impacts of climate variability and change, population growth, ageing infrastructure and a tighter fiscal environment mean that urban water reform must be a priority.

While the energy and telecommunications sectors have seen reforms facilitate competition and investment, the water sector has been slower to implement reform. The urban water sector is often viewed through a different lens - so long as potable water is coming out of their taps, there is no impetus to change. As a result of the NWI and other long-term reforms, the community rarely have to concern themselves about resource availability, health concerns or unreliable water services.

User trust in the water sector must not result in complacency. Users have little or no visibility of the future challenges facing the water sector. It is the task of water sector leaders to engage the community on the need for reform, and to ensure their decisions work in the best long-term interests of users.

Determining the components of a national water reform pathway

The challenge for urban water markets is not simply understanding what needs to be improved, or what models should be adopted. Crucially, governments must focus on *how* we transition from the existing system to a more efficient, sustainable future urban water sector. Governments need to understand how to initiate meaningful, lasting reforms.

A long-term reform pathway, underpinned by key reform principles, can provide guidance to policy-makers, regulators and service providers. This will also provide assurance to communities that Australia's urban water sector is working in their best interests.

It is important to note that many of these reforms have been discussed – and agreed to – by governments in the past. This reform pathway should be seen as a natural and logical evolution of the reform program undertaken through the NWI, with re-energised commitments to durable productivity-enhancing urban water reforms.

The first step in the reform pathway is establish a clear national reform agenda, including agreement on the challenges facing Australia's urban water sector; the clear objectives of reform; the actions required to implement reform; and a detailed timeline for implementation.

There needs to be a 'buy-in' to the reform pathway. The objectives, challenges and corresponding reforms must be agreed to by industry stakeholders, the Commonwealth, and states and territories. Clear objectives relating to economic efficiency, environmental sustainability, public health, transparency, resilience, and customer focused delivery need to be understood and communicated to formulate an effective reform pathway.

This reform pathway should be guided by the following core principles:

- All urban water sector decision-making processes, from regulatory frameworks to investment programs, should place the long-term interests of users as their primary focus.
- Reforms should reinforce the transparency and clarity of regulatory and institutional frameworks to ensure accountability from all decision makers in the sector.
- Improved efficiency and innovation should be incentivised through all delivery contracts to ensure prices are minimised and service quality is optimised for users.

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- Greater certainty for investors through stable, consistent regulation and strong government commitments to long-term urban water sector policies for competition, sustainability, security and efficiency.

Once a reform agenda has been agreed to, the task then becomes implementing nationally consistent approaches for urban water governance, regulation and delivery. These should cover:

- *Economic regulation and pricing reform*
    - Regulatory frameworks need to ensure state-owned businesses are delivering services efficiently and in the long-term interest of consumers. Specifically:
    - Regulators should operate with transparent, independent and user-focused objectives.
    - These objectives should be underpinned by national minimum standards to be met by all jurisdictions, and should be free from political intervention.
    - Strong and transparent customer engagement should be built into regulatory frameworks as a core component of decision-making processes.
    - There should be provisions for merits review and appropriate appeal mechanisms for water businesses and other stakeholders, noting that these mechanisms already exist to varying degrees in some jurisdictions.

Charges should reflect the true cost of service delivery. Each jurisdiction should recommit to this policy on the basis that operators have sufficient revenue to fund capital and operating expenditure, including maintenance. The NWI Pricing Principles should be re-examined to ensure they are being applied in a way that is consistent with the broader intent of the NWI, and the principle of efficient pricing.

While pricing reform and economic regulation reform are critical for ensuring water businesses are financially sustainable, these reforms are also important prerequisites for privatisation of state-owned monopoly businesses, if this were to occur in the future. Economic regulation will be required wherever a monopoly business is operating in order to protect customers from monopoly pricing. Sound economic regulatory frameworks, although indifferent to the ownership of the service delivery firm, can enable private sector involvement into the sector.

- *Governance and institutional reform*

The urban water sector should be transparently and accountably operated. Despite the notional separation of policy, service provision and regulatory functions through corporatisation of urban water utilities, the NWC (2011) recognised the lack of clarity within and between jurisdictions. That lack of clarity is still firmly entrenched.

This compromises accountability and transparency and can increase the costs of service delivery where uncertainty comprises planning for urban water supply security. National standards to specify the roles and responsibilities of water service providers, regulators, shareholders, water portfolio Ministers, water supply planners and local councils is a logical step.

The national standards should map objectives and desired outcomes to clearly specified roles, functions, levels of service, policy tools, resourcing and funding arrangements to deliver these objectives.

Once the objectives and desired outcomes have been defined and national governance standards have been agreed, jurisdictions should consider the extent to which existing institutional arrangements align with the objectives and governance standards. A key focus of institutional reforms should be to achieve full separation of policy, regulation and service delivery.

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- *Reforms to environmental and health regulations*

While environmental regulation of the urban water sector is generally performing well, there is scope to strengthen the role of national guidelines, as well as improving cross-jurisdictional coordination and process standardisation. This will drive more efficient outcomes and lower barriers to third-party entry by reducing and streamlining regulations which vary between jurisdictions.

The current arrangements and variance at the jurisdictional level between different water providers and inconsistencies in the legislation under which they operate creates some discrepancies and confusion. Greater standardisation of state-based public health regulations is desirable to improve standards.

- *Best practice water supply practice*

Water supply planning is critical to balance supply and demand at cost, particularly in the context of climate variability and change and population growth. Planning for urban water supply involves planning for and making decisions under uncertainty. Water supply management has been aided by innovation, but more can be done. Improvement in modelling tools that consider all supply options, the costs and benefits of these options and accounts for uncertainty, including climate change, using a real options approaching is required. There is a strong case for a coordinated approach to defining the best practice in urban water supply planning that allows for information exchange across jurisdictions in order to build capacity.

Privatisation should remain a consideration but not distract from interim reforms

As outlined in the *Australian Infrastructure Plan*, private ownership should eventually be considered, but that step should follow a reform pathway that addresses key regulatory, institutional and planning deficiencies in the sector. In addition to the application of environmental and drinking water standards, a genuinely independent regulatory framework which protects consumers and taxpayers will need to be enacted before assets can be divested into a well-functioning, well-regulated market.

It is important that discussion of privatisation does not distract from the process of undertaking the important national reform agenda outlined about. Many of these are relatively straightforward 'no-regrets' reforms, and could deliver substantial benefits to users over the short to medium term, irrespective of a future decision on ownership.

Delivering reform

This Productivity Commission Inquiry provides an excellent opportunity to engage a broad set of stakeholders – across governments, industry and the community – on the need for reform, and how it should be implemented. Following completion of this Inquiry, the arrangement will need to be set in place, with COAG providing the most effective vehicle to progress these reforms and monitor their implementation.

There is a clear opportunity for the Australian Government to take a leading role in providing incentives to states and territories to progress productivity-enhancing urban water reforms. Consistent with **Recommendation 1.1** of the *Australian Infrastructure Plan,* the Australian Government could catalyse urban water reform through payments to states and territories – beyond existing infrastructure funding commitments – for specific reform outcomes. This approach would also help to lock in existing benefits and safeguard against back sliding in areas where reform has been implemented.

Infrastructure Australia looks forward to providing ongoing support and advice to the Productivity Commission over the course of this Inquiry, including a further submission in response to the draft report of this Inquiry.