

**Productivity
Commission 2020
Inquiry on the National
Water Initiative**

Sydney Water's Response
September 2020



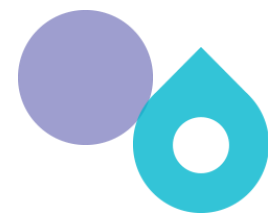


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1 Overview

Sydney Water appreciates the opportunity to respond to the Productivity Commission's *National Water Reform – Issues Paper – May 2020*.

National leadership of water is increasingly valuable. Sydney Water supports the National Water Initiative and the Productivity Commission's plans to renew it. We anticipate the report from this inquiry will set a clear roadmap for delivery of the next iteration of the NWI, including the federal policy and governance support required.

We strongly advocate for **urban water** to be a priority for a renewed NWI. Since the last NWI review, the challenges facing Australia's water management have become ever more pressing – and the **evidence supporting new approaches** more compelling. We need action at all levels to keep Australia's cities and towns resilient to climate change impacts, while building more sustainable and attractive communities.

Water is a key enabler in Australia's cities for continued growth, productivity and liveability. Effective water management can enable each city to reveal its unique "place" characteristics and highlight its competitive advantages.

We support the findings of the 2018 review, and the Productivity Commission's work on **Integrated Water Cycle Management (IWCM)**. We note that impetus for change in Sydney has been driven by local challenges and local responses. Action on integrated water management in Sydney has been driven by NSW Government's clear identification of a vision for Sydney as a productive, liveable and sustainable metropolis of three cities. Water is a vital enabler of this vision.

Planning and emerging collaborative management to achieve the aspirations for our cities must be supported by clear national guidance on **outcomes to be achieved by urban water** management – including guidance on waterway health objectives, urban liveability and health objectives and levels of resilience of urban water systems.

We support greater effort on ensuring **Indigenous voices are better incorporated into water policy and management**. We note progress made to date but further efforts in this area are required.

We believe the **NWI could create new drivers for state-based action** through uniform policy leadership, clear evidence of the costs and benefits of water management approaches, best practice guidance on urban water outcomes and management approaches and research and development.

The NWI can also **support high benefit urban water projects** if current frameworks don't provide funding and investment frameworks. Sydney Water's core operations are well governed and regulated. We have clear price regulation and investment that enables cost effective delivery of essential services to customers. Co-ordinated national and state leadership can ensure ongoing stability of essential services, while enabling utilities to work hand in hand with Councils and planners to manage across the water cycle.

Finally, the NWI can support the gains made by co-operative leadership by **advocating for updated roles and responsibilities** that continue to reflect the benefits and strengths of the **state owned corporation model**.



1.1 Summary of recommendations

- Urban water should be a focus for the NWI. The NWI can provide strong **policy leadership** for states and the water sector.
- Provide national guidance on how water planning can better embed **resilience** (at the regional, city and local levels) and provide outcome statements for resilience.
- Renew support for putting “**all options on the table**” in supply planning to encourage states to continue with their more open and integrated approach to water planning.
- Strongly encourage **integrated water planning** so jurisdictions and utilities can identify and deliver the economically efficient mix of water supply, wastewater and stormwater services that maximise the net benefit to the community and customers.
- Define the **water cycle, environmental and community service outcomes** that are a legitimate aspect of urban water management and service delivery.
- Provide **national guidance on the costs and benefits** associated with water services. Develop a nationally consistent framework for benefits valuation. Continuing work already commenced by states and NGOs, **develop best practice approaches on economic assessment**, and inclusion of well quantified social and benefits, including upstream and downstream costs and embedded resources.
- Review and **update National Performance Reporting**. Consider current drivers including urban waterway health improvements and the United Nations’ Sustainable Development Goals when establishing indicator categories.
- **Update guidance on water sharing issues**, including the importance of setting environmental, quality and flow goals when developing water plans. Provide leadership on how entitlements planning in catchments affected by urban development must reflect issues such as increased stormwater flows and volumes of wastewater discharges.
- Renew action to **include the voices of Australia’s First Peoples on water policy** at federal and state level so they can meaningfully participate in water decisions (at the earliest opportunity). Aboriginal water values, including needs and cultural knowledge must be reflected in water policy, management and allocations.
- Provide direction for **improved coordination among regulators**, aligning best practice regulation and pricing with NWI principles. Renew action on **price signals and customer support** to drive efficiency improvements
- Support utilities conducting a baseline level of investigation, activity and investment in **economic water conservation options**.
- Well defined **roles and responsibilities** must embed the **state owned corporation model** to ensure defined water cycle, environmental and community outcomes are met efficiently.



2 Introduction

2.1 Who we are

Sydney Water is Australia's largest water utility, supplying water, wastewater, recycled water and some stormwater services to 5.1 million people in Sydney, the Illawarra and the Blue Mountains (Figure 2-1). Every day we proudly protect the health of our community by providing safe and high-quality drinking water, removing wastewater and preserving our rivers and beaches. Our customers represent 20 percent of Australia's population. A conservative estimate of economic value of water and wastewater services in Sydney over 25 years is \$190 billion.

Compared to many other water utilities, we do not own or operate much "raw water" infrastructure. We buy most of our 'bulk' water for our customers from Water NSW (who manage surface water dams and catchments) and from the Sydney Desalination Plant (SDP) in times of water scarcity.

However, we do extract water directly from rivers for some of our smaller water filtration facilities, and we have exposure to water sharing requirements. We have 19 water recycling plants and also discharge very highly treated wastewater to the Hawkesbury Nepean system.

The water extractions required to supply urban Sydney interact with other waterway management decisions, including how urban stormwater and wastewater is managed, and the water entitlements available to other users.

We manage trunk stormwater infrastructure in some urban catchments, such as the Cooks River catchment. We manage 450km of trunk pipes and channels, that transports stormwater from about 15 percent of Sydney's urban area. Most local stormwater infrastructure, such as gutters and pipes, is managed by Councils. We are a participant in local catchment management groups for some of Sydney's high-profile urban rivers.

We participate in metropolitan water planning and conduct strategic planning to determine the best mix of assets and water products needed to provide for our customers' waters needs in the future. We work with the State Government and developers to plan and deliver water infrastructure to new development. Over the next four years, we will invest over \$6 billion in new water infrastructure. We forecast that investments over the next 25 years will be \$25 billion – and that excludes new bulk water investments.

Clear leadership is being provided by the NSW Government on the direction of Sydney. We know that water has a core role in delivering the vision of Sydney as a connected, sustainable metropolis of three cities that retains its international attractiveness and rewards its citizen with cool and vibrant communities, plentiful green space and healthy waterways. We are conducting long term service and asset planning that aligns to this vision.

We use the resources embedded in the wastewater we manage - for example, we have well developed energy recovery programs and enable beneficial reuse of biosolids extracted from wastewater.

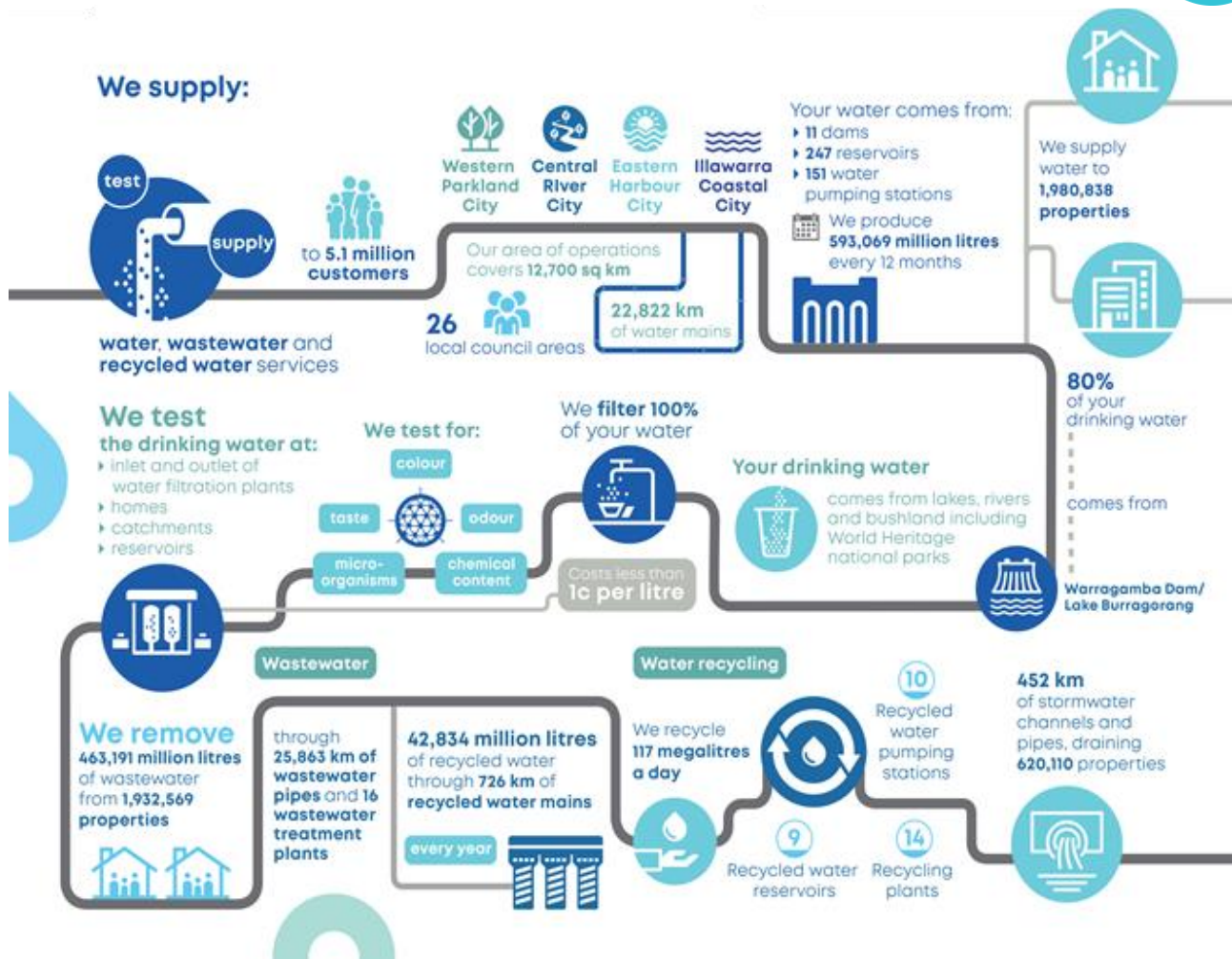


Figure 2-1 Our services

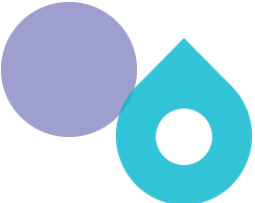

2.2 Governance arrangements

We are a statutory corporation, wholly owned by the New South Wales Government. Under the *Sydney Water Act 1994*, we have three equal, principal objectives:

- to be a successful business and, to this end,
 - to operate at least as efficiently as any comparable businesses
 - to maximise the net worth of the State's investment in the corporation
 - to exhibit a sense of social responsibility by having regard to the interests of the community in which we operate
- to protect public health by supplying safe drinking water
- to protect the environment by conducting our operations in compliance with the principles of ecologically sustainable development.

We have an independent Board of Directors, two shareholding Ministers and a Portfolio Minister.

Our Portfolio Minister administers the *Sydney Water Act* and issues an Operating Licence that authorises us to provide services in our area of operations. The Operating Licence also sets some



minimum performance standards that we must meet, as well as a range of other obligations such as water planning, cyber security, interactions with competitors, and the terms and conditions of our Customer Contract.

The Statement of Corporate Intent is an annual agreement with the NSW Government and our shareholding Ministers. The Statement of Corporate Intent sets customer service, environmental, public health, commercial and employee performance objectives and targets.

Interactions between our Board and the NSW Government also take place within the framework of the *State Owned Corporations Act 2007*. This includes the ability for Government to direct Sydney Water to undertake non-commercial activities.

Finally, our activities are also subject to regulation by various bodies, including:

- the Independent Pricing and Regulatory Tribunal (IPART), which regulates and sets prices and oversees compliance with the Operating Licence
- NSW Health, which regulates drinking water quality
- the Environment Protection Authority (EPA), which regulates our environmental performance, including wastewater treatment plant discharges.

Our core operations are well managed, and our investment framework and governance are clear.

This offers affordable, predictable prices for customers, and certainty for Sydney Water to make investments. Our pricing frameworks are evolving to address new challenges. A strong focus on efficiency in service provision means we have been identified as operating at “frontier” levels of efficiency.

As our customer base grows, and expectations of water services increase, we have opportunities to maximise the benefits we provide and improve the resilience of the services we offer.

3 Current NWI

Key messages

- The NWI has transformed Australia’s water management, however there is still unfinished business with mixed progress against the objectives set in 2004.
- We support the NWI review considering how the water sector can best prepare for and manage extreme events. Improving infrastructure resilience to shocks and stresses needs to be a key feature of water plans, along with building community resilience.
- Urban water challenges indicate the new direction needed for the NWI. Challenges include population change, liveability, affordability and customer expectations, aging infrastructure, climate change, supply impacts, misaligned urban water balance, and changing regulatory standards. We must address these challenges as we deliver upon the increasing aspirations for our cities.
- We believe the NWI can assist Australia’s urban water sector address these significant challenges, with actions across the following broad areas:
 - support better management across the urban water cycle
 - renewing national support for water planning that puts “all options on the table”
 - supporting a “circular economy” understanding of water services
 - provide evidence of all costs and benefits of water service

The NWI has been transformational for Australia’s water management. Some of the big reforms it has supported in the past include; better planned and more transparent water entitlements, provision of environmental flows, and more uniform application of sound pricing and investment principles.

For urban water today, the NWI provides a very useful backstop or minimum standard of quality for planning activities. The knowledge that there are consistent national standards also improves a culture of collaboration across states and utilities

There is still unfinished business with mixed progress against the objectives set in 2004. We have a great opportunity for the NWI to build from the areas of strong progress and renew action on difficult reforms.

Sydney Water’s observations of where we perceive successful elements of reform – and areas that require more work – are outlined in the table below. This reflects our understanding as an urban water provider.

NWI Element	
Water access entitlements and planning	We support transparent water sharing and planning. There is a chance to further refine water allocations and management policies for catchments where the water cycle is changed by progressive urbanisation. This will support integrated water management and waterway health. The upcoming review of Sydney's water sharing plan presents an opportunity to address these issues.
Water markets and trading	Water managers have difficulty accessing illiquid markets in some metropolitan catchments-facilitation may be required to achieve better outcomes.
Best practice water pricing and institutional arrangements	Water and wastewater pricing in Sydney has generally observed NWI best practice principles. Recent introduction of drought pricing principles and frameworks for integrating customer preferences is positive and demonstrate the evolution of Sydney's regulatory framework. IPART, in their most recent review of Sydney Water's prices, has changed the methodology behind water prices. They have set higher water usage charges and reduced fixed charges for water and wastewater. It provides more incentives for water efficiency. A higher usage charge during drought provides more incentive for customer water efficiency when water is most valuable. If customers do not adjust water using habits during drought, higher water prices help balance the increased costs of providing water during drought. The NWI could consider if discrepancies between price setting for water that is extracted from the environment, and water recycling has impacts on water management decisions. Urban water prices are often underpinned by calculating a rate of return on asset value of the utility. This may present risks when interest rates fall after price determinations are made.
Integrated management of water for environmental and other public benefit outcomes.	<p>Despite promising projects and improvements in knowledge and practice, progress is too slow in this area.</p> <p>In urban NSW water markets, IPART's pricing frameworks that allow urban utilities to prove customer willingness to pay for benefits that arise from integrated water management are a positive step and give utilities a sound incentive to clearly understand customers' needs and preferences. We do note that having to demonstrate customer willingness to pay for IWCM benefits may put utilities in the position of having to re-prove the benefits of agreed government policy when IWCM is the best way of achieving these benefits.</p> <p>In its 2017 inquiry the Productivity Commission acknowledged the potential of IWCM and recommended that IWCM be considered on an equal footing with other water supply approaches. (Recommendation 6.2). To fully achieve this recommendation, the Commission must work with states, where many different organisations have responsibilities for different parts of the water cycle and have different customer service obligations.</p>
Water resource accounting	Water accounting and reporting could be improved and modernised. It would be beneficial to see better public reporting on water allocations, licence holders, current extractions, return flows in water systems such as the Hawkesbury Nepean and Shoalhaven River systems, which have complex management, many different users and beneficiaries, are affected by extractions for urban use, rural users, and wastewater inputs. Poor data and monitoring and obscure rules may undermine confidence in the allocation system.
Urban water reform	<p>Institutions in Sydney are generally performing roles with a high degree of professionalism. Increasing awareness of the potential for better urban water management, strong Government-set strategic planning goals, and improved collaboration, are improving water management. A range of different organisations are responsible for urban water management</p> <p>However, inconsistencies between management and pricing of water and wastewater, and much urban stormwater management, can obscure opportunities for better or more cost-effective management.</p> <p>No formal catchment management role in Greater Sydney creates a lack of clear responsibilities for waterway management. Even best-practice regulation can struggle to</p>

	achieve optimum outcomes when the organisations they regulate only manage some parts of the water cycle.
Community partnerships	Collaborative management and informal governance are “bright lights” of water management in Sydney, but they would be able to further achieve aspirations with more formal catchment management mechanisms, and governance arrangements that allowed them to bring catchment and waterway issues directly to decision makers.
Knowledge and capacity building	<p>Knowledge of benefits of integrated water management is improving. Recent planning by Sydney Water has quantified the benefits of regional scale IWCM and illustrated the indicative investments and asset pathways required.</p> <p>Sydney Water’s research and innovation program has delivered benefits – especially in the energy and circular economy space. Sydney Water’s R&I has been driven by internal drivers (aligned to our strategic direction) and product/network management, rather than NWI knowledge drivers. Lack of centralised knowledge and data hinders improvements to management and standards.</p>

3.1 Water challenges and issues to be address by the NWI

We support the NWI review considering how the water sector can best prepare for and manage extreme events and manage the risks from long-term changes in climate. Ways to improve infrastructure resilience to shocks and stresses need to be a key feature of water plans, along with building community resilience.

The challenges outlined below point the way for a new direction for the NWI.

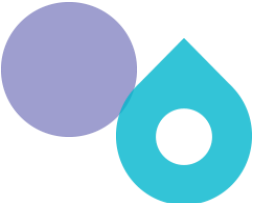

Population change

Before COVID, Greater Sydney’s population was forecast to increase by 60% to 8 million by 2056 – implying that population growth over 35 years was nearly twice as fast as that in the previous 60. Growth will require Sydney’s water network to deliver nearly 100 gigalitres more every year and will require us to collect and treat approximately 80 gigalitres more wastewater every year.

COVID will likely slow Sydney’s population growth in the short term and change patterns of habitation. Utilities must adapt to different patterns of urban water demand – including more working from home, and changes to the location and type of commercial and food service activity. During the main COVID “lock-down” period, Sydney Water saw significant increases in wastewater volumes treated at some of its outer Sydney treatment plants, and reductions at some major plants. It’s likely that smaller suburban centres will see a resurgence as people seek the convenience and safety of local services

Liveability and expectations for whole of community benefits

As people continue to seek safe and high-quality local outdoor recreation, demand for outdoor water will rise to maintain green parks, gardens and trees. The community will maintain its desire for high quality open space, interaction with healthy waterways, and preservation of bushland and the natural environment as they seek opportunities for local recreation, and seek refuge from increasing threats, such as urban heat. We note recent survey figures by the NSW Department of Planning, Industry and Environment showing that 46% of people are spending more time in public spaces now than before coronavirus restrictions. This highlights the need for more sophisticated management of water, across the water cycle by both utilities and other stakeholders. Sydney Water modelling suggests that maintaining green space for optimum canopy cover and cooling



benefit may increase overall water requirements by 30% – although this can be met from a range of “fit for purpose” sources.

Affordability and customer expectations

Affordable bills remain a priority for our customers. This will remain a significant issue with COVID-induced recession. We must strike the right balance between service and cost - while recognising the cross-sector benefits and cost savings that water can deliver. We must continue to seek the voice of our customers in planning, so our investment and management delivers on their needs and values.

Aging infrastructure

Renewing and upgrading water assets so they continue to provide reliable and resilient services to customers will be the main driver of capital investment over the next 25 years in the Greater Sydney Region.

The scale of infrastructure investment required to boost capacity in aging networks, provide water security to a growing population and respond to drought is comparable to the investments made in building Warragamba Dam or Sydney’s vast coastal wastewater network.

Climate change

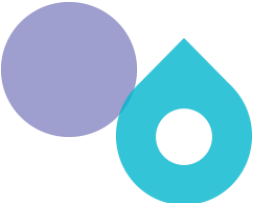

Sydney has been faced with a multitude of extreme events in recent times including drought, bushfires, storms and floods and the COVID-19 pandemic. This risk is going to continue to increase as climate change and variability impacts inflows into waterway catchments and population further increases. Increased interdependencies between infrastructures can amplify consequences. Water infrastructure needs to withstand the shocks of natural, technological, and malicious hazards to continue operating, be returned to service as soon as possible after any service disruption, and address long-term stresses such as climate change and population growth.

Climate change will impact almost every aspect of urban water management – from supply, to wastewater management and urban stormwater and flood management. New public health and productivity threats are emerging in the context of climate change. They include increasing urban heat, heightened flood risk and water quality impacts. The cooling properties of water – for personal comfort, and in the design of towns and places – will be increasingly important. Urban design that embeds effective local flood management – including fully functioning flood plains, and retention and detention of water in urban design and the landscape – will also be a vital element in responding to these issues. Water management is a key enabler of the vision of Sydney as a cool, green, liveable and productive city.

Supply impacts

Sydney’s water supply yield – dominated by surface water captured by dams - is forecast to fall by at least 10 percent because of climate change-driven impacts on rainfall, evaporation and soil moisture. We are observing harsher and more frequent droughts.

Sydney’s experience with severe drought and intense rain shows how quickly our water supply can deplete and replenish. NSW has a sound basis for effective metropolitan water planning, and a framework for a flexible drought response strategy in the current Metropolitan Water Plan. However, the recent drought in the Greater Sydney region was one of the worst ever experienced. Dam levels across the region dropped from 96% in April 2017 to just above 50% in May 2019,



reflecting a fall of about 0.4% every week. In 2020, significant rainfall events have seen dam levels replenished to close to 100% in less than 6 months. Had the recent drought conditions continued, there would have been limited time to secure the water supplies in Greater Sydney including the Illawarra.

Despite its high level of in-built resilience, our water supply system remains vulnerable to shocks and stresses that pose a risk to the delivery of high-quality drinking water to Greater Sydney. Sydney Water, WaterNSW and the Department of Planning, Industry and Environment are working together on the next iteration of the metropolitan water plan by developing the Greater Sydney Water Strategy. This strategy will help ensure we have a secure, sustainable water supply for the future.

The devastating bushfires of 2019 burned 300,000 ha of Sydney's water supply catchments (and more than 80 percent of the catchment of Warragamba Dam. Long term effects may include more sedimentation and nutrient inputs into water, increased water treatment challenges and increased uptake of water from recovering vegetation. Some catchments are seeing impacts on underlying geology and groundwater. Droughts also drive more water demand as communities seek to maintain cool, green gardens and water recreation.

Misaligned urban water balance and resource flows

Even as traditional drinking water yields come under pressure, our urban waterways grapple with excess urban water, because of the wastewater and stormwater our cities generate. Sydney Water calculations indicate that in an “average” year stormwater runoff from Sydney Water’s urban serviced areas is twice the volume of water imported from water supply catchments. As a result of Sydney’s large gravity-powered wastewater system, about 85 percent of the drinking water supplied to Sydney’s urban areas is used once then discharged to the ocean. Addressing our urban water balance (and understanding the resources embedded within in) can provide us with many solutions to emerging urban water challenges.

Changing regulatory standards

Regulatory requirements on water utilities will change over time, to meet specific customer and environmental needs. For example, drinking water quality requirements become more stringent, to protect customers’ health and respond to emerging knowledge. Wastewater discharge standards are likely to become more stringent, to reduce pollutant loads into receiving waterways. Individually, such changes drive positive change for customers and receiving environments. But, if regulation isn’t well aligned to an overall vision for our urban places and water management, outcomes may not be met in the most cost-efficient way and perverse incentives may be created.



3.2 Responding to challenges with improved water management

We believe the NWI can assist Australia's urban water sector address these significant challenges, with actions across the following broad areas:

- Support better management across the urban water cycle. Delivering greatest net benefits to our community requires water policy, planning and regulation to work beyond old fashioned “water sector” boundaries and “water utility” regulation. A renewed NWI can provide national guidance and leadership that delivering whole of water cycle benefits is a fundamental part of regulated water service delivery. The NWI can promote a range of nationally desirable water service, water cycle, water quality and liveability outcomes. These outcomes may be associated with outcome targets (that are agnostic to the management approach taken)
- Renewing national support for water planning that puts “all options on the table” to address the intersecting issues of water supply insecurity, excess urban water flows, and urban environmental and liveability challenges. Putting all options on the table and enabling a thorough cost-benefit assessment of all options, is likely to boost resilience across all water options. Some progress has been made in implementing recommendation 6.1 (b) from the 2018 review. Supporting “all options” implies investment in research and pilot programs, to improve water managers’ knowledge of the technical, economic and social aspects of all water management options.
- Support a “circular economy” understanding of water services to modernise management of wastewater, appreciate the full life cycle benefits of recycled water, and support extraction and reuse of resources (including energy embodied in wastewater). The externalities of resource loss and natural capital degradation are not captured in existing models of water management and regulation. The NWI could make strong links to National Waste Policy, including minimum standards for resource recovery, recovery of organic waste from landfill and linking concepts of product stewardship to water managers.
- Provide evidence of all costs and benefits of water service costs and benefits impacts of water extractions from the environment, and recognition of the full benefits of water services to community. This should include social and environment benefits of urban water management. This could include financial support for high benefit urban water projects, where current cost recovery mechanisms are immature and existing frameworks might hamper delivery.

3.3 The role of utilities in responding to challenges

Utilities such as Sydney Water were established to protect communities from the threats of water scarcity and water borne disease, and poorly managed urban drainage.

This public health imperative now extends to enabling the community to be resilient to the challenges listed above - climate change impacts, such as drought and extreme urban heat, increases in the incidence of heavy rain and flooding, and emerging disease patterns.



100 Resilient Cities uses the four elements of City Resilience Framework to assess the strengths and weaknesses of cities. These are:

- **health and wellbeing:** the essential city services that safeguard human health and diverse and secure livelihoods
- **economy and society:** the social and financial systems that enable urban populations to live peacefully, and act collectively
- **infrastructure and environment:** the way in which built and natural assets provide critical services and protect residents
- **leadership and strategy:** effective leadership and management, empowered stakeholders and integrated planning.

The water industry can and does impact these dimensions through its existing operations. By raising awareness that the mandate to protect public health with urban water services legitimately extends to urban health issues – such as maintaining thermal comfort, improving the health and accessibility of water in the landscape, and providing opportunities for safe, active recreation and transport - we can better develop the resilience of our cities.

[The role of a SOC—style water utility in delivering improved water sector outcomes](#)

Sydney Water’s effectiveness is enhanced by its status as a statutory State Owned Corporation (SOC), with an independent board and management, and clearly articulated and balanced operating objectives.

A SOC’s requirement to make efficient commercial decisions, retain accountability for performance and maintain a strong customer service focus, means a well governed SOC is best placed to efficiently implement updated water sector objectives.



4 Re-energising reform, responding to challenges

Key messages

- There is little active implementation of new initiatives from the current national water initiative in urban Sydney.
- The pressing challenges on Australia's water resources – and the renewed aspiration to create productive, liveable cities – provides the opportunity to renew reform.
- A remade NWI can help the water sector better prepare for extreme events and manage climate change risks **by clearly outlining national standards** for:
 - secure, affordable essential supplies for public health
 - water in communities for liveability and safe recreation
 - water in our landscape for thriving natural environments
 - secure water supplies that underpin economic growth and infrastructure to support communities
- The important role of integrated urban water cycle management (IWCM) was highlighted in much early NWI work, this has correctly been identified as the “unfinished businesses” of national water reform.
- The National Performance Report be reviewed to consider current drivers and challenges and include indicators that take into view customer centricity, urban waterways and liveability, and contributions we are making to achieving the United Nations Sustainable Development Goals (SDGs).
- The NWI should define environmental outcomes and support outcomes-focused regulation.
- A renewed NWI can provide greater leadership – outlining how indigenous cultural practices can be included in water plans and how aboriginal water access can be given greater weight in water sharing decisions.
- Our regulatory frameworks are strong. However, we believe that evolution is required to achieve the city aspirations outlined in NSW Government's Greater Sydney Region Plan and ensure continued cost-effective operation.
- The NWI should support utilities conducting a baseline level of investigation, activity and investment in economic water conservation options.



4.1 Water planning

Metropolitan water planning

Ensuring the security and efficiency of water services is vital to thriving urban cities

Australia's National Urban Water Planning Principles have provided a very sound basis for effective metropolitan water planning in Sydney. Iterations of Sydney's metropolitan water plan, which was first developed in response to the Millennium Drought, have ensured an orderly approach to supply/demand planning, drought response and community awareness of water issues.

Sydney Water, WaterNSW and the Department of Planning, Industry and Environment – Water are collaboratively developing a new Greater Sydney Water Strategy. It must consider more complex and volatile supply, demand conditions and population issues than in the past.

A key issue for planning will be how to address declining yield from surface water, because of climate change impacts on rainfall and evaporation and the immediate impacts of drought. Key considerations will be

- Identification of new supply sources and how to integrate them into the existing water supply network
- how to operate the network to address new risks and changing patterns of population and commercial activity
- How to bolster the effectiveness of existing supply sources and improve interconnections to improve resilience in the supply network
- How to effectively deliver “no regrets” supply and demand options.


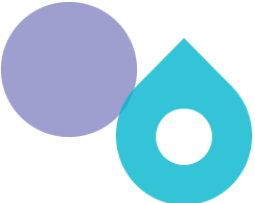
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- secure water supplies that underpin economic growth and infrastructure to support communities.

Resilience

Variability and uncertainty mean our urban water systems must be more resilient to shocks and stresses – and also support more resilient communities. The commission should provide national guidance on how water planning can better embed resilience at:

- water source and supply level – to ensure both major waterways and urban water supplies are resilient to impacts of drought and water quality impacts arising from scenarios such as the 2019/2020 drought, bushfires and subsequent heavy rain.
- urban water supply networks level – so a majority of the network has access to multiple sources and treatment plants

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- place level – ensure community places are less vulnerable to local water issues, such as flooding or wastewater impacts, drought and heat.
 - community– the community is less vulnerable to disruption, and they have the resources, support systems and knowledge to prepare for and adapt to shocks

The NWI could make greater links to the Commonwealth’s Critical Infrastructure Resilience Strategy and COAG’s Strategy for Disaster Resilience and draw upon the lessons of state-level strategies.

Supply system context

Greater Sydney’s experience with severe drought and intense rain shows how quickly our water supply can deplete and replenish. In 2019, Greater Sydney’s total water storage fell to less than 47% of full capacity. Even after water restrictions reduced consumption, storage depletion was the fastest on record. Had severe drought and rapid depletion continued, total storage could have fallen to 35% of capacity by July 2020. Sydney had very limited time to secure more water.

Sydney’s water supply system has never operated at below 30 percent total capacity. At this level, poor outflows and poor water quality might affect network operations, including water filtration plants.

Droughts prompt awareness of Sydney’s existing “one way” water system and the need for diversity in how we supply water and manage wastewater. The cost of new water supply augmentations – and the obvious impacts of drought on the condition of the urban environment - encourages rigorous public conversation – and formal analysis to identify viable alternatives.

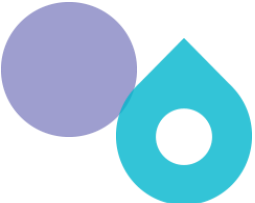

There are significant timing challenges in major supply augmentations. The expense of new infrastructure means it is prudent to avoid investing too early, especially if historical evidence shows that restrictions can slow depletion sufficiently, so supplies can last until dam-filling rains arrives. However, the time constraints associated with very rapid depletion - as seen during 2019 - limits the options that are effectively considered for augmentation. Desalination can be perceived as a preferred engineering option to rapidly deliver more yield in most Australian cities.

WSAA’s “Lessons from the Journeys from Others” is an important step in demonstrating the widespread overseas adoption of using purified recycled water, technical feasibility and effective pathways to incorporate community views. This is important because options cannot be given equal weight if decisions makers consider them to be unproven or to have significant community acceptance risks. For this reason, **our recommendation is that the NWI’s continued support for “all options” must be accompanied by effective technical, economic and social research.**

We also note the view of our price regulator IPART that Sydney Water must collaborate strongly with stakeholders to understand the long run costs of providing water, and how these costs are influence by different supply options, including purified recycled water.

Supply augmentation support from the NWI

While we have previously seen indications of informal policy ban across different jurisdictions, we are seeing more progress that all options are genuinely on the table to assess the most suitable supply portfolio. It’s been useful to point to the National Urban Water Planning Principles.



We believe the commission should renew its support for “all options on the table”. Federal endorsement would encourage the states to continue with their more open approach. The NWI can also **provide guidance on how other drivers - such as declining wastewater capacity, capturing valuable resources, waterway health, and increasing long term water needs to support cooling and greening – can encourage prudent investment** before drought crisis crimps waters supplies.

Water allocations and water sharing plans in mixed use sources

We are supportive of formal water sharing plan for extractions for Greater Sydney, and that there is a common standard of water allocation in water sources for rural, regional and urban areas

Given the Sydney Metropolitan water sharing plans are being reviewed, it is timely to reflect on lessons learned, and how the NWI can support more effective water sharing in catchments that have rural and urban water needs. Our comments are made in respect of the water sources that provide Sydney with raw water, receive wastewater and are affected by urban stormwater.

We believe it would be beneficial to see better public reporting on water allocations, licence holders, current extractions, and return flows in water systems such as the Hawkesbury River, which is affected by extractions for urban use and rural users, has wastewater and urban stormwater inputs, and supports many recreational activities and supports primary industries.

In such complex management environments, good data availability can reinforce confidence in the management regime. A co-ordinated monitoring regime (that’s matched to desired outcomes) can also enable assessment and adaptive management of waterways, can improve stakeholder buy-in and build support for innovative management practices.

During the 2019 drought some town water supply sources that rely solely on “run of river” supplies approached “cease to pump” levels. Lessons learned from this situation revealed the need for clear rules that can be calculated easily, early communication with stakeholders and a whole of government and utility approach for water sharing in unprecedented drought times.

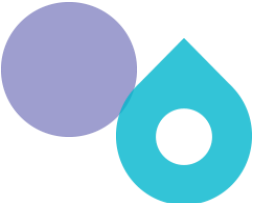

In a system like Sydney where large amounts of water are extracted for urban supplies, well treated wastewater that is returned to the river can be a very important element in providing river flow – especially as upgraded wastewater treatment standards have significantly improved quality.

We recommend the NWI provide updated leadership on water sharing, including the role of return or replacement flows that go back into rivers affected by large scale extractions.

Water allocations and stormwater harvesting policies in urbanising catchments

Water shares are allocated for some peri-urban catchments in Sydney. Sydney Water supports irrigation in some of these catchments through obligations that ensure enough wastewater is released to some waterways to support irrigators needs.

Some of these catchments are rapidly urbanising. “BAU” development in urban areas is associated with significantly increased volumes of stormwater (and wastewater) discharges. This damages the form of waterways and transports pollutants to them. Research indicates that in urban areas flow reductions of about 60 percent to 75 percent (compared to “BAU” development) are needed to maintain pre-development waterway health. Integrated water approaches such as stormwater harvesting, re-purposing of rural dams, and green infrastructure such as green roofs and



stormwater retention have an important role in retaining water in the landscape. Stormwater harvesting is another important approach.

Development of water sharing rules and stormwater harvesting policies in these catchments must take into account the impacts of urbanisation on the water balance, and support water retention, harvesting and integrated water cycle management at land use planning and development stage – when they can be most effectively embedded.

We recommend the NWI provide guidance on stormwater harvesting and water sharing in urbanising catchments.

Pricing of water resources extracted from environment and recycled water.

We support the concept of “cost effective” recycling. We also note that different approaches to water resource pricing can make it difficult to compare the cost effectiveness of water from different sources. A full assessment of cost-effective recycling must consider the upstream and downstream costs and benefits of all water and wastewater options.

In NSW, prices for water extraction from natural water sources are largely based on the efficient costs of the entity that provides the entitlements and monitors compliance with licence conditions. This includes costs for metering and planning. It is positive to see elements of best practice and transparent independent regulation applied to water extraction.

Although entitlements are being determined within the overall sustainable yield of a water source, the approach to pricing water extractions means that external costs of water extraction – such as impact on downstream waterways or users – are not fully accounted for.

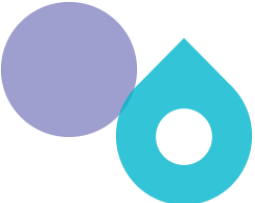

When utilities such as Sydney Water accept and transports wastewater, then treat it to a very high level to produce recycled water, most of the costs of producing the water resource (and protecting the environment by managing wastewater) are internalised, and reflected in customer recycled water prices. **We recommend the NWI provide leadership on urban water sharing and pricing that addresses the difference between water extractions and recycled water. This can also be considered in guidance on costs and benefits.**

4.2 Integrated Water Cycle Management for maximum benefits

The challenges of climate change, changing and growing cities, and the need to upgrade our urban water assets provide the impetus to manage urban water in a more integrated and efficient way.

The important role of integrated urban water cycle management (IWCM) was highlighted in much early NWI work, but has correctly been identified as the “unfinished business” of national water reform.

Sydney Water has been conducting integrated water planning to deliver water services for Sydney, in a way that meets Government’s vision for our “metropolis of three cities”. Our Western Sydney planning has investigated regional servicing concepts that provide all “traditional” water and wastewater services for customers, while achieving “Western Parkland City” water and amenity outcomes such as landscape cooling and greening, healthier local waterways, and improved local water balance.



Sydney Water analysed the water balance, financial costs and economic benefits of each option. Analysis demonstrates that greatest economic value will be realised through an adaptive and integrated water cycle management approach. The options developed and analysed are:

Pathway 1 – Drained City: Baseline servicing to meet a current level of water demand and services. Water is largely imported, and wastewater transferred out of local catchments. Models of urban development and housing are similar to current greenfields development. This option is unlikely to meet the Parkland City vision and the aspirations of customers.

Pathway 1a – Drained City with Parkland water use: This option investigated using traditional water sources and management to deliver key parkland elements, such as tree canopy and cool green landscape.

Pathway 2 – Water Cycle City: wastewater recycling for non-drinking uses and stormwater harvesting to retain water in the landscape. Water helps create the South Creek-Wianamatta blue-green corridor.

Pathway 3 – Water Centric City: uses small scale servicing schemes to maximise flexibility in servicing growth

Pathway 4 – Water Resilient City: large-scale re-use of recycled water and harvested stormwater to reduce discharges to the environment and improve resilience and reliability of water services.

The Water Cycle City is the preferred pathway because it delivers the greatest economic value: it realises the Parkland City at least cost and can be more readily delivered with current regulatory frameworks and community attitudes.

Pathways for a Water Centric City and a Water Resilient City are both favourable, delivering greater economic value than the Drained City. Some services - such as large-scale re-use of recycled water - need to thoroughly be discussed with the community before adoption. Some elements of these pathways could be opportunistically adopted.

Pathway 1a has the highest net cost of the four pathways – demonstrating how traditional methods of water management must adapt if to achieve aspirations for our cities at reasonable costs to customers.

All options (except Pathway 1) require significantly more water use for outdoor irrigation to support an expanded tree canopy, cooling and greening - but Pathways 2, 3 and 4 make more use of recycled water and harvested stormwater. This enables these pathways to intrinsically achieve better levels of waterway protection, too.

Sydney Water's planning is also demonstrating that water management must be integrated with land use planning at a very early stage. The high benefit pathways are embedded with urban design approaches that have high levels of stormwater retention and detention (enabling water way protection and flood management), pervious landscape areas, and space for canopy trees, while facilitating appropriate levels of housing density to support active and mass transport and viable centres.

We recommend the NWI **strongly encourage integrated water planning** so jurisdictions and utilities can identify and deliver the economically efficient mix of water supply, wastewater and stormwater services that maximise the net benefit to the community and customers.



Green infrastructure

Planning and policy work in NSW is increasingly recognising the value of “green infrastructure” in delivering services to urban areas. Green infrastructure is intrinsically linked with integrated water cycle management, and includes elements such as stormwater retention, urban canopy trees and vegetation, naturalised waterways and riparian areas.

It delivers benefits to urban communities (and urban water customers) such as cooling, amenity, natural water treatment services, open spaces and corridors for active transport. Recent policy guidance (such as the NSW Draft Greener Places Design Guide) is identifying that green infrastructure is an asset class that should be formally recognised by regulators and enable utilities to earn a rate of return.

We note that traditional contribution and funding mechanisms struggle to fully accommodate green infrastructure, even though it provides many of our most valued urban attributes.

Recognising green infrastructure as an asset class could go some way to overcoming these entrenched issues. It would encourage organisations such water utilities to invest more heavily in creating and improving the quality of green infrastructure as it is appropriate that adequate capital and operating funding is allocated to create and improve the value of assets. This makes it easier to build the case for investment in projects that improve waterway health, enhance surrounding open space and vegetation, and improve the resilience of urban floodplains. It would also increase the legitimacy of green infrastructure in other land use, transport and infrastructure decisions.

We recommend the NWI support the recognition of green infrastructure as a formal asset category.

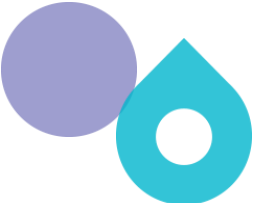

Circular economy

The next logical extension of IWCM planning is incorporating circular economy principles, to understand flows of water, energy, and resources. A circular economy underpinned by effective wastewater management can provide local solutions to complex urban waste, energy and resource problems – including landfill capacity and recycling capacity, carbon emissions and changing national energy mix, water demand and regional food security.

Water management is a logical starting point for development of a circular economy because water is managed regionally and has a strong infrastructure network. The water industry is already well advanced in extracting resources embedded in wastewater – such as recycled water, biosolids, and energy.

Most of Sydney’s “inland” wastewater treatment plants are already producing recycled water and all biosolids collected by Sydney Water are beneficially re-used. At wastewater treatment plants, we digest organic matter to increase the nutrient content of biosolids, and capture the biogas produced – effectively unlocking the energy content of organic material in wastewater. Co-generation enables Sydney Water to generate up to 20 percent of the energy needs of a wastewater treatment plant. The process can be augmented by adding other organic nutrient streams – such as waste from beer, wine and soft drink and clean pulped fruit and vegetable wastes – demonstrating cross sector benefits.

New generation ‘biorefineries’ based on existing wastewater and water recycling plants can play a major role in diverting food and organic waste from landfill while enabling higher value re-use of resources. They can receive and refine organic waste streams into high quality recycled water,



biogas, energy, fertilisers and other products. **Leadership from the NWI** could help Australia's **water sector reach best practice in wastewater and organic management** and help achieve key actions in the National Waste Strategy.

There are opportunities to embed circular economy principles in the design of water systems to service fast growing urban regions, including innovative waste to energy approaches and support of compatible industries such as intensive urban agriculture.

Water reform can also address the “regenerative” aspect of circular economy, by considering the role of applying biosolids and recycled water to improve local soils and manage wastewater discharges so they don't degrade local waterways. We see strong links between our adoption of circular economy principles, and our advocacy of strong standards and outcomes for urban water services and waterways.

Taking a circular economy approach is inherently cross sectoral. Achieving effective resource management requires good land use planning decisions, such as co-location of major industries such as wastewater treatment, material recovery, and intensive agribusiness.

4.3 Best practice monitoring and compliance

Evolving from the outcomes of the 2004 National Water Initiative, the National Performance Report(NPR) has provided a centralised data source, comparing the performance of 85 service providers across Australia; including bulk water authorities, water utilities, and councils. The Report covers over 166 performance indicators that are based on nationally consistent definitions. This single source of data regarding water services has been a useful source of information.

The review underway of the National (urban) Performance Reporting, provides an opportunity to include some key indicators that relate to our renewed national reform agenda. As part of a renewed NWI, **we recommend that the National Performance Report be reviewed** to take into account current drivers and challenges and **include indicators that take into view customer centricity, urban waterways and liveability**, and contributions we are making to achieving the **United Nations Sustainable Development Goals (SDGs)**. These indicators would better reflect the changing drivers in the water sector and evolving needs and expectations of communities, such as community health and wellbeing and sustainable cities and communities.

The inclusion of the SDGs would help improve the relevance of the NPR, build cross-sectoral alignment and inform Australia's reporting on progress particularly towards Sustainable Development Goal 6: Clean water and sanitation. The United Nations Sustainable Development Goals provide a common framework for bringing together water managers, customers and communities to plan and deliver urban water services.

The inclusion of urban waterway measures in one place would help assess effectiveness of our new management approaches, validate models and improve our decision-making capability. For example, better decisions can be made about urban water if we have ready access to data about stormwater volumes and detention potential of different approaches. This would bring “green infrastructure” standards more in alignment with traditional infrastructure planning.

If included in a vehicle like the National Performance Report monitoring, collection and reporting standards would be agreed and unified making the data most effective, of a higher quality and more accessible for those who need it.



4.4 Environmental outcomes

Environmental goals and outcomes in metropolitan water plans and water sharing plans can be qualitative and aspirational. They may provide limited guidance for utilities and water managers about the right level of service and the resulting infrastructure needs (especially if this would result in a significant change of practice.)

We note that expert water managers such as Sydney Water should take a lead on translating broad city outcomes and goals (as identified in strategic land and water plans) into specific evidence-based waterway and water service outcomes – and determining the optimum investments required to deliver such outcomes.

It is difficult to assess success of water sharing in coastal areas because the environmental goals have been broad. We believe a renewed NWI could provide strong leadership to help define environmental goals in coastal and metropolitan water sources, when such sources have a complex management environment and many end users. This would help highlight whole of water cycle management issues that can improve - or detract from - environmental goals.

Policy support from the NWI at a holistic Federal and State level on **waterway health and flow objectives** - and the need for integrated management to achieve goals – would be useful.

In Sydney, there are some gaps between different parts of environmental regulation, and economic regulation. For example, pollution controls applied to wastewater treatment plants ('point source') are set without strong consideration of other sources of pollution within the catchment ('diffuse source'), or overall flow conditions in the waterway. The efficiency of Sydney Water's operations and investments to meet wastewater treatment requirements is assessed, but without considering the role of urban stormwater, it is hard to assess if this approach is either sufficient, or optimally cost effective.

It is also hard to assess the effectiveness of such regulation if there are no agreed catchment-wide or city-wide goals to compare them to.

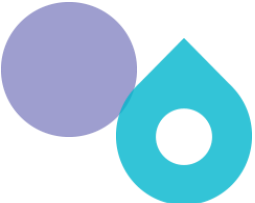

Lack of integrated management may also lead to unintended outcomes. For example, the low cost of coastal wastewater discharges has created historic incentives to transfer wastewater volumes to coastal networks to achieve "least cost" service. But a holistic consideration of Sydney's water balance, system constraints, avoided costs and waterway outcomes reveals opportunities for recycled water and return flows.

We also strongly support updates of regulatory standards which are based on robust evidence of customer and community values and preferences.

The NWI should define environmental outcomes and support outcomes-focused regulation, instead of simply prescriptive regulation. This will assist in the delivery of positive environmental outcomes for communities with optimised costs and benefits.

4.5 Indigenous cultural values

British colonisation and dispossession of Aboriginal land in Sydney also led to dispossession from waterways and water resources. Australia's formal systems of property ownership and allocation of water rights have denied Aboriginal people a formal say in water management.



Sydney Water is committed to building and maintaining meaningful and respectful relationships with Aboriginal and Torres Strait Islander peoples. We understand we have a unique role to play in helping to celebrate and protect the waters and surrounding lands in our operations.

Sydney Water's customer focus means we advocate for the needs of our customers and provide essential services for all. This means we support all mechanisms to include Aboriginal voices into decision making - at our level and at State policy level and at the federal level

Despite 2004 NWI's recognition of the need to improve Aboriginal water access, and the adopting of water sharing plans, progress is slow.

We agree that federal leadership - and Indigenous voices on water policy at federal level are needed. We also strongly support the renewal of state programs that would enable Aboriginal needs and cultural knowledge to be reflected in NSW water policy and allocation planning.

Such efforts should include building capacity for Aboriginal participation in water management, enhancing engagement with recognised knowledge holders to inform water planning and investing in better understanding of Aboriginal knowledge of Country and values for water in cities and their water catchments.

Planning that considers the whole water cycle - including water resources and services, urban land and local water assets - can create opportunities to understand Aboriginal water values and uses in urban Sydney, address them better and reconnect communities to water and Country.

For example, we have recently completed rebuilding a severely damaged seawall at our Port Kembla Stormwater Plant in Wollongong following a collaboration with local Aboriginal groups over the last few years. Among the features is a large-scale Aboriginal art installation depicting stories by local artists of the Coomaditchie United Aboriginal Corporation.

A renewed NWI can provide greater leadership – outlining how indigenous cultural practices can be included in water plans and how Aboriginal water access can be given greater weight in water sharing decisions.

We recommend the NWI provide guidance on how Aboriginal voices are represented in water sharing, and the implementation of plans.

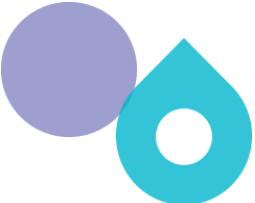

4.6 Institutional arrangements

We agree that current institutional arrangements are very sound for delivery of water and wastewater services. Best practice regulation and pricing that's aligned with NWI principles has had good outcomes for our customers.

IPART has recently found that Sydney Water could be considered a “frontier” company when assessed alongside the best performers in the UK water industry. This suggests current regulatory arrangements have helped improve outcomes for customers for core water and wastewater services.

Regulatory frameworks and areas for improvement

Our regulatory frameworks are strong. They are designed to reflect the needs of customers and protect them from any possible abuse of monopoly power and protect the community and the



environment. Recent regulatory guidance will improve Sydney Water's ability to engage customers and understand their preferences.

However, **we believe that evolution is required to achieve the city aspirations outlined in Government's Greater Sydney Region Plan and ensure continued cost-effective operation.**

Potential missing links in our framework could be addressed by NWI action on clearly defining outcomes, and ideal allocation of roles and responsibilities to meet them.

- Sydney Water does not have clear waterway health or flow goals for the stormwater assets and waterways we manage.
- It has been some time since comprehensive water quality and flow guidelines were updated for all of NSW's urban waterways. This has hampered the ability for our regulated wastewater discharges (both their quality and their flow) to be assessed holistically, as part of overall waterway health.
- Sydney Water's legislation provides strong guidance for water quality and environmental performance. Our Operating Licence and other requirements drive action, but targets and goals in legislation could be updated to align with NWI-identified outcomes
- More formal catchment management arrangements would improve the ability to manage stormwater, wastewater and water supplies in a co-ordinated way, especially when different organisations, such as Sydney Water and Councils, have different funding and regulatory pathways.
- Currently regulations don't strongly recognise the resources embedded in water (particularly wastewater) and don't provide strong support for pathways to extract and reuse them. A circular economy focus would improve water management and deliver other benefits – including energy management and waste management.

To adapt to new challenges there is a need for broader view of water services. **We believe there is a need to refine, update and realign some roles and responsibilities - including planning and investment - in Sydney's urban water.** Roles and responsibilities should reflect the effectiveness of the SOC model of utility governance.

In our current regulatory framework, investment in projects that deliver benefits above baseline water and wastewater services must be robustly justified with high quality customer willingness to pay evidence. In the past few years, this type of engagement has helped us justify investment in waterway health and wastewater improvement projects.

We will continue to innovate in our customer engagement and use customer insights to help determine the outcomes we deliver. This is a key part of our transition to an outcomes-based framework as we become a more customer-centric business.

While we are happy that our existing pricing frameworks are evolving so they better reflect water's role in delivering community-wide benefits, we are often put in a position of having to "re-prosecute" Government policy before investment. Current regulatory processes tend to focus on assessing expenditure against delivery of outputs and standards for core water services.

We want to include evidence on additional outcomes and levels of service that are valued by customers, ensuring prices and future water investment deliver these outcomes. This will improve Sydney Water's ability to deliver more modern, integrated water cycle management.



Reinforcing the value of a SOC model

Updated guidance on roles and responsibilities required to effectively deliver improved water outcomes must reflect the effectiveness of the current SOC model.

Efficiencies gained by the SOC model for urban water have been shared in the form of lower prices to customers, better service quality and improved returns to government through dividends.

We recommend that the Productivity Commission define **roles and responsibilities** for the delivery of a renewed NWI. These roles and responsibilities must embed the **state owned corporation model** to ensure defined water cycle, environmental and community outcomes are met efficiently and transparently.

4.7 Water efficiency

The **NWI should support utilities conducting a baseline level of investigation, activity and investment in economic water conservation options.**

Our experience in the 2019 drought has demonstrated how it is difficult to rapidly ramp up conservation programs and contracts during very rapid depletion of water supplies.

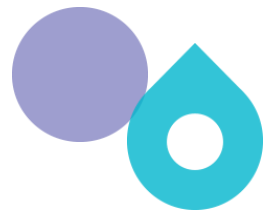
Sydney Water successfully justified a baseline level of investment in water conservation in its current price path. In 2020-21 we will increase spending on water conservation and behavioural change, and we expect to save nearly 800ML per year by:

- expanding WaterFix Residential and WaterFix Strata through subsidies and marketing
- continuing supporting disadvantaged households with high water use through PlumbAssist and through partnering with the Land and Housing Corporation.
- Introducing the WaterFix Business and Government, and WaterFix Small Business programs
- introducing business water use audits and on-line water monitoring
- enhancing short-term leakage response
- supporting a range of regulatory programs (BASIX, WELS) and incentive programs (NABERS) to support efficient housing design and development
- including investigating new recycled water schemes and innovative solutions.

In its regulatory environment, we believe Sydney has now struck a good balance: Sydney Water is responsible for determining its own economic level of water conservation and must *implement* options that are economic.

Recent recalculations about yield constraints in Sydney may also have the effect of increasing effort in water conservation and increasing the number of projects that can deliver “economic” water savings.

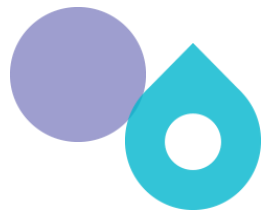
As noted in our previous suggestion, if the NWI provides national guidance on benefits framework, it would help streamline utilities’ assessment of what projects are economic and help better represent customer and community benefits of water conservation projects.



Analysis from current supply demand planning is reiterating that demand management is an important and cost-effective method of managing Sydney's supply/demand balance.

Demand management can be improved by pricing signals. Structured customer water efficiency projects are equally important because they give customers information about water efficient practices and technologies that enable them to better respond to price signals. Evidence about the impact of price signals and elasticity of water demand continues to evolve.







Conclusion

Thank you for giving Sydney Water the opportunity to make a submission on the Commission's 2020 inquiry into National Water Reform.

Sydney Water welcomes the opportunity to discuss any of the examples and issues raised in this submission in more detail.

If you have any further questions, please contact Lyndall Pickering

Yours sincerely

Paul Higham
Head of Strategy & Corporate Social Responsibility
4 September 2020