

26 March 2021

Mr Jim Bentley
Chief Executive Officer, Water (Deputy Secretary)
NSW Department of Planning, Industry and Environment
4 Parramatta Square, 12 Darcy Street,
Parramatta NSW 2150

Dear Jim

Thank you for the opportunity to comment on the draft NSW Water Strategy. Sydney Water strongly supports the NSW Department of Planning, Industry and Environment in its work to develop a 20-year state wide strategy to improve resilience of the state's water resources and put water on the same footing as other essential resources and services in NSW.

The draft strategy covers the key themes we would expect to set direction for the NSW water sector over the long term. We are supportive of the seven priorities for the strategy and have used them as the basis of our submission.

The attached document summarises our high-level comments on areas of support as well as opportunities the Department may wish to consider further. Key items for consideration can be summarised as:

- community engagement and the consideration of customer expectations
- data and modelling as they apply to the urban water context
- integrated water cycle management and adoption of Urban Typologies
- a more comprehensive consideration of what resilience means and how it should be applied to water resources planning
- recognition of the role for water utilities in adopting the circular economy and contributing to climate change responses
- stronger positioning in relation to recycled water, particularly purified recycled water.

Sydney Water has been working closely with the Department on the development of the Greater Sydney Water Strategy. These two long-term strategies are part of the suite that set out the approach to maintaining and building the resilience of the state's water resources. As such we believe that these strategies will benefit from an aligned set of common objectives for Sydney and NSW's water future, with shared guiding principles and priorities for achieving them.

We look forward to continuing the conversation. Please don't hesitate to contact me or Rebecca Baldwin – Senior Strategy Advisor on rebecca.baldwin@sydneywater.com.au if you require further information.

Yours sincerely

A handwritten signature in black ink, appearing to read "Roch Cheroux", written over a horizontal line.

Roch Cheroux
Managing Director

Attachment 1: Sydney Water’s submission to the Draft NSW Water Strategy

Priorities	Sydney Water Comments
<p>Priority 1: Build community confidence and capacity through engagement, transparency and accountability</p>	<ul style="list-style-type: none"> • Sydney Water is a customer centric organisation and strongly supports customer engagement, transparency in planning processes and accountability of decisions. Sydney Water notes our customers desire to be given genuine opportunities to help shape decisions. • The strategy is focused on water resources however does not address customer expectations or the desirability to set service standards with the community. Sydney Water encourages a stronger framing using the National Urban Water Planning Principles. • Sydney Water encourages data sharing opportunities to be broadened and include water quality aspects, not just quantity. We also support modelling that is fit for purpose. Making models widely available may have benefits but we highlight the importance of ongoing maintenance to ensure applicability given the limitations of off-the-shelf approaches. • Water sharing rules should reflect the context of the local catchment. We see benefit in a flexible policy on stormwater harvesting that complements water sharing provisions. • Sydney Water strongly supports Government making improvements to regulation and governance of stormwater harvesting and recommends a clear commitment to a policy, including timing of release.
<p>Priority 2: Recognise Aboriginal rights and values and increase access to and ownership of water for cultural and economic purposes</p>	<ul style="list-style-type: none"> • Sydney Water has been engaging with indigenous communities across our area of operations, including Local Aboriginal Land Councils and Native Title holders in our area of operations. The time it takes correlates with the richness of these partnerships and our learnings. This complements the important regional focus of the Aboriginal Water Coalition, resulting in a deeper understanding of Aboriginal water values in the urban context. • Efforts should go beyond sharing knowledge and include empowering Aboriginal communities and individuals to become part of water management plans, to be employed within the water industry, and to lead and use cultural knowledge to improve social and economic outcomes in their own communities.
<p>Priority 3: Improve river, floodplain and aquifer ecosystem health, and system connectivity</p>	<ul style="list-style-type: none"> • Sydney Water supports efforts to take landscape scale action to improve river and catchment health and set catchment wide objectives and targets for plants, waterbirds, fish and system functions. • While existing water quality and flow objectives exist, many of these are out of date and targets need to address the long-term objectives for the discharges to the ocean from Sydney’s major coastal wastewater systems. We recommend fast-tracking the review of the NSW Water Quality and River Flow Objectives for the entire state. The updated objectives should be an important part of the NSW Water Strategy.

	<ul style="list-style-type: none"> • Sydney Water would like to see the strategy have a greater emphasis on the management of diffuse pollution sources and runoff to improve waterway health. • Our report on Urban Typologies and Stormwater Management showcases smart water planning typologies (or urban templates) that can be used to guide development across urban growth communities to maintain waterway health and help reduce the Urban Heat Island Effect at the same time. We recommend the strategy advocate for adoption of this approach across growing urban areas in NSW, to improve community, catchment and waterway outcomes. • Sydney water supports better coordination of water monitoring and data sharing. • The commitment to update the river condition index by 2021 is very positive. We see opportunities to provide a detailed index for urban waterways, given the number of people who rely on them for urban amenity, recreation and environmental services. • Connectivity is as important for coastal systems as it is for inland systems. Sydney Water recommends an extension to the action to develop ways to improve connectivity of rivers, streams and wetlands through the urban environment, while noting the importance of natural flow variations. • We would also like to see more formal recognition of the role of highly treated replacement (or environmental) flows and “return” wastewater flows in maintaining connectivity and flows, especially in periods of low flow.
<p>Priority 4: Increase resilience to changes in water availability (variability and climate change)</p>	<ul style="list-style-type: none"> • Sydney Water has been undertaking research and analytics to quantify the potential impact of climate change on the demand for water since 2006. We acknowledge the importance of considering this in the supply-demand balance. • Planning processes need to 'stress test' strategies, policies and plans against a range of disruptive events, such as climate change, pandemics and other significant factors including drought and flood conditions. • The water sector has a role in not just preparing for climate change but also in responding to it. Sydney Water is committed to action on climate change. Adoption of the zero emissions target as Government policy or support for a broader economic value assessment would assist us to better deliver on this strategic objective. • Regulation needs to support utilities to make the investments needed to enhance resilience. This should go beyond drought proofing supplies and improve network resilience using appropriate risk analysis to assess where system redundancy should be considered, and where critical points of failure can be addressed through other means. • Drought planning also needs to be done in conjunction with long term water security planning. It is imperative that drought response options are considered not only in terms of their ability to rapidly respond to dwindling supplies, but also on their potential impacts and alignment to longer term water security objectives. • It would be beneficial to link urban development and planning frameworks with water sensitive urban design as a measure to retain water in the landscape for passive evaporative cooling and reducing urban runoff re Sydney Water’s Urban Typologies work.

<p>Priority 5: Support economic growth and resilient industries within a capped system</p>	<ul style="list-style-type: none"> • Sydney Water welcomes investment into research and development (R&D). We note the role of R&D in improving efficiency of urban water management – including cost-effective treatment of all water sources. • Water conservation programs and regulations need to be supported by data to enable evidence-based assessment of impact and benefits. Alternative funding mechanisms should also be considered to facilitate ongoing improvements through research, development and analysis. • Sydney Water agrees that water has a role in the energy value chain and would also note that there are emerging energy possibilities in biogas generated from wastewater sludge, which presents a powerful source of renewable energy. • Wastewater treatment plants present an opportunity to become bioenergy and resource hubs for a range of organic waste streams beyond just wastewater sludge and could also play a significant role in a future hydrogen economy, providing sources of renewable energy and recycled water.
<p>Priority 6: Support resilient, prosperous and liveable cities and towns</p>	<ul style="list-style-type: none"> • Action 6.1 could be further expanded to incorporate innovative solutions to improve the sustainability of water services (including towards a more circular economy and the NSW Government’s energy and climate change goals). A systematic approach would see innovation consider the different parts of a water system and other services such as waste or energy as a whole, to enable solutions that reduce and reuse, while improving service costs efficiently. • Resilience should be aligned to the NSW strategy for critical infrastructure, which includes the 5Rs of Resilience: Resistance, Reliability, Redundancy, Response and Recovery. The application needs to consider the cost of applying the different permeations of the 5Rs to select the best value resilient approach that will meet the risk appetite and community expectations. • Climate change modelling, including NARCLiM, should be applied for all new and renewed water infrastructure to consider the impact over the life of the asset, not just the financial life. • Sydney Water supports the directions of the Greater Sydney Region Plan and its adoption of green infrastructure concepts. Like other forms of infrastructure, green infrastructure needs to be planned, managed, and maintained. Positive policy action is required to support thriving canopy and grasses and optimise cooling and amenity benefits. • Sydney Water acknowledges there are opportunities to improve the scope and reach of water conservation activities in Greater Sydney. Current pricing frameworks could be improved to provide greater confidence for investment in water conservation. We are also keen to explore the opportunities for pricing to support water conservation efforts. • Sydney Water is pleased to see the Government will support water utilities to diversify water sources. We urge the Government to consider recommending the construction of a small-scale Foundation Plant, which can demonstrate the purified recycled water treatment process to regulators and the community. • Sydney Water supports competition, but clearer objectives for customers and environment and waterways need to be established. Market structure needs to recognise water management dependencies on land use planning (which is not a contestable service).

Priority 7: Enable a future focused, capable and innovative water sector

- The role of the water sector in the circular economy including water, energy materials and environmental regeneration presents important opportunities for innovation and economic leadership.
- To improve whole of water cycle management in urban Sydney, we support improving capacity for integrated catchment planning, to increase the ability of private and public organisations to contribute to holistic plans. The addition of plausible futures and building industry capability in adaptive planning would also be welcomed as specific areas for future capacity building.
- Research, innovation, technology pilots and analytics need to be targeted to support the desired capability and the identified water management improvements.
- Sydney Water would like to see a final strategy include a section on monitoring and reporting to support ongoing improvement and adaptation of the suite of water strategies.