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## SUBMISSION TO DRAFT LOWER HUNTER WATER SECURITY PLAN

The Water Services Association of Australia (WSAA) is the peak industry body representing the urban water industry in Australia and New Zealand. Our members include the water utilities supplying water and wastewater services to over 24 million customers.

We commend Hunter Water and the NSW Government on the development of the Draft Lower Hunter Water Security Plan. In our view, the Plan is a good reflection of 'best practice' water planning approaches.

For example, it takes an 'all options' planning approach, to investigate all options with an open mind, recognising that all water supply options can all make a contribution. This approach is well recognised and publicly supported, for example by the [Federal](#) and [NSW Productivity Commission](#); [Infrastructure Australia](#); [Infrastructure Victoria](#), and the [NSW Water Strategy](#), which all emphasise that all options should be looked at.

It also provides climate resilience. As evidenced by the recent IPCC report, the climate is getting hotter, and rainfall more variable. Dams have generally been the backbone of our water supplies in Australia, but this Plan recognises the need to complement dams with sources of water that are not dependent on rainfall, such as desalination, recycled water and purified recycled water for drinking.

We have seen a strong shift around Australia and the world towards diversifying traditional water supplies with options like this; in Perth, Brisbane, California and other parts of the US, Europe and Africa. In Australia, it is likely that non-rainfall dependent options will play an increasing role in future.

This overall push towards diversification sets the region up well for the future. Having a mix of supply sources means the Lower Hunter will not be 'putting all its eggs in one basket'. This provides flexibility – for example the transfer pipeline allows water to be moved around to where the water is most needed, when water is plentiful; but at the same time, the region will be prepared for times when water in dams and rivers is not plentiful, by being able to access seawater through desalination and reuse the existing water supplies, through recycling. Overall, this will help the region cater for the growth it is experiencing, as well as uncertain weather conditions.

The Plan also ensures that as a first step, we use the water we have wisely – through leak management, and encouraging water-wise behaviours in the community's everyday lives. This means that investment in new water supply options only occurs when needed.

The Plan is based on a deep and thorough engagement with the community, to understand their values, and let them contribute their views, questions and priorities. We strongly support this engagement and dialogue with the community. It has shown that the community see safe drinking water as paramount – an absolute priority which the water industry shares. They have also shown that they do not necessarily want the least cost options, but rather value minimising environmental impact, and future-proofing the water supply system. Communities have crossed many frontiers with the water industry as we adopt new technologies that help

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us best manage our water resources, and it is vital to proceed hand in hand with our customers and communities.

We believe the demonstration plant for purified recycled water for drinking is an excellent next step for deepening this relationship with the local community. Around the world, many cities that have explored purified recycled water for drinking, have found that a demonstration plant was extremely valuable as it allowed them to explore this technology with their communities in a transparent way. A demonstration plant lets both communities and regulators see how the purification processes work, and the robust testing and monitoring that goes along with ensuring any new water supply option meets our strict health and safety guidelines, before any decisions are made. This investment in continuing to learn about innovation elsewhere, is an excellent 'no-regrets' step to help the region be prepared and able to adapt for the future.

We encourage Hunter Water and others involved in water supply planning, to accompany the demonstration plant with education about the water cycle. Sometimes in modern life, the community is less aware that all water is recycled, in both the natural water cycle of rainfall and evaporation, and in the urban water cycle where the water that has been used by communities is treated carefully and released back into the environment to begin the cycle again, and be used by other communities.

In fact, seemingly 'new' technologies like desalination, recycling and purified recycled water for drinking simply recreate what happens in the natural water cycle, but more quickly. These technologies have actually been in use for a long time and are well proven – for example, desalination is widely used in many parts of the world as well as Australia; and purified recycled water for drinking is used by over 35 cities world-wide, many for decades. Perth in Western Australia uses both desalination and purified recycled water, and the capacity of Perth's purified recycled water groundwater replenishment scheme is currently being doubled. Many more cities are now exploring purified recycled water through demonstration plants or other studies. See the map of cities at the end of this submission.

We strongly support making greater use of First Nations knowledge about water – we have much to learn from the people who have looked after this land and its resources for thousands of years.

Lastly, we support the strong linkages between the Draft Lower Hunter Water Security Plan, and the Draft Central Coast Water Security Plan.

WSAA has published two reports on 'all options on the table' water supply planning, and engagement on purified recycled water for drinking, they are:

- [All Options on the Table: Urban Water Supply Options](#), which provides levelised cost and other information about all water supply options
- [All Options on the Table: Lessons from the Journeys of Others](#), a guidebook for the Australian water industry on how to approach the conversation with the community about purified recycled water for drinking.

Thank you for the opportunity to make a submission. Should you wish to discuss it, I can be contacted on 0417 211 319 or [adam.lovell@wsaa.asn.au](mailto:adam.lovell@wsaa.asn.au).

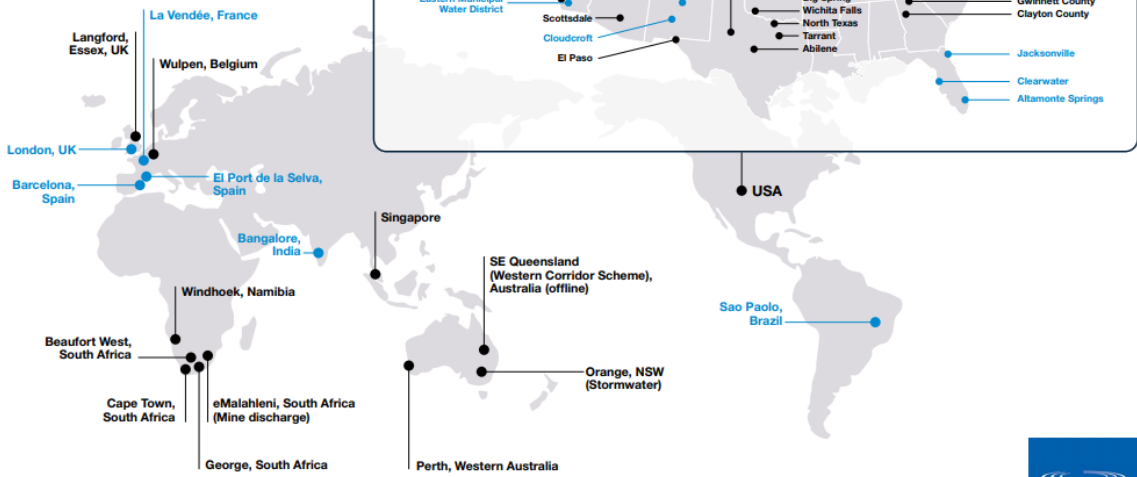
Kind regards



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Overleaf: Map of cities using/considering purified recycled water for drinking

# Global locations using purified recycled water for drinking: 2020



● Operating and planned    ● Exploring or potential

