WATER SERVICES
ASSOCIATION OF AUSTRALIA

WSAA SUBMISSION TO DCCEEW'S DISCUSSION PAPER ON A FUTURE NATIONAL WATER AGREEMENT 2024

WSAA submission to Discussion Paper: Seeking views on a future National Water Agreement (March 2024)

The Water Services Association of Australia (WSAA) thanks the Department of Climate Change, Energy, the Environment and Water (DCCEEW) for its work in releasing this paper (NWA Discussion Paper), and continuing to progress development of a National Water Agreement. We welcome the paper and provide some comments in response to the proposed Objectives and Outcomes for a future National Water Agreement, and the elements from the 2004 National Water Initiative (NWI) to be retained.

WSAA is the peak industry body representing the urban water industry in Australia. Our members are water utilities and councils who provide water and wastewater services to over 24 million customers in Australia and New Zealand.

We note the Productivity Commission also recently released its Interim Report on progress towards the 2004 National Water Initiative (NWI). We have lodged a submission to that review. As both reviews aim to identify the best form and content for the future NWA, many of our comments on the proposed Objectives and Outcomes include commentary on the Commission's Interim Report. Our comments are mirrored in our submission to each.

Overall feedback

The proposed Objectives and Outcomes are a solid starting point and pick up many key priority areas for the urban water industry. We support the overall intent of the proposals.

However, several additional Outcomes, and greater emphasis in some target areas, would make the emerging NWA stronger and better help the industry face the challenges of the future.

The recommendations put forward by the Productivity Commission in its Interim Report point to these improvements. The Commission's recommendations offer a sensible and forward looking view of the objectives needed in the NWA. We would like to see more of the detail in the Commission's Recommendations be incorporated into the proposed Objectives and Outcomes in the NWA Discussion Paper.

We have focused our comments on seven key areas:

1. We support the elevation of First Nations values and involvement in water management.

   In relation to this and point 6, we also reiterate our call in our February 2024 paper for an additional outcome around: The States and Territories provide appropriate funding for culturally affirmative programs in skills and business development for First Nations people, to support self-empowerment.

2. We would like to see more urgency on climate change challenges in the proposed NWA Objective and Outcomes, particularly on the adaptation front. We agree with the broad focus in the Commission's paper on other extreme climate events that will impact our industry in future such as heatwaves, flood and sea level rise. We support the Commission's view that better water security planning, with all options on the table, is an essential part of climate change mitigation. This needs to be clearly stated in the NWA.

We support also support the Commission's Draft Recommendation 3.3 on modelling and planning for Water for Net Zero: All Australian governments should collectively model and plan for changed water demand as a result of necessary climate change mitigation measures. All solutions will have water demands that need to be estimated and planned for. Findings should be integrated into both net zero strategies and sustainable water strategies to ensure sufficient water is available to enable Australia's transition to net zero emissions.

3. We recommend the NWA contain clearer support for water security measures and most importantly, for all options to be on the table to deliver water security, including dams, desalination, groundwater, purified recycled water, recycled water, stormwater, water sharing and trading along with water efficiency and pricing. Information on all options should be transparently shared with communities, and the NWA should drive community education and engagement, especially on rainfall-independent options such as purified recycled water and desalination, which are less familiar to communities.

   There is customer support for this. WSAA's Water Literacy Survey (July 2023, n=7500) found that Australians are open to alternative sources of drinking water. 79% agree that 'we need to think about all possible sources of water, as current water sources may not be as available in future' while 57% agree that 'so long as water can be purified, is safe and pleasant to drink, it doesn't really matter where it comes from'.

   We also reiterate our February 2024 recommendation, that the Australian Drinking Water Guidelines should provide a single guidance on producing drinking water from all sources (including desalination and purified recycled water).

4. The proposed NWA Objective on efficient water use (Objective 7) is welcome, however, it appears focused on large-scale water rights and trading. It needs to be remembered that the urban water industry is around 30 times larger in value than rural water; and that initiatives such as Water Efficiency Labelling Scheme and Smart Approved Water Mark have driven substantial ongoing water savings at household and business level.

   The current Outcomes for Objective 7 miss the opportunity to prioritise continued focus on community water efficiency. This is odd as consumer Water Efficiency was one of the few things in the 2004 initiative that did relate to urban water, and it consistently rates as a high priority with customers, yet the proposed Objectives and Outcomes now seem to go backwards by missing this entirely.

   There are still substantial gains to be made in this area. The Smart Approved Water Mark (SAWM) certification program has focused on indoor water savings to date, but there is substantial scope for valuable outdoor water efficiency products which support broader objectives like urban cooling, greening and liveability. In addition the Water Efficiency Labelling Scheme (WELS) has targeted residential only to date. Further focus will lead to more savings of water and money for families and businesses.

   The new NWA should retain the existing driver on consumer water efficiency but make it more focused on continuous improvement. For example an Outcome like:

   - Consumer water efficiency programs such as WELS and SAWM continue to expand the range of products and services available to maximise potential water efficiency gains.

This could be followed up in the Action Plans with an action to develop a Roadmap to identify pathways for continuous improvement and suitable initiative to support increased water use in all settings.

5. We would like to see a clear and separate objective of efficient water services, providing broader health and environmental outcomes. We support the Productivity Commission's Recommendation for 'effective, efficient and equitable provision of water services that meets the needs of customers and communities in a changing climate' (p24, 25, retained from the Commission's 2021 Report), and the Principles for best-practice independent economic regulation (NWI Renewal advice 11.2, p41).
6. We believe the NWA needs to drive progress on workforce and skills and training. The industry is currently experiencing staffing shortages, particularly in regional areas, and the thin training market creates challenges. Without a suitably skilled workforce to provide safe and reliable water services, public health risks arise, and none of the other Objectives in the NWA can be achieved.

   This is recognised in the Commission's mention of Knowledge, Capacity and capability building (NWI Renewal advice 3.5(10). The Commission also makes a clear recommendation on this with NWI Renewal advice 16.1, that 'Water utility staff have the capacity and capability to discharge their functions'. We would like to see the NWA adopt an Outcome that reflects the essential nature of this, such as:

   - Water service providers have the appropriate skills and capabilities to ensure safe and reliable water, wastewater and stormwater services for Australian communities.

7. Investment in water infrastructure should not unduly prioritise man-made assets. Nature based solutions have substantial potential but require equitable recognition in investment frameworks. We repeat our recommendation from our February 2024 paper for an Outcome to support Objective 5:

   - Policies for appropriately valuing all water investment benefits, across a range of beneficiaries including public health and ecosystem protection and regeneration, are recognised or embedded in State and Territory regulatory frameworks.

Context

There are significant pressures on the urban water industry, some of which have been both highlighted and exacerbated by the COVID pandemic including pressure on critical supply chains, housing and infrastructure shortfalls, cost of living pressures at a time when investment in water infrastructure is expected to triple, magnification of extreme events (flooding, fire and droughts) and the role of the industry in helping economy-wide approaches to net zero and the circular economy.

The touch points on the broader Australian economy are largely not addressed at a policy level, or if they are, it is fragmented and situation-specific. 'Business as usual' is not what it has been in the past and we contend that stronger ambition and recognition of water's role in the economy needs to be addressed in the NWA.

DETAILED RESPONSES

1. First Nations values and involvement

We support the creation of a dedicated Objective on First Nations values and involvement in water management. We support the proposed Outcomes in the NWA Discussion Paper that reflect this, including the reference to safe water as a human right.

We support the ongoing role of the Committee on Aboriginal and Torres Strait Islander Water Interests, while noting the importance of other First Nations voices as well.

We support the Commission's renewal advice elements on First Nations issues (p10-11 of the Interim Report), while noting that water utilities continue to make positive progress in improving their incorporation of First Nations knowledge and science, and engagement processes, and water quality outcomes.

2. Climate change challenges including adaptation

We would like to see more urgency on climate change challenges in the proposed Objectives and Outcomes in the NWA Discussion Paper, particularly on adaptation. Climate change and its impacts are acknowledged in the DCCEEW discussion, however the escalating scale and pace of impacts could be more apparent in the proposed Objectives and Outcomes.

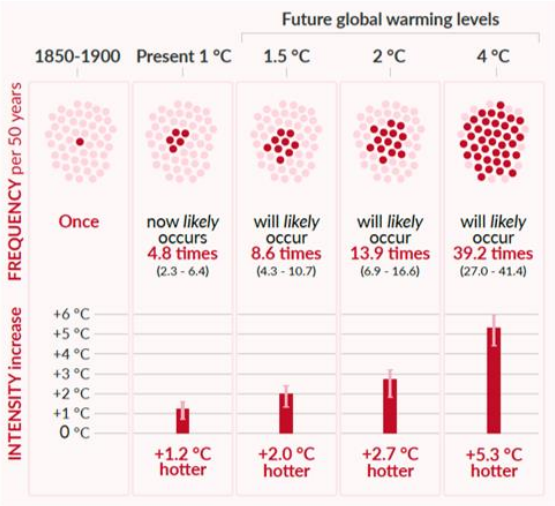
The years ahead have been recognised as the decade that matters for climate change. The Australian public, like communities across the globe, are seeing generational changes in how essential services are provided to them – the Millennium drought led to a step change with the introduction of large-scale desalination, to incorporate water supply sources that are independent of rainfall. Similarly, the energy supply future generations rely on will be vastly different to that of current generations.

Against this backdrop, the NWA needs to reflect the urgency of adapting to a changing world to ensure we can maintain service standards, productivity and environmental protection. It needs to call out that we are in a time of change, hence responsiveness is urgently needed.

The Productivity Commission paper comes closer to recognising the urgency needed in the current situation. We support the Commission's Recommendations in this area, such as the 2021 Renewal advice 3.3, (p9 of the Interim Report), to include 'Processes for water planning, sharing and management that are focused on adaptation in a world characterised by uncertainty, climate change, and increasing physical scarcity of water.'

We support Draft Recommendation 3.2 to consider all extreme climate events (drought, floods, bushfire, storms) in water planning. The Commission's own report presents data on long-term rainfall trends (p5). This is certainly a key indicator, however, other forward-looking predictions point to potentially more concerning future impacts, for example those in the IPCC Sixth Assessment Report:

Heat extremes: Global



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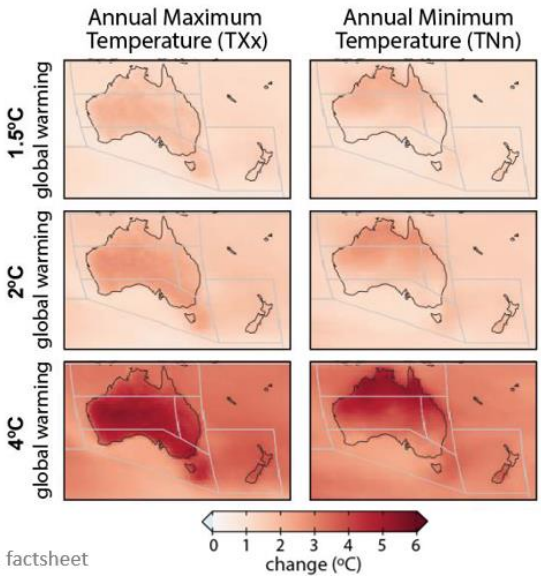
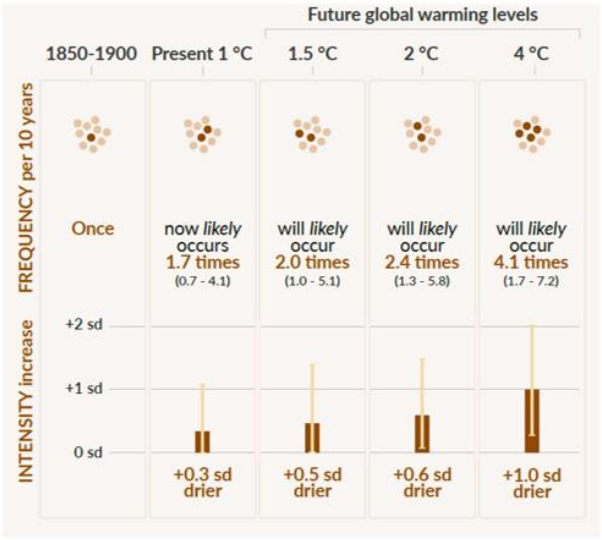


IPCC 2021, AR6 Summary for Policymakers and Australasia regional factsheet

Drought: Global



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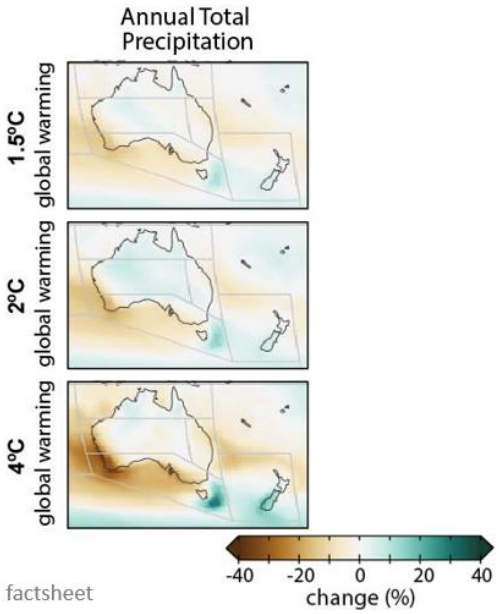

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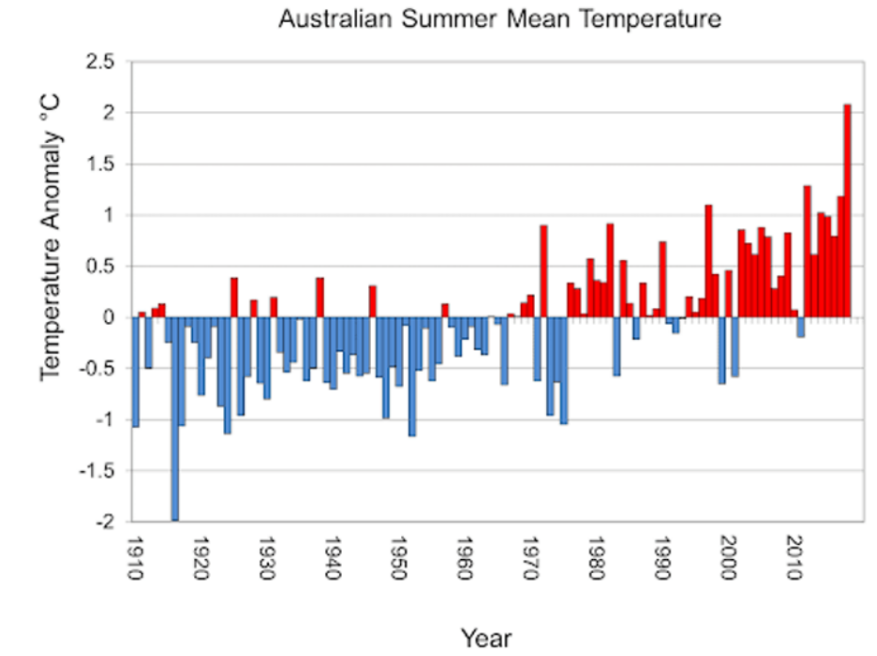


Australian summer mean temperature anomalies against the 1961–1990 average. Bureau of Meteorology

3. Water security and all options on the table

Shared understanding of water security is needed

As an initial point, we support the Commission's Draft Recommendation 3.1, that jurisdictions should agree a shared understanding or common definition of water security, that sets out water achieving water security in Australia looks like. This needs to go beyond broad goals and incorporate metrics. This foundation element does not appear in the proposed NWA Outcomes; without it, we could erode progress if there is not a commonly agreed set of goalposts.

Remote and regional access to safe drinking water

We support that sufficient safe drinking water for remote and First Nations is clearly stated as a goal in the first three proposed Outcomes.

This is also something supported by customers. Every 2 years, WSAA surveys over 8,000 customers across all regions of Australia to understand their perceptions. The September 2023 survey showed that maintaining service reliability and ensuring small towns have access to drinking water is important, with more than a third of respondents indicating this is more important than keeping bills as low as possible.

For the Commission's Interim Report, we strongly support Draft Findings 9.1 and 9.2, that some remote and regional areas still do not have access to safe drinking water supply, and that reporting on drinking water quality data can be centralised and improved. We welcome the requirement for providers with under 10,000 customers to report on water quality risk management from July 2024.

We support NWI renewal advice 12.4 to require jurisdictions to define and adhere to a basic level of water services for all Australians (p44).

There is both need and opportunity to approach the infrastructure investment for remote and First Nations communities with a focus on the health outcomes of clean and aesthetically sound drinking water. It is of course obvious that capital and operating costs for water and sanitation services will be significantly higher for these communities and an 'as usual' cost benefit analysis (CBA) approach is usually not favourable.

We draw your attention to the report that IPART commissioned through Sapere Consulting in 2018 and previous work by Sapere assessing the approach to CBA work in New Zealand in 2010. Whilst this work was primarily focused on Sydney and benefits of consumers receiving water meeting the Australian Drinking Water Guidelines, we would suggest the outcomes are conservative when considering the health burdens in First Nations communities with high calcium and sodium being both unpalatable and causing blocking issues in pipes. Dr Nina Hall and Dr Cara Beal have published work in this particular area as well.

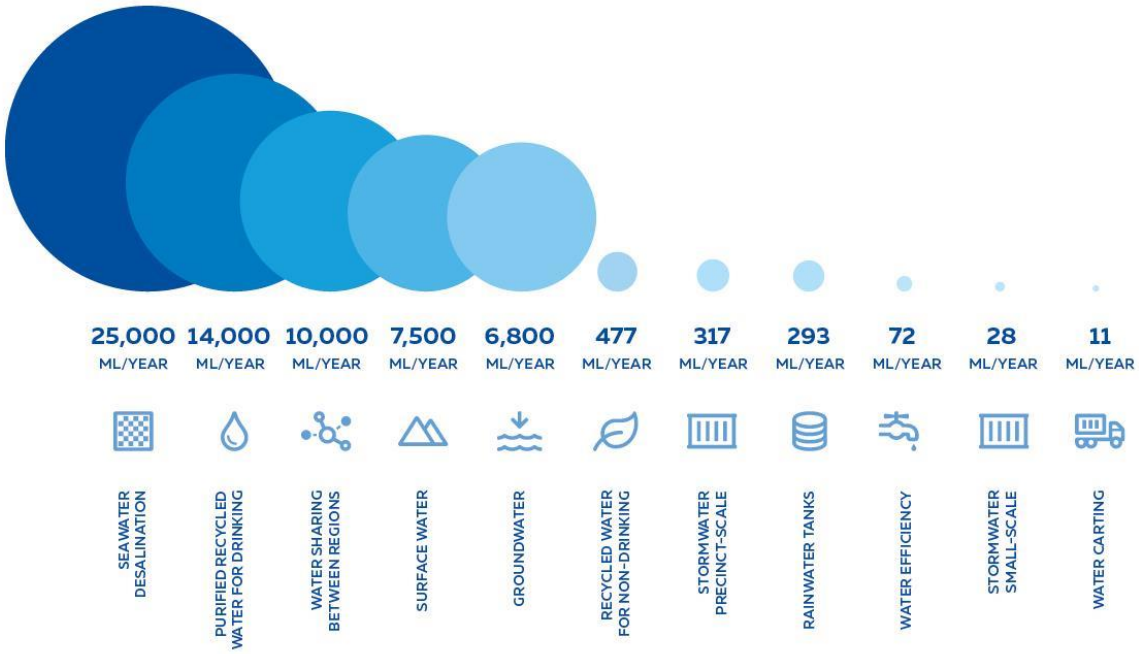
We recommend that Commonwealth Government departments give strong consideration to the CBA approach as presented by Sapere for IPART in future investments for remote and First Nations communities.

All options on the table

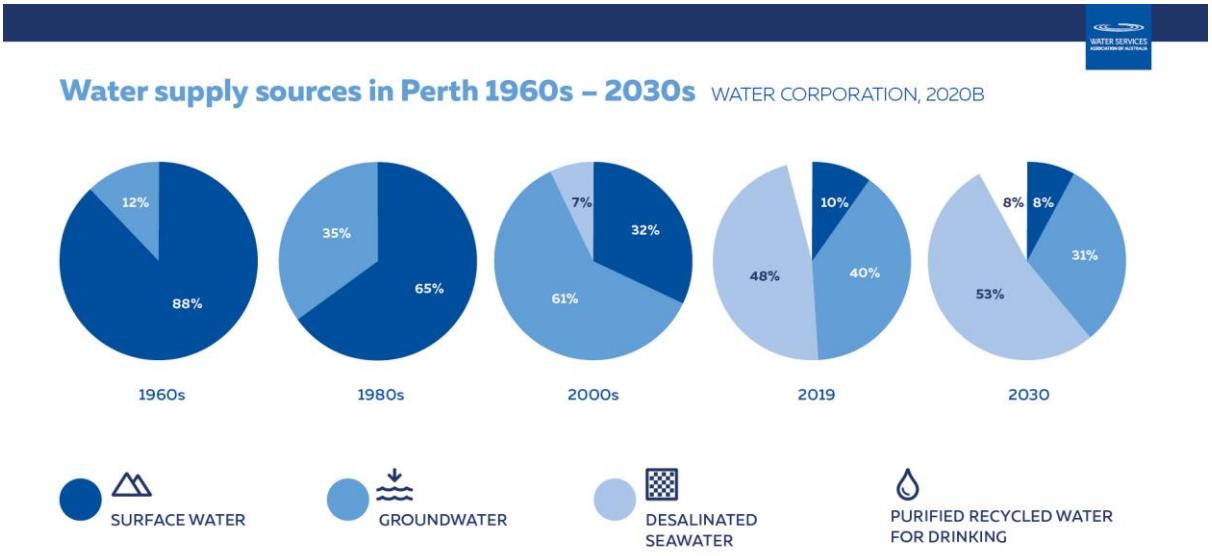
We recommend the proposed NWA Objectives and Outcomes contain clearer support for water security measures and most importantly, for all options to be on the table. In particular, options perceived as 'newer' such as desalination and purified recycled water need to be specified. Complementing traditional sources with rainfall-independent water supply options is underway in most Australian jurisdictions, and will be more and more critical in future; but we need to accelerate this with a clear authorising environment, led by strong policy guidance from the Commonwealth government.

We strongly support the Commission's Key Point 2(c), that 'all options need to be on the table and transparently assessed, to ensure water security is achieved at least cost to the Australian community and to sustain the underlying health of water systems' and the discussion of this in p13 of the Interim Report. Investigating does not assume any conclusions – but it allows the industry, and community members, to understand the pros and cons of different approaches. This should be better reflected in the Outcomes.

Desalination and purified recycled water are typically the two options that have sufficient yield to meet the large supply gaps many capital cities now face: (WSAA, All options on the table: Urban water supply options, 2019):



As an example, Perth has embraced a truly 'All options on the table' approach with diversified sources of supply, as the reality is that surface water is expected to provide less than 10% of their water supply within a few years:



Embed the Urban Water Planning Principles

NWI Renewal advice 12.1 makes sound recommendations that should be incorporated more clearly into DCCEEW Objectives 1, 3 and 5: to embed updated Urban Water Planning Principles into the NWI; integrate urban water planning with land use planning; transparently consider all options; incorporate stormwater into pricing frameworks; and recommit to cost-reflective developer charges.

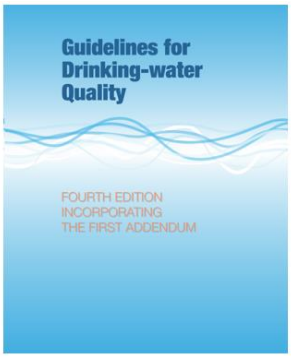
Water literacy and better community/stakeholder engagement

The Discussion Paper proposes a Specific Objective and Outcomes. These Outcomes are a good starting point, however, the Outcomes for Objective 1 relating to water security, should include a requirement to consider rainfall-independent sources of supply. The current water security outcomes are not keeping pace with the changing nature of water supply portfolios, and this makes the job of utilities harder. Leadership from the Commonwealth government is needed, to drive progress across the board. In particular, desalination and purified recycled water need to be stated in the NWA as these are the options likely to provide rainfall-independence to urban communities. Proposed new Outcome:

- That all options for secure water supplies are investigated including rainfall independent sources. Dams, desalination, water efficiency, groundwater, purified recycled water for drinking, recycled water, rivers, rural-urban trade, scarcity pricing and stormwater should all be investigated, and the results shared transparently with communities.

This is also supported by local and global practice. There are now six municipal scale desalination plants in Australia, two purified recycled water scheme (1 providing). Across 15 countries, over 35 cities have now adopted purified recycled water as part of drinking water supplies, with another 50[1] either exploring it or with schemes planned or in construction.

Purified recycled water is recognised as an important water source by the World Health Organization and EPA:



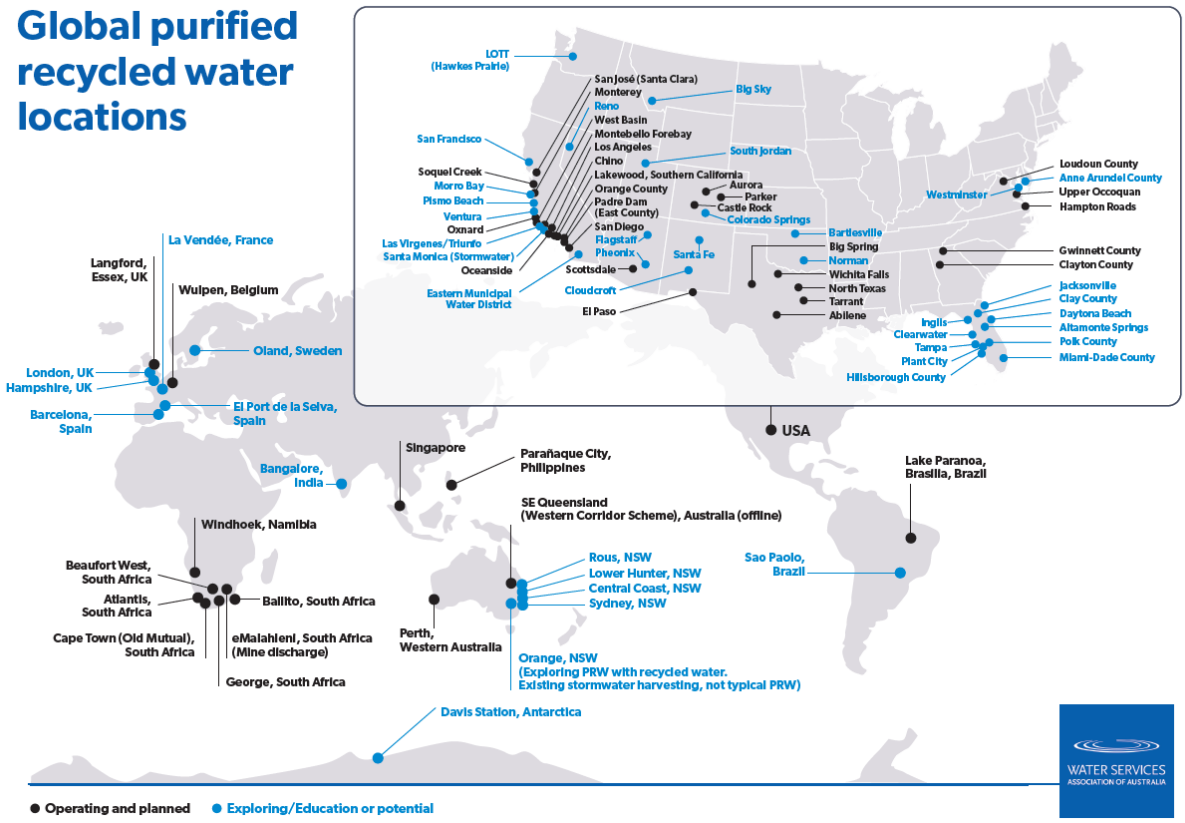
WHO 2017 Drinking Water guidelines acknowledge desalination and recycled water as drinking water sources

WHO 2017

Key Message (first line): Potable reuse represents a realistic, practical and relatively climate independent source of drinking-water

EPA 2017: Appropriate and necessary treatment and reuse of wastewater to augment existing water resources is a rapidly expanding approach for both non-potable and potable applications…potable reuse of water can play a critical role in helping states, tribes, and communities meet their future drinking water needs with a diversified portfolio of water sources. Beginning [in] 1962,… the practice has gained substantial momentum because of drought and the need to assure groundwater resource sustainability and a secure water supply.

[1] Source: WSAA research to be published in mid-2024



Over 35 cities have now adopted purified recycled water as part of their drinking water supply. In the US, several states have already forged beyond indirect potable reuse and are also adopting direct potable reuse projects. For example:

- California has around 30 purified recycled water schemes either in operation or at earlier stages such as education, planning or construction[2]. At the same time, there are only 3 large scale municipal desalination plants – there has been substantial stakeholder resistance to desalination. Purified recycled water is such an important option that the state passed legislation enabling direct potable reuse in late 2023.
- Colorado has had a direct potable reuse framework since 2022. Two cities in Colorado already use purified recycled water as part of their drinking water supply, and a third is considering it for the future.
- Texas saw direct potable reuse adopted in Big Spring since the 2013 drought, and also in use in Wichita Falls during 2014-2015.

Purified recycled water is also in use in southern Africa, with Namibia practicing direct potable reuse for over 50 years, and several places in South Africa also adopting indirect and direct potable reuse. Asia also has two operating schemes (Singapore and Manila) and multiple European schemes exist or are in development.

Water security and water literacy are closely linked

For Objective 6 on trust in water providers, water literacy is also a key Outcome as communities need to understand the drivers, risks and trade-offs involved in water planning. Better understanding of the water cycle is a foundation for options like desalination and

[2] Source: WSAA research to be released in mid-2024

purified recycled water – where technology simply speeds up what happens in nature.
Proposed new Outcome:

- All Australians increase their understanding of the natural and urban water cycle; water scarcity; and recognise that water from all sources can contribute to safe and reliable drinking water supplies.

This is supported by the Productivity Commission (NWI renewal advice 15.1 and NWI Renewal advice 3.4(6), that 'Communities are provided with sufficient information to enable effective management"(p26) and NWI renewal advice 15.1 on Community Engagement Framework and committing to best practice cost-effective engagement that enhances water literacy.

4. Efficient water services

We would like to see the NWA include a clear and separate Objective of efficient water services, providing broader health and environmental outcomes.

We note the Commission's Draft Finding 6.2 that some government decision-making for major water infrastructure is not fully compliant with the NWI. It would be of great benefit to the Australian people to ensure that the new NWA requires rigorous assessment, consideration of all options, and independent, transparent assessment.

This should build on the Commission's Draft Finding 7.1, that environmental and other public benefit outcomes are currently inconsistently specified, and could be better defined and recognised.

Whilst core service delivery of water and sanitation services requires a 24/7 focus, the urban water industry is often viewed as a distinctly separate part of the economy divorced from energy, waste, transport, and telecommunications.

The water industry is transitioning from a linear dam-to-outfall approach to a far more circular approach, from both a core water perspective and a waste perspective. Inherent benefits of nutrients, waste and heat recycling are now becoming core business for water utilities, however the impacts of PFAS and other contaminants will require adaptive resource recovery and reuse. See examples including Yarra Valley Water food waste to energy initiative and Barwon Water's Regional Renewable Organics Network as examples.

We recommend that the final report reflects the growth and innovation within the industry to ensure economy-wide benefits of resource recovery. In other words, 'business as usual' for water utilities in the future can move beyond core water and sanitation to now becoming fully integrated into the circular economy to realise better health, environment and financial outcomes.

We also recommend that the proposed NWA Objective 5, on transparent water investment, build in the Productivity Commission's Renewal Advice 12.4 to provide transparent community service obligation subsidies where appropriate, eg regional and remote locations. Also refer to Section 3 above, ensuring approaches to CBA for infrastructure investments adequately reflects the health benefits of drinking water meeting the Australian Drinking Water Guidelines.

5. Workforce, skills and training

We believe the NWA needs to drive progress on workforce and skills and training. The industry is currently experiencing staffing shortages, particularly in regional areas, and the thin training market creates challenges. Without a suitably skilled workforce to provide safe and reliable water services, public health risks arise, and none of the other Objectives in the NWA

can be achieved.

The NWA Objectives and Outcomes should address these urgent skills and training challenges. Proposed additional Outcome for Objective 6:

- Water service providers have the appropriate skills and capabilities to ensure safe and reliable water, wastewater and stormwater services for Australian communities.

The NWA Discussion Paper has a disappointing lack of focus on water utilities as the providers of water services, recognising their role as the service provider to over 20 million customers. The Commission's report notes on p7 that 'The current NWI objective are focused largely on water resource management. While this remains important, water service provision is largely overlooked and needs to be prioritised.' We would like to see the renewed NWI implement this recommendation.

The Commission also points specifically to the need for the NWA to enable adequate workforce: Renewal Advice 3.3 Modernised Objectives: (p25) 'effective, equitable and efficient provision of water services that 5 (b) incentivise water service providers to be efficient and innovative, and to deliver services in ways that are cost-effective and in the interests of their customers'

For example, Water and Wastewater Operator shortages appear across all jurisdictions, but appear to be more pronounced in NSW and QLD, particularly in regional locations. The Queensland Water Directorate (qldwater) have recently published their 2022 Industry Workforce Snapshot which highlighted that Water Plant Operator Shortages were the highest vacancy rate across respondents at 15% (Workforce Composition Snapshot Reports (qldwater.com.au). The NSW Water Directorate have also identified that skill shortages are one of regional NSW's most significant strategic challenges.

These critical shortages are not necessarily reflected in the National Skills Priority List and also in the Australian and New Zealand Standard Classification of Occupations (ANZSCO) codes as the water industry is significantly undercounted in Census data due to the lack of water-specific occupational codes recognised by the ABS. There is an opportunity for Build Skills Australia to help improve overall reporting and workforce planning.

The shortage of formally trained water operators increase the risk of water safety incidents that could compromise public and environmental health. The causes include (NSW Government, 2022):

- The lack of any mandatory requirement for water operators to complete accredited training or hold qualifications.
- Low uptake of available national accredited water operations training.
- Difficulty attracting new operators to water utilities, and retaining existing skilled operators, particular in regional and remote Australian communities.
- Few registered training organisations offering water operations training.
- Shortage of accredited trainers, and lack of pathways for existing trainers to maintain training and technical skills.

Water and Wastewater Operators are not the only critical roles within our sector with Engineers, Project Managers, Procurement Specialists, Information Technology, Water Planning/ Modelling, Finance and Energy roles also identified as essential to the ongoing provision of safe, reliable water and wastewater services (WSAA Critical Skills Survey 2023). In a recent survey of WSAA member organisations, just over half had relatively low confidence levels in 6-10 years to deliver business objectives with current skills and capabilities. An ageing workforce is also problematic, with approximately 20% of urban water utilities' staff

aged 55 or over.

Contact

WSAA welcomes the opportunity to discuss this submission further.

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