

## SUBMISSION

Submission to the Productivity Commission

# Submission to the National Water Reform Interim Report consultation

24 April 2024

**The Australian Academy of Technological Sciences and Engineering (ATSE) is a Learned Academy of independent, non-political experts helping Australians understand and use technology to solve complex problems. Bringing together Australia's leading thinkers in applied science, technology and engineering, ATSE provides impartial, practical and evidence-based advice on how to achieve sustainable solutions and advance prosperity.**

## Australian Academy of Technological Sciences and Engineering (ATSE) submission to the National Water Reform Interim Report consultation

ATSE thanks the Productivity Commission (PC) for their receptiveness to the recommendations provided by ATSE, based on our [first submission to the National Water Reform 2024](#), and their majority inclusion in the [National Water Reform 2024 Interim Report](#).

### Broad support for the Interim Report

ATSE strongly supports the Interim Report's renewal of the commitment to the National Water Reform, building on the solid foundations of the National Water Initiative (NWI) to ensure Australia's water resources' long-term security amidst climate change and population growth.

ATSE agrees generally with the draft recommendations and findings outlined in the Interim Report and has provided some specific comments in our Appendix. ATSE considers most key areas were covered in the Interim Report.

The Interim Report is clear and comprehensive, and ATSE agrees and supports the elements of the NWI that should be retained and enhanced, while offering some additional thoughts on Figure 3 in our Appendix.

The timing of this Interim Report aligns with the Department of Climate Change, Energy, Environment and Water (DCCEEW) Discussion Paper on a National Water Agreement. ATSE is simultaneously providing a submission to that consultation and suggests that the relevant government agencies should establish a direct link between the two activities in finalising consideration of the respective responses to their reports.

As recognised by the Productivity Commission, equitable, fair and efficient balancing of secure water for various sectors, including irrigation, industry, energy, regional, rural, remote and urban areas, and the environment, is crucial. Support through long-term resourced commitments to research and knowledge generation, technology development and science-based knowledge is needed.

ATSE acknowledges the challenges in developing, reaching and applying a National Water Agreement under a renewed NWI, given jurisdictional differences including water systems, ecologies, industry, communities, regulations, and priorities, each facing different climate change futures. ATSE encourages the provision of pragmatic solutions for navigating these challenges and ensuring a secure and resilient water future.

The remainder of this response focuses on areas that require further development and strengthening in the Final Report, including National Water Commission reinstatement, sustained knowledge generation, urban water, and accountable and proactive consultation with a view to forming responsible partnerships with and between irrigators, industry and communities.

### Key principles of a future National Water Initiative (NWI): Amend and Strengthen

ATSE recommends that the Final Report reflects the following key elements throughout, in addition to retaining the fundamentals of the NWI. Whilst most of these principles are addressed to some degree in the Interim Report, the Final Report should ensure these are elevated and strengthened and be at the core of the outcomes of a renewed NWI. A revised Figure 3 is proposed depicting an evolved NWI.

1. *Re-establish, evolve and resource the National Water Commission (NWC) to drive water reform and serve as an independent source of advice and auditing with formal independent governance.*  
ATSE recommends an NWC to be established to drive and monitor national water reform progress. This is discussed in further detail below.
2. *Ensure consistent water management principles and definitions and clarify government roles across all jurisdictions for better coordination and productive outcomes.*  
An evolved NWI provides capacity for consistency in water management principles, policies, practices, and standards across all jurisdictions.
3. *Agree and commit to foundational elements of a national water agenda in partnership with all jurisdictions and allow for complementary statements of jurisdictionally-appropriate reforms which can vary across the states and territories.*  
ATSE recognises the challenge of gaining inter-jurisdictional agreement on all NWI elements due to varying regulations, government structures, water ecosystems, climate change and population growth

trends, industry and community expectations, and priorities. It is appropriate for a renewed NWI to commit to national foundational principles and standards, complemented by jurisdiction-relevant reforms and policies.

4. *Streamline regulatory frameworks while maintaining high standards for water quality and sustainability including linkages to other enabling legislation and policy amendments.*  
The NWI should simplify regulatory frameworks while maintaining high standards for water quality and sustainability. This approach will decrease the administrative burden on water users and managers, easing compliance with regulations.
5. *Facilitate adaptation to respond to climate change and population growth, enabling productive, sustainable, and resilient futures, across short, medium, and long-term timescales.*  
An evolved NWI must address the challenges posed by climate change, population growth, and the need for productive futures, including transitioning irrigation-dependent communities. It should outline principles for handling externalities in a nationally consistent, transparent, and fair manner, including guidelines for compensatory expenditures by governments in affected communities.
6. *Elevate urban water, given its importance to population growth and productive futures.*  
Given that over 80% of Australians live in urban areas, urban water governance requires an agreement to establish a framework for contemporary urban water management and incentivise implementation at various jurisdictional levels.
7. *Finance and incentivise evidence-based water management infrastructure investment that promotes resilience and sustainability.*  
The agreement should outline mechanisms for providing financial support and incentives to water management initiatives, encouraging sustainable water use practices and investing in water infrastructure and technology.
8. *Invest consistently in science and knowledge generation including a high level of quality resources, research, and digital technology.*  
Water management should be supported by publicly available science-based knowledge shared with all jurisdictions, with the NWI developing principles for the optimum use of scarce environmental water resources. Public investment in water science and knowledge needs to be consistent, predictable and enduring, not sporadic, and ephemeral.
9. *Facilitate the transfer and sharing of excellence in approaches to water management among jurisdictions through a platform knowledge exchange.*  
The NWI should facilitate the transfer and sharing of effective water management approaches among jurisdictions. This can be achieved by establishing a platform for knowledge exchange, best practices, and innovative solutions.
10. *Enable and strengthen responsible and accountable partnerships with industry including irrigators.*  
The NWI could move beyond engagement and consultation to stakeholder partnerships. This includes industry representatives (including irrigators) as parties to the agreement, with channels for active participation.
11. *Meet Australia's water management obligations by outlining implementation mechanisms and ensuring alignment with global standards.*  
The NWI should outline mechanisms for implementing these obligations, ensuring that Australia's water management practices are aligned with global standards and contribute to international water security. ATSE has previously proposed this can be done by underpinning the NWI with an Environment | Social | Governance framework.
12. *Prioritise partnerships including with Aboriginal and Torres Strait Islander communities in water management, respecting their rights and knowledge and enabling equitable water sharing.*  
ATSE advocates for the active involvement of Aboriginal and Torres Strait Islander Peoples in water resource planning, management, and ownership, recognising their cultural, spiritual, social, economic, and environmental needs. Resolving expectations regarding Indigenous Customary Law and statutory law related to water requires thoughtful, respectful, and collaborative discussions. We particularly endorse recommendations supporting consumptive access to promote the economic development of First Nations communities. We encourage the NWI to strive for responsible and accountable partnerships that go beyond consultation and engagement, and narrow committee structures. Stronger ties will enhance public confidence and provide a basis for shared empathy to the various stressors and demands on water in national water reform and management.

13. *Ensure effective mechanisms to drive, monitor, review and adapt where necessary, the national water reform agenda, including through the re-establishment of a National Water Commission.*

A consolidated, consistent and effective approach to water reform, with buy-in from all levels of government, will drive long-term outcomes and apply the lessons learned from previous approaches.

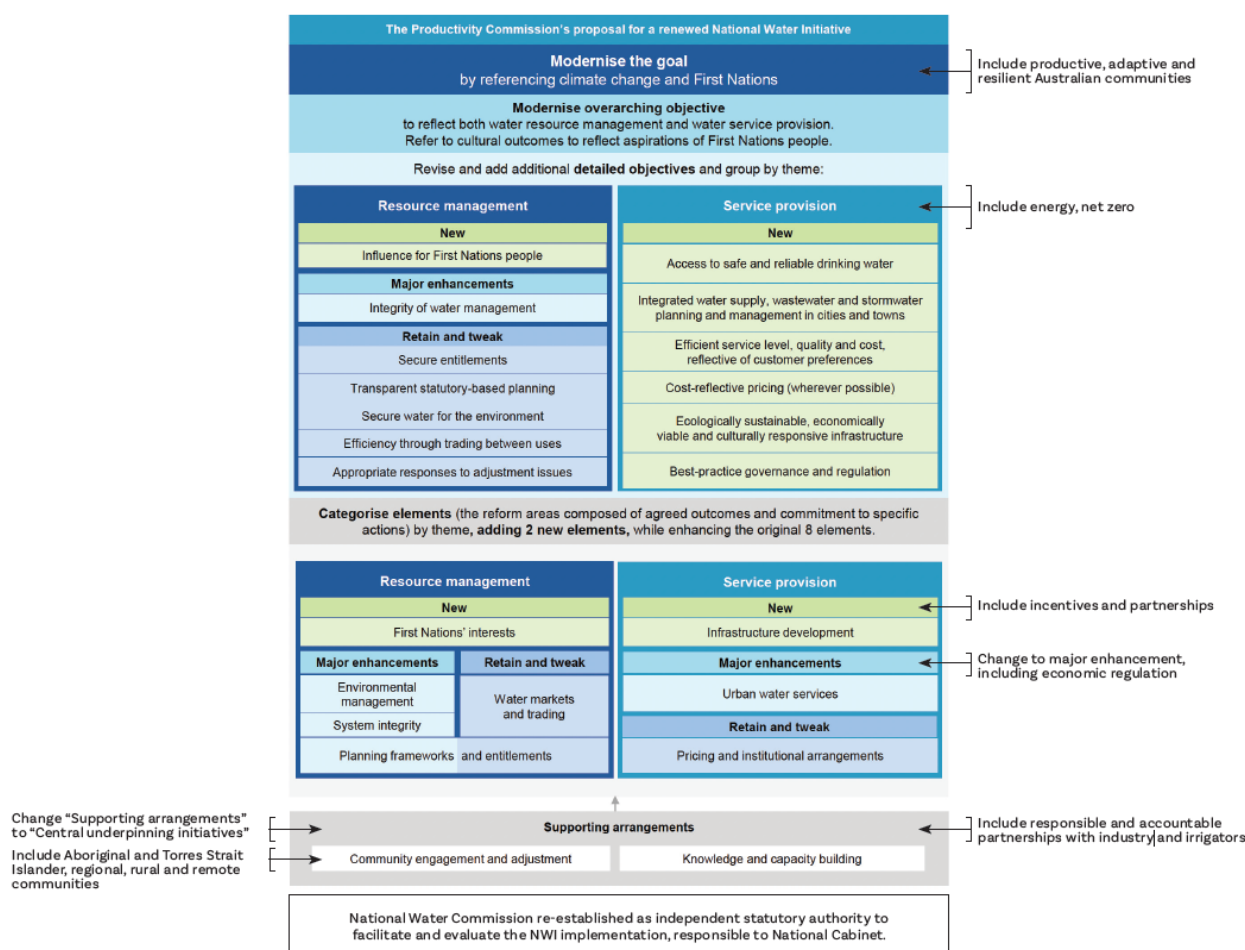


Figure 1: Proposal for a revised National Water Initiative (to update Figure 3 in Interim Report).

## Reinstating the National Water Commission

ATSE strongly supports retaining and building on the current NWI to ensure logical continuity in Australia's water resources development and management, rather than starting anew, which risks further losing momentum and commitment. ATSE notes that this previous loss of impetus has resulted from the changed governance arrangements following the abolition of the National Water Commission (NWC). A similar related loss was access to new science with the abolition of Land and Water Australia (previously the Land and Water Research and Development Corporation). Notably, the Australian Government has committed to establishing a new NWC to drive water reform and future-proof the country's water resources<sup>1</sup>.

ATSE reiterates its recommendation for the Final Report to explicitly advocate for the reinstatement of an NWC. This entity would facilitate driving water reform processes and serve as an independent source of advice and auditing within the governance structure. A restructured NWC should feature independent membership, encompassing expertise in science (including climatology, hydrology, data management and digital technologies), social science, economics, Indigenous Knowledge, and broader community

<sup>1</sup> Department of Climate Change, Energy, the Environment and Water 2023, 'National Water Policy', accessed from <<https://www.dcceew.gov.au/water/policy/policy>>

experience. It should comprehensively address the national water agenda, spanning urban water management, as well as regional, rural, remote, and Indigenous communities. This entity should lead the national reform process, and establish principles and outcomes for national water management, taking into account climate change and population growth. The NWC should have licence to independently initiate its inquiries and to offer, on its own motion, advice to governments and other parties.

A revised Figure 4, outlining the key attributes of a re-established and well-resourced NWC, is proposed for consideration.

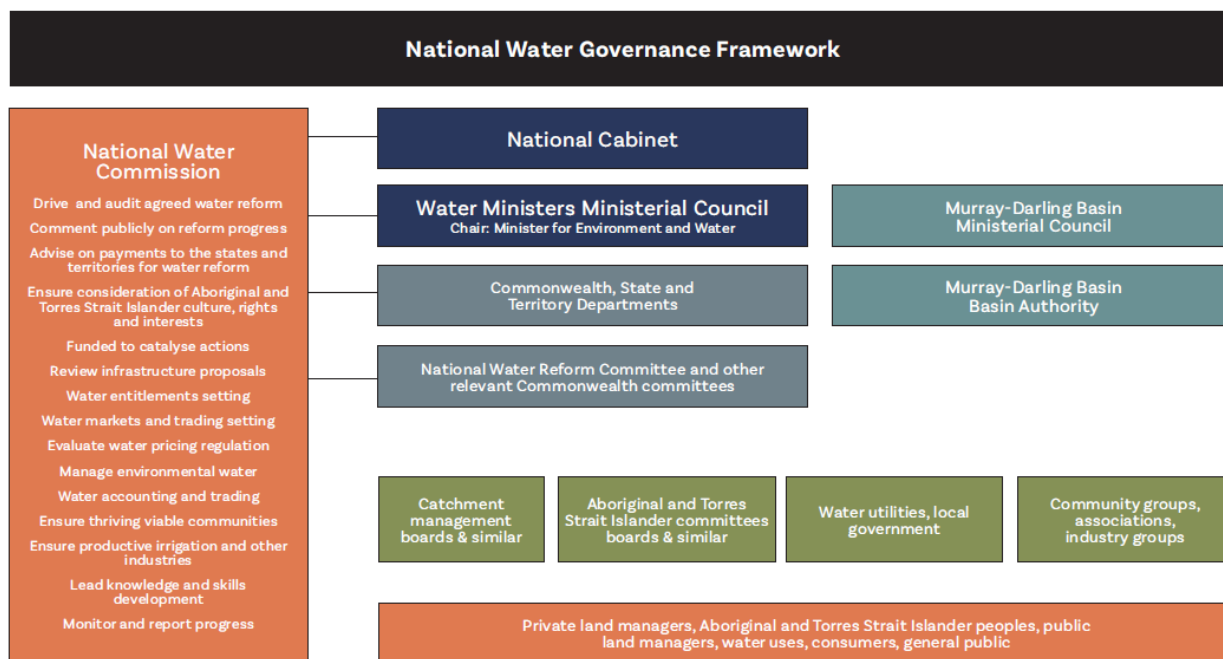


Figure 2: Proposal for an amended water governance framework (to update Figure 4 in the Interim Report).

ATSE thanks the Productivity Commission for the opportunity to respond to the Interim Report on National Water Reform consultation. For further information, please contact [academypolicyteam@atse.org.au](mailto:academypolicyteam@atse.org.au).

## Appendix

### Specific comments on draft recommendations and findings

As stated earlier, ATSE agrees with and supports the general tenure of the draft recommendations and findings.

- Draft recommendation 3.2 '*consider all extreme climate events in water planning*' is highly supported but needs stronger emphasis on water security across the Interim Report. ATSE strongly advocates for addressing the broader range of related events that will be fundamentally impacted if water is not secured in the future. Therefore, the definition proposed under draft recommendation 3.1 is critical to get right.
- Draft recommendation 3.3 is strongly supported, as the impact on water quantity and quality is often overlooked until it is too late in the planning and delivery process. It should be mandatory to require water management modelling explicitly when assessing business cases associated with net zero-related projects.
- Draft findings 5.1, 7.2, and 9.2 can be improved by investing in the development and implementation of digital technology solutions, possibly including tools such as blockchain.
- Draft finding 9.1 is of ongoing concern about the gap in drinking water quality between urban and regional, rural and remote communities, breaching Australia's commitment to SDG6. The Commonwealth government should invest fairly to address this disparity within a set timeframe.

### Information requests

- Information request 3.1 '*water security in a changing climate*' urgently requires a nationally agreed definition, as noted by the PC. Water is fundamental to human life, social health, environmental protection and economic productivity. Priority outcomes should be linked to bipartisan national government priorities such as the cost of living, housing affordability, health, education, secure energy, gender equality, Indigenous recognition and, climate action. An ESG Framework can provide the basis for setting, assessing, implementing, and monitoring an agreed secure water future, including a transparent materiality assessment to account for jurisdictional variability.
- Information request 4.1 '*water entitlements and planning*' can be supported through digital platforms and technology solutions invested and resourced for the short, medium and long term, including modelling water quality and quantity at the right time scale and geospatial scales. Consistent definitions and reporting are the first step.