

Submission to the Productivity Commission inquiry into the

# **National Water Reform 2020 Draft Report**

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Technology & Engineering

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# NATIONAL WATER REFORM 2020 DRAFT REPORT

The Australian Academy of Technology and Engineering (ATSE)<sup>1</sup> is pleased to contribute further to the Productivity Commission's draft report of its 2020 inquiry into National Water Reform.<sup>2</sup>

ATSE welcomes the Commission's draft report, which has addressed many of the issues identified in ATSE's previous submission.<sup>3</sup> The report could be further strengthened in five key areas:

1. **Governance of water reform in Australia:** the report acknowledges that governance has been eroded. The Productivity Commission could go further by recommending stronger governance arrangements and a detailed implementation process.
2. **An Indigenous voice on water:** the report has addressed ATSE's recommendations and takes some significant steps towards recognising an Indigenous voice on water. The draft could include more detail on how Aboriginal and Torres Strait Islander people and communities are consulted in the implementation of new governance arrangements.
3. **Integrated urban water management:** the report reflects the growing need for strategic investment in water infrastructure. It could include a stronger focus on assessing social good in water allocations and ensuring that climate resilience is built in.
4. **Environmental water management and resilience:** the report takes the important step of recognising climate change in water policy. It could go further by recommending stronger action on climate change.
5. **Water research and development:** the report acknowledges the importance of water research and development, which ATSE supports. It should also include clear recommendations to direct funding, and articulate the relationship between decision-making and technology (innovation). For example, technology that enables water measurement and how this technology is used in planning, which is proposed as a key mechanism for climate resilience.

## 1. Governance of water reform in Australia

The report acknowledges that existing governance architecture in the sector has been eroded and that current arrangements are inconsistent with the importance of national water policy to Australia.

ATSE supports the recommendation for a modernised agreement structure under which the National Water Reform Committee would provide ongoing collective oversight of the agreement, with 10-yearly reviews and triennial independent assessments against rolling jurisdictional implementation plans.

Under the proposed changes, ownership of the National Water Initiative (NWI) should sit with state and territory water ministers, to ensure that it is governments who have oversight of water. However, the report could provide greater clarity regarding such oversight. For example, the report's draft recommendation 4.1 indicates that water ministers should meet 'periodically'. This could be tightened to specify how often such meetings might take place, e.g. 'annually'.

More detail would be useful regarding how modernisation of the NWI will be implemented, particularly recommendations on process and engagement with stakeholders at different levels (e.g.

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<sup>1</sup> The Australian Academy of Technology and Engineering 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.

<sup>2</sup> Productivity Commission Draft Report (2021) National Water Reform 2020.  
<https://www.pc.gov.au/inquiries/current/water-reform-2020/draft>

<sup>3</sup> Australian Academy of Technology and Engineering (2020) Submission to the National Water Reform Issues Paper.  
<https://www.atse.org.au/research-and-policy/publications/publication/national-water-reform-issues-paper>

state and national). Transparency and visibility among stakeholders, policy- and decision-makers should be fundamental principles of the modern approach, and reporting should be transparent and publicly available.

## **2. An Indigenous voice on water**

ATSE welcomes the report's strong focus on the importance of community engagement and Aboriginal and Torres Strait Islander peoples' participation in reform.

ATSE supports the draft recommendation for the establishment of the Committee on Aboriginal Water Interests to develop a new element of the NWI dedicated to Aboriginal and Torres Strait Islander peoples' access to water and involvement in water management, which is a very positive development. This action moves to address the slow progress made against commitments made in the 2004 NWI, and the consistent focus on Aboriginal and Torres Strait Islander community needs throughout other elements of the report is encouraging. However, the draft report could include more detail on how Aboriginal and Torres Strait Islander peoples and communities are included in the implementation of new governance arrangements.

The Productivity Commission's use of the National Cultural Flows Research Project's framework to address Aboriginal and Torres Strait Islander interests in water reform is also a welcome development, and was a key recommendation of ATSE's previous submission. Mechanisms to ensure strong participation by Aboriginal and Torres Strait Islander peoples that values Indigenous knowledge in the development and implementation of water reform policy are essential and should be prioritised in the development of a renewed NWI.

## **3. Management and resilience in urban and environmental water**

Water management and environmental resilience feature strongly in the report, which recognises that recent drought, as well as governance and compliance failures, have hampered efforts towards environmental rehabilitation. ATSE welcomes and supports this framing.

The draft recommendations for the next phase of reform provide a positive focus on ensuring more efficient environmental water management and better environmental outcomes through more formal institutional oversight arrangements for wetland and waterway management.

The draft report reflects the growing need for strategic investment in water infrastructure that assesses economic viability, environmental sustainability, and alignment with the aspirations of Traditional Owners and communities. ATSE supports the Productivity Commission's emphasis that decisions regarding major infrastructure be contingent on NWI compliance in relevant jurisdictions, in order to support the economic viability and environmental sustainability objectives outlined in the draft report.

ATSE welcomes the draft recommendation that water planning arrangements recognise the needs of Aboriginal and Torres Strait Islander peoples and meets environmental and social objectives, and that all water sources (including alternative water sources such as stormwater and recycled water) be considered in planning arrangements. However, the report should explicitly highlight the importance of better integration of urban planning (including building codes) with urban water management systems, given that all decentralised water systems are dependent on this link.

The report recognises the significant impact of climate change on water but there is room to take more robust action. ATSE would like to see a stronger focus on the social good of water in water allocations and ensuring that water planning and modelling builds in climate resilience.

Finally, the draft recommendations on urban water reform are positive, and highlight opportunities to incentivise efficiency, innovation and improved pricing and trading between urban and rural

sectors. However, the report could go further by identifying other positive outcomes that could be incentivised, including service quality and reliability outcomes, and by identifying how such incentivisation might be implemented. These arrangements could be modelled on those of the Murray-Darling Basin Plan, whereby payments to the states are contingent on achievement of outcomes.

## 4. Water planning

In a more variable and drying climate, management of surface and groundwater must ensure good outcomes for agriculture, ecosystem health, and communities. Water planning must also consider the needs of Aboriginal and Torres Strait Islander peoples, who are disproportionately disadvantaged under the current management settings. The current water management settings are insufficient to achieve these outcomes in a changing climate, and recent events including the Menindee fish kills and algal blooms are consequences of this. A new approach is needed to give confidence that good outcomes for communities, agriculture and the environment will be prioritised in a changing climate.

A central focus of the draft report is on mechanisms for rebalancing water allocation to address the pressing challenges of climate change in water management and planning. ATSE welcomes this focus on water planning provisions and the design of water plans to provide a high-level framework to rebalance environmental and consumptive shares in the context of climate change. A greater focus on water planning would improve the current management approach, which offers little certainty that the necessary volume of water will flow downstream to satisfy community and environmental requirements.

The reality of a drying climate across much of southern Australia includes the likelihood that some water-dependent environments will degrade regardless of any feasible reallocations of water to the environment. Examples of this situation are widespread across south-western regions of Western Australia. Where such losses are forecast with robust evidence, there is an emerging need for environmental protections that anticipate the inevitable changes in those systems. This may lead to a conclusion that further reallocating water away from productive uses to maintain historic environmental flows or groundwater regimes is not only costly, but perhaps locally futile. It is difficult to formally recognise this situation in planning and environmental decision-making under existing regulation and statute. The coincident timing of the Productivity Commission's review of water policy and the challenging conclusions by both the Australian National Audit Office and the review of the administration of the *Environment Protection and Biodiversity Conservation (EPBC) Act 1999* provide a rare opportunity to further consider policy reform in a non-stationary environment. If this opportunity is missed, the statutory environmental objectives proposed as part of the EPBC reforms could inappropriately impact water productivity.

Finally, although the report provides a strong focus on water planning and management it does not sufficiently address the issue of water quality. The National Water Quality Management Strategy in its current form is inadequate and neglected, and there is a strong argument for including water quality within the scope of the NWI. This is essential, given that many water planning decisions (for example, water storage and trading) also have water quality implications (such as nutrients, cyanobacteria, and pathogens). The argument for including a more prominent focus on water quality was presented in detail in the submission provided by the National Health and Medical Research Council<sup>4</sup> and should be given greater consideration by the Commission.

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<sup>4</sup> Productivity Commission Issues Paper (May 2020) Submission from the National Health and Medical Research Council (NHMRC). [https://www.pc.gov.au/data/assets/pdf\\_file/0006/256938/sub093-water-reform-2020.pdf](https://www.pc.gov.au/data/assets/pdf_file/0006/256938/sub093-water-reform-2020.pdf)

## 5. Water research and development

The draft report recognises the importance of knowledge generation and knowledge sharing in water, and acknowledges that research and development funding has been in decline. Few institutional mechanisms now exist to regularly bring water decision makers and researchers together, risking a disconnect between science and policy. The renewal of the NWI is an opportunity to address the lack of platforms to coordinate knowledge generation and sharing, and ATSE is pleased that the draft report has acknowledged this.

ATSE supports the draft recommendation that the National Water Reform Committee should coordinate research efforts across jurisdictions to address some of the common issues. However, the draft report could provide more concrete recommendations regarding water research and development and provide more detail on its role in enabling water management, planning and informing water policy.

ATSE would welcome further engagement with the Productivity Commission on the matter of water research and development, this topic is of particular interest to ATSE's Fellows and the Academy. If you would like to discuss any aspect of this submission, please contact Dr Harry Rolf, Senior Policy Analyst, ATSE ([harry.rolf@atse.org.au](mailto:harry.rolf@atse.org.au)).

## Appendix: ATSE's recommendations in the inquiry

Recommendations provided in ATSE's submission are listed below.

### **Governance of water reform in Australia**

- The Australian Government develop and commit to a 10-year strategy for national water reform.
- The Australian and state governments to commit to a national water initiative and legislated structures and processes for the effective implementation of the NWI.
- Address responsibility and governance arrangements for the NWI in the context of the transition from the Council of Australian Governments (COAG) to the National Federation Reform Council (NFRC). Ideally, responsibility should sit with an independent statutory authority.

### **An Indigenous voice on water**

- Establish mechanisms to ensure strong participation by Aboriginal and Torres Strait Islander Peoples that values Indigenous Knowledge in sustainable water reform.
- Provide resources to assist Aboriginal and Torres Strait Islanders Peoples in preparing responses to and participating fully in the process of NWI review.

### **Integrated urban water management**

- Develop an integrated urban water planning and management framework that addresses contemporary challenges through optimum management and investment in the water sector.

### **Environmental water management and resilience**

- Ensure that reforms enable adequate environmental protection of water catchments, a holistic approach to water security and adaptive management of human water use.

### **Water research and development**

- Establish a national water research funding agency to professionally direct, administer and evaluate research funding in a strategic manner, on a stable ongoing basis.