



**FINAL SUBMISSION BY THE AUSTRALIAN NATIONAL
UNIVERSITY'S**

INSTITUTE FOR WATER FUTURES

TO

**THE PRODUCTIVITY COMMISSION'S NATIONAL
WATER REFORM INQUIRY IN RESPONSE TO ITS
DRAFT REPORT**

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We welcome the opportunity provided by the Productivity Commission (PC) to provide a final submission to the National Water Reform Inquiry based on the PC's Draft Report, and support documents, released 11 February 2021. Our initial submission to the PC is available as Submission 30 at <https://www.pc.gov.au/inquiries/current/water-reform-2020/submissions#initial>.

In this final submission, we provide an opening statement and highlight key issues that we believe should be developed further in the Final Report.

Opening Statement

We are strongly supportive of the Draft Report's attention to the need for: (1) Explicit and meaningful recognition of Indigenous issues and interests; (2) Adaptive responses to climate change that results in reduced extractions associated with lower inflows; and (3) public investments in water infrastructure to deliver a positive rate of return on public expenditures and be both economically viable (from the public interest perspective) and environmentally sustainable. In our view, all of these issues have been given either inadequate attention, misdirected focus or ignored by Australian governments.

Indigenous Interests

In our original submission we stated, and we reiterate: implementation of the NWI has failed to adequately recognise, support and improve the water requirements of Indigenous Australians across the various jurisdictions. Further, the NWI itself is not 'fit-for-purpose' in meeting the future water requirements of Indigenous Australians and their communities.

In responding to Indigenous issues and interests, we strongly urge the PC to directly engage in face-to-face (in person or via Zoom) discussions regarding their feedback to the Draft Report with (among others): Institute for Water Futures (IWF) Associate Dr Virginia Marshall and Associate Professor Bradley Moggridge, who are the Co-Chairs of the Australian Government's inaugural Indigenous Water Committee, and also Dr Anne Poelina, who has been appointed the Deputy Chair.

The IWF endorses the principle of "nothing about us, without us", and we strongly urge the PC to likewise endorse this principle and encourage effective relationships with this Committee. Their expertise and advice, and also that from other Indigenous water leaders, is critically important to developing meaningful, rather than tokenistic, actions in support of Indigenous interests in a refreshed NWI.

Regional and Remote Communities' Urban Water Services

We commend the Draft Report (p. 1) for highlighting the inadequacy of drinking water access and quality "in some regional and remote communities, and especially during droughts". Given the importance of delivering 'water for all' (Sustainable Development Goal 6) to every Australian, we urge that a refreshed NWI specify immediate actions and timelines around the delivery of water access to ensure all Australians have access to water of a quality that is enjoyed by residents in Australia's major urban centres.

We support the Draft Report's emphasis on the need for State and Territory governments to commit to defining a 'basic level of service' consistent with the health guidelines under the Australian Drinking Water Guidelines (ADWG) (p. 152). However, we believe that the water quality aspect of this basic level of service should also encompass the aesthetic ADWG guidelines. This is because:

(a) high levels of sodium and other factors undermining taste, odour, and colour impose financial costs on consumers when safety and other concerns cause them to seek alternative sources, such as bottled water; (b) long-term non-compliance with hardness, pH and other ‘aesthetic’ guidelines ultimately undermines the durability of water transmission infrastructure and may lead to supply and safety failures; and, (c) the human right to water under the International Covenant on Economic, Social and Cultural Rights “entitles everyone to sufficient, safe, *acceptable*, physically accessible and affordable water” (UN CESCR 2002).

We agree that it is appropriate that States and Territories define the basic level of services according to their circumstances. However, explanations should be provided for exemptions against particular ADWG guidelines and long-term compliance with all ADWG health and aesthetic guidelines should be the norm or benchmark across Australia.

In order to support the provision of a basic level of service, we believe that a national approach is needed to collate and report drinking water quality data for regional and remote communities. Data availability and quality across States and Territories is currently fragmented. In some jurisdictions, there is detailed monthly data available across both ADWG health and aesthetic indicators in Microsoft Excel spreadsheets (South Australia); in others, annual reports with aggregate data are made available by state water corporations (Western Australia, Victoria, Northern Territory, Tasmania) or there is a mandate that local councils provide publicly available reports annually (Queensland). In New South Wales, there is a database at the state level for all drinking water quality testing. However, this information is not publicly available and it remains at the discretion of local councils and other water providers whether or not to report results.

A national drinking water quality database would support decision-making on investments to ensure that the Australian government meets its obligations under Sustainable Development Goal 6 and across a range of policy areas, including the National Agreement on Closing the Gap. Such a database would also support public confidence in the safety of drinking water supplies. The Urban National Performance Report provides a precedent for the collection of such data at a national level.

Climate Change

In relation to climate change, we support the Draft Report’s statement of the immediate need to develop water plans (including the Basin Plan) that fully account for the latest data and understanding, especially in terms of variation (temporal and spatial) in precipitation and surface temperature. We also endorse (p. 75) the Draft Report’s statement there needs to be a change in the balance between consumptive use and environmental use in response to climate change in highly-developed systems.

Climate change in the Basin, and the need to respond with much better water planning, was already publicly identified as a priority by Prime Minister Howard in 2007 when he announced the ‘National Plan for Water Security’. He stated: “The CSIRO estimates that by 2020, average annual flows could decline by about 15 per cent due to climate change, recovery from bushfire, farm dam and plantation expansion and increasing use of groundwater. All parties must recognise that the old way of managing the Murray-Darling Basin has reached its use-by date. The tyranny of incrementalism and the lowest common denominator must end.” (Transcript of the Prime Minister, the Hon John Howard MP Address to the National Press Club, Great Hall, Parliament House, 25 January 2007). Yet in 2021, Australia still does not have a Basin Plan that accounts for climate change in the sustainable diversion limits. This is unacceptable.

The best way to respond to climate change is not to have yet another talkfest/summit but rather to deliver water plans that ensure less water is extracted from streams and rivers. As the Draft Report (p. 73) states, and here we endorse, that with a projected reduction in inflows and more extreme and

frequent droughts, water plans must “...include provisions to deal with periods of water scarcity, priorities for water sharing and actions relating to meeting critical human and environmental needs.”

We go further than the Draft Report to state that there MUST be transparent and comprehensible rules, not simply statements of intent, or rules that can be changed at the whim of Ministers, in relation to water plans for streams and rivers. As the Draft Report (p. 73) states, there is an absolute need: “...for limiting water extraction during critically low flows to protect ecologically important refuges, protecting the resumption of flows and managing connectivity across the landscape.” Without such rules that ensure sustainable extractions, even with reduced inflows associated with climate change and for droughts, then Indigenous interests, communities, farmers and the environment will suffer even greater losses.

We commend the Draft Report for the focus on revisiting the objectives in water plans in the context of climate change. But waiting until there is “sufficient evidence” (p. 37) that the agreed balance “may no longer meet objectives” (p. 36) is inadequate given the scope and magnitude of projected change, and the implications of that change across much of Australia. Revising water plans builds social legitimacy for proposed changes, alongside developing a clearly agreed upon pathway for change, takes substantial time, especially in the context of likely zero-sum reallocations of an already finite water resource. The need for such legitimacy is that there will always be uncertainty in climate projections, especially in terms of local projections and assessments of social and ecological implications of declining water availability.

In our view, a refreshed NWI should include a greater focus on developing the social and governance processes that will enable decisions to be made despite this uncertainty over water availability. Adaptation pathways planning processes address precisely these concerns. In particular, triggers should be framed as anticipatory and forward looking, rather than in response to changes as they emerge. Such an approach would entail identifying balances between consumptive and environmental allocations decided prior to reaching triggers not, as proposed, “once a trigger is reached” in the Draft Report (p. 38). Triggers should pre-negotiated commitments that specify actions to be taken once monitoring information has shown that agreed thresholds have been crossed. A ‘red-yellow-green’ light trigger system, for instance, could be applied to enable proactive intervention.

Technical expertise will be critical to determining triggers when adapting to climate change and must be underpinned by the best available science. Nevertheless, a refreshed NWI must recognise that triggers or thresholds of concern reflect social values about what is an acceptable level of ecological change and/or the social, cultural and economic impacts of change. It is, therefore, critical in terms of implementation of a refreshed NWI that such triggers are determined within the specific context they are to be used, and done so in conjunction with social processes that builds on local concerns, knowledge, and understanding of the varied impacts of change. Such processes, in our view, should at a minimum, respond to the following questions in relation water planning: how and which baselines are used?; what level of risk is acceptable?; what is the burden of proof for when a trigger is crossed?; and, is the precautionary principle being applied?

Governance

In relation to water governance, we endorse the Draft Report’s statement (p. 7) that “The governance arrangements established for the NWI were key to progress in the early years of the agreement, but have been significantly eroded over recent years. The relevant Ministerial Council has been disbanded, the National Water Commission has been closed and states no longer prepare rolling implementation plans. A strengthened architecture that: emphasises the importance of government leadership on, and commitment to, national water policy; builds confidence in reform effort; and supports interjurisdictional cooperation needs to be included in a renewed NWI.”

Without an independent and expert body in relation to NWI, a refreshed NWI will fail to deliver. Indeed, as the PC's 2017 inquiry into national water reform stated, water reform requires perseverance, continuity and long-term commitment from governments and reform priorities need to include "preventing the re-emergence of outdated policies and avoiding the erosion of hard-won reforms through backsliding" (PC 2017, p. 2). To reiterate from our initial submission, we believe the final report should recommend an Independent Statutory Authority, properly resourced, that would be responsible for strategic leadership and to support Australian governments to drive national water reform under a refreshed NWI.

We endorse the Draft Report's statement (p. 68): "In renewing the NWI, jurisdictions should recommit to a risk-based approach to managing interception and its effects, and improve measurement and accounting of interception activities to support the implementation of entitlements arrangements for these activities." It is a gross inditement of implementation that 17 years after the NWI was signed by governments that extractions associated with key activities, such as floodplain harvesting in the Murray-Darling Basin, are not monitored and recorded. Nor we do we have adequate metering or monitoring of most groundwater extractions in Australia.

As noted in the Draft Report (p. 68) "...interception activities are not adequately incorporated into entitlements frameworks, even in water systems that are fully allocated or overallocated." This is unacceptable, especially since the 2007 National Plan for Water Security allocated \$480 million to "...provide comprehensive water resource assessments, rigorous and nationally-consistent water usage measurements, greatly improved access to water information and much greater independence and transparency." (Transcript of the Prime Minister, the Hon John Howard MP Address to the National Press Club, Great Hall, Parliament House, 25 January 2007).

In our view, the Draft Report has an extraordinary omission in relation to governance. Specifically, the South Australia Murray-Darling Basin Royal Commission that reported in January 2019 identified serious governance failures in relation to the Murray-Darling Basin. The Royal Commission also listed corrective actions to remedy these governance failures. We strongly urge the PC to read and carefully consider review Royal Commission's findings and to highlight those it believes will promote better water governance and outcomes for Australia in a refreshed NWI.

Water Audits and Risks

We believe that the Draft Report failed to give sufficient attention to the importance of water auditing and information on extractions and storages. Thus, we restate the following points from our initial submission: The MDBA and State agencies currently either do not know or do not make publicly available: (1) the volumes of water in private storages; (2) the volume of water diverted through floodplain harvesting; and (3) the downstream flow effects of increases in irrigation efficiency. Yet remote sensing methods are available to deliver such information by relevant agencies and technologies to identify water in storages and waterways are rapidly advancing towards detailed, real-time data and assessment.

Uncertainty over private water storage, floodplain harvesting and return flows undermines the perceived integrity of holders of water entitlements, increases the likelihood of errors in decision-making, and diminishes trust in decision-making by water governance agencies, especially by the owners of water entitlements. In our view, and as stated in our initial submission, large unmitigated risks will remain for all water users without transparent and audited water accounts that include measurements or reliable estimates of recoverable return flows, floodplain harvesting and the effects of climate change on flows.

The Draft Report (p. 138) states: "an audit would not identify gaps in information — a broader review with stakeholder engagement is required." We disagree with the Draft Report and restate that an audit

is absolutely necessary and would identify methods to overcome gaps in information. How could it not? If the Draft Report point was that *in addition* to water audit there should also be broader stakeholder engagement, then we concur. If the point was that broader stakeholder engagement substitutes for an independent water audit underpinned by ‘best available science’, then we strongly disagree. As we stated in our initial submission and reiterate: along with a comprehensive set of Australian water accounts, a regular, transparent Water Audit is essential to developing credibility and public trust in NWI implementation.

Water Infrastructure and Investments

One of the best-argued advice of the Draft Report (p. 13) concerns the water infrastructure development. We support this advice, namely, the need to: “Develop an element to guide investment in water infrastructure. (13.1); Agree to criteria to demonstrate project adherence to the NWI requirements for infrastructure. (13.2); Clarify institutional roles and responsibilities underpinning the framework for government investment. (13.3).” We also strongly endorse the Draft Report statement that all infrastructure: “...be assessed as economically viable and environmentally sustainable prior to the commitment of funding, with cost recovery from users as the norm” (p. 173) and Draft Recommendation 13.1 that “Australian Government investment should not prioritise a particular sector or class of water user, nor be limited to providing water for primary industry” (p.180).

We highlight that the NWI itself has clear principles in relation to infrastructure investments that have, in general, *not* been followed by Australian governments. One example is in the Draft Report (p. 171) in terms of decision-making failures is with respect to the Dungowan Dam, NSW. Transparency and independent review are crucial to preventing such failures. Investments in these critical functions and decisions processes are currently insufficient: Infrastructure Australia’s 2019-20 revenue from government to conduct reviews and planning across all sectors was \$11.56 million (IA 2020, p. 41). That figure equates to 7.8% of the \$148.76 million that has been used to fund feasibility studies under the National Water Infrastructure Development Fund (NWIDF) alone. It is unclear how such an imbalance between subsidising and regulating water infrastructure projects is in the public interest.

As the Draft Report highlights, the raising of the threshold to \$250 million for Infrastructure Australia to review business cases creates an even greater need for the National Water Grid Authority (NWGA) to deploy transparent assessment processes. Note that the National Water Infrastructure Investment Policy Framework does *not* contain a commitment to nor plan for transparent decision-making during the Project Selection stage (see NWGA 2020, p.10-11). Additional processes and actions to support public confidence in decision-making should include the publication of all business cases that are funded under the NWIDF and, in the case of construction projects, the publication of all business cases prior to final funding decisions being made

Community Engagement and Adjustment

We endorse the Draft Report (p. 14) advice 12.1 that guiding principles be developed to clarify how governments respond to significant community adjustment pressures resulting from policy-induced changes in water availability. We also agree that with the Draft Report (p. 11): "These should point first to the generally available measures that target the welfare and skills of individuals, and to regional development planning to leverage community-level capabilities and competitive advantages. These are usually the best responses to adjustment pressures. Where specific assistance is warranted, governments should support change by focusing any direct assistance on

building adaptive capacity in affected communities and securing employment or business opportunities for the most vulnerable individuals”.

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