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We acknowledge the Traditional Owners and Custodians of Country throughout the Murray–Darling Basin and their continuing connection to land, waters and community. We offer our respects to the people, the cultures and the Elders past, present and emerging.

Aboriginal people should be aware that this publication may contain images, names or quotations of deceased persons.

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Introduction

The Murray–Darling Basin Authority (MDBA) welcomes the third inquiry by the Productivity Commission into the progress of national water reform and is pleased to provide this submission to the inquiry.

The 2004 National Water Initiative has guided water reform in Australia over the past 20 years, including the development of the *Water Act 2007* (Cth) and the *Basin Plan 2012*. An updated national framework to steer ongoing water reform is essential as governments continue to adapt to changing expectations, new information and the demands of the future on water resources across Australia.

As specified in the [terms of reference](#), the inquiry is examining whether the national water reforms agreed in the [2004 National Water Initiative](#) (NWI), along with any other subsequent reforms collectively adopted by Australian governments, are achieving their intended outcomes.

In undertaking the inquiry, the Commission is assessing:

- progress in jurisdictional adoption of NWI principles, objectives and key outcomes and, where not adopted, issues that may influence implementation, and the opportunity costs of not doing so
- outcomes to date of the NWI and related water reform efforts, taking account of other reform drivers
- where practicable, implications for key water security and management challenges for Australia, including economic, environmental, social and cultural.

This submission focuses on the MDBA’s experience in the Murray–Darling Basin, facilitating implementation of the Basin Plan. It reflects on the importance of the NWI framework to set common principles for all governments to advance reform in a consistent way, which in turn supports Basin-scale management.

The MDBA has focused on the areas that we believe are most relevant to the Murray–Darling Basin and Australia more broadly, noting the experience in other parts of the nation will be different according to nature of water resources, their use and the policy frameworks in place to manage them.

It sets out the Authority’s view on the key opportunities that should be addressed to ensure the national water framework is fit to address the challenges of the future, drawing on the themes of the 2026 Basin Plan Review and the existing NWI objectives, specifically:

- better integration of water management with other policies and programs to support the delivery of outcomes
- responding to climate change
- recognition and better inclusion of First Nations knowledge, values and outcomes
- water access entitlements and planning framework
- water markets and trading
- building knowledge, capacity and capability.

While all of these areas require focus in refreshing the NWI, the Authority’s view is that the increasingly pressing challenge to water availability as the climate changes and advancing the unfinished business of recognising the rights and interests of First Nations people are areas where significant advancements in the framework are needed. These are matters to explore thoughtfully and in a unified and consistent frame – reflecting that in connection with water availability and climate there are likely to be difficult choices to be made in the years ahead, and in connection with First Nations there is an opportunity to consider engagement and the principles which support collaboration and partnership as we move forward.

The benefits of a national framework to address future challenges

A refreshed NWI is the opportunity for a strong national framework, with clear principles and actions, to guide the practical evolution of state arrangements for Basin-scale water management – in the Murray–Darling Basin and potentially elsewhere in the nation.

The intent of the Basin Plan is to drive improvements and consistency in water management, through a regulatory framework that sits above state-based water management frameworks. Successful implementation of the plan relies on governments pulling in the same direction, working together and integrating Basin-scale action into state planning and river management practices.

The experience of water reform in the Murray–Darling Basin to date is an example of how to drive a better and more sustainable balance in water sharing across the environment, communities and industries. We have seen how it can address multiple at times competing and growing demands through statutory-based water planning, enshrining in law the protection of water for the environment, addressing overallocation to achieve environmentally sustainable levels of water extraction, and managing an evolving and mature water market. There has been progress in water resource accounting with the implementation of accounting and reporting of water use against sustainable diversion limits.

Importantly, the NWI gives all stakeholders a common language to talk about water reform. A key part of a refresh is to ensure that key concepts that underpin water management and planning are contemporary, clear, and readily applicable to the current and future needs of water management. For example, a principle underpinning the NWI and its implementation is to ensure that water take is sustainable. An updated framework could reflect a contemporary understanding of what this critical concept means in the context of a changing and uncertain future climate to guide the evolution of jurisdictional water laws and policies.

Ultimately the task of water reform is ongoing and multi-generational. Review and consideration of water policy will continue as circumstance, information and knowledge shift, adapt and improve. It is important that this is reflected in and embedded through the NWI arrangements.

Future success is also dependent on an authorising environment and associated governance structure that elevates the water reform agenda and complements existing water management structures and capabilities. The rapid pace of reform 20 years ago, which delivered the Water Act and the Basin Plan, was in large part due to the commitment of governments to take a unified approach to enact change and bring about long-term benefits.

Better integration of water management with other policies

The experience of implementing the Basin Plan has taught us the importance of policies, programs and actions that work alongside water management, such as natural resource management, community and regional development, infrastructure, and land use planning. At both the Commonwealth and state level, policies rarely work in isolation – they need to talk to each other to support adaptation of the whole system and to contribute to Basin-wide outcomes. The NWI has an important role to establish a holistic vision for the future that brings together interconnected policy areas. The importance of strengthening the integration of policies and programs to see communities and industries adapt and prosper was a recommendation in the [MDBA's 2020 Basin Plan Evaluation](#).

Greater integration of all elements of natural resource management, including water, at the state level will drive better delivery of outcomes from land and water policy. This in turn would see greater alignment with First Nations' view of whole of Country.

The process of arriving at an agreed framework comes with challenges, with the need to balance a consistent national framework with the flexibility to accommodate jurisdictional circumstances.

Our experience is that a high degree of uncertainty, combined with multiple, and often conflicting, values, stakeholder considerations and time horizons, evolving science, and careful judgements are needed to effectively manage water resources in the context of broader policy decision making. A national framework that provides clear principles and objectives that can then support decision-making at the appropriate level.

Responding to climate change

Australia's climate is changing, and future climate change will likely result in further warming, more frequent extreme weather events and a likely drier southern Basin. While there is uncertainty about the timing and severity of impacts on the Basin's water resources, there is no doubt climate change will profoundly affect the environment and the communities dependent on the Basin's water resources.

There is a need for governments, communities and industries to work together to prepare for a different future, and share what they learn along the way. Our water management frameworks need to be adaptive in order to appropriately manage climate risks and respond to evolving conditions. Updated science is needed to support decision making and understand the consequences for the sustainability of our rivers and communities.

In its [Inquiry report - National Water Reform 2020](#), the Productivity Commission recommended clarity around the assignment of risk arising from future changes in the availability of water for the consumptive pool. With climate change an ever more pressing influence on the Basin and Australia generally, governments would be advised to revisit risk assignment provisions to ensure they are fit for purpose.

Through the 2026 Basin Plan Review, the MDBA is exploring how the Basin Plan may better respond to climate change in a strategic and flexible manner that enables more efficient decision-making. This adaptability will assist water managers to achieve the outcomes needed, at the time they are needed.

The 2026 review will also consider where other policy responses beyond the Basin Plan may be needed. This will feed into longer term planning by governments to help the Basin adapt to a changing climate and to build resilience among communities, industries and the environment.

The [MDBA's submission to the Productivity Commission's Basin Plan Implementation Review 2023](#) provides expansive detail on climate change risks and mitigation through existing Basin Plan settings.

Recognition and better inclusion of First Nations knowledge, values and outcomes

The MDBA recognises that First Nations people have holistically managed water as part of Healthy Country for more than 65,000 years. They have a deep and strong connection to water which they see as a living entity.

As mentioned above, the refresh of the NWI is an opportunity to position water policy and management in a broader context of outcomes for the community and for Country, consistent with the holistic and connected view of First Nations people.

It is critical that this work be led by First Nations people and the MDBA supports the important role of the Committee on Aboriginal and Torres Strait Islander Water Interests (CAWI) in leading the conversation on reform to the national framework.

A renewed NWI is the time for governments to further consider how to provide meaningful recognition of First Nations peoples' water rights and interests, more meaningful involvement in decision-making, and a greater focus on actions that improve First Nations people's Cultural, spiritual, social and economic wellbeing.

There is an opportunity for the NWI to consider how water management arrangements can work with other policies and programs (for example Ranger programs, community development and employment programs) to support First Nations communities to achieve their goals in a community-centred way.

Rights and interests

The MDBA has heard First Nations' call for their water rights and interests to be acknowledged and the implementation of the United Nations Declaration on the Rights of Indigenous People (UNDRIP), most recently in the parliamentary debate on amendments to the Water Act, and the [Insights Paper](#) published by the Committee on Aboriginal and Torres Strait Islander Water Interests (CAWI).

First Nations have strongly expressed their goals for water ownership. The Australian Government Aboriginal Water Entitlements Program is an important first step towards progressing this goal for Nations of the Basin. Associated with this work is the clear call from First Nations people to have greater access to lands to enable them to care for Country – to manage land and water together - to achieve Cultural, social, economic and environmental benefits for their communities in ways that they self-determine.

First Nations knowledge

As a nation, we have an enormous opportunity to learn from First Nations people into how we manage water and the environment. Learning provides the opportunity to support the delivery of better outcomes for Nations.

CAWI has identified the opportunity to advance the national framework to promote knowledge sharing, ensuring that Indigenous Cultural Intellectual Property (ICIP) – the rights that First Nations peoples have to their cultural heritage, cultural knowledge, and the expression of their cultural heritage – is protected.

Investigating ways to better identify and incorporate the knowledge, values and desired outcomes of First Nations people is one of the 4 priority themes for the 2026 Basin Plan Review. The MDBA in partnership with First Nations will consider how and where First Nations knowledge can be respectfully and appropriately incorporated into water management.

Consistent with Articles 19 and 31 of the UNDRIP, to which the Commonwealth is a signatory, the MDBA operates to ensure free, prior and informed consent is obtained in connection with ICIP, and that the rights of Indigenous people to maintain, control, protect and develop their cultural heritage is respected and protected.

Meaningful involvement

The Basin Plan created a formal space for First Nations people in water management and planning in the Basin. We acknowledge that there remains deep dissatisfaction in some areas with First Nations engagement and consultation methods, including in relation to water resource plans.

While we continue to work within the existing Basin Plan settings, the Basin Plan review is an opportunity to consider more meaningful involvement of First Nations people in Basin water management and decision-making.

As an organisation, our First Nations engagement approach is evolving. It is seeking to respond to the preference of Nations in how they want to work with us and building relationships that benefit First Nations people and progress their interests for water management. In our conversations with First Nations people we have found an increasing preference for the MDBA to engage nation-by-nation with Nations in the Basin. The MDBA will work to facilitate equitable arrangements for all Basin Nations in ways that recognise their preferences for engaging with us and designing approaches and partnerships in ways that support them.

An important part of this process is working with our other government partners to ensure that we coordinate and work together to ease the consultation fatigue that we know First Nations people experience.

Water trade and markets

Water trade has proven to be a critical business tool to help irrigators and communities to adjust to changing water availability over time. It has also supported the recovery of water for the environment in the Basin.

Basin Plan water market rules have entrenched the principles of the National Water Initiative significantly into water market policy, especially within the southern Murray–Darling Basin states. These principles have to a large extent delivered on their intended outcomes which include growing Australia’s agricultural production and providing a valuable tool for water users to manage business risk for themselves. The MDBA notes that under a drying climate scenario it will be all the more important to have water market settings right as the importance of the market grows.

In response to growing water trade in the Basin, a program of work has been agreed by governments following the ACCC review of the market. The Water Market Reform Roadmap sets out improved policies, compliance, governance, transparency and market architecture to modernise market settings and meet the expectations of water market participants. This work program will take many years to implement and will require cooperation between jurisdictions, noting that water trade rules are set out mostly in state legislation and policy.

While pursuing efficiency in the water markets has been important, we must also recognise that trade can lead to unintended outcomes.

As the Authority concluded in its 2020 evaluation, the timing, location and volume of demand has changed, and this has affected communities and water delivery across both the southern and northern Basin. At the Basin scale, these changes are crucial to sustaining and growing the value of agriculture. However, the shift in water use has also had some negative local implications, such as environmental damage experienced in the Goulburn River and the tensions between communities – those benefiting from change, and those that perceive community decline when water is traded to other areas.

There is an opportunity to ensure the national framework encourages decision makers to consider the broader suite of outcomes arising from water trade including environmental delivery, climate change adaptation, and improved market settings to ensure water markets continue to work for all water users.

Water access entitlements and planning framework

The way water is accounted for, managed and regulated is inherently complex, and has continued to evolve in the Murray–Darling Basin since the *Water Act 2007* (Cth) and the *Basin Plan 2012* came into effect. River operators, water managers, and users have tested the limits of the policy, management and regulatory framework. The Basin Plan was intended to drive reform over time, and the 2026 review is the opportunity to consider whether its settings remain appropriate in the contemporary context, recognising the improvement in information, knowledge and practice.

The 2004 NWI included state governments using regulatory measures such as ‘setting extraction limits in water management plans’. A central pillar of the Basin Plan is to set sustainable diversion limits (SDLs) that reflect an environmentally sustainable level of water taken from the rivers and groundwater. They are ongoing and necessary in the context of developed water resources where there are competing values and uses of water. The MDBA’s focus is at the Basin scale and the connectivity of rivers from north to south that results from state application of the SDLs at the catchment level through water resource plans.

Water resource plans are based on the translation of state water management arrangements in a way that meets with all 55 requirements of the Basin Plan. This provides important consistency of water planning across state boundaries, however it is challenging and places a substantial burden on state governments in the drafting and amending water resource plans and on the MDBA in assessing them consistently against the 55 requirements.

In seeking to employ best practice, through the Basin Plan Review the MDBA will consider ways to simplify the process by focusing on the central elements of the Basin Plan that are critical to state management arrangements, including SDL compliance.

It is likewise critical that states further update their processes to account for the growing pressures resulting from climate change to maintain water quality and manage extreme events.

The Basin Plan Review will also consider whether the SDL settings are appropriate for potential future climates. Any future case for change to the SDLs would involve considering what outcomes are desirable under a changing climate, and what else is needed beyond water-use settings to support healthy rivers and resilient communities.

We know that setting adaptable limits on the volume of water used is only part of the picture – how water is managed and used to achieve outcomes is also important. Through Basin Plan implementation we’ve learned that effective and efficient water management with a focus on outcomes is also usually the approach preferred by stakeholders. It is important that the community and stakeholders can navigate planning and regulatory frameworks, to support their participation in the process and to build their confidence that water management is supporting intended outcomes.

In addition to limits on water take from our rivers, limits apply to groundwater resources, which sustain ecosystems, First Nations values and economic productivity. Groundwater accounts for approximately 12% of water use across the Murray–Darling Basin in years of average rainfall, and up to 18% in times of drought. Managing the pressure of demand from industry and community on this precious resource is aided by the limits on water take that are imposed by the Basin Plan.

Robust and transparent compliance frameworks, including in connection with sustainable diversion limits, are essential. In considering the case for further regulation it is important to consider the need for change and its impact, and to understand community expectations and whether reform will build trust and drive efficient and effective outcomes.

Building knowledge, capacity and capability

Water agencies have an ongoing role to disseminate scientific information to the broader community and to ensure it is complemented by on-ground lived experience and community observations. Building a shared understanding in the evidence base, and in how it has been used for decision making, is vital for improved confidence in the overarching water management framework. ‘Scientific knowledge’ includes traditional academic-based research activities, as well as other contributions such as First Nations science and knowledge.

Centralised coordination of science investment should not be a core goal of our national framework. Such an approach often does not recognise that different parties have different science needs for their questions at hand — for example, a Basin-scale water planner will have different needs to a site manager. Instead of science coordination, the MDBA supports improved collaboration between Basin governments, industry, and the community to ensure respective investments complement each other. This improved collaboration would be greatly enhanced by better data sharing between parties, which should be an area of focus in a refreshed NWI.

Under the Water Act, the MDBA is required to use the best available scientific knowledge and socio-economic analysis to support the implementation of the Basin Plan. Importantly, this legislative requirement reflects expectations from the general community that water planning at all geographic scales will draw on the best available evidence base. Similarly, to make effective decisions, policy makers and river operators require an understanding of how water management can affect the social, cultural, environmental and economic conditions. This requires a contemporary evidence base.

The MDBA is currently leading a series of science and knowledge investment processes to improve the knowledge base, access and transparency. This work includes the Integrated River Modelling Uplift, the Murray–Darling Water & Environmental Research Program, the Sustainable Rivers Audit, and the Murray–Darling Basin Sustainable Yields projects. In addition, the Basin Condition Monitoring Program includes a range of on-ground monitoring activities developed in collaboration with community representatives.

Combined, these programs will provide a greater understanding of the condition of the Basin, how the Basin Plan has influenced this condition, and where this condition could trend into the future. As well as building confidence and transparency, it will allow policy makers (notably, through the 2026 Basin Plan Review) to have an enhanced capacity to explore the possible impacts and benefits of water management refinements.

While these programs will provide a contemporary evidence base for the 2026 Basin Plan Review, an ongoing investment in new science and new knowledge will be needed, particularly as we adapt and respond to climate change. A national framework that prioritises ongoing investment will support decision makers in the future, so they can rely on contemporary and best-available information, rather than what can be gleaned from legacy investments.

Conclusion

There have been significant advances in water management and levels of cooperation between governments in the 20 years since the NWI intergovernmental agreement was struck. There have been

advances since the Productivity Commission inquired into progress on the NWI in 2020. Although it is no easy task, the policies and programs that underpin our prosperity and the health of our waterways have continued to evolve and respond to changing conditions.

The willingness of governments to use best endeavours, to pull in the same direction, is demonstrated by the incremental advances in water management in the Murray–Darling Basin. Better collaboration across jurisdictions, more sophisticated water management and levels of community engagement have delivered marked improvements.

Water reform is ongoing. The Water Act was recently amended by the *Water Amendment (Restoring our Rivers) Act 2023*. These settings can and should be assessed cyclically. The next significant review beyond the 2026 Basin Plan Review is the Water Act Review, which is legislated to occur in 2027. There will likely be an overlay with the NWI framework and consideration may be given to whether arrangements support implementation in an effective, efficient and consistent frame. The 2024 NWI refresh and the 2026 Basin Plan Review will be important inputs to this process.

In shaping a new National Water Reform framework, governments must look to the contemporary and future pressures on Australia’s water resources and manage them in concert with the broader natural resource management objectives. That means advancing First Nations’ water rights and interests, and taking a more adaptive approach to climate change – so that water management supports thriving communities and industries and the healthy environment underpinning our collective purpose to deliver rivers for generations.

The MDBA has responded to the lessons from Basin Plan implementation, including stakeholder perspectives and scientific research, to arrive at the themes of the first 10-yearly statutory review of the Basin Plan in 2026: climate change, sustainable water limits, First Nations and regulatory design. An agreed, modernised NWI is a key opportunity to enhance this work – to ensure that the future settings for Basin water management reflect national priorities and enable us to meet Basin water challenges in the coming decades.

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