Murray-Darling Conservation Alliance

Submission to the Productivity Commission National Water Reform 2026 Inquiry

April 2026

About the Alliance

The Murray-Darling Conservation Alliance is a national voice for the rivers, wetlands and wildlife of the Murray-Darling Basin. Members of the Alliance, which was formed in 2022, include peak bodies in every Basin state, representing half a million people in rural communities and east-coast cities. Our vision is for a healthy and flourishing Murray-Darling Basin, where rivers flow from their source to the sea; Traditional Owners own and manage land and water; where wetlands support abundant life and regional communities are supported with diverse and resilient economies.

National Water Initiative objectives and the Murray-Darling Basin

The 2004 National Water Initiative sets out objectives for national water reform. The objectives that are directly relevant to water management in the Murray-Darling Basin are:

- (iv) complete the return of all currently overallocated or overused systems to environmentally-sustainable levels of extraction;
- vii) water accounting which is able to meet the information needs of different water systems in respect to planning, monitoring, trading, environmental management and on-farm management;
- x) recognition of the connectivity between surface and groundwater resources and connected systems managed as a single resource.

Comments on progress against each of these in the Murray-Darling Basin and our concerns are included in the following sections.

Complete the return of all currently overallocated or overused systems to environmentally-sustainable levels of extraction

The Murray-Darling river system remains over-allocated. Despite some progress since the Basin Plan was introduced in 2012, too much water is still being taken from rivers and aquifers for irrigation and not enough water is reaching important wetland and floodplain ecosystems. The health of the river system continues to decline (Chen et. al. 2021, Colloff et. al. 2024, Government of South Australia – Royal Commission 2019).

Where environmental water has been restored, we've seen real improvements — but too little water has been returned to the environment overall, and Basin ecosystems remain at risk. Only 4% of wetlands in the Basin are getting the water they need to be healthy (Chen et. al. in publication) and threatened species like the Macquarie Perch and Murray Cod are at risk of extinction (Environment Victoria 2023). Constraints relaxation has stalled, and barriers to the natural flooding that is necessary for getting water to wetlands and floodplains remain in place. Toxic algal blooms, mass fish kills, declining waterbird and fish populations, and reduced water quality all point to a river system under severe stress. Climate change is adding further pressure, bringing hotter temperatures and less water flowing into rivers.

In January 2026, Federal Environment Minister Murray Watt announced the formal listing of the Lower Murray River as a critically endangered ecological community under the EPBC Act. A critically endangered listing means there is at least a 50% chance the community will become extinct in the immediate future. The Macquarie Marshes in northern New South Wales, one of the 16 globally significant Ramsar-listed wetlands in the Basin, was also listed as endangered.

Water accounting which is able to meet the information needs of different water systems in respect to planning, monitoring, trading, environmental management and on-farm management

There are serious failings in Basin Plan governance, data integrity, accounting and transparency. Data is patchy and unreliable and state hydrological models are 'black box' models that lack transparency and may not provide reliable estimates of water extraction. The assumptions behind these models are not public and the MDBA seems to lack the ability to scrutinise these models. In addition, floodplain harvesting (a major form of take in the northern Basin) is not accurately reported. The majority of floodplain harvesting take is not measured

and is instead reported as estimates. NSW floodplain harvesting take is not currently reported in the Annual Take Report as a distinct form of take. Independent researchers estimated that mean annual floodplain harvesting take in NSW from 2004-20 was 778 GL/yr (Brown et. al. 2022). This is equivalent to 9% of the Basin-wide total annual take in 2022-23. Until states accurately report floodplain harvesting, we will not have a clear understanding of water extraction levels across the Basin.

We recommend immediate action including adopting double-entry water accounting systems that monitor water remaining in a river and water extracted, testing these observations against model projections, and publishing an annual assessment of discrepancies; undertaking regular water auditing using on-ground monitoring and satellite imaging; publishing consistent, comparable datasets showing annual historic water diversion and extraction; investing in long-term ecological and cultural monitoring of an expanded network of sites linked to Basin Plan objectives and regularly publishing results; and requiring that state hydrological modelling (and any other related modelling) is compatible with Basin-wide standards and methodology, transparent and auditable.

Recognition of the connectivity between surface and groundwater resources and connected systems managed as a single resource

There is a need for greater understanding of groundwater availability and the movement and the interaction between surface water and groundwater resources in the Murray-Darling Basin. This is a knowledge gap that has been acknowledged in the Basin Plan Review Discussion Paper. Addressing this gap is particularly important as the climate changes and demand for groundwater increases. Hydrological models that are used across the Basin do not adequately recognise the connectivity between surface and groundwater resources, making it difficult to manage water sources as connected systems. Groundwater sustainable diversion limits were increased in 2012 and are currently underallocated.

Response to questions in the call for submissions

1. Progress since the 2024 NWI assessment

Progress in the Murray-Darling Basin remains slow. Significant barriers include a lack of cooperation by some state governments and limited ability or willingness

by the Commonwealth to intervene. There has been progress in recent years in delivery water recovery commitments, although progress still falls short of delivering commitments in full.

2. Barriers and emerging risks

Key barriers include:

- While the *Water Act 2007* provides a strong legal framework, the Murray-Darling Basin Plan lacks clarity and the water recovery targets (and sustainable diversion limits) that were set were based on political compromise rather than best available science. This has hampered the effectiveness of the Basin Plan from the beginning.
- Lack of cooperation by state governments and limited ability or willingness by the Commonwealth to intervene has resulted in slow progress and disparate approaches to data and modelling that undermine data integrity and accountability.
- There is a culture of low ambition in the key agencies involved in delivery.

Emerging risks include:

- Climate change is already affecting water availability in the Murray-Darling Basin. The sustainable diversion limits that were set in 2012 did not take climate change into account. There is no mechanism in current management arrangements that enables a systematic response to climate change impacts. This fails to address climate risk and creates uncertainty for water managers and water users.

3. Forward reform priorities (next three years)

Our key recommendations to improve governance and prepare for climate change are listed below. In addition, we note our position that a future National Water Agreement should not embed a principle of compensation for water users affected by policy changes.

Prepare for the impacts of climate change

- Ensure the Basin Plan, Sustainable Diversion Limits, water recovery targets and water sharing rules are informed by the latest climate change projections.
- Embed climate change adaptation in the objectives of the Basin Plan, with a focus on building ecological resilience.

- Implement enforceable end-of-system flow targets to protect ecosystem health in a drying climate.

Deliver world-leading governance

- Adopt double-entry water accounting systems that monitor water remaining in a river as well as water extracted, test this against Basin Plan water model projections, and publish an annual assessment of discrepancies.
- Undertake regular water auditing using on-ground monitoring and satellite imaging to look at where, when and how water is being used across the Basin.
- Embed the role of the Inspector-General of Water Compliance in all aspects of Basin Plan oversight and include in their role a 5-yearly evaluation of governance.
- Require that state hydrological modelling is compatible with Basin-wide standards and methodology, is independently verified and that modelling and underlying assumptions are published.

References

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