

Natural Resources Commission

Review of the Water Sharing Plan for the Murrumbidgee Regulated River Water Source 2016

Report Summary

This slide pack provides a high-level overview of findings and recommendations – the Commission's full advice that was provided to the Minister for Water is available via our [website](#)

Acknowledgement of Country

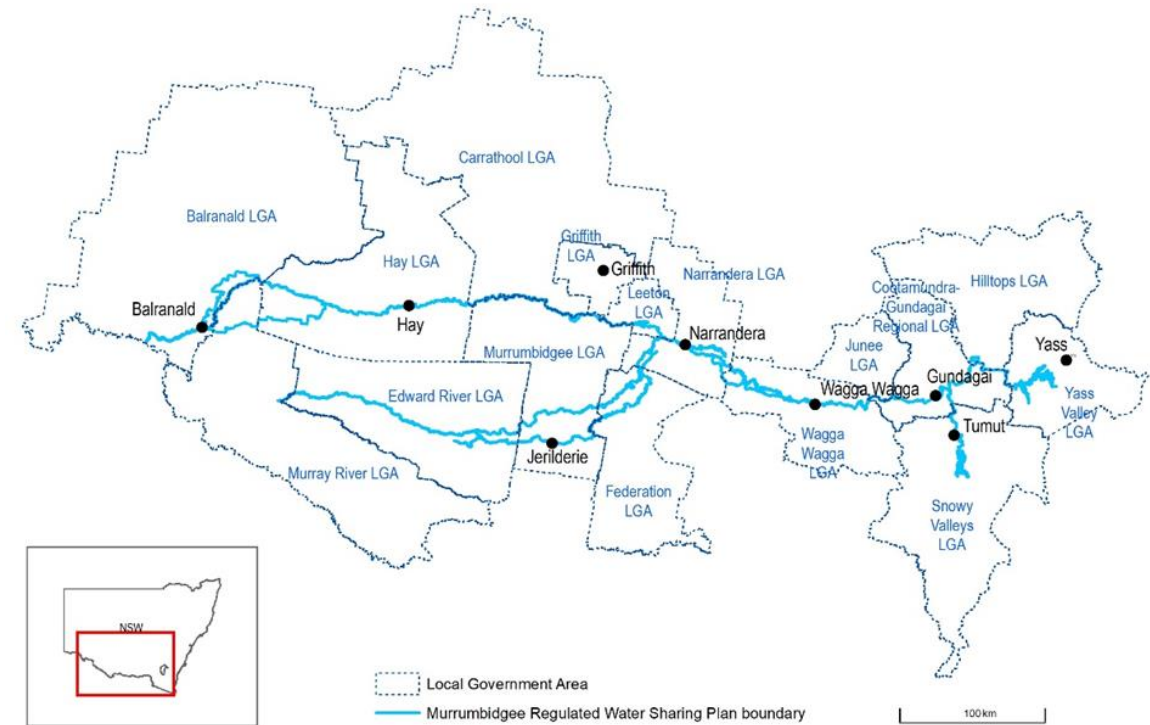
The Commission acknowledges and pays its respects to the Wiradjuri, Nari Nari, Barapa Barapa, Wemba Wemba, Yita Yita, Mutthi Mutthi, Wadi Wadi, Nyeri Nyeri, Ngunnawal/Ngunawal, Wolgalu and Ngarigu peoples, and the communities, people and traditional owners, past and present and future, for whom these waterways are significant. The Commission recognises and acknowledges that Aboriginal people have a deep cultural, social, environmental, spiritual and economic connection to their lands and waters. We value and respect their knowledge in natural resource management, and the contributions of many generations, including Elders, to this understanding and connection.

Our review

- The Commission has a statutory role under s43A of the *Water Management Act 2000* (the Act) to review water sharing plans approaching expiry
- Our reviews consider if a Plan's environmental, social, cultural and economic outcomes have been achieved, and what improvements can be made
- As part of our reviews, we recommend whether a plan should be extended or replaced
- Our reviews consider relevant data and documents, technical advice, stakeholder consultation and public submissions

Review area

- The Murrumbidgee River Plan area includes 16 nationally significant wetlands and the second largest red gum forest in Australia
- The Plan area has several water-dependent towns including major regional centres like Wagga Wagga and Griffith, as well as smaller towns Balranald, Coolamon, Coleambally, Gundagai, Tumut and Yanco
- Two major water storages support the regulated system – Burrinjuck Dam and Blowering Dam. The dams receive inflows from the catchment and from the Snowy Mountains Scheme.
- Water from the regulated system supports an agricultural industry, generating more than \$1.9 billion annually
- Water diversions and regulation have fundamentally altered the flow regime of the river and impacted key environmental assets in the region
- The Murrumbidgee experienced extreme dry and wet periods during the term of the Plan. Climate change is projected to further shift rainfall patterns and substantially impact water availability in the future
- The Murrumbidgee regulated system is connected to the Murray River and forms part of the southern connected system



Overall findings

- The Plan – which expires 30 June 2026 – should be replaced to enable opportunities for improvement to the Plan
- The Commission’s review details 29 recommendations to address the issues identified in the Plan

Key findings

- The Plan relies on historical datasets to inform water management decisions. This drives a reliance on reactive management through Plan suspensions and Section 324 orders when climatic conditions do not align with historical data
- Configuration and calibration of models used for LTAAEL compliance should be progressed to improve model performance and provide greater transparency of modelling assumptions, inputs and calibration
- Improvements are required to Available Water Determinations to provide clarity and transparency and reduce the need for discretionary decision making by DCCEEW-Water where appropriate.
- Environmental provisions including minimum daily flow rules, transparent flows and translucent releases could be improved and better protected to support environmental outcomes in the Murrumbidgee River and unregulated river water sources.
- Channel capacity provisions in the Plan should be updated to reflect prioritisation of delivery of water for environmental requirements consistent with Section 5(3) of the Act

Key findings

- The Plan does not adequately support cultural economies,. Aboriginal values and use of water remain underrepresented in the Plan. Water should be assigned to social and cultural outcomes to better provide for the sharing of water with Aboriginal communities
- Surface water licence for the Local Water Utility may need to be adjusted to respond to issues of migration of PFAS contamination in the Riverina Water network
- Opportunities exist to remove constraints to inter valley trade including the revisions of administrative requirements and river operator rules
- Relaxation of flow constraints to occur under the Reconnecting River Country Program present the opportunity to improve outcomes for inundation-dependent ecosystems
- An inter-agency review of legislative, regulatory and policy instruments should be undertaken to determine the need for any adjustment to dam airspace operation rules



Accounting for the impacts of climate change

Key issues

- Despite climate projections indicating decreased water availability, there are limited provisions for climate change adaptation
- The Plan relies on historical datasets for decision making and does not adequately consider or communicate future climate risks
- This drives a reliance on reactive management through Section 324 orders to restrict extraction. Clear rules rather than reliance on Section 324 orders provide better certainty for licence holders

Key recommendations for the Water Group

- Model impacts under baseline and climate change scenarios and use these to revise Plan provisions to maintain environmental outcomes
- Incorporate climate change projections into decision making and move away from sole use of historical data
- Regularly validate and recalibrate hydrological models
- Revise Clause 72 to reflect that operations should be able to deliver high priority needs based on projected climate and hydrological needs.



Ensuring sustainable extraction

Key issues

- The Plan's long-term average annual extraction limit (LTAAEL) is not based on an assessment of sustainability
- While LTAAEL compliance has recently commenced, it is not transparent or based on actual extraction data
- Extraction limit compliance actions can be applied to held environmental water, reducing environmental outcomes

Key recommendations for the Water Group

- Adopt an LTAAEL that protects the water source and dependent ecosystems, supports social and cultural objectives, and considers climate change
- Leverage available metering data to inform compliance
- Improve transparency around modelling assumptions, design, inputs and calibration – including independent review
- Specify that held environmental water will not be reduced by extraction limit compliance actions



Developing a sustainable and robust allocation policy

Key issues

- The allocations process poses a risk to essential services and inverts the principles of the Act
- Discretionary decision making around available water determinations (AWDs) does not align with the priorities of the Act, with limited oversight and transparency
- Requirements for the river operator to manage the water system to supply water to meet priority needs during a repeat of the period of lowest accumulated inflows does not reference environmental needs
- The allocations process does not specifically address the impact of climate change
- Limited clarity around decision making on the timing and volumes of water reserved for future priority needs

Key recommendations for the Water Group

- Reconcile the Plan's lowest accumulated inflows against actual inflows and address shortfalls
- Require review of lowest accumulated inflows to protect critical environmental needs.
- Clarify decision making around the Plan's second- year reserve



Strengthening environmental protections

Key issues

- Minimum daily flow rules are inadequate for maintaining river health in critical times and bypass key reaches of the Yanco Creek system
- Protection of transparent flows and translucent releases could be implemented to improve environmental outcomes
- Environmental Water Allowance (EWA) deliveries have contributed towards environmental outcomes but are not treated consistently with the priorities of the Act

Key recommendations for the Water Group

- Align minimum daily flow requirements for the Plan with the baseflow environmental flow requirements from the Murrumbidgee Long-Term Watering Plan (LTWP) and update rules based on improved understanding of flows required to mitigate stratification
- Update the Murrumbidgee Works Approval to align with the baseflow in the Murrumbidgee LTWP to establish clear guidelines for the river operator
- Adopt minimum daily flow rules along the Yanco Creek system to achieve connectivity along the length of the system rather than bypassing river reaches
- Simplify translucent flow and EWA rules in the Plan and allow for delivery of held environmental water on top of translucent flows
- Prioritise EWA water delivery in Plan rules outlining channel sharing arrangements consistent with the priorities in the Act



Restoring Aboriginal water rights, values and uses

Key issues

- The Plan has provided limited benefit to Aboriginal communities, with limited use of the Aboriginal cultural access licence during the Plan term
- Aboriginal values and uses of water remain underrepresented in the Plan
- Water should be assigned to target improvement in cultural outcomes and better align with the values and needs of Aboriginal communities

Key recommendations for the Water Group

- Amend the purposes for which Aboriginal access licences may be granted to facilitate economic outcomes
- Remove trade restrictions on all categories of Aboriginal access licences
- Simplify the application process and support Aboriginal communities in accessing Aboriginal access licences
- Remove the caps on Aboriginal cultural access licences (currently a total 2,150 ML cap on regulated river (high security) (Aboriginal cultural) access licences and 10 ML limit per licence)



Meeting the future needs of communities

Key issues

- Stakeholders perceive that regulated river (high security) access licences have greater certainty than local water utility licences
- An assessment of town water supply indicates that Jerilderie, Jugiong and Wanganella may experience water supply issues under a dry climate scenario
- An assessment of Riverina Water's entitlement should be reviewed to ensure it can respond to any PFAS migration issues and meet ongoing town water supply requirements

Key recommendations for the Water Group

- Ensure that any temporary water restrictions imposed on water taken for domestic purposes under access licences or basic landholder rights are clearly articulated in gazettal orders to avoid reductions in access that are inconsistent with the supply of water and prioritisation outlined in the Plan and Act.
- Where PFAS concentrations cannot be managed below Australian Drinking Water Guidelines, an assessment should be undertaken to determine any additional entitlement that may be required to service the Riverina Water network



Reducing the impact of flow constraints on environmental outcomes

Key issues

- Flow constraints are designed to protect landholders from low-level inundation but have also led to the decline of inundation-dependent ecosystems
- As part of commitments under the Basin Plan, the NSW Government has developed the Reconnecting River Country Program to assess options for relaxing constraints to enable higher environmental flows and address adverse social and economic impacts, particularly to riparian landholders

Key recommendations for the Water Group

- If constraints are relaxed, Plan provisions will need to be amended to ensure this materially contributes to achieving intended environmental outcomes



Aligning channel capacity sharing with the Act

Key issues

- Amendments made in 2022 placed the environmental water allowance in the lowest priority category, to be shared with regulated river (general security) access licences
- This potentially contradicts the Act, which prioritises water to protect the water source and its dependent ecosystems and basic landholder rights

Key recommendations for the Water Group

- The EWA should be given equivalent channel capacity priority to basic landholder rights (above all other extractive users)