

Productivity Commission
Murray-Darling Basin Plan:
Implementation review 2023
July 2023



CENTRAL NSW
JOINT ORGANISATION

- Bathurst
- Blayney
- Cabonne
- Cowra
- Forbes
- Lachlan
- Lithgow
- Oberon
- Orange
- Parkes
- Weddin

27 July 2023

Reference:mm:jb 230727
Enquiries: Ms J Bennett: 0428 690 935

Murray-Darling Basin Plan: Implementation review 2023
Productivity Commission
GPO Box 1428
Canberra City ACT 2601

Dear Commission,

Re: Murray-Darling Basin Plan: implementation review 2023

Local Government Regional Joint Organisations (JOs) were proclaimed in May 2018 under the NSW Local Government Act 1993. The Central NSW Joint Organisation (CNSWJO) represents over 180,000 people covering an area of more than 53,000sq kms comprising of Bathurst, Blayney, Cabonne, Cowra, Forbes, Lachlan, Lithgow, Oberon, Orange, Parkes, and Weddin. Associate Members are Central Tablelands Water and Upper Macquarie County Council.

Tasked with intergovernmental cooperation, leadership and prioritisation, JOs have consulted with their stakeholders to identify key strategic regional priorities. The CNSWJO Strategic Plan and Regional Priorities can be found here [Statement of Strategic Priorities](#)

Safe, secure water for the growth and prosperity of our towns, for productive use and to sustain the environment is of the highest priority for the CNSWJO Board. The Board's interest in water security is at two levels:

- Firstly, CNSWJO member councils all operate local water utilities (LWU) so the security and availability of town water supplies for the communities in Central NSW is core business for the councils in this region.
- Secondly, in facilitating sustainable economic growth for the region. Agriculture and mining are two prime economic drivers in this region. A reliable, secure water supply is crucial to the realisation of the region's potential as one of the seven top contributors to National Gross Regional Product 1 and in delivering on the Australian Government's policy initiatives for agricultural production and Regional Precincts.²

¹Infrastructure Australia 2015

² <https://www.infrastructure.gov.au/territories-regions-cities/regional-australia/regional-and-community-programs/growing-regions-program>

The CNSWJO has a long history of adopting a regional approach to town water security completing its national award winning Centroc Water Security Study in 2009.

<https://www.centraljo.nsw.gov.au/content/uploads/Centroc-Water-Security-Study-Component-1.pdf>
<https://www.centraljo.nsw.gov.au/content/uploads/2.centroc-water-security-study-component-2-options-paper-rev-1-291009.pdf>

Water security has historically been a challenge for communities in the unregulated Macquarie catchment, (particularly Orange and Bathurst) and in the Lachlan valley. Despite ongoing implementation by councils of a range of water security solutions and demand management initiatives, including impressive water usage reduction in some communities, town water security continues to be of the highest priority and is limiting the potential growth and prosperity of the region.

Most Central NSW towns have been subject to severe town water restrictions with long periods of little or no general security, agricultural water availability and restricted high security water. Following the 2018-2020 drought that saw the large regional centres of Orange and Bathurst precariously close to running out of water, in November 2022 the Lachlan valley was hit by devastating floods with the long-term costs of this to the local, state and national economy yet to be realised.

While the region identified the risks to town water in its 2009 Centroc Water Security Study, these risks are now being recognised by the NSW Government through new modelling by DPE Water for the Draft Lachlan and Macquarie-Castlereagh Regional Water Strategies. These Draft Strategies, including options to address critical risks to town water, have been over three years in the making and with the threat of El Nino already apparent in the region are yet to be finalised.

Like the Regional Water Strategies, the Water Resource Plans for our region, the Macquarie-Castlereagh and Lachlan catchments, are also yet to be finalised. The Commission's comments that it is not possible to assess the effectiveness of the implementation of Water Resource Plans that are yet to be finalised, including how critical human water needs will be met, is noted.

Any plan requires an ability to review and determine whether it is delivering on its intended outcomes, and whether there are any unintended impacts or external influences which may require an adaptation to its implementation. We welcome the opportunity to provide feedback to the second five-yearly inquiry by the Productivity Commission into the effectiveness of the implementation of the Murray-Darling Basin Plan (the Plan) and related water resource plans.

Our response to the questions raised in the consultation paper is informed by this region's knowledge and lived experience from planning and managing water for critical human need and productive use in the face of significant challenges from climate change.

1. What needs to change to ensure water recovery targets are met and that supply and efficiency measures are delivered? What lessons can be learnt from past experiences?

Response:

Strategic work by the CNSWJO and its member councils since the millennium drought has highlighted that where water security has historically been a challenge and is limiting economic growth for the region, there are opportunities, notably in the Lachlan Valley, to manage water differently to support the nation's growth aspirations.

For regional communities to grow and prosper they need to:

- have ambitious plans to generate economic growth;

- prioritise local needs with a context of nationally significant reform, including actions that drive productivity and competition;
- take a long-term approach to achieve transformative change;
- identify the 'game-changers' and catalyst actions that will deliver a step-change in growth outcomes;
- prioritise delivery;
- deliver action and reform that are additional to governments' usual operations and finally;
- always be mindful to our changing environment.

The Lachlan Regional Water Strategy, review of the Lachlan Water Resource and Water Sharing Plans together with the review of the MDB Plan could be the catalyst to ensure policy and water management settings are right to not only solve long-term water security for urban communities, but to drive growth and prosperity by delivering better flood immunity and water security to enable the agricultural sector.

One of the enablers is that *“Under normal conditions the Lachlan River is a terminal system with little water flowing past the Great Cumbung Swamp at the end of the river. Only in large flood events does water flow into the Murrumbidgee River (Green et al 2011)³”*. This presents the opportunity to think differently about how water is managed for productive use in the Lachlan valley.

The opportunity is for the Lachlan valley to take advantage of additional stored water through relatively minor re-allocation of the water entitlements that could result from the potential Wyangala dam upgrade, with no detriment to current water holders.

Through the creation of more high security entitlements higher value uses of water could be enabled. This would allow towns to buy water to convert to high security and agricultural producers to buy general security entitlement and convert them to high security.

By reviewing and changing how water security is managed in the Lachlan valley and increasing the proportion of water allocated as high security water, this could in turn push the value of water up, having guaranteed allocation leading to an increased investment in capital infrastructure and more water efficient crops. By managing the river water effectively, it could also lead to less pressure on the ground water aquifer and potentially more water for the environment.

Where out of bank flooding may potentially be reduced by the raising of the dam wall, the long-term replenishment of the aquifers may need to be considered to ensure the long-term sustainability/yield of those sources.

In a study completed by Port Jackson Partners for the Parkes Special Activation Precinct it is estimated that switching approximately 8% of the total irrigated water currently used in the central west region from cotton and hay products to vegetable production could increase the economic profit of agriculture by \$50m p.a.⁴

Considering the potential of a Wyangala Dam upgrade, some of the extra water security created could be used for “high value” purposes, or if some general security licenses could be converted to high security. This would catalyse a range of high value industries creating jobs and wealth for the Lachlan region.

This is not about increasing water usage above the Water Sharing Plan Limit but improving security and reliability and allowing usage to reach the Plan Limit.

³ Source: Lachlan Water Resource Plan

⁴ Source: Parkes Special Activation Precinct Port Jackson Partners

Infrastructure Australia note that:

Meeting growing demand is a major challenge. The costs of augmenting water supply close to major cities present issues with managing water security efficiently. There is rising demand for Australia's agricultural products, increasing the call on water for production. While water markets can direct water to its most productive use, a further extended period of drought could put the viability of some of Australia's water-intensive agricultural products in doubt.

[2019 AI Audit may2020 update.pdf \(infrastructureaustralia.gov.au\)](#)

The CNSWJO Board through a memorandum of understanding with Charles Sturt University (CSU) has established the CSU Policy Lab and are progressing policy on productive water leveraging a sister university relationship in the Netherlands.

The Netherlands attribute much of its success to the Dutch innovation juggernaut: Wageningen University. The CSU partnership and terminal nature of the Lachlan system presents an exciting opportunity to challenge the way we have always done things and to think about how we may be able to learn from countries such as the Netherlands and create additional value from the water in the Lachlan valley whilst implementing sustainable water management policies.

With the right water management settings enabled and the Parkes Special Activation Precinct already underway, the Lachlan valley is well placed to deliver on the Government's aspirations to support the agricultural sector to transition to a low emissions future and foster sustainable climate adaptation practices through high value water use.

The CNSWJO would be pleased to provide more detail on its thinking in this space.

2. *Are the current arrangements for implementing the Murray-Darling Basin Plan operating effectively? How could the arrangements be improved? The Commission is particularly interested in the effectiveness of the arrangements for:*

- *developing, accrediting and reporting on water resource plans*
- *water quality*
- *critical human water needs*
- *environmental water planning and management.*

Response:

Firstly, CNSWJO recognises that the NSW Government is behind with respect to the finalisation of Water Resource Plans. Having experienced severe drought in Central NSW and town water supply challenges, this region is anxious that before the next drought the plans required for implementing the Murray Darling Basin Plan in NSW are completed and that they provide clarity around water management particularly for critical human need in times of shortages.

Having said this, local government seeks authentic engagement in the development of these, including transparency of data and modelling as it pertains to town water needs. It's not good enough just to say water for critical human need is a priority – what matters is when there isn't any water, how is a high security allocation for a town supply implemented on the ground?

Critical human water needs

While the Basin Plan and the NSW Government's Water Resource Plans and Water Sharing Plans all seek to ensure that critical human water needs are given the highest priority, particularly during periods of

extreme water shortages, the experience on the ground in Central NSW is that while it is a stated objective it is not enabled.

Given the complexities of how urban water is managed across jurisdictions it is difficult to comment without addressing perceived failings in the NSW Water Resource and Water Sharing Plans, noting of course that the Water Resource Plans for this region have not been accredited by the MDBA.

In submissions to the NSW Natural Resources Commission in May 2022 on the need to review the Water Sharing Plans for the Macquarie Bogan and Lachlan Unregulated Rivers Water Sources 2012, the CNSWJO provided the following commentary.

There is a need for better policy and protocols to underpin the NSW Water Management Act 2000 in a new climate future to ensure water for critical human needs are met as the highest priority. This includes changes that enable a swifter response during drought in recognition of water for critical human needs including linking urban water restrictions to the environment and other users.

Key questions that need to be addressed through Plan reviews are:

- *What is the definition of critical human needs?*
- *When there isn't any water, how is a high security allocation for a town supply implemented on the ground?*
 - What are the triggers and policy settings to ensure the basic human right for drinking water are met?
 - What are the implications of secure yield modelling for Water Sharing Plans and environmental flows on town water supplies?

Water for critical human needs should have the highest priority in the Water Sharing Plan. Currently councils are required to seek additional or special approvals (such as through the NSW Critical Needs Act) to access additional water, if approved. This was experienced during the 2018-2020 drought and critical time frames could be reduced if suitable mechanisms existed in the Water Sharing Plan to prioritise town water supply.

Any review of how water for critical human need is managed in the NSW context must consider the following:

- Learnings from the 2018-2020 drought including:
 - the need for better linkages between town water restrictions and access to water for human consumption within the various Plans;
 - recognition of the existing extent and potential for urban communities to share water including existing and planned infrastructure;
 - the need for a Critical Water Needs Act as existing systems were not able to cope; and
 - the enablement of storm water harvesting and other contemporary approaches to water security for urban communities.
- Recognition of the true value of productive water and the potential for regional solutions for urban water security.
- Alignment with other Government aspirations particularly the water needs of:
 - the Parkes Special Activation Precinct;
 - critical minerals;
 - alternative energy options relating to water e.g. hydrogen, pumped hydro;

- modern, including protected, agriculture;
- Regional Water Strategies; and
- manufacturing and food independence as a result of Covid and international instability.
- Alignment with the priority in the NSW Water Management Act 2000 where water for human consumption is not sufficiently enabled in the Plans.
- Greater knowledge of the impacts of climate change where we now know that there will be increasingly serious droughts and floods and water sharing needs to optimise outcomes from both.
- The best available data and modelling.
- The opportunities afforded for using water differently.

While water for human consumption is recognised as of the highest priority for the WaterNSW dam network, there continues to be challenges in delivering water to towns and communities in times of drought. While progress is being made in identifying options to secure town water supplies in the drafting of the Lachlan Regional Water Strategy, the big issues around water sharing and dam management need to be addressed including in the Water Sharing Plans.

As it currently stands, irrigation is a greater water user in droughts than towns where much of the heavy lifting in terms of water efficiency has had to be undertaken.

There needs to be significant change to the way water is managed for inland regional towns - not only in times of emergency.

Industry needs to be identified and supported in the MDBA plan. High security water needs to be available for industrial purposes and water for "social well-being" should receive a special, prioritised category.

3. Have the governance and institutional arrangements for the Plan – including the arrangements for compliance and monitoring, evaluation and reporting – proved effective? What changes would you recommend?

Response:

The planning and management of urban water security in regional NSW is largely done in isolation by local government and is not integrated into the NSW Government's strategic water planning framework. Unfortunately, there is a lack of focus on urban water security in most strategies, including the MDB Plan.

This was no more evident than in the last drought and serves to highlight the importance of local government's engagement in any review that will inform the future of the Basin Plan.

The CNSWJO Board strongly advocates that the missing piece in strategic water management at the regional level is effective inter-governmental collaboration. The Board recommends the need for governance and institutional arrangements that enable a fully integrated, whole of catchment approach to Plan delivery, monitoring and evaluation. We need to move beyond the silos of the past and recognise that stakeholders need to work together to achieve the balance needed in water use in a new climate future.

Where water for critical human need *must* be the highest priority in times of shortages, there needs to be a forum for ongoing communication and decision making enabled within regions to achieve the balance that is needed for all stakeholders' areas of interest across the catchment. This includes for towns, the Aboriginal community, irrigators and industry and the environment. It is in our communities' interests to

ensure that the right balance is struck in water management across all these areas with a new approach to coordination and decision-making.

Much can be achieved by established forums of stakeholders represented at the appropriate level and supported by good governance. Relationships built through good and regular communication and mutual trust can support and enable decision making informed by local knowledge in times of crisis ensuring the right outcomes.

In the Lachlan catchment, the CNSWJO works closely with the Lachlan Valley Water Association through an established communique and regular meetings. While at times our views may differ, most of the time we agree and support each other's positions. Our interests are not conflicting, to the contrary Councils are committed to supporting and enabling their agricultural sector as the economic heart of our region while conversely our farmers don't want to see their towns run out of water. The relationship is mutually beneficial.

The same applies to industry, the health of the environment and our Aboriginal communities. Strong, resilient communities need water for all these uses and need to be able to negotiate how the balance is struck in times of critical shortage. Building these relationships with, for example, Environmental Water Advisory Groups and industry groups now will be beneficial to all stakeholders, particularly in times of critical shortage.

We need:

- solutions that enable water for critical human need as the highest priority in times of shortages;
- a forum for ongoing communication and decision making enabled within regions for coordination and decision-making around strategic water management including the management of drought and flood and;
- to move beyond the silos of the past and recognise that all levels of Government and stakeholders need to work together to achieve the balance needed across all areas of water use in a new climate future.

4. *How well is the Plan responding to a changing climate? How should this be improved?*

Response:

A great deal of change has occurred over the past decade since the Murray Darling Basin Plan came into effect. The CNSWJO supports a thorough review that considers the latest climate modelling and data and the implications of this for the growth, prosperity, liveability and sustainability of urban settlements in inland areas.

We welcome the release of the Roadmap for the Murray Darling Basin Plan 2026 Review with the expectation that this will consider town water and water for economic and social needs in the context of the severity of drought that we are starting to see impacting on inland communities.

Communities and the urban water sector are calling for prosperity, jobs, action on climate change, and liveable cities with an increased focus on water for communities, and recognition of the value of urban water security.⁵

⁵ WSAA National Advocacy Policy for a Renewed NWI May 2023

It is critical that given the pace of climate change that the needs and aspirations of urban communities are well considered and opportunities to do business differently, as described in response to question, one are enabled.

Importantly, the value of urban water has been notoriously overlooked and under-represented and requires the appropriate place-based governance structures to enable the necessary changes in water planning and management in a future punctuated by longer hotter and drier conditions and record-breaking rain and storm events. Refer to response to question three.

5. How well is the Plan addressing the interests of Aboriginal people?

Response:

No comment is made.

6. How well has community consultation and engagement been conducted? How can this be improved?

Response:

This region has participated in several listening tours and meetings with Sir Angus Houston in his role as the Chair of the MDBA. While there has been good open discussion about the Plan and its implementation, the coordination of these tours in our region have been a little ad hoc. There is a need for better connection between listening tours and the outcomes from these. This is particularly needed where elected representatives want to know that they can add value and how they can influence outcomes in the interests of their communities.

As detailed in response to question one, the CNSWJO is working with Charles Sturt University on a Policy Lab which is considering the development of policy on productive water. Leading this work from CSU is Professor Mark Evans, Deputy Vice Chancellor Research. Professor Evans specialises in the study and practice of governance, policy analysis and in democracy. He undertook an evaluation of the National Water Commission's role in Australian Water Governance (2011-2012) and in 2013 wrote a paper titled, *The localism gap-the CLEAR failings of official consultation in the Murray Darling Basin*. Through the CSU Policy Lab we would be pleased to facilitate the opportunity for Professor Evans to talk about his research findings in more detail.

7. What lessons should be learned from programs aimed at helping communities adjust to the Plan?

Response:

As general comment, where there is a need to do much more with less water the MDB Plan does not appear to have driven efficiencies as would have been hoped. There is a need to better incentivise the adoption of Plan including efficiency projects to achieve plan objectives.

8. Does the implementation of the Plan reflect a commitment to the best available scientific knowledge? How well is this knowledge communicated? What improvements should be made?

Response:

CNSWJO member councils in the unregulated Macquarie and Lachlan catchments continue to plan and implement innovative solutions to improve water security.

There are cases where these efforts are being prevented or inhibited by the current Water Sharing Plans as follows:

- Access to additional entitlement and conversion of this entitlement to town water supply use;
- Water trading restrictions; and
- The need to seek additional approvals during times of critical drought.

Change to enable stormwater harvesting and other innovations

Plans including the Basin Plan and associated NSW Water Resource and Water Sharing Plans need to allow for innovations such as stormwater harvesting and other water security improvements to be specifically recognised and enabled.

Under the existing Water Sharing Plans not enough use is made of water credits. Stormwater harvesting and other recycling and reuse innovations provide an opportunity for the additional flow volume created by urban development, in a local sense, to be treated like a water credit with the excess water above natural flow available for capture and reuse. This is a concept that should be reflected in the review of the Water Sharing Plans, like treated effluent discharge.

Orange City Council is renowned for its innovative award-winning stormwater harvesting systems. Council's current efforts to expand its stormwater harvesting system are being prevented by Clause 57(2) of the Water Sharing Plan which prohibits the construction of an in-river dam for the taking of water which would, in most instances, be a key component of a stormwater harvesting scheme.

A return flows policy has been investigated by the NSW Department of Planning and Environment–Water for some time and needs to be progressed. The Water Sharing Plan should cater for water credits when water is returned to the river.

Bathurst Regional Council returns in the order of 3GL/a of water back into the Macquarie River under a NSW EPA Environment Protection Licence, and receives no credit for returned water, as the approach has been that when water is put back into the system, it becomes the state's water again and can be extracted again under a different licence or the same licence. A return flows policy has been investigated by the NSW Department of Planning and Environment–Water for some time and needs to be progressed. The Water Sharing Plan should cater for water credits when water is returned to the river.

Innovative water management solutions must be enabled and incentivised in all these plans.

Also, environmental flows need to be better explained to the community, especially when timing seems incongruous.

9. Are there any other issues with Plan implementation that you wish to raise?

Response:

Arguably, the inception of the Basin Plan was at a time when rural and regional NSW was perceived as experiencing both population and production decline. Indeed, the current NSW Treasury Common Planning Assumptions are a testament to this wildly outdated and frankly wrong thinking and data. In fact, Central NSW is struggling with housing and skills shortages for its growing contribution to the state and national economies.

Further, through the development of the Regional Water Strategies in this region for both the Lachlan and the Macquarie it has become abundantly clear that the assumptions being made by agencies about both the social and productive value of urban water are not in line with lived experience in region. More detail can be provided on request where just the challenges through the past drought are a testimony to the failure of existing systems including the Water Sharing Plans.

The true value of water is poorly understood by users and many in the sector. Unreliable and incomplete evidence undermines the effectiveness of decisions, and community confidence in water managers.⁶

While we all value water as a vital part of our daily lives, few understand its true value. In part, this is due to a lack of exposure to the full costs of the water we consume – both directly through our taps, and indirectly through our food and other products. Similarly, the value of wastewater services and the role existing systems play in safeguarding the environment are not well appreciated by users.⁷

With turnover of \$24 billion, the urban water sector is many times larger than the rural water sector and underpins the future of cities and regional communities.⁸

It is the view of the Central NSWJO Board that there is plenty of water in this region and the opportunity is for more efficient and effective use of available water to modernise and sustain the region's economy and liveability.

As has been identified by the NSW and Australian Productivity Commissions, Infrastructure Australia and the peak body representing the urban water industry, Water Services Association of Australia (WSAA), Australia's prosperity and competitiveness faces significant challenges from climate change and liveability. Whether for urban, productive, cultural or environmental purposes all water use requires strong national leadership and new collaborative, inter-governmental approaches to water planning and management.

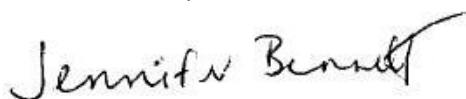
Based on our experience in Central NSW, there needs to be change in how the Murray Darling Basin Plan is administered to sustain growth, particularly in the context of drought for inland communities.

There is a need for a sustainable, apolitical, ethical, evidence-based suite of solutions to ensure the optimal use of water across the Murray Darling Basin.

We welcome the opportunity to continue the conversation about how water is valued and managed for our urban communities and to add rigor and confidence to the great work that has been done in this space so far.

For further advice or to discuss any matters raised in this response please do not hesitate to phone 0428 690 935 or email jenny.bennett@centraljo.nsw.gov.au

Yours sincerely,



Jennifer Bennett
Executive Officer
Central NSW Joint Organisation (CNSWJO)

⁶ Infrastructure Australia Audit 2019

⁷ [2019 AIAudit_may2020_update.pdf \(infrastructureaustralia.gov.au\)](#)

⁸ WSAA National Advocacy Policy for a Renewed NWI May 2023