

Department of Planning and the  
Environment – Water  
NSW Groundwater Strategy  
14 August 2022



**CENTRAL NSW  
JOINT ORGANISATION**

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

14 August 2022

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### Re: NSW Groundwater Strategy

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 200,000 people covering an area of more than 50,000sq kms comprising the Local Government Areas of Bathurst, Blayney, Cabonne, Cowra, Forbes, Lachlan, Oberon, Orange, Parkes, Weddin, and Central Tablelands Water.

Tasked with intergovernmental cooperation, leadership and prioritisation, JOs have consulted with their stakeholders to identify key strategic regional priorities. The CNSWJO Strategic Plan can be found here: [https://docs.wixstatic.com/ugd/51b46b\\_31886650ecf546bc916f15e99a733b3e.pdf](https://docs.wixstatic.com/ugd/51b46b_31886650ecf546bc916f15e99a733b3e.pdf)

The Central NSW Joint Organisation and its member Councils have worked closely with the Department of Planning and the Environment (DPE) Water through the development of the Macquarie-Castlereagh and Lachlan Regional Water Strategies and welcome this opportunity to now provide feedback on the NSW Groundwater Strategy to improve environmental, social and economic outcomes for Central NSW communities.

This is further to the advice already provided in the following submissions:

- NSW Legislative Assembly Committee on Investment, Industry and Regional Development inquiry into support for drought affected communities in NSW (November 2019)
- Lachlan Regional Water Strategy Consultation (Response updated from 6 April)
- Marsden Jacob report on Regional water value functions Valuing different hydrological outcomes under Regional Water Strategies – Revised Draft 12 August 2020 (September 2020)
- Lachlan Regional Water Strategy Consultation- (September 2020)
- Macquarie-Castlereagh Regional Water Strategy Consultation- (September 2020)- Supplementary Submission (10 December 2020)
- Continuing the Productivity Conversation - GREEN PAPER (September 2020)
- Legislative Assembly Portfolio Committee No. 7 -Inquiry into the rational for and impacts of new dams and other water infrastructure in NSW (October 2020)
- Draft State Water Strategy (March 2021)
- Water Sharing Plan for the Lachlan Unregulated River Water Sources 2012 (May 2022)
- Water Sharing Plan for the Macquarie -Bogan River Water Sources 2012 (May 2022)

For more detail on submissions <https://www.centraljo.nsw.gov.au/submissions/>

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This submission aims to provide overarching feedback in relation to the questions raised in the NSW Groundwater Strategy - Stakeholder survey.

***Based on the 13 NSW regions, in which region are you located?***

The CNSWJO member Councils are located in the Lachlan and unregulated Macquarie section of the Macquarie-Castlereagh catchments.

***How important is it for you to access groundwater as a resource?***

Access to multiple water sources including groundwater is becoming increasingly important for towns and communities at times of critical water shortages for basic human needs. It is also very important for the economic growth and wellbeing of the Central NSW region where groundwater is needed for productive uses including for agriculture, industry and manufacturing.

Modelling underway by the Department of Planning and Environment- Water (DPE-Water) through the Lachlan and Macquarie Regional Water Strategies and lived experience through a multi-year drought has highlighted areas where town water supply systems are at risk under future climate conditions.

Under long-term climate change projections, towns and communities in the Lachlan and unregulated Macquarie face heightened (surface water) risks particularly for those towns and communities that:

- are dependent on regulated river supply but are situated at greater distances to the region's major headwater storage (Wyangala Dam);
- are dependent on unregulated rivers and creeks; and
- are dependent on groundwater sources that are already under pressure (e.g. highly used, declining groundwater levels).
- face significant population and/or industry growth leading to water demand exceeding current licenced entitlement volumes (e.g. potentially through projects like the Parkes Special Activation Precinct or the inland rail project)

Groundwater is an important water source for towns and communities in the Lachlan and Belubula catchments. All major towns in the Lachlan catchment including Cowra, Forbes, Parkes and Condobolin have access to the Upper Lachlan Alluvium groundwater.

During previous droughts, several councils in the Lachlan have sought to improve their groundwater access (including with the help of state funding) to ensure their water needs can be better serviced during times of limited surface water availability (including Cowra, Forbes, Parkes and Lachlan Shires). However, access to groundwater will become increasingly important in the context of diminishing surface water availability under climate change.

In the Macquarie catchment, Orange and Bathurst are important and growing regional centres in the Central NSW, region that are the health, education and service hubs to surrounding towns and communities.

Water is critical to support the current and growing populations in Bathurst and Orange. The water supplies for these cities also underpin the water security of many surrounding smaller towns and communities during times of drought including Cabonne Shire towns. Rural households and small communities rely on water carted from the cities in severe droughts.

During the 2017-2020 drought the township of Molong in the Cabonne Shire relied on water piped from Orange. Since then Cabonne Shire has successfully supplemented its water supply system with bores. Cadia

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mine relies on the treated wastewater from Orange. Additionally, there is uncertainty about the water security for the town of Oberon.

The water supplies for these cities and towns in the unregulated Macquarie system is highly dependent on surface water resources. Unfortunately, groundwater resources are very limited in the area. While there is some potential for groundwater to further supplement Orange's water supply and partly address surface water supply shortfalls, no accessible groundwater sources have been found to support Bathurst in a material way.

Options in development through the Macquarie Regional Water Strategy include the need for local investigations for Orange to determine whether there are existing groundwater entitlements suitably located with willing sellers, or whether there are suitable locations where existing entitlements from other location in the aquifer could be moved to without local impacts. The highest concentration of groundwater use is around Orange, and within that area local drawdown impacts could limit the ability to move in water entitlement. It is likely that Orange would need to buy a licence and take the water at or near the current location of that licence.

Of interest is data in the Strategy that the demand for groundwater by towns is expected to increase by close to 300% over the next 20 years. Given that, as detailed in the Strategy, current usage of groundwater for towns represents only 5%, followed by 10% for industry, it is critical that its growing importance in supporting towns and communities in a changing climate is not under played and more importantly is enabled in the management framework.

Also notable for the CNSWJO region is that the groundwater resources contained in the alluvial deposits of the six major inland catchments including the Macquarie and Lachlan are the most productive and economically important resources in NSW.

In the context of a growing population and climate change there is no doubt that the NSW groundwater needs for towns and productive use in the next 20-40 years will likely be more than the current needs. More evidence and better data including on the relationship between surface and groundwater is required together with an improved management framework.

### **NSW groundwater management framework, rules and legislation**

The challenge is to embed resilience in town water supplies, so that local water utilities are able to continuously provide access to safe, secure and affordable water supplies to their growing and changing communities in the context of a variable and changing climate. This includes the enablement of multi-source water availability through access to surface water, groundwater and recycled water options.

It is agreed that the policy framework for sustainable groundwater management needs to be updated to be more responsive to emerging challenges such as climate change and to recognise the priority under the Water Management Act 2000 for water for human needs.

While LWU entitlements (groundwater) have priority in the water allocation process and essentially receive 100% of their licenced entitlement volume, it is essential that in times of water shortages there is clear policy and rules around the priority of water for critical human needs that removes any ambiguity about groundwater entitlements in these circumstances.

Given the above and the reliance of essential services, for example, hospitals on town water supplies we question what the following statement means in terms of this priority.

*During normal circumstances, the highest priority access is protecting the water source and dependent ecosystems, followed by basic landholder rights. During extreme events, the highest priority becomes*

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*critical human water need, followed by basic landholder rights for domestic uses and towns for domestic uses and essential services.” (page 31)<sup>1</sup>*

Where long term climate change projections are predicting lower winter/spring rainfall, higher temperatures and higher evaporation leading to a decline in surface water availability, this could impact on groundwater recharge which may be an issue for all groundwater users. Greater demand on groundwater due to prolonged dry periods and lower surface water availability may also pose a risk to future water security for towns and communities, particularly in the Lachlan region.

The construction of new bores could also be a challenge for towns and communities in the Lachlan. There is more data and potentially opportunity in the Lachlan than in the Macquarie and therefore much of the following is about the Lachlan.

It is understood that all new groundwater bores will be assessed against the impact on the groundwater source, the broader environment and other existing users. In broad, the operation of a new groundwater bore cannot result in ‘greater harm’ than any other water supply works approval and a new bore would need to be located in areas where water level declines are not an issues. As such, new bores may need to be located further away from existing borefields which adds the challenge (and additional costs) of connecting them to the town water supply system.<sup>2</sup> It is essential, therefore, that there is a clear understanding of groundwater, its behaviour and use to inform rules around increased demand and competing use.

The CNSWJO welcomes detailed analysis of these issues through the NSW Groundwater Strategy.

### **Groundwater Strategy Priorities**

In general, the CNSWJO broadly supports the three high level strategic priorities as follows:

- Protect groundwater resources and the ecosystems that depend on them;
- Build community and industry resilience through sustainable groundwater use; and
- Improve groundwater management decisions with better information.

It is however a high level document, which does not have sufficient detail on what is planned, and how it will be implemented and managed in practice.

As the CNSWJO’s interests are in safe, secure water for the growth and prosperity of our towns and to support agriculture and industry and sustain the environment, our interests are largely with priority 2 - *Building community and industry resilience through sustainable groundwater use* and its associated actions:

Action 2.1: Support towns and cities using groundwater to improve their urban water planning

Action 2.2: Support economic growth using groundwater

Action 2.3: Support Aboriginal rights, values and uses of groundwater

It is noted that many actions will need to be implemented in collaboration with a range of partners, including councils and across government agencies, as well as with community and other non-government stakeholders. Further consultation will be required to refine the details of many of the actions. Of interest to Local Government moving forward will be how it is consulted as details around the refinement of these actions and significantly on their implementation are developed.

The CNSWJO welcomes the strong focus on collecting and sharing better data and evidence about groundwater resources across NSW so government, water utilities, environmental managers, industries and landholders – can make well-informed decisions about how best to manage and use these resources.

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<sup>1</sup> Draft NSW Groundwater Strategy page 31

<sup>2</sup> Draft Lachlan Regional Water Strategy- Town Water Risk Challenge Statement

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It is noted that the DPE are exploring how we can 'do more with less' groundwater in a more variable climate, such as potentially increasing our use of marginal groundwater sources through new solutions and innovative technologies. 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. Councils in both the Lachlan and unregulated Macquarie 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 Plan 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.

The CNSWJO advocates that the most important priorities in this high-level Groundwater Strategy are:

- 1. Modelling and data shared with local water utilities** - there is a need for better modelling and data collection and verification where currently there would appear to be conflicting information and DPE Water processes impacting on LWU planning. This includes the need for a better understanding of the inter-relationship between surface and groundwater. We need one-of-source of truth on groundwater for our region that is shared with our members LWUs for their own local and regional planning purposes. This is particularly the case where councils such as Parkes, for example, who rely heavily on groundwater during drought are being requested to complete work on regional ground water through their current Integrated Water Cycle Management planning processes administered by the DPE Water, Water Utilities Branch. This also points to the need for priority 2- see below.
- 2. Better coordination and governance and implementation of groundwater strategies** - the Parkes example, detailed above, highlights the need for better Governance and Implementation planning between the department and Local Government. It also points to the need for better coordination between the various arms of the department working with LWUs where the risk is duplication of effort, increased costs to both the state government and councils and lack of agreement around data and modelling. Through its engagement with the development of the Regional Water Strategies, this region has long advocated for Governance and Implementation Plans that enable the integration of local and regional strategic planning for water for towns and productive use. The CNSWJO sees this as a priority to enable implementation of strategies such as the NSW Groundwater Strategy, particularly where Local Government is named as a stakeholder in its delivery. This can only be achieved if we have people in place.
- 3. NSW groundwater management framework, rules and legislation**- the policy framework for sustainable groundwater management needs to be updated to be more responsive to emerging challenges such as climate change and to recognise the priority under the Water Management Act 2000 for water for human needs. It is essential that in times of water shortages there is clear policy and rules around the priority of water for critical human needs that removes any ambiguity about groundwater entitlements in these circumstances.

Further we support advice in a submission from Lachlan Valley Water that:

- *This is a high level document, which does not have sufficient detail on what is planned, and how it will be managed in practice.*
- *There also need to be regional plans below it which recognise the widespread groundwater management that is already in place. While the total groundwater access rights exceed the extraction limits in inland groundwater systems, the Dept should acknowledge this is a result of their previous policy implementation, and is currently being managed. In this area the assessment*

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*of applications for new bores is more stringent than it may have been 20 years ago, and the conditions applied on new bores in terms of the bore quality, grout seals etc is also more stringent.*

- *The Department's overall approach with Regional Water Strategies has been to use one of the driest future climate scenarios for assessing risk (see p 36, 37). The Department should also acknowledge that this worst possible case may not occur and that the management should also be guided by actual data rather than worst possible forecast data.*
- *The Strategy should also recognise that there needs to be a groundwater management process which has flexibility appropriate to the different regions, in terms of the groundwater resource and the actual and forecast usage. On p 28 they discuss expected increases in demand, but they need to be explicit about regionally where the increase will occur, particularly in relation to increased town water supply demand.*
- *Given that the Strategy has only just been published, why has the Dept only included usage data up to 2019/20, when there is more up to date data available? See <https://www.industry.nsw.gov.au/water/allocations-availability/tracking-groundwater>*
- *Groundwater dependent ecosystems – a critical factor to Action 1.3 is that the Dept needs to undertake a verification process to understand the actual level of dependence of these ecosystems on groundwater. In Figure 12, many of the areas where there is “high probability to find high priority GDE’s “ are along existing rivers/creeks, especially in the southern half of NSW, so it is anticipated these ecosystems will also have significant surface water dependence.*
- *Re Action 1.4, while some groundwater regions are “over-allocated”, the Strategy should recognise that there are already management strategies in place to handle compliance with extraction limits.*
- *The Dept has suggested managed aquifer recharge as a strategy. This is an expensive process so they need to understand the demand for water and the ability to pay for it before going down this track. They also need to understand the aquifer very well to be able to ensure that if groundwater is injected into the aquifer it can be pumped out, and need to know the quality of the water injected.*

In summary we thank you for the opportunity to provide feedback on the NSW Groundwater Strategy.

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.

What we want to know from the NSW Groundwater Strategy is the quality and security of our groundwater as part of Councils multi-source approach to securing town water supplies. In particular we want to know about its accessibility to local water utilities including the ability to put a bore down in times of drought emergency and we need the regulatory and other support to enable it.

For further advice or to discuss any matters raised in this response please do not hesitate to contact m [REDACTED] or [REDACTED]

Yours sincerely,

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Central NSW Joint Organisation (CNSWJO)

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