

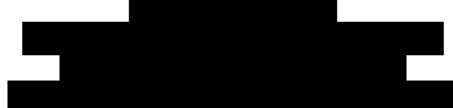
LACHLAN REGIONAL WATER STRATEGY SHORTLISTED ACTIONS



**CENTRAL NSW
JOINT ORGANISATION**

Bathurst
Blayney
Cabonne
Cowra
Forbes
Lachlan
Lithgow
Oberon
Orange
Parkes
Weddin

PO Box 333
Forbes NSW 2871



10 November 2023

Department of Planning and Environment
Regional Water Strategies Team
Locked Bag 5022
Parramatta NSW 2124

Email: regionalwater.strategies@dpie.nsw.gov.au

To whom it may concern,

Re: Lachlan Regional Water Strategy shortlisted actions

Joint Organisations (JOs) were proclaimed in May 2018 under the NSW Local Government Act 1993. The Central NSW Joint Organisation (CNSWJO) represents over 177,000 people covering an area of more than 51,000sq kms comprising the eleven Local Government Areas of Bathurst, Blayney, Cabonne, Cowra, Forbes, Lachlan, Lithgow, Oberon, Orange, Parkes and Weddin.

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: [Strategic Plan & Regional Priorities - Central Joint Organisation \(nsw.gov.au\)](#)

CNSWJO member councils all operate local water utilities (LWUs), so the security, availability and affordability of town water supplies for the communities in Central NSW is core business for the councils in this region and of the highest priority for the CNSWJO Board.

Where our member councils will provide separate submissions, this response is informed by policy developed in region and endorsed by the CNSWJO Board.

Firstly, we thank the Department for working with the CNSWJO and its member councils over the past five years to understand the challenges for town water security and to identify solutions to address these in the Lachlan Regional Water Strategy. We also thank you for the opportunity to provide comment on the shortlisted proposed actions.

General Comments

While we have come a long way in seeing town water challenges described and integrated into the state government's strategic water framework, we have not come far enough and certainly not fast enough with solutions to these.

Solutions offered in this long overdue strategy are high level and mostly plans for yet more strategies, studies and investigations. While all have merit in an aspirational sense, it is the timeframes and absence of any tangible on the ground projects based on sound engineering principles to address the water security needs (and to help mitigate the widespread flooding of communities) that is concerning. This is particularly the case with drought conditions intensifying.

The CNSWJO and its members have advocated tirelessly since completion of its national award winning 2009 Centroc Water Security Study for infrastructure solutions. Frustratingly, these suggestions have not been taken up or have only just gained acceptance in options for further investigation in the Macquarie-Castlereagh and Lachlan Regional Water Strategies.

A case in point is action 1.7 under priority 1. Expansion of the regional water supply grid was identified in the 2009 Centroc Study. Over the past decade councils have worked individually or with their neighbours to deliver sections of this grid. As a result, the existing pipeline network has been growing incrementally over the past decade. However, 15 years on we are yet another investigation away from realising the full potential of the regional pipeline grid recommended in this study.

Despite their best efforts, our member councils continue to be stymied by bureaucracy or lack of funding and resources to implement the projects they know from managing their towns through droughts (and floods) are needed to address their town water challenges. Some of these projects require a simple change of protocol or policy or even just agreement between different government agencies (sometimes even the same agency) to enable. This highlights the need for urgent work on policy and triggers to enable water for critical human need under the Water Management Act in times of shortages and a proactive approach within the Department to enabling solutions.

We agree that 'the region needs a multi-faceted approach to protect against uncertainties and balance the competing needs of our environment, towns, and farmers'. This was also identified in the 2009 Centroc Study which found that the region's water security woes would not be solved by demand management initiatives alone but needs a multi-source approach including demand management and augmented supplies supplemented by a pipeline grid.

Informed by the 2009 Study and from managing their communities through two droughts, the region's councils are experts at demand management and in driving water efficiencies. They continue to work diligently with DPE Water on programs to save water through identifying and repairing leaking pipes and on trying to work through the myriad of complex and interwoven approval processes to enable stormwater harvesting and other innovative water security solutions.

From lived experience the reality is that the water saved from repairing pipes, while helpful, barely registers when considering the water needed to sustain our towns and industries through the sorts of shortages we saw in 2016-2020 with worse predicted.

The CNSWJO Board supports the need for water security projects to be grounded in solid evidence and state-of-the-art climate modelling, but this process is taking too long and the assumptions that underpin decision making not transparent or based in real world experience. This includes assumptions made about the value of town water and its security that are frankly wrong. The idea that 'no town will run out of water' that we again saw in the Final Business Case for the Wyangala Dam wall raising project has no basis in the real-world scenarios that this region saw play out in 2020. We would welcome the opportunity to continue to work with DPE Water on getting this right and gaining a shared understanding of the concept of an 'enduring supply' in a water constrained future.

The time for studies is over, we need shovels in the ground and the removal of red tape that continues to hamper the delivery of critical water security and flood mitigation projects.

Specific reference to short listed proposed actions

Priority 1 - Build resilience to climate extremes.

Informed by this region's experience in managing water for towns and communities in the Lachlan Valley through two droughts, there are four actions identified in the strategy that need to happen immediately. These are actions 1.5, 1.7 and 1.8 under priority 1 with action 1.1 critical to the implementation of these. In the medium term proposed action 1.9 is also a priority and one that has a direct bearing on infrastructure decisions.

Proposed action 1.1- Establish a coordination approach involving all levels of Government, to implement local council and town water related actions under Priority 1

We thank you for responding to the region’s ongoing advocacy for a coordinated inter-governmental approach to enable the implementation of actions under this place-based strategy. Where the CNSWJO is aligned with the thinking of the Productivity Commission and others in supporting the need in a new climate future for a more wholistic catchment wide approach across all water uses, the inclusion of Priority 1 action 1.1 - is a positive step.

Who should be represented in the coordination framework in addition to water supply authorities and local government?

It is noted that the coordination framework will be led by the DPE–Water’s Local Water Utilities team and developed in collaboration with councils in the Lachlan region, the CNSWJO and relevant state agencies with responsibilities for drought preparedness and response, and flood mitigation planning.

It is critical that WaterNSW is included in this coordination framework. It is the view of the CNSWJO Board that the DNA of WaterNSW is to sell water. Indeed, in the past this region has been told by WaterNSW staff to “stay out of our dams” as the region developed its national award-winning Water Security Study in 2009. Further, WaterNSW have provided advice in the past that they are “agnostic” as to who buys their water. “A dam is like a teller machine - you put your card in and you get water.” The communities of Central NSW are profoundly religious about their water – we don’t want to close hospitals. It got very close to this in the Millennium Drought where, for example, Orange had to alter its water restrictions substantially to cascade through various levels of water users – hospitals being the most important.

We look forward to collaborating on the implementation of action 1.1. However, for this coordination framework to be ‘enduring’ it will need to be established in a way that enables it to withstand the churn in government and agency staff. Where the strategy points to the development of the Implementation and Governance Plan following this consultative process, as it stands there is little accountability for the delivery of actions in the strategy. The CNSWJO Board advocates that the coordination framework needs to be led by an independent chairperson who reports directly to and is answerable to the Minister.

Proposed action 1.2- Support councils to improve flood risk management in the Lachlan region.

What opportunities can you see for supporting/improving councils’ flood risk management across the Lachlan region?

While we are staring down the barrel of the next drought, flood mitigation continues to be of the highest priority for the communities devastated by the 2022 flood. The Wyangala Dam wall project decision is a difficult one for the communities on the Lachlan where elected officials look to other levels of government for options to protect their communities. So far, the options in the Draft Lachlan Regional Water Strategy do not provide a great deal of comfort.

Where the communities of Parkes, Forbes and Condobolin have been heavily affected by flooding in the Lachlan River Valley over recent years including major flooding in November 2022, management of the Wyangala Dam by WaterNSW is a significant and ongoing issue for these communities. This is

particularly the case as the State of the Climate Report 2022 highlights the increased pace and intensity of climate extremes including periods of intense heavy rainfall.

The mayors of communities along the Lachlan were effusive in their praise for WaterNSW in their management of Wyangala Dam through the flood crisis. Spills from Wyangala Dam peaked at a record rate of 230,000ML a day, well above the previous record of 205,000ML set in 1990.

However, it is clear from the Business Case for raising the Wyangala Dam wall that the social and economic costs of flooding and the management of the Lachlan catchment are poorly calculated and therefore the investments that are required to assure better management are not in place.

This region is not convinced that the management of WaterNSW dams is sufficiently alive to the impacts of climate change including for more intense and frequent flood events as well as longer and hotter droughts. This calls for very different management of water sources.

Having witnessed the failure of the management of Wyangala to secure water for communities in the west of the Lachlan in the Millennium Drought it is pleasing to see the improvements that have been made – however there needs to be a complete rethink on the value of water for human consumption and the social and economic impacts of flooding in the forward planning for WaterNSW assets.

The first step is an open and transparent strategic process codesigned with the communities in Central NSW. It is anticipated that this will be enabled through action 1.2.

Proposed action 1.3- Upgrade the existing hydrological models for the Lachlan catchment to better represent river operations and drought contingency measures.

Do you see any opportunities for improving existing river operations? Who would they benefit and who would they impact?

We welcome work to review hydrological models to ensure existing river operations and management practices as well as drought contingency measures are accurately reflected in planning models. There needs to be a better more wholistic catchment wide understanding of available water across all water uses to determine how this is shared in times of shortages.

In implementing this action there needs to be recognition of the primacy of human consumption in the Water Management Act and the enabling of this in times of shortage.

Local government seeks authentic engagement and 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?

It is anticipated that this will provide more surety around decisions made regarding environmental water releases and water for irrigation when town supplies are under threat. Also, that this will enable water for environmental flows to be better explained to the community, especially when timing seems incongruous.

See comments provided under action 1.2 above regarding WaterNSW's role in the management of river operations. Action 1.1 provides the opportunity for WaterNSW to sit at the table with other agencies and local government to optimise what needs to be done to manage the river in times of shortage.

Central NSW Councils support the concept of 'one source of truth' in data and modelling and look forward to the sharing of this with councils for local level planning.

Proposed action 1.5 - Support groundwater use for towns and communities.

*What are your views on having a connected groundwater network to ensure towns and communities in the Lachlan region have access to water during times of emergencies?
Do you think managed aquifer recharge is a viable option for the Lachlan region?*

Surely this action is contingent on proposed action 1.8? One would think it necessary to have a well-informed understanding of the groundwater system and its interaction with surface water to take a wholistic approach to its uses including for a connected groundwater network for towns in time of emergency.

This region has been calling for investigation by the Department of groundwater and its interconnection with surface water for town water supplies for at least a decade, if not longer. Where the state government tells us that it has sophisticated new modelling and a statewide Groundwater Strategy it is nonsensical that councils are required to undertake their own due diligence by competing in a limited market to engage hydrogeologists to complete groundwater investigations, only to have that compared with departmental models. This seems an unnecessary duplication of effort and cost.

Having said this all the actions detailed in progressing action 1.5 need to happen particular the upgrade and maintenance of bores and resolution of groundwater regulatory and licensing issues for towns that slow access.

It is agreed that while managed aquifer recharge is an option that should be investigated as part of any multi-sourced approach to water security, until we have a well-informed understanding of how ground water is working in the Lachlan Alluvium (action 1.8) it must be handled cautiously.

From consultation across the region we are aware that there are a number of stakeholders responsible for different elements of groundwater management and there is an opportunity to pull together programming and planning in a collaborative framework.

Proposed action 1.7- Investigate the need to further expand the regional water supply grid.

*Do you support the expansion of the existing regional water supply grid to share water across local government boundaries in times of need?
What are your views on best meeting the water needs of towns reliant on the existing B-section pipeline?
Is there a need to have additional offtake points from the B-section pipeline? If so, why?*

This action is the number one highest priority for towns in the Lachlan Valley in this strategy. As detailed earlier this region has done decades of thinking and studies in support of the regional pipeline grid. We know what we need and where we need it- what is needed is funding and DPE Water support to make it a reality.

Where recurrent funding is needed for the Safe and Secure Water Program to meet the ongoing needs of councils in providing quality, secure, safe and affordable local water utility services to communities across regional NSW, the CNSWJO member councils have collaborated to develop a brochure of council's priority water infrastructure projects.

This includes projects to meet critical human needs and NSW Health Guidelines for the supply of safe and quality drinking water. It also includes a map detailing existing and proposed water grid pipelines that could shore up town water supplies in emergency circumstances.

Many of these are not new. They were identified in the Centroc Water Security Study with bi-directional pipes well located to support multi-sourced water security in times of shortages. Proposed pipelines enable water to flow through the system from various sources including Wyangala Dam. A pipeline into Wyangala would enable tapping into water in the dam when it gets down to 5% in times of extreme scarcity. Linkages are made down the Lachlan to Condobolin and Lake Cargelligo. There is also potential to link the Central Tablelands system to the east building on the multi-source supply approach across two catchments.

Supporting the CNSWJO multi-source approach to water security, the Macquarie-Castlereagh Regional Water Strategy calls for investigating connecting urban communities in the Macquarie to the Fish, Lachlan and Coxs River systems. There is also potential to leverage the pipeline between Wallerawang and Kings Plain being developed to support mining and to link the Central Tablelands and Lachlan pipelines into the Unregulated Macquarie.

This region has done this thinking for decades now and have numerous investigations and studies already completed to draw on.

The opportunity exists for the CNSWJO and its member councils to partner with the NSW Government through DPE Water to participate in the next National Water Grid Fund (NWGF) funding round in January 2024 to potentially update the Centroc Water Security Study to enable the delivery of action 1.7.

Any work of this type should explore any opportunities the Lachlan offers as a 'terminal system'.

The Belubula Water Security Project

The decision on the Wyangala Dam wall raising project has highlighted again the importance to the region's town water security of the Belubula Water Security Project (BWSP) Final Business Case which includes the augmentation of Lake Rowlands.

The augmentation of Lake Rowlands was also a recommendation of the 2009 Centroc Study and has been the subject of advocacy by the Board since this time- long before the Wyangala project was floated by the NSW Government. The Belubula Water Security project inclusive of the augmentation of Lake Rowlands and the pipeline grid to enable water sharing in times of shortages across the Lachlan and Unregulated Macquarie catchments builds on the multi-source approach and needs to start now.

Proposed action 1.8 - Improve the understanding and management of groundwater resources in the Lachlan region.

Do you agree with the above work program to improve groundwater modelling or are key actions missing?

See response to proposed action 1.5. This is 100% supported and needs to happen as a matter of priority taking a wholistic approach across all water uses.

Proposed action 1.9- Better integrate strategic land and water planning.

*Do you see any opportunities to better align strategic and water planning that could lead to better outcomes for the Lachlan region?
Should particular areas in the Lachlan region be prioritised in terms of water security due to planned strategic growth?*

It is agreed that water resources, specifically town water, is largely missing in most strategic plans and in the state's strategic planning framework in general. In fact, town water is still missing in a number of the Regional Water Strategies developed in other regions.

As you know, this region has fought hard for town water to be included in the Lachlan and Macquarie-Castlereagh Strategies and we thank you for working with the CNSWJO and its member councils to ensure that this is the case.

We absolutely agree that there are opportunities to better integrate water resources in strategic planning processes, and that this will help to more closely integrate future iterations of the regional (land use) plans and of the regional water strategies.

It is for this very reason that the CNSWJO has advocated so strongly for a governance framework and arrangements to coordinate actions for this strategy that extends beyond just priority 1 to cover the delivery of the whole strategy. It is only through this level of coordination that a fully integrated, whole of catchment strategic planning approach to water management can be achieved to ensure sustainable water management for the Lachlan catchment now and into the future inclusive of all areas of water use. 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 the NSW Treasury Common Planning Assumptions are backwards looking, there is definitely a need to assess projected population growth trends and regional and local development trends, to identify spatial changes in water demand, growth in town water demands and sources of potential future flood risks – such as new developments.

Clearly to enable the Parkes Special Activation Precinct to fulfil its potential and for other towns in the Lachlan valley to leverage this in attracting new high value industries, access to a secure and reliable water supply is critical.

Priority 3 - Support a strong and sustainable economy in a capped system.

Proposed action 3.1 - Improve public access to climate information and water availability forecasts.

*What water-related information and information products are most critical to inform your business planning?
How can long-term climate information be communicated in a way to help water users and businesses better assess risks to their business?
Would the department need to provide further training on the new climate datasets and updated modelling?*

The CNSWJO has advocated consistently through the development of the Regional Water Strategies for the sharing of data and modelling with councils for local level planning. It is understood that this is being addressed through guidance on town water security for strategic planning by local water utilities being developed through the Town Water Risk Reduction Program. This alone will reduce duplication and costs in local level planning by ensuring one-source of truth used by both the department and councils.

CNSWJO is of the view that more data needs to be readily accessible to enable good decision making and strategy. We welcome this action and look forward to having access to this data.

Proposed action 3.2- Investigate water use in the Lachlan region.

What are the key drivers that influence your water use?

Is there information available that would help better understand water use and demand in the Lachlan region?

Recognition of urban water and the opportunity to do business differently in the Lachlan Valley are the key drivers. Please find more detail elsewhere in this response.

Proposed action 3.3- Undertake a climate impact study

How can your industry's resilience be improved in a potential future with increased climate variability?

Are there opportunities for future water efficiency projects in the Lachlan and is there a role for government?

For towns and industries to flourish they need to be confident that they have access to a reliable water supply.

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 and more efficiently to support the nation's growth aspirations. What is needed is access to a reliable supply to enable business and industry to make investment decisions.

The Lachlan Regional Water Strategy, review of the Lachlan Water Resource and Water Sharing Plans together with the review of the Murray Darling Basin 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)¹".* This presents the opportunity to think differently about how water is managed for productive use in the Lachlan Valley.

¹ Source: Lachlan Water Resource Plan

Proposed action 3.5 - Support system water delivery efficiency measures

Do you see there being an appetite for conversion of general security licences to high security licences in the Lachlan or Belubula Regulated River Source?

The CNSWJO Board supports what it refers to as the “Dutch model.” 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.

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.²

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.

Conclusion

Despite decades of investment in studies, including raising the Wyangala Dam wall, and in the place-based Regional Water Strategies, local water utilities across the region are not drought ready.

With the Bureau of Meteorology now officially declaring that Australia is in the grips of El Nino and drought conditions intensifying, the region’s leaders are fearful that another decade of planning and investigating will see communities that are still recovering from successive natural disasters again facing the sorts of scenarios we saw play out in the millennium and 2016- 2020 drought and major floods in 2016 and 2022 with minor flooding in between.

This region knows that with climate change more intense flooding periods and longer hotter droughts we will need to be prepared for in the future.

Most solutions require multi-million-dollar investments, are cross-regional or require legislative or policy changes by other levels of government. While many of the actions in this strategy seek to address these, the processes and timeframes are just too slow and not practical enough.

Based on the region’s experience through the 2016-2020 drought we do not have the luxury of time for long-term aspirational solutions. What is needed is a proactive approach with investment to make critical water infrastructure projects a reality. Fast.

² Source: Parkes Special Activation Precinct Port Jackson Partners


The Australian Bureau of Statistics is projecting that Australia's population will grow to around 40 million in 2061 and depending on migration policies, will grow to between 42 million and 70 million by 2101. Where planning and modelling for water security infrastructure draws on the backward-looking NSW Treasury's Common Planning Assumptions work is needed urgently to understand what our future water demands will be. Proposed action 1.9 will be critical here.

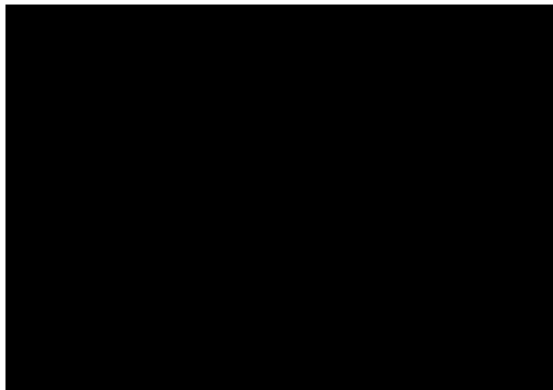
To ensure water security, for food and people (and flood mitigation) the region needs a 50-year water security plan which starts now. This includes the need for all options to be on the table; augmented supplies from an upgrade of the Wyangala Dam wall and of Lake Rowlands, the pipe grid, groundwater, recycled water, we will need all these options over time.

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.

We urge DPE Water to work in partnership with this region as a priority to make action 1.7 a reality noting that representations are being made to the Minister for Water for this together with the finalisation of the Belubula Water Security Project as a matter of urgency.

The CNSWJO Board will also advocate to the Minister for a coordination framework led by an independent chairperson who reports directly to and is answerable to the Minister to ensure the level of accountability needed to ensure this Strategy stays on track in delivering the outcomes so desperately needed.

If you require further information or clarification on comments in this submission, please do not hesitate to contact 



Regional Water Strategies Public Exhibition 3



Submission Questionnaire

Lachlan Regional Water Strategy Challenges and shortlisted actions

The NSW Government is taking action to improve the resilience of water resources in the Lachlan region. The Lachlan Regional Water Strategy sets out a shortlist of proposed actions to help deliver healthy and resilient water resources for a liveable and prosperous region.

Your voice is important

This is your opportunity to let us know which actions you support and think should be implemented to help set the region up for the future.

This questionnaire will take approximately 15 minutes to complete, and your response can remain anonymous if you wish (see question 7).

Questions marked with an asterisk (*) require an answer.

If you have any questions about the questionnaire, please email: regionalwater.strategies@dpie.nsw.gov.au

You can also provide feedback via [our submission platform](#).

1. Your details

*** Do you identify as an Aboriginal person?** (select one)

Yes No Choose not to answer

*** Are you making this submission as an individual or as a representative of an organisation?** (select one)

Individual Organisation

2. Organisation or business details

If making this submission as a representative of an organisation, who do you represent? (select one)

Government (select one)

- Commonwealth
 New South Wales
 State other
 Local

Peak representative organisation (select one)

- Environment
 Industry
 Business group or business chamber
 Community
 Local Water Utility

Aboriginal organisation (select one)

- Yes
 No

Other (select and provide details) **Joint Organisation of Councils**

N/A

3. Regional water challenges

We have identified **6 key water-related challenges** that are an immediate priority for the region. More detail about each regional challenge is available in the Consultation Paper.

1 Managing water resources during more extreme events for people, industry and the environment

Water management in the Lachlan is challenging due to the region’s variable climate and the extensive, low-gradient river system, which is subject to high system losses. Climate change is predicted to bring more extreme events (floods and droughts), warmer temperatures and higher evaporation, stressing the system and giving it less time to recover. Climate change will also likely bring more variable river flows and groundwater recharge rates, impacting water supplies to all water users, including towns and communities, industries and environmental water holders.

Droughts can limit the ability to deliver water to town off-take points and nationally significant wetlands at the end of the system. It can also result in multi-year low or zero water allocations to general security licence holders, which are mostly held by industry and environmental water managers. Towns and communities reliant on unregulated water sources could also experience greater risk of limited water supplies should unregulated streams experience more frequent low-flow or cease-to-flow periods.

2 Understanding flood risks to individuals, businesses and communities

The management of floods is an ongoing challenge for the Lachlan region. The region has experienced significant flood events over the past 122 years of observed records and the intensity of heavy flood producing rainfall events could increase under climate changing scenarios.

Given the flat landscape, many areas of the region are subject to flood risk. Development on the floodplain has meant that floods can significantly impact people and businesses, damage infrastructure, create safety risks and cause financial and economic loss. The devastating flood event in the Lachlan region in late 2022 highlighted the flooding risks to many communities in the region at an unprecedented and catastrophic scale.

But floods are also a vital natural process that support the region's ecosystems, providing benefits such as significant groundwater recharge and connections between rivers and their wetlands and floodplains, such as the Great Cumbung Swamp and Booligal Wetlands in the lower Lachlan River. Tributary flows downstream of the region's major headwater storages are often a major contributor to flooding in the region. Floods are also responsible for the productive soils valued by landholders on the Lachlan region's floodplains.

3 Improving water quality

Poor water quality has a direct impact on the health, wellbeing and resilience of all water users and is a prevalent risk in the Lachlan region.

Maintaining high water quality is a key challenge for the Lachlan region, as poor water quality impacts on ecological health, treatment costs for towns and industries and has an effect on Aboriginal people's wellbeing and connection to Country.

Dissolved oxygen can be depleted during hypoxic black water events and harmful algal blooms—often caused by excessive nutrients—can lead to the death of aquatic plants and animals. Unseasonal temperatures can also directly contribute to fish deaths and high turbidity can reduce the light penetrating of the water column and stress benthic plants. Salinity (both dryland and instream) can impact on vegetation leading to erosion and high turbidity, as well as increase salt loads beyond the tolerance level of some native plants and animals. Existing water infrastructure can also cause cold water pollution impacts which can reduce the range and abundance of native fish.

4 Addressing barriers to Aboriginal water rights

Aboriginal people in the Lachlan region have always been closely linked to rivers, creeks and groundwater sources, and their relationship to these water sources and wetlands is essential to culture, community and connection to Country.

Water management arrangements, a lack of water ownership, and poor access to waterways and culturally important sites restrict Aboriginal people from fulfilling their cultural obligation to care for Country and fail to provide opportunities for Aboriginal people in the Lachlan region. Involving Aboriginal people more closely in decision-making processes around water management could enrich and improve our water-management decisions and in turn provide employment and economic advancement opportunities for Aboriginal people, including youth.

5 Sustaining the health and resilience of the region's water-dependent ecosystems

The river system, floodplains, swamps, aquifers and wetlands in the Lachlan region provide habitat for many aquatic species, including birds and native fish. The lower Lachlan floodplain is home to 8 nationally important wetlands, which feature areas of valuable river red gum forest and woodlands, blackbox woodland, common reed and lignum. Our challenge is to sustain the health and resilience of these natural assets and ecosystems now and into the future.

Existing water infrastructure, river operations and water extraction, both surface and groundwater, have influenced flow variability, water quality and the distribution of water throughout the catchment. These factors are causing stress on native species and aquatic environmental health, especially at the end of the system.

Based on the new climate risk modelling, the Lachlan region could see more changes to river flows, magnifying the impacts on riverine and floodplain ecosystems. Improving lateral connectivity would support water quality, system-scale productivity and drought refugia as well as improve conditions for native species and aquatic fauna.

6 Supporting economic growth and diversification

The industry profile in the Lachlan region is changing. Over the next 20 years, food processing and agriculture, mining and renewable energy production is expected to expand – aided in parts by upgrades to roads, transport links and government investments in the Parkes Special Activation Precinct. Our challenge is to support new and existing industries in the context of a variable and changing climate.

A key focus for the Lachlan region is to provide conditions that make the region an attractive place to invest. Although industries have adapted to the region's climate, the variability in allocations to general security entitlements can create uncertainties and may deter new industries – including high value industries – from settling in the region.

New emerging industries and regional population growth will also likely create greater competition for available water resources, including groundwater. An increase in groundwater demand could push extraction close to (or above) the allowable limit and pose risk to the long-term sustainability of groundwater sources.

Do you agree that these are the key water challenges for the Lachlan region that we need to focus on? (select one)

Yes No

If no, please outline what you see as the key water-related challenges in this region over the next 20 – 40 years?

While at the highest level the Central NSW Joint Organisation agrees with the 6 key water challenges identified there are ongoing concerns in this region that the draft Lachlan Regional Water Strategy does not go far enough in acknowledging the projected population growth in the region and reliance on the Lachlan Valley for food production.

Based on current trends, the ABS projects that Australia's population will grow to around 40 million by 2061 and depending on migration policies, will grow to between 42 million and 70 million by 2101. To ensure water security for food and people (and flood mitigation) we will need to think very differently about water planning and management across all water uses in the Lachlan Valley.

the pipe grid, Wyangala Upgrade, Rowlands, groundwater etc etc this is what they don't understand, we need all the options over time, ie a 50 yr plan which starts now

4. Addressing the challenges

We have developed 3 regional priorities with actions under each. We want to know which of the actions you support.

The regional priorities are:

- 1 Build resilience to climate extremes
- 2 Improve catchment health
- 3 Support a strong and sustainable economy in a capped system

Priority 1: Build resilience to climate extremes

The actions shortlisted under this priority will:

- build resilience through better integrating regional and local strategic water management activities and improved coordination regarding extreme events
- improve our hydrological modelling capabilities, including scoping a program of works to build a new model for the Upper Lachlan to investigate water security risks to towns and communities in the Upper Lachlan
- support Aboriginal people to be more involved in water management by better valuing their traditional knowledge and contributing to decision making
- improve our understanding of important groundwater sources and investigate opportunities to expand the existing regional water supply grid
- enhance the existing support provided by various State agencies to local councils with respect to flood risk management planning, through ongoing direct support and improved coordination
- improve the integration of strategic land and water planning.

Proposed action		Do you support this action?
1.1	Establish a coordination approach involving all levels of Government, to implement local council and town water-related actions under Priority 1	<input type="checkbox"/> Yes <input type="checkbox"/> No
1.2	Support councils to improve flood risk management in the Lachlan region	<input type="checkbox"/> Yes <input type="checkbox"/> No
1.3	Upgrade the existing hydrological models for the Lachlan catchment to better represent river operations and drought contingency measures	<input type="checkbox"/> Yes <input type="checkbox"/> No
1.4	Develop ongoing arrangements for participation of local Aboriginal people in water management	<input type="checkbox"/> Yes <input type="checkbox"/> No
1.5	Support groundwater use for towns and communities	<input type="checkbox"/> Yes <input type="checkbox"/> No
1.6	Investigate water security for small and remote communities	<input type="checkbox"/> Yes <input type="checkbox"/> No
1.7	Investigate the need to further expand the regional water supply grid	<input type="checkbox"/> Yes <input type="checkbox"/> No
1.8	Improve the understanding and management of groundwater resources in the Lachlan	<input type="checkbox"/> Yes <input type="checkbox"/> No
1.9	Better integrate strategic land and water planning	<input type="checkbox"/> Yes <input type="checkbox"/> No

A) Do you have any comments on the proposed actions identified?

Priority 2: Improve catchment health

Actions under this category focus on:

- supporting natural resource management activities in the upper and lower Lachlan region
- addressing existing water quality issues in the region
- protecting important cultural assets and supporting co-benefit outcomes of the use of environmental water where feasible
- removing constraints and impediments to environmental water delivery
- update our floodplain management plans and address unapproved and non-compliant structures on floodplains.

Proposed action	Do you support this action?
2.1 Reduce salinity and soil erosion in the upper Lachlan and Belubula catchment	<input type="checkbox"/> Yes <input type="checkbox"/> No
2.2 Protect and rehabilitate regionally significant riparian and instream habitats in the regulated Lachlan River	<input type="checkbox"/> Yes <input type="checkbox"/> No
2.3 Upgrade and automate existing public re-regulating structures in the mid and lower Lachlan to build the functional resilience of critical ecosystems	<input type="checkbox"/> Yes <input type="checkbox"/> No
2.4 Mitigate the impact of water infrastructure and disruption of natural flows on native fish	<input type="checkbox"/> Yes <input type="checkbox"/> No
2.5 Review and evaluate the Lake Brewster Water Efficiency Project	<input type="checkbox"/> Yes <input type="checkbox"/> No
2.6 Support place-based initiatives to deliver cultural outcomes for Aboriginal people	<input type="checkbox"/> Yes <input type="checkbox"/> No
2.7 Support the development and implementation of the Lachlan Floodplain Management Plan and address floodplain structures	<input type="checkbox"/> Yes <input type="checkbox"/> No

A) Do you have any comments on the proposed actions identified?

Priority 3: Support a strong and sustainable economy in a capped system

Actions shortlisted under this priority focus on:

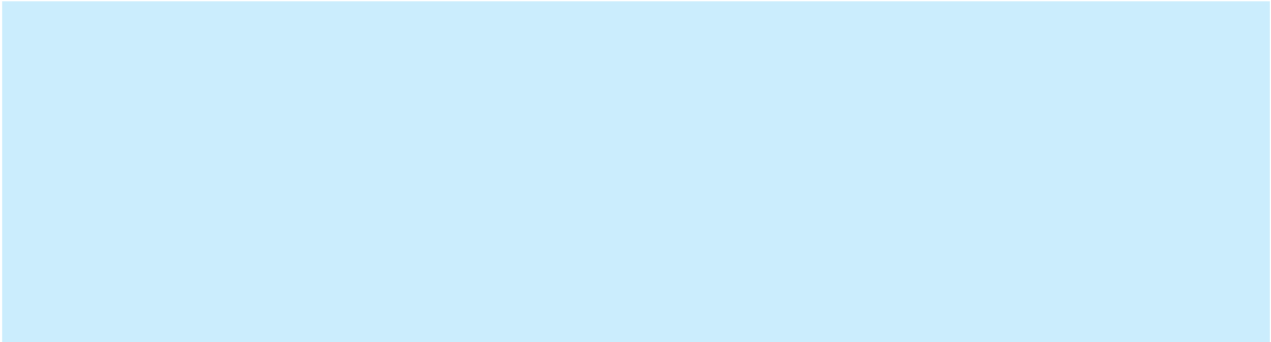
- facilitating access to data and information to assist industry to better assess risks and develop mitigation strategies
- exploring water use and water demand of the region’s industries and their resilience to a more variable and changing climate
- advancing economic opportunities for Aboriginal people and developing culturally appropriate placed-based initiatives
- improving our hydrological modelling capabilities to pursue further analysis on a range of infrastructure options that could improve system efficiencies and enhance reliability in the region.

Proposed action		Do you support this action?
3.1	Improve public access to climate information and water availability forecasts	<input type="checkbox"/> Yes <input type="checkbox"/> No
3.2	Investigate water use in the Lachlan region	<input type="checkbox"/> Yes <input type="checkbox"/> No
3.3	Undertake a climate impact study	<input type="checkbox"/> Yes <input type="checkbox"/> No
3.4	Support employment and business opportunities for Aboriginal people in the Lachlan region	<input type="checkbox"/> Yes <input type="checkbox"/> No
3.5	Support system water delivery efficiency measures	<input type="checkbox"/> Yes <input type="checkbox"/> No

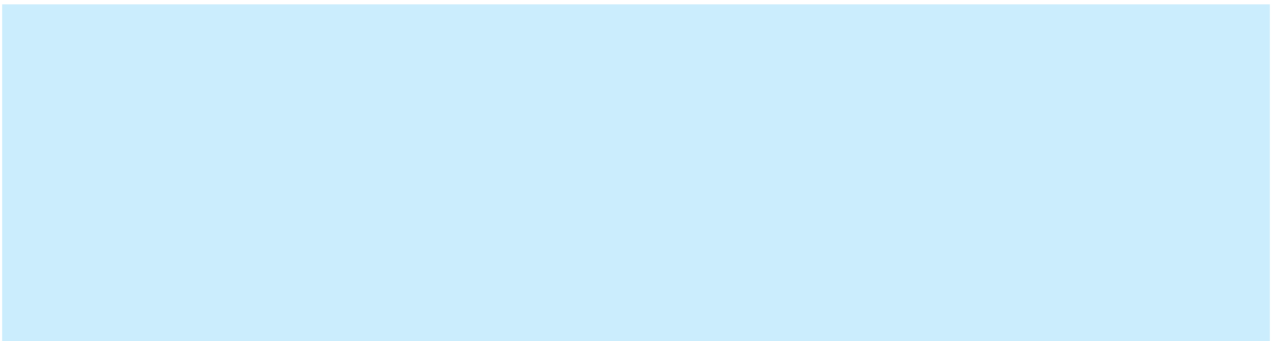
A) Do you have any comments on the proposed actions identified?

5. Other comments

A) Should any proposed actions in this second consultation document not be shortlisted and why?



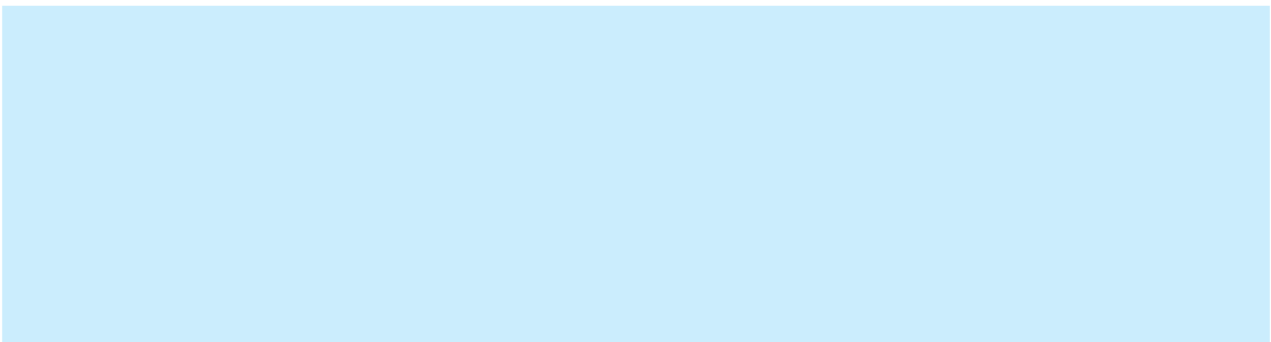
B) Should any other options in this second consultation document be shortlisted and why?



6. Implementation of the Lachlan Regional Water Strategy

An Implementation Plan will be included in the final Lachlan Regional Water Strategy.

A) Which actions should be implemented first and why?



Making your submission public

To promote transparency and open government, we intend to make all submissions publicly available on our website, or in reports. Your name or your organisation's name may appear in these reports with your feedback attributed.

If you would like your submission and/or feedback to be kept confidential, please let us know when making your submission.

If you request that your submission is to be kept confidential, it will not be published on our website or included in any relevant reports; however, it will still be subject to the *Government Information Public Access Act 2009*.

Your submission will be stored securely, consistent with the department's Records Management Policy and you have the right to request access to, and correction of, your personal information held by the department.

Further details can be found in our privacy statement available on our website.

www.industry.nsw.gov.au/privacy

7. Information on confidentiality and privacy *

I give permission for my submission to be publicly available on the NSW Department of Planning and Environment website.

Yes No

I would like my personal details to be kept confidential.

Yes No

8. Would you like to be kept updated on progress on the development and implementation of the Lachlan Regional Water Strategy?

Yes No

If yes, please provide your details below.

9. How did you hear about the Public Exhibition of this strategy?

We are interested to know how you heard about the opportunity to make a submission. Please indicate the communication methods below:

- Newspaper
- Radio
- Department of Planning and Environment website
- Direct email
- Social media
- Have your say NSW Government website
- Communication from peak body
- Word of mouth
- Other (select and provide details)

10. Additional Information

If you would like to provide any supporting documents to help us understand your feedback, please email these from the same email you provided in this form or attach supporting documents to this form if you are returning your submission by mail.

All submissions on the draft Lachlan Regional Water Strategy will be reviewed following the public exhibition period.

Please email your completed submission and any supporting documents to:

regionalwater.strategies@dpie.nsw.gov.au

CLICK HERE TO EMAIL SUBMISSION

Or post to:

Regional Water Strategies
Department of Planning and Environment
Locked Bag 5022
Parramatta NSW 2150

Submissions close Sunday 12 November 2023, 11.59pm

Further details on all regional water strategies can be found on our website
www.dpie.nsw.gov.au/regional-water-strategies



Thank you for your submission.