



Lachlan Region Draft Regional Water Strategy

What We Heard

Public Consultation
December 2021

Find out more: www.dpie.nsw.gov.au

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Cover image: Courtesy of Stefanie Schulte

Acknowledgments: The NSW Government acknowledges First Nations/Aboriginal People as Australia's first people practicing the oldest living culture on earth and as the Traditional Owners and Custodians of the lands and waters. We acknowledge that the people of the Nari Nari, Ngiyampaa, Wiradjuri, Barkandji and Yita Yita Nations hold a significant connection to the lands encompassed by the Lachlan Regional Water Strategy.

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Introduction

The Department of Planning, Industry and Environment (the Department) is developing 12 regional water strategies to provide long-term tailored water management solutions for NSW’s regional communities.

Our vision for the Lachlan Regional Water Strategy is to support the delivery of healthy, reliable and resilient water resources for a liveable and prosperous region. To achieve this, we need to position the region so there is the right amount of water of the right quality available to people, Aboriginal communities, towns, industries and the environment.

The draft Lachlan Regional Water Strategy (the draft strategy) is one of six draft regional water strategies that were released for public exhibition during the second half of 2020.

An extensive engagement and consultation program with the general public and Aboriginal people, accompanied the release of the draft strategy. This included several face-to-face meetings, online webinars and opportunities to have a one-on-one phone consultation with the Department’s regional water strategies team. Submissions were called for during the public exhibition period.

This report summarises the key issues we heard during the public exhibition and highlights how your feedback has informed the next steps in the development of the Lachlan Regional Water Strategy.

Figure 1 illustrates the process for developing the regional water strategies.

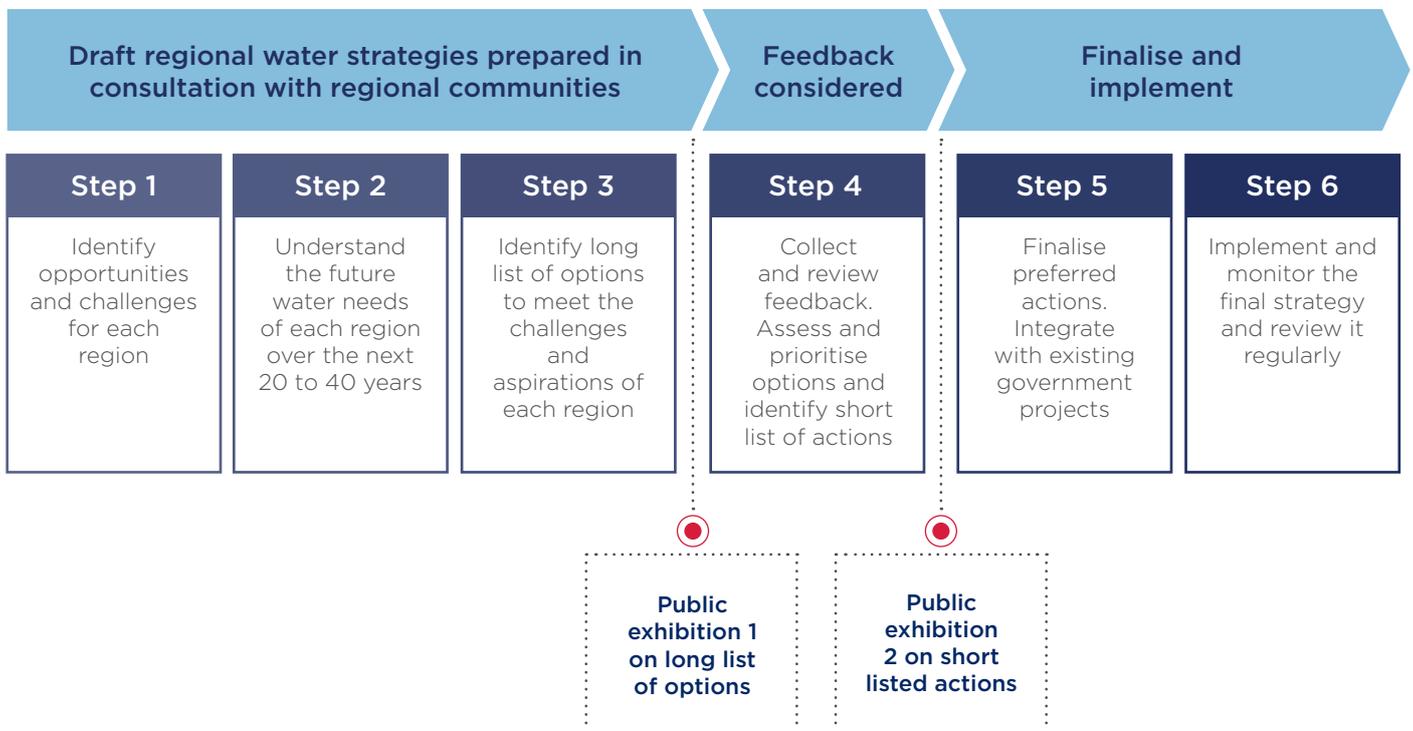


Figure 1: The Department’s approach to the development of the regional water strategies.

Engagement Approach

Our engagement approach for the regional water strategies program is to share information, gather feedback and collaborate with key stakeholders on the development of the Lachlan Regional Water Strategy to ensure regional communities have influence in its development.

The Department is using a phased engagement approach, as illustrated in Figure 2. The timeline for engagement activities in Phase 2 (public exhibition) is shown in Figure 3.

How we engaged

The Department’s engagement program in the Lachlan region involved:

- Consultation with councils in the Lachlan region prior to the draft strategy being released
- A webinar on 12 October 2020
- Community meetings in Lake Cargelligo and Parkes on 20 - 21 October 2020
- Engagement meeting with the Councils of NSW Joint Organisation (CNSWJO) on 29 October 2020
- An Aboriginal community webinar on the Lachlan, Macquarie-Castlereagh and Gwydir Regional Water Strategies on 13 October 2020
- Aboriginal community meetings in Lake Cargelligo, Parkes and Cowra from 20 - 22 October 2020
- One-on-one phone consultations offered during this engagement period
- A formal submission process with over 60 submissions received.

These methods enabled the Department to share information about the regional water strategies program as well as seek feedback on the draft strategy and the long list of potential options.

Who we engaged

During the exhibition period from 25 September – 13 December 2020, the Department communicated and engaged with:

- Aboriginal community members and Aboriginal peak bodies
- Local government and joint organisations
- Business and industry stakeholders
- Landholders
- Peak representative organisations
- Individual members of the public.

Feedback was encouraged throughout the consultation period and was captured in each engagement activity as well as in the formal submissions.

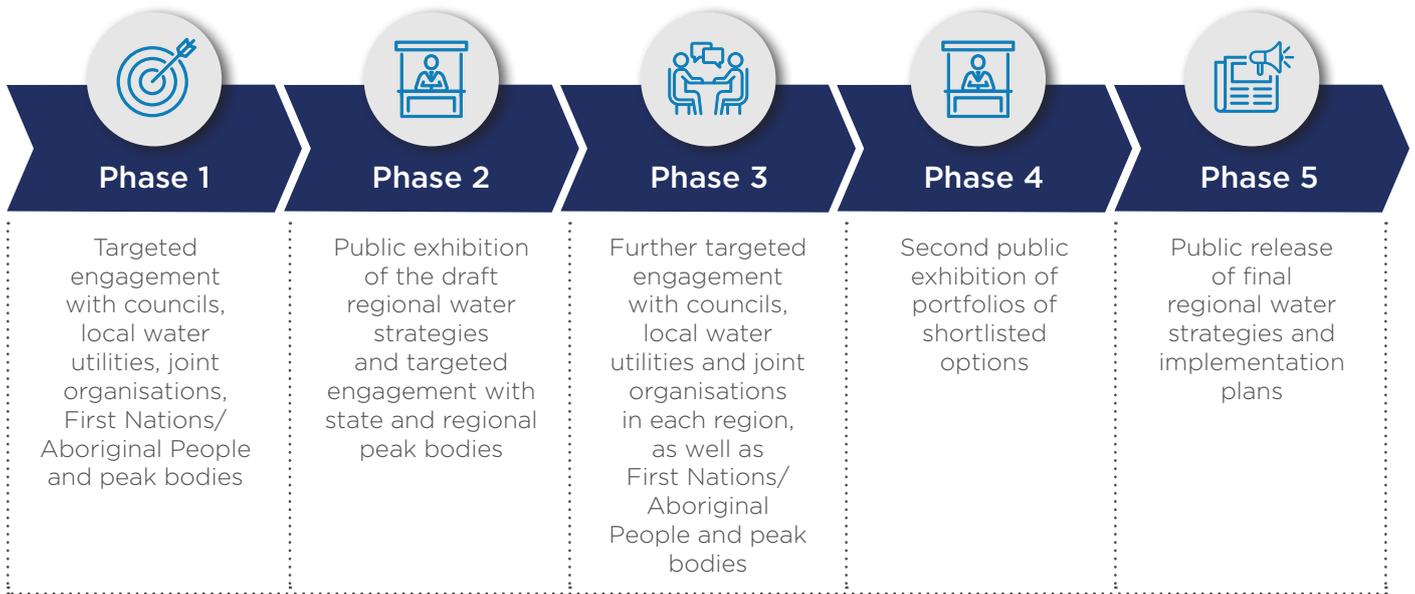


Figure 2: Phased approach to engagement for regional water strategies engagement program

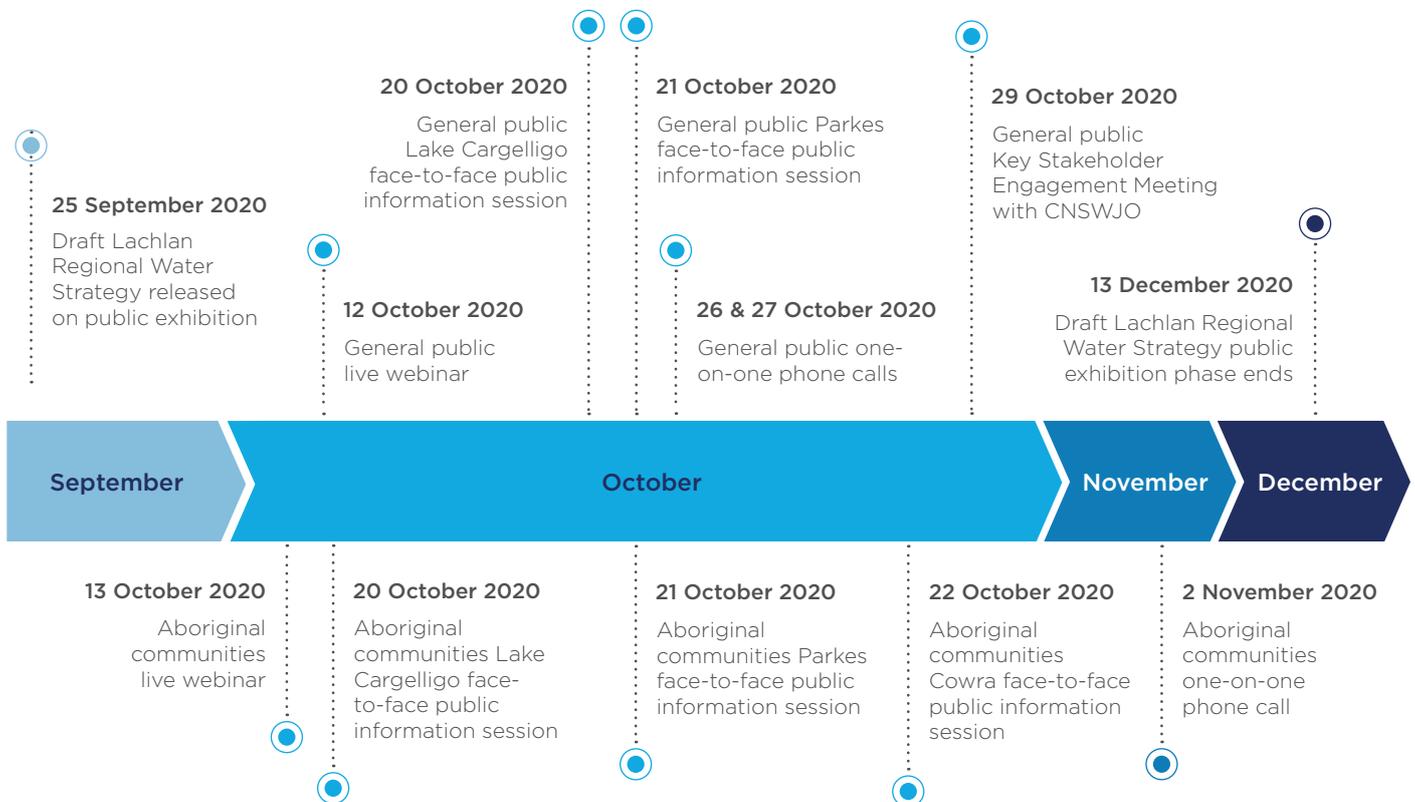
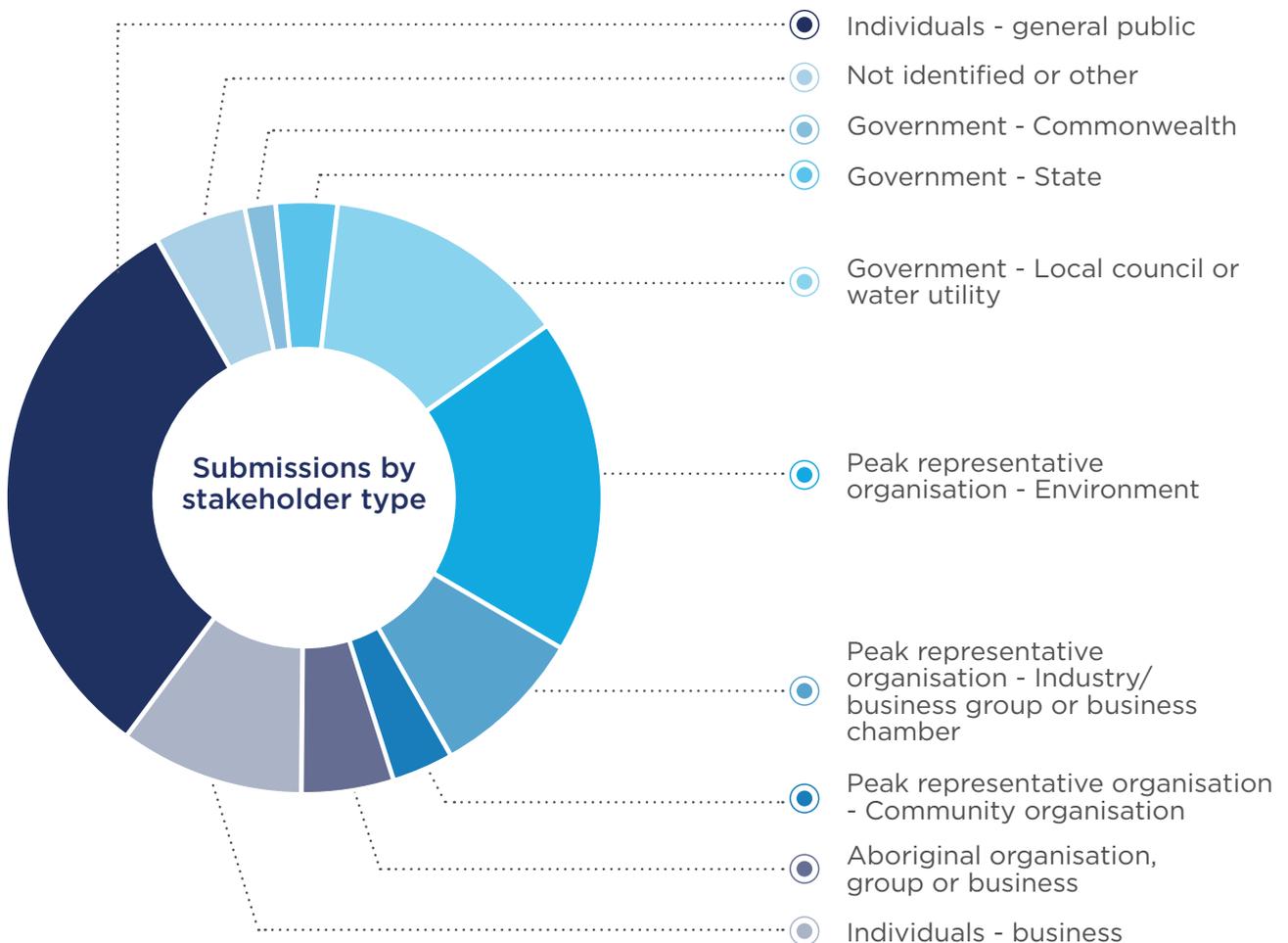
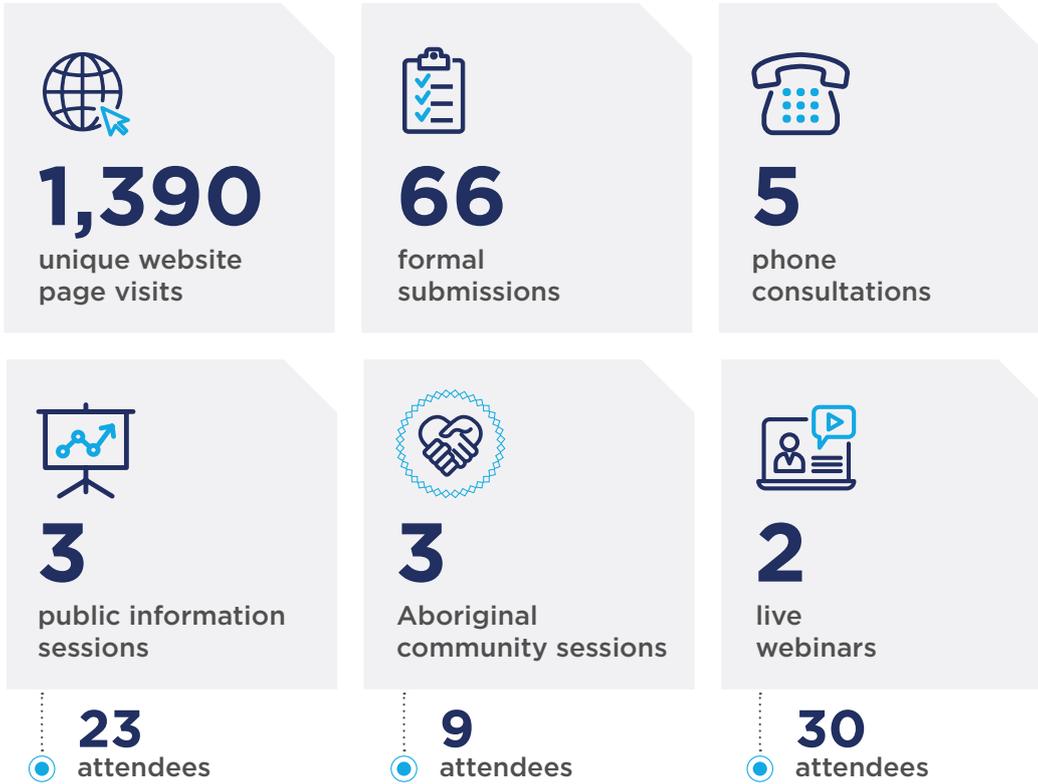


Figure 3: Timeline for the engagement activities in the Lachlan region.

Engagement at a glance





Our vision for the Lachlan Regional Water Strategy is to support the delivery of healthy, reliable and resilient water resources for a liveable and prosperous region. To achieve this, we need to position the region so there is the right amount of water of the right quality available to people, Aboriginal communities, towns, industries and the environment.

What we heard

During the public exhibition we received over 60 submissions on the draft Lachlan Regional Water Strategy and the long list of proposed options.

There was general support for the regional water strategies program and the development of the Lachlan Regional Water Strategy. Stakeholders urged the Department to progress the development of the NSW Water Strategy to provide an overarching framework and objectives that would guide the 12 regional water strategies and the associated implementation plans. Since that time, the NSW Water Strategy has been released for public consultation and finalised.

The Department also heard that the next phase of the Lachlan Regional Water Strategy should be accompanied by an open, transparent and broad scale consultation process to ensure

all stakeholder voices are heard and a broad cross-section of the community is represented in the discussion. We will be undertaking a further round of public consultation on a shortlisted set of actions before the Lachlan Regional Water Strategy is finalised.

We also heard that there is significant interest in the new climate datasets and updated modelling. Stakeholders urged the Department to publicly release the new datasets to allow communities to better prepare for future climate risks. We are currently working on a process to make this happen.

The consultation and engagement program for the draft strategy highlighted a wide variety of views on a range of issues. These issues can be categorised under the following themes.

The following section summarises the



Climate



Aboriginal water rights and connection to Country and waterways



Environment and ecosystem health



New and existing water infrastructure



Town water security and water-related amenities



Entitlement reliability and risk management



Groundwater

feedback received for each of these themes.

The draft strategy also included a long list of proposed options for the region. This long list is included on page 19. Feedback was received on each option and is summarised in the Options section.

An aerial photograph of a vast river delta system, likely the Okavango Delta, showing intricate patterns of water channels, wetlands, and dense vegetation. A large, dark blue rectangular overlay is positioned in the center of the image, containing the word "Themes" in a bold, white, sans-serif font. A thin red horizontal line is located directly beneath the text.

Themes

Image courtesy of Paul Packard



1. Climate

Most of the comments related to the new climate risk modelling and its impact on water users and water resource management in the Lachlan region. Stakeholders emphasised the importance of using the new evidence to drive demand management and water efficiency options as well as develop better training and information sharing opportunities to assist communities in preparing for future climate change.

Key support

- The new climate datasets and modelling allows communities to have a conversation about water security and reliability risks in the Lachlan and about cost-effective ways to address those risks.
- The strategy aids future business planning and decision-making and assist water users to be better prepared in case of future climate change.
- The public release of the climate datasets would assist councils in their strategic planning processes.
- Further research is needed on how climate change will impact groundwater sources in the Lachlan given their importance for communities and industries.
- The new evidence should drive further actions to protect and enhance natural ecosystems and prepare for potential drier and more variable climate.
- The new evidence should inform future land use planning and economic development strategies in the region.
- The strategy should focus on demand management and water efficiency measures.
- The new climate risk information should be supplemented with local knowledge and more on-the-ground research.

Key concerns

- Stakeholders were divided on whether the new climate modelling should be used in future water management decisions (with particular regard to planning for worst case climate change scenarios).
- Stakeholders were uncertain how the new climate risk modelling would impact the assessment of the draft options. Suggestions were made to do further sensitivity testing.
- Impact of future climate change (particularly more frequent and severe droughts) on communities, services, the environment and economic activities in the region.
- The strategy should not only focus on the ‘worst case’ climate change scenario but all climate conditions.
- The climate results do not acknowledge pre-dam cease-to-flow periods and conditions of the systems during past dry periods.
- There is limited information on how long-term historical data was used and interpreted. Stakeholders also requested the release of the review of the modelling method undertaken by the independent panel convened by the Chief Scientist and Engineer.



2. Aboriginal water rights and connection to Country

There was broad support around improving the recognition and protection of Aboriginal people's water rights, interests and access to water and Country. However, Aboriginal communities voiced their strong disappointment about the lack of engagement and suggested that more needed to be done to ensure tangible results are achieved in the region.

Key support

- The need to prioritise opportunities for First Nations/Aboriginal People and progress Aboriginal community options – particularly the option to establish a Water Advisory Panel in the Lachlan.
- The importance of securing flows to cultural sites, recognising cultural knowledge, and reducing barriers to water access for Aboriginal people.
- Agreement with options that advance employment opportunities, especially for young people. Suggestions that this could be progressed through training and outreach opportunities.
- The opportunity to build on existing projects like the Cultural Billabong Restoration Projects (in other regions) and use Lake Cargelligo as a test case for a River Ranger Program.
- The need to develop a 10-year catchment rehabilitation program in collaboration with the Aboriginal communities in the upper Lachlan region.
- The Department should simplify the application process around applying for Aboriginal cultural licences and provide water allocations and water entitlements to First Nations in the Lachlan.

Key concerns

- Limited and poorly advertised engagement sessions with First Nations/Aboriginal People in the Lachlan left insufficient time to co-design Aboriginal community options.
- Existing government commitments and options in the draft strategies do not adequately address concerns of First Nations/Aboriginal People in the community.
- Complexity of water policy and laws makes it difficult for Aboriginal communities to engage in water management discussions.
- The river system is portrayed as a water delivery system which is in clear discord with the vision and understanding of Aboriginal people.
- The strategy does not adequately address challenges around connectivity.
- The strategy does not sufficiently focus on water ownership for First Nations/Aboriginal People and thereby fails to meet the needs and aspirations of First Nations/Aboriginal People in the region.
- Historical and ongoing land-use practices have impacted the landscape across the Lachlan and led to reduced river flows.
- Cost-benefit assessment of options have historically proven inadequate to measure impacts on cultural values and heritage, and the method is perceived as unfair and disadvantaging Aboriginal community options.
- Some options (e.g. Mid Lachlan Efficiency measures) will severely impact upon Aboriginal cultural values.



3. Environment and ecosystem health

Many comments stressed the need to protect the environment, ecosystem health and water quality. Stakeholders expressed the view that the strategies had not adequately covered the current condition of the environment and water resources in the catchment and included limited options to address downstream water needs.

Key support

- Sustainable water use and resilient water resources should be the focus of the strategy.
- The need for better protection and proactive initiatives that ensure critical environment needs can be met during extended dry periods.
- Opportunities to encourage improved land management and investment in natural resource management initiatives and rehabilitation work.
- The need to focus more on connectivity and end-of-system flows to improve conditions of existing wetlands and important waterbird breeding habitats in the lower Lachlan.
- Agreement with actions and initiatives to improve the effectiveness of held environmental water and to improve the health of important environmental assets in the Lachlan.
- The need to conduct a stocktake of existing weirs in the Lachlan with a view to remove those that are not essential or impede on fish migration.
- The need to address flood risks; water quality risks; and sediment loads within the Lachlan catchment.
- Opportunities to progress water conservation initiatives and invasive species control programs to better protect the environment and native species.

Key concerns

- The order of the regional water strategy objectives does not sufficiently prioritise the environment.
- Insufficient detail about the possible environmental, tourism and basic landholder rights impacts of progressing infrastructure options (including government commitments). Concerns included possible damage to the health of the Lachlan River and associated wetlands, groundwater recharges, and impacts on native endangered species.
- Any proposal to change the current configuration or operation of the Lake Cargelligo system was strongly rejected by stakeholders. Stakeholders stressed the high environmental and community value of the lake system.
- Existing river regulation and water extraction has contributed to a decline in the environmental conditions in the Lachlan.
- The strategy contained limited detail about catchment health, water quality and end of system flows.
- The strategy had not adequately considered NSW's Basin Plan commitments.
- Environmental water management lacked transparency and limited information was available about the outcomes on the use of environmental water.



4. New and existing water infrastructure

Most of the comments related to the existing government commitments and options concerning Lake Cargelligo. Stakeholders wanted more information and analysis of the infrastructure options, including detailed cost benefit assessments.

Key support

- Augmentation and construction of new water-related infrastructure could provide greater economic, social and water security and flood management benefits for the region
- The region had plenty of water to support towns, communities and further growth with the right storage and pipeline network.
- The strategy should support other government investments in the region, including the long term expansion of the Parkes Special Activation Precinct.
- Opportunities to upgrade and automate existing weirs to meet flow targets in the lower Lachlan.
- Opportunities to investigate cost-effective upgrades of existing irrigation infrastructure (including within irrigation districts) to improve water use efficiency across the catchment.
- The need to fast-track metering upgrades and the installation of telemetry to allow for better real-time management by Water NSW.
- The strategy should consider the use of water tanks in regional areas and reforming associated regulation.
- The need to conduct further analysis on whether a lack of Supplementary Access Licences has led to heavier reliance on public storages, compared to private storages.

Key concerns

- The strategy focuses too much on water-related infrastructure instead of sustainable water resource management.
- The augmentation and construction of water-related infrastructure poses a threat to the environment and ecology as well as cultural heritage and groundwater sources of the Lachlan region.
- The augmentation or separation of the Lake Cargelligo system was rejected by stakeholders as it was considered to have significant environmental, social and cultural impacts.
- Any new water-related infrastructure would not necessarily provide additional water security. It was suggested that the focus of the strategy should be on other measures, including on water efficiency, reuse and demand management initiatives.
- Stakeholders were concerned about options around the mid- and lower Lachlan efficiency measure (Option 25 and 26) due to the impact on landholders (stock and domestic) and the environment.
- New water-related infrastructure could lead to flood flows finding new pathways and this could have other negative impacts for communities and existing floodplains in the region.
- Stakeholders did not support options around inter-regional pipelines (Option 6) because of its potential negative impact on communities and industries in the Lachlan region.
- Asset replacement costs (e.g. town water pipelines) are often too high for small rural communities.



5. Town water security and water-related amenities

Most of the comments stressed the importance to protect town water security in the Lachlan. Stakeholders expressed concerns about the impacts of future climate change on water security and suggested initiatives needed to be progressed now to ensure communities have a secure water supply now and into the future.

Key support

- The strategy should focus on providing long-term water security for regional communities in the Lachlan.
- The need to preserve water-related amenities during dry time to support the health and wellbeing of regional communities.
- A ‘multi-source’ approach to water security should be applied to strengthen town water security in the region.
- The need for greater collaboration around the new climate datasets and modelling to inform local strategic planning processes.
- Agreement with options to construct and augment town water supply systems and provide linkages to state-owned dams.
- Agreements with options to undertake cost-effective water efficiency, water reuse and recycling projects as well as progress demand management initiatives.
- The need for regular advice from government to inform local drought management decisions.
- Agreement with options to maintain minimum water supply to the end of the system should be considered.
- The need to conduct water use audits and leakage identification programs.
- The need to establish an enduring governance framework for the regional water strategy development and implementation with local councils at the table.

Key concerns

- Climate change could pose a real threat to communities in the Lachlan region.
- Limited integration between local and regional strategic planning and modelling leading to unnecessary costs for councils and joint organisations.
- Without adequate water security, population in smaller regional communities could further decline.
- Stakeholders were of the view that there is limited integration between surface water and groundwater management – although both water sources are important for communities in the Lachlan.
- The construction and upgrades to (town water) pipelines are often cost-prohibitive for smaller communities with a low rate-payer base.
- Poor water quality requires some communities to rely on bottled water because of health concerns and unpleasant taste.
- There is a lack of a clear definition around what “critical human needs” are in the context of the regional water strategies.
- Demand management measures should not be implemented as a ‘one-size-fits-all’ approach.
- The strategy does not adequately consider the social and recreational aspects of water.



6. Entitlement reliability and risk management

Most of the comments related to the potential climate change risk on future water availability and reliability of entitlements in the Lachlan region. Stakeholders emphasised the need to better understand the risks to develop appropriate mitigation strategies and to be better prepared.

Key support

- The need to start a conversation about suitable risk management strategies to address potential future impacts on reliability.
- Infrastructure projects, including existing government commitments, could drive regional growth and prosperity in the region.
- The need for further analysis on how the current water management arrangements perform under climate change scenarios.
- The strategy should look at a combination of supply, operational and regulatory options to protect and enhance water entitlement reliability.
- The strategy should introduce a ‘return flow policy’ and options to enable water use to reach the Water Sharing Plan limit.
- The strategy should identify opportunities to promote water use efficiency and minimise evaporation losses.
- The management of water resources in the region should be agile and adaptive and use proportionate responses as extreme events approach.

Key concerns

- The impact of a more variable and changing climate on the future reliability of water entitlements.
- The impact of some options review of allocations (Option 34) and Licence conversion (Option 35) on future entitlement reliability. Suggestions were put forward to conduct a Reliability Impact Assessment of all draft options.
- Insufficient engagement with licence holders and other interested parties in the lead up to the release of the draft strategies.
- Existing water sharing plan rules lead to an underuse/underutilisation in the Lachlan.
- Failure to discuss potential risk mitigation strategies to address a possible decline in reliability.
- The Lachlan region is already over-allocated beyond what should be considered sustainable.
- There is a lack of clarity on how the new climate datasets and modelling will be used in future water management decisions and the impact it might have on reliability.



7. Groundwater

Most of the comments stressed the importance of groundwater resources and the need to improve our understanding of the connection to surface water and groundwater. Stakeholders also raised concerns about the impact of climate change on groundwater recharge.

Key support

- The strategy should focus on protecting groundwater because several towns and communities are dependent on groundwater as their primary water supply.
- Further research into the connection between surface water and groundwater is necessary to protect groundwater resources into the future.
- All groundwater options should be combined and existing knowledge gaps should be filled before the finalisation of the strategy.
- A review of existing groundwater extraction limits could help provide secure access to towns and communities into the future.

Key concerns

- Existing government commitments and water-related infrastructure options could impact future groundwater recharge.
- Climate variability and climate change could drive greater demand for groundwater.
- Unsustainable groundwater use in the upper and lower parts of the catchment given existing pressures.
- A lack of information about the current condition of groundwater sources.
- There are impact of increased groundwater use on the needs of First Nations/Aboriginal People in the region.



Options

Image courtesy of Stefanie Schulte

Existing government commitments and long list of proposed options

Maintaining and diversifying water supplies

1. Government Commitment: Water transfer pipeline between Lake Rowlands and Carcoar Dam
 2. Government Commitment: Wyangala Dam raising project
 3. Government Commitment: Lake Rowlands augmentation
 4. Expansion to the piped town water supply system
 5. Replacement and upgrade of existing pipelines
 6. Inter-regional connections project investigation
 7. Water quality treatment works
 8. Managed aquifer recharge investigation and policy
 9. Reuse, recycle and stormwater projects
 10. Reliable access to groundwater by towns
- Protecting and enhancing natural systems**
11. Cold water pollution mitigation measures
 12. Environmental restoration works
 13. Improved management of wetlands on private land
 14. NSW Fish Passage Strategy
 15. Active management of flows
 16. Water quality restoration works
 17. Floodplain management works
18. Diversion screens to prevent fish extraction at pump offtakes
 19. River Ranger Program
 20. Secure flows for water-dependent cultural sites
 21. Improved understanding of groundwater processes
 22. Sustainable access to groundwater
 23. Increased clarity in managing groundwater resources sustainably
- Supporting water use efficiency and conservation**
24. Water efficiency projects (towns and industries)
 25. Lower Lachlan efficiency measures
 26. Mid-Lachlan efficiency measures
 27. Improvements to the storage effectiveness of Lake Cargelligo
 28. Review of water trade in the Lachlan region
 29. Water pricing pilot study
 30. Urban water restriction policy
 31. The ‘Sheet of Water’ storage
- Strengthening community preparedness for climate extremes**
32. Efficiency for drought security program
 33. Drought operation rules
 34. Review of water accounting and allocation process
35. Investigation of licence conversions
 36. Improved data collection and storage
 37. Training and information sharing programs
 - new climate data/modelling
 - managing groundwater resources sustainably
 38. Investigation to maintain amenity for regional towns during drought
 39. In-stream storage for the Lower Lachlan
 40. Land use change impact on water resources
- Improving the recognition of with First Nations/Aboriginal People’s water rights, interests and access to water**
41. Culturally appropriate water knowledge program
 42. Water-dependent cultural practice and site identification project
 43. Shared benefit project (environment and cultural outcomes)
 44. Aboriginal cultural water access licence review
 45. Water portfolio project for Aboriginal communities
 46. Co-management investigation of Travelling Stock Reserves
 47. Regional Aboriginal water advisory committee
 48. Regional cultural water officer employment program

Table 1: Long list of proposed options and government commitments for the Lachlan region.

Existing government commitments (1-3) and options 4-10: Maintaining and diversifying water supplies

Mixed reactions to the proposed large infrastructure projects with a general sentiment to protect and maintain natural flows in the river system and restore or regenerate natural habitats.

Options	Summary of feedback received
<p>1. Government Commitment: Water transfer pipeline between Lake Rowlands and Carcoar Dam</p> <p>3. Government Commitment: Lake Rowlands augmentation</p>	<ul style="list-style-type: none"> • There was both strong support and opposition to these existing government commitments. • Suggestions were made that these government commitments should be retitled as ‘options’. • Concerns were expressed about the potential impact on the environment, cultural heritage and values and basic landholder rights. In particular, there were concerns about environmental damage in areas downstream of Lake Rowland. • Support was expressed about the potential water security and economic benefits arising from these projects.
<p>2. Government Commitment: Wyangala Dam raising project</p>	<ul style="list-style-type: none"> • There was both strong support and opposition to these existing government commitments. • Suggestions were made that these government commitments should be retitled as ‘options’ and assessed through the regional water strategies assessment process. • Concerns revolved around potential impact on the environment, cultural heritage and communities in the Lower Lachlan. In addition, questions were raised about costs and likely benefits of these projects. • Suggestions were made that other options could achieve equal or better water security and reliability benefits at lower cost. • Support was expressed about the potential water security and increased reliability benefits arising from these projects which was seen to drive further economic growth and prosperity in the region.
<p>4. Expansion to the piped town water supply system</p> <p>5. Replacement and upgrade of existing pipelines</p>	<ul style="list-style-type: none"> • Support for these options to improve water security for local communities and to allow communities to be better prepared for more variable and drier climate. • Suggestion that diversifying water sources for these communities will build resilience. • Suggestion that water security will support regional prosperity and growth. • Collaboration with local councils and water utilities was encouraged to enable support for asset owners and managers.

Options	Summary of feedback received
6. Inter-regional connections project investigation	<ul style="list-style-type: none"> Concerns were expressed that this option could disadvantage the Lachlan region if water was being transferred out of the region during dry times. Questions were raised about policy and governance arrangement of inter-regional transfers, to ensure the Lachlan was not impacted. Concerns about environmental impacts.
7. Water quality treatment works	<ul style="list-style-type: none"> Feedback suggested these options were supported.
9. Reuse, recycle and stormwater projects	<ul style="list-style-type: none"> Comments suggested that these options could improve water quality and water security in the region.
10. Reliable access to groundwater by towns	<ul style="list-style-type: none"> Strong support to manage groundwater sources sustainably.
8. Managed aquifer recharge investigation and policy	<ul style="list-style-type: none"> Feedback suggested interest to investigate this option further. Comments suggest that it could have broader benefits for communities and industries in the region.

Options 11-23: Protecting and enhancing natural systems

Feedback for the proposed options in this category was supportive of the preservation or restoration of the natural characteristics of the river system and increase knowledge and understanding of groundwater sources.

Options	Summary of feedback received
11. Cold water pollution mitigation measures	<ul style="list-style-type: none"> Positive feedback due to their positive impact on the environment, river health, native fish populations, water birds and wetlands.
12. Environmental restoration works	<ul style="list-style-type: none"> Achieving improved connectivity to downstream wetlands was considered important for waterbird breeding habitats.
13. Improved management of wetlands on private land	<ul style="list-style-type: none"> Feedback suggested that these options could also have broader community and cultural benefits.
15. Active management of flows	
16. Water quality restoration works	
14. NSW Fish Passage Strategy	<ul style="list-style-type: none"> Positive feedback on the potential to improve fish movement, habitat and riverine productivity.
18. Diversion screens to prevent fish extraction at pump offtakes	<ul style="list-style-type: none"> Feedback suggested broad support for diversion screens. Some stakeholders raised concerns about the costs associated with implementing these options.
19. River Ranger Program 20. Secure flows for water-dependent cultural sites (These are also linked to 41-48)	<ul style="list-style-type: none"> Support for initiatives that result in employment opportunities (including for young people) through these programs. Feedback suggested trials could be run in/around Lake Cargelligo. Suggestion that the integration of cultural knowledge could improve water management outcomes in the Lachlan. Request for Option 20 to be paired with initiatives to broaden Aboriginal people's access to water entitlements and allocations. Feedback suggested the need to involve First Nations/ Aboriginal People in decisions about when cultural sites receive water.

Options	Summary of feedback received
21. Improved understanding of groundwater processes	<ul style="list-style-type: none"> • There was overall support for these options. • Some felt that the proposed research into groundwater sources was overdue and should be completed prior to the finalisation of the strategy.
22. Sustainable access to groundwater	<ul style="list-style-type: none"> • Support for research, improved knowledge and awareness of groundwater processes, and how that knowledge can be applied to improve management.
23. Increased clarity in managing groundwater resources sustainably	<ul style="list-style-type: none"> • Feedback suggested a general interest on how the new climate datasets and modelling could inform a better understanding of groundwater sources. • Feedback suggest a review of groundwater entitlements could protect groundwater sources in the long-term. • Feedback suggested that mining companies may have technologies that could support further research.

Options 24-31: Supporting water use efficiency and conservation

There was consistent support for these options, with a keen sense of community involvement, innovation and activation to achieve efficiency and conservation outcomes. There was also strong support for delivering improved environmental outcomes, and avoiding further environmental damage.

Options	Summary of feedback received
24. Water efficiency projects (towns and industries)	<ul style="list-style-type: none"> • Support for water efficiency initiatives which could be paired with other water reuse/recycling and demand management options. • Suggestion to investigate options to undertake water efficiency work on-farm and in irrigation areas, such as the Jemalong irrigation district. • Feedback supported innovation and continuous examination of emerging technologies that support and promote water efficiency.
25. Lower Lachlan efficiency measures 26. Mid-Lachlan efficiency measures	<ul style="list-style-type: none"> • Concerns about impacts on the environment, aquatic biota in creeks and basic landholder rights in areas impacted by proposed pipelines were major concerns. • Concerns that the social and community value of the water in creeks was not considered.
27. Improvements to the storage effectiveness of Lake Cargelligo 31. The ‘Sheet of Water’ storage	<ul style="list-style-type: none"> • Strong opposition to these options due to concerns about the social, environmental and cultural impacts of augmenting the existing lake system. • Concern for impacts to recreational activities and tourism drawn to the Lake Cargelligo area. • Seen as an action that would undermine the objectives of the regional water strategies.
28. Review of water trade in the Lachlan region 29. Water pricing pilot study	<ul style="list-style-type: none"> • Feedback suggested general support for a review, however it was stressed that some of these are not within the remit of the department or depend on other reviews and processes currently underway.
30. Urban water restriction policy	<ul style="list-style-type: none"> • Feedback suggested that local councils already enact restrictions during dry and drought conditions. • Suggestions that town water only makes up a small percentage of the total water used in the region and hence this option was not considered a priority.

Options 32-40: Strengthening community preparedness for climate extremes

An openness to new approaches, re-thinking and revising existing practices, and innovating, to build resilient communities in the region.

Options	Summary of feedback received
32. Efficiency for drought security program	<ul style="list-style-type: none"> Support for water efficiency initiatives, however question how this option would be implemented.
33. Drought operation rules 34. Review of water accounting and allocation process	<ul style="list-style-type: none"> Feedback supported these options in the context of a variable and changing climate. Strong support for ensuring that town water supplies are secured in the region. Support to ensure sufficient water is available for the environment during dry periods. Concerns were raised about the impact these options have on existing water entitlement holders. Comments called for a clear definition and identification of what constitute ‘critical human needs’. Some feedback questioned the necessity to manage reserves and allocations for the drought of record every year, or if a more adaptive approach would be more effective; suggesting to allow government to intervene as extreme events approach.
35. Investigation of licence conversions	<ul style="list-style-type: none"> Support for an investigation to increase security of supply. Concerns about potential negative impacts on other licence holders.
36. Improved data collection and storage 37. Training and information sharing programs	<ul style="list-style-type: none"> There was general support for initiatives that improved knowledge and understanding of water, from all sources, in the region. New climate data and modelling needed to be made available to the community and other agencies. Feedback suggested the collection of data should be done ‘scientifically’ and be supported by local people. Suggestion that improved data, knowledge, and training will contribute to improved water management.

Options	Summary of feedback received
38. Investigation to maintain amenity for regional towns during drought	<ul style="list-style-type: none"> • Support for maintaining water-related amenities during droughts. • Feedback suggested new innovative approaches to enable local councils to maintain these water-related assets. • Suggestion that the value of retaining non-essential amenities during drought, for example street trees, community parks should be assessed further.
39. In-stream storage for the Lower Lachlan	<ul style="list-style-type: none"> • Concerns about the impact on downstream water needs and environmental health in the catchment (particularly in the lower Lachlan).
40. Land use change impact on water resources	<ul style="list-style-type: none"> • Support for actions that improve land management in the catchment area. • Suggestion that it would yield benefits through improved water quality, decreased siltation, increased resilience to drought and increased sequestration of carbon in soils.

Options 41-48: Improving the recognition of Aboriginal people’s water rights, interests and access to water

Options to protect and strengthen cultural landscapes, practices, knowledge and traditions, as well as to support empowerment, self-determination and economic advancement of First Nations/Aboriginal People and communities, were well supported in the feedback.

Options	Summary of feedback received
<p>41. Culturally appropriate water knowledge program</p> <p>42. Water-dependent cultural practice and site identification project</p> <p>43. Shared benefit project (environment and cultural outcomes)</p> <p>46. Co-management investigation of Travelling Stock Reserves</p> <p>48. Regional cultural water officer employment program</p>	<ul style="list-style-type: none"> • Suggestions that these options represent important steps in supporting Aboriginal communities to have an active voice in the management of water within the Lachlan. • Feedback encouraged further capacity building of First Nations/Aboriginal People in the Lachlan. • Feedback acknowledged the importance of recognising the significance of cultural knowledge. • Support for initiatives that result in employment opportunities (including for young people) through these programs. • Support for roles and projects to be led by local Aboriginal people, with support and funding from government agencies.
<p>44. Aboriginal cultural water access licence review</p> <p>45. Water portfolio project for Aboriginal communities</p>	<ul style="list-style-type: none"> • Feedback encouraged options that resulted in positive environmental, social and cultural outcomes for First Nations/Aboriginal People in the Lachlan region. • Feedback encouraged initiatives that would enable First Nations/Aboriginal People to directly manage water to support their needs and aspirations. • Support for a review of the cultural water access licence application process to ensure it is accessible and did not result in any additional costs.
<p>47. Regional Aboriginal water advisory committee</p>	<ul style="list-style-type: none"> • Strong support for the formation of an Aboriginal advisory committee to inform water management decisions in the Lachlan. • Feedback stressed the need for the representatives on the committee to have ties and connection to the Lachlan region. • Concerns were expressed that the proposed committee would have no decision-making rights.

Suggested additional options

Respondents provided suggestions for additional potential options. There were many suggestions that related to existing proposed options, offering enhancements or further detail, and these are being considered. The following suggestions were assessed as new options and reflect opportunities for further innovation and economic diversification. These ideas will be considered in the options assessment process which will form part of the next stage of the development of the Lachlan Regional Water Strategy.

Options	Summary of feedback received
Catchment management	<ul style="list-style-type: none"> Develop specific options to encourage better land management and invest in rehabilitation work to address sediment loads, decrease soil erosion and improve turbidity and connectivity.
Economic prosperity	<ul style="list-style-type: none"> A new infrastructure option in the Belubula as well as an investigation into water availability and utilisation in the region.
Water for discrete and remote communities	<ul style="list-style-type: none"> Provision of stand-alone drinking water for remote or discrete communities through investment in hydro-panels.
Operational and policy changes	<ul style="list-style-type: none"> Introduction of a “return flow policy” and an option around water order debiting.



Response

Image courtesy of Stefanie Schulte

Response to feedback

Since the publication of the draft Lachlan Regional Water Strategy, the NSW Water Strategy had been developed. Some of the issues highlighted in the Lachlan Regional Water Strategy and from communities in the Lachlan region are consistent challenges across the State. These state-wide issues have been included as priority focus areas in the NSW Water Strategy and are outlined below.

Your feedback has been used to refine the key challenges that we need to focus on in the final Lachlan Regional Water Strategy, and the options that will be shortlisted for further investigation.

Further consultation

We have heard and accepted your feedback requesting more consultation on the regional water strategies, and a greater say in how options are shortlisted and prioritised.

As a result, we will be undertaking public consultation on a shortlist of actions before the Lachlan Regional Water Strategy is finalised.

New climate data

The new climate datasets and updated modelling that underpin the draft Lachlan Regional Water Strategy are an important advance on previous climate work. We can now better assess the likelihood of a range of drought conditions, and the impacts on surface water security and reliability over a much wider range of climate conditions. This is a major improvement from our previous reliance on the observed historical records only.

The key next step is to work with the community to detail how this climate data should be used. This may include establishing the risk appetite of the community and identifying which historical droughts should be used as the basis for water management.

A priority action in the NSW Water Strategy is for the NSW Government to review water allocation frameworks and

water sharing plan provisions in response to new extremes in water availability. This will include exploring risk management approaches for a more adaptive water allocation and accounting framework, and understanding how the new climate data can inform this work. Progressing this requires detailed and focused engagement with the community. It cannot happen overnight. It also depends on communities having a workable understanding of these risks, and conversations with communities about the level of risk they are willing to accept.

The new climate data is already being used in business cases to assess the impacts and benefits of proposed major state water infrastructure. This information will be useful for local water utilities and other stakeholders in assessing the long-term water security of individual towns. Making this data available in a useable format is a priority under the newly established Town Water Risk Reduction Program¹.

As with all types of science, we need to continually improve the data. The next steps in continuing to improve the climate data and modelling method will be to apply it to assess climate impacts on groundwater and associated risks. This is being progressed through the Groundwater Strategy.

Aboriginal water rights

One of the primary objectives of the draft Lachlan Regional Water Strategy is to recognise and protect Aboriginal water rights, interests and access to water. It is also priority number 2 in the NSW Water Strategy.

While our engagement with First Nations/Aboriginal People in the Lachlan region was limited, the Department remains committed to have an ongoing dialogue with First Nations/Aboriginal People in the region as we progress through the options assessment process, and the development of the final Lachlan Regional Water Strategy and the Aboriginal Water Strategy.

¹ <https://www.industry.nsw.gov.au/water/plans-programs/risk-reduction>

Unlike many other challenges in the region, the fundamental water rights of First Nations/Aboriginal People is still a major gap in water management across NSW and the Basin. Addressing this issue will set up a framework for addressing the Aboriginal community options identified in the draft regional water strategies. These options will be progressed through a State Aboriginal Water Strategy. Opportunities to progress region-specific Aboriginal community options, in parallel with this state-level action, will be explored in the final Lachlan Rivers Regional Water Strategy.

Environment and ecosystem health

We acknowledge the extensive feedback. The feedback on the draft Lachlan Regional Water Strategy was supportive of the options that improve environmental and ecosystem health and increase the connectivity throughout the Lachlan catchment. We are already looking to supplement our existing long list of options to pick up ideas that were raised by stakeholders during the public exhibition.

In addition, we acknowledge the extensive feedback we received on options 27 and 31 and the concerns of communities to augment the Lake Cargelligo system. We also noted communities concerns regarding several other options that may have a negative impact on the environment, ecosystem health and basic landholder rights. This feedback has helped us to inform the options assessment process.

Integrating land-use and water management

There is an important link between land use and water management. How land is used determines water management needs – whether water is servicing urban developments or being provided to other uses (including industry, environmental, cultural or recreational needs). Land use planning decisions and development control also have a key role to play in protecting water sources.

Future water reliability and security in a changing climate will be critical to land use, urban development planning decisions and

industry development initiatives in regional NSW. In particular, there is an opportunity to consider water availability and impacts much earlier and more strategically through the planning system. We have begun this work by using the evidence in the regional water strategies to inform:

- The next generation of regional plans, including the Central West and Orana Regional Plan 2036 and the Far West Regional Plan 2036.
- Future work on special activation precincts – including the Parkes Special Activation Precincts.

We acknowledge that the boundaries of these plans and strategies do not always align with the Lachlan Regional Water Strategy boundaries, hence the NSW Water Strategy has committed to better integrate land use planning, development approvals and water management (NSW Water Strategy Action 4.4) across the state. In addition, the NSW Water Strategy commits to adopting a more intense, state-wide focus on improving water quality (NSW Water Strategy Action 3.5) through the definition of clear roles, accountabilities and frameworks for monitoring, assessing and addressing water quality risks across the state.

The Department of Primary Industries – Agriculture is undertaking a three-year program to identify and map important agricultural land. Knowing where this land is situated and understanding value and contribution to the state’s economy and food security will assist in making decisions about current and future land uses and their water needs. A comprehensive and consistent approach to collecting water statistics and related information will greatly help this process.

Economic prosperity and resilience

We are also working on additional options to address feedback we received during the public exhibition about ways we can support economic growth and resilient industries within a capped system (NSW Water Strategy Action 5.4) and align with the commitments made under the Future Ready Regions Strategy.

Next steps

Your feedback during the public exhibition will help us to refine the key challenges that the strategy needs to focus on improving, and which of the 48 proposed options listed in the draft Lachlan Regional Water Strategy should be shortlisted to help address these challenges. Your feedback has also identified a number of new options that will be assessed.

The next steps in our engagement will be to seek your views on the shortlisted

actions before the Lachlan Regional Water Strategy is finalised. Your ongoing engagement is important to ensure we are identifying solutions for the Lachlan region that meet the vision and needs of communities, industries and the environment.

A final package of actions will be presented as part of the final Lachlan Regional Water Strategy and associated implementation plan. This is scheduled for release in 2022.

More information:

<https://www.industry.nsw.gov.au/water/plans-programs/regional-water-strategies>

