

Department of Climate Change, Energy, the Environment and Water

Belubula Water Security Project

What We Heard

September 2025





Acknowledgement of Country

The Department of Climate Change, Energy, the Environment and Water acknowledges the traditional custodians of the land and pays respect to Elders past, present and future.

We recognise Australian Aboriginal and Torres Strait Islander peoples' unique cultural and spiritual relationships to place and their rich contribution to society.

Artist and designer Nikita Ridgeway from Aboriginal design agency – Boss Lady Creative Designs, created the People and Community symbol.

Belubula Water Security Project

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1 Executive summary

The Belubula Water Security Project, led by the Water Group within the NSW Department of Climate Change, Energy, the Environment and Water, is focused on enhancing long-term water security for communities, businesses, and the environment across the Central West region of New South Wales.

In February 2024, the NSW and Australian Governments jointly committed \$7.7 million to develop a Full Business Case, supported by the National Water Grid Fund.

The Water Group is currently investigating 4 infrastructure options aligned with the Lachlan and Macquarie–Castlereagh Regional Water Strategies, as well as operating rules for the existing Lake Rowlands to Orange pipeline:

- option 1 - a new pipeline between Lake Rowlands Dam and Carcoar Dam to transfer up to 2 gigalitres of water annually
- option 2 - raising the Lake Rowlands Dam wall to increase storage capacity from 4.5 to 8 gigalitres
- option 3 - constructing a new dam 2.5 kilometres downstream of Lake Rowlands
- option 4 - connecting the Belubula and Macquarie valleys via an interregional pipeline.

Water is one of our most valuable natural assets. We recognise that the most effective way to successfully manage water is by collaborating with our stakeholders and the greater community.

We are committed to developing and maintaining respectful, trusted, and collaborative relationships with our stakeholders and communities to ensure the best outcomes for water infrastructure projects. With multiple options under consideration, we acknowledge the broad interest in—and potential impacts of—this project across the region.

We are providing a variety of opportunities for engagement with First Nations communities, local councils and utilities, residents, businesses, and the wider public.

Overall, feedback to date has revealed mixed sentiment across all options, as follows

- Options 1 and 2 received the most support
- Option 2 is seen as the least disruptive and most cost-effective
- Option 4 was the least preferred due to concerns about environmental impacts, water sharing and inter-valley water transfers.

The key themes raised were:

- economic benefits and cost-effectiveness
- opportunities for renewable energy
- safeguarding cultural heritage
- environmental concerns, including environmental impacts, climate change, environmental flows and biodiversity
- water quality and safety including per- and polyfluoroalkyl substances (PFAS) contamination
- water allocation, equity and sharing including between users and localities

- inundation to private property or cultural sites
- exploring alternatives
- community engagement.

We sincerely thank all community members and stakeholders for your valuable insights, thoughtful feedback, and active participation so far. Your contributions have played a vital role in shaping the project's direction, and we look forward to continuing this meaningful collaboration as we refine the options and finalise the Full Business Case.

2 Introduction

2.1 About this report

This report provides an overview of community and stakeholder feedback on the key elements and options for the Belubula Water Security Project received during the early stages of the project in 2025.

The purpose of this report is to outline the responses from key stakeholders, First Nations and the broader community to the 4 options being explored as part of the preparation of the Full Business Case.

The report includes:

- an overview of the engagement process and participation by community and stakeholders
 - a summary of what we heard on key options proposed and our responses to the feedback received.
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2.2 Background

The Full Business Case for the Belubula Water Security Project involves detailed planning, technical assessments, and broad consultation to ensure optimal infrastructure solutions are put forward for investment decisions.

As part of the Full Business Case, 4 infrastructure options are being assessed, as well as operating rules for the existing Lake Rowlands to Orange pipeline:

- option 1: a new pipeline from Lake Rowlands Dam to Carcoar Dam, potentially transferring 2 gigalitres of water annually
- option 2: raising the Lake Rowlands Dam wall to increase storage from 4.5 gigalitres to 8 gigalitres
- option 3: building a new dam 2.5 kilometres downstream of Lake Rowlands
- option 4: connecting the Belubula and Macquarie valleys through an interregional pipeline.

Following initial technical investigations, environmental assessments and consultation, short-listed options will be investigated in more detail. At the conclusion of the Full Business Case, a preferred option, or options, may be presented to the NSW Government for funding consideration. The NSW Government will determine project viability and the best solution for the region.

2.3 Engagement overview

The department's Water Group is committed to building and maintaining respectful, trusted and collaborative relationships with our communities and stakeholders to ensure water infrastructure projects achieve the best possible outcomes.

During this first phase of engagement, we have provided a wide range of opportunities for communities and stakeholders, including First Nations communities, to engage with us and provide feedback on the 4 project options as we progress the development of the Full Business Case.

2.3.1 Communications and engagement snapshot from October 2024 to June 2025



2.3.2 How and who we engaged

Date	Activity	Description	Stakeholders	Key metrics
November 2024 – March 2025	Briefings	Individual briefings with local MPs	Local Members of Parliament (MPs)	2 meetings
November 2024 – Feb 2025	Meetings	Individual meetings with local councils	Local councils and representative bodies	5 meetings
October 2024 – April 2025	Meetings	Meetings and discussions with First Nations community	First Nations organisations, groups and individuals including Elders	12 meetings
October 2024 – June 2026	Meetings	Meetings with water sector organisations and groups	Local water utilities, water sector organisations, water user and advocacy groups	5 meetings

Date	Activity	Description	Stakeholders	Key metrics
March 2025	Letters/ emails/ phone	Contact with potential directly affected landholders	Landholders within the footprint of all 4 project options	1000 letters sent
March/ April 2025	Feedback Survey	A widely advertised online survey requesting feedback on the four project options	All stakeholders	46 responses
March 2025	Community Information Session	Drop-in session in Orange	All stakeholders	23 attendees
March 2025	Community Information Session	Drop-in session in Canowindra	All stakeholders	12 attendees
March 2025	Community Information Session	Drop-in session in Bathurst	All stakeholders	11 attendees
March 2025	Community Information Session	Drop-in session in Blayney	All stakeholders	25 attendees
April 2025	Community Webinar	Online community webinar with the recording also hosted on webpage	All stakeholders	29 attendees

3 What we heard

3.1 First Nations engagement outcomes

We employed a variety of meeting styles, including face-to-face meetings, phone calls and emails, to engage with Traditional Owners, the Local Aboriginal Lands Council, and key First Nations stakeholders. Additionally, community members were invited to attend community information sessions and participate in a feedback survey.

The feedback from First Nations stakeholders reflected mixed sentiment. Many First Nations representatives requested more information about the options before forming a position or identifying a preferred option.

Overall, there is currently a preference for option 2. Concerns were raised about environmental and water sharing impacts associated with option 4.

A summary of the themes and responses is provided in the table below.

First Nations themes and responses

Theme	Feedback / suggestion	Response	Justification
Cost effectiveness	There was support for option 2. Raising the existing dam wall was viewed as the only non-disruptive and cost-effective solution.	The short-listed options will be shared with First Nations stakeholders for more detailed discussion during the next phase of engagement.	The NSW Government mandates the development of business cases for major infrastructure to ensure decisions are based on cost-effectiveness and community benefit.
Environment	There was concern about the cultural impacts from mixing water from different catchments.	The project team has noted concerns about potential cultural impacts from mixing water from different catchments. Initial hydrological assessments have not identified any technical barriers to water transfer, but further cultural and hydrological assessments will be undertaken to ensure these concerns are properly considered.	The NSW Government is committed to sustainable environmental management and requires environmental and cultural impacts to be carefully assessed and mitigated in all infrastructure projects.
Community engagement	There were further requests for in-person meetings with the project team and further advice being received from Elders about who would be most appropriate to speak to regarding Country.	Ongoing in-person meetings will continue during all engagement phases with regular reviews of key contacts.	The NSW Government follows best practices in community engagement.
Inundation Cultural heritage	There were concerns about safeguarding Wiradjuri sites and questions about whether construction or operation of any of the project options could cause flooding or potentially damage to the caves along the Belubula River.	Further cultural heritage surveys will be undertaken as the project progresses. Initial hydrological assessments have found that there will be no impact on Clifden and the caves along the Belubula River will not be directly affected by the construction or operation of any of the 4 options. This will be confirmed through further hydrological and environmental assessments.	An initial cultural heritage desktop assessment confirms limited interaction with sensitive areas. Further fieldwork will confirm avoidance or mitigation strategies.
Water allocation/ equity	There was concern that the project is being investigated to benefit water supply to regional mines. Additional concerns were raised about existing mines already receiving water from the area, and the potential impact of a new mine on water availability.	This project was not established to investigate additional water for mining. The Full Business Case will assess the impacts of all options on existing and potential water users, including towns, agriculture, the environment, and mining, to ensure equitable outcomes.	The NSW Government requires water infrastructure proposals to demonstrate public benefit. The project will assess all potential impacts on existing water users.
	There was concern about option 4 and the potential	Water allocation and equity will be formally assessed as part of the Full Business Case. This will include hydrological modelling,	The NSW Government will continue engaging with First Nations stakeholders to ensure

Theme	Feedback / suggestion	Response	Justification
	impact of transferring water from the Lachlan to Bathurst.	environmental assessments, and consultation with First Nations and other stakeholders to ensure equitable outcomes. The short-listed options will be shared with First Nations for further discussion during the next phase of engagement.	cultural and equity considerations are addressed when assessing any potential water transfer impacts.

3.2 Broader community engagement outcomes

We employed a variety of communication styles and engagement opportunities to inform and consult key stakeholders and the broader community. This included digital and traditional communication methods and a diversity of engagement opportunities including in-person discussions, online briefings and meetings, community information sessions, online webinar, online and paper feedback surveys, and phone calls to seek key stakeholder and community feedback during the engagement period.

The feedback from key stakeholders and the broader community was generally of mixed sentiment.

A summary of the themes and responses is detailed in the table below.

Overall, feedback to date has revealed mixed sentiment across all options:

- Options 1 and 2 received the most support.
- Option 2 is seen as the least disruptive and most cost-effective.
- Option 4 was the least preferred due to concerns about environmental impacts and inter-valley water transfers.

Themes and responses

Theme	Feedback/ suggestion	Response	Justification
Cultural heritage	There were concerns about the impact on First Nations cultural sites and the safeguarding of Wiradjuri sites.	Further cultural heritage surveys will be undertaken as the project progresses.	Cultural heritage surveys are required to ensure statutory compliance and to inform mitigation strategies during design and planning.
Economic	The project is perceived to benefit growing regional economy and support agricultural activities	Economic benefits will be assessed in the Full Business Case.	Economic benefits are assessed to ensure the project demonstrates value-for-money and supports regional development outcomes, as required in the Full Business Case guidelines.
Environment	There were questions about what environmental impact studies are being undertaken to inform decision making around the 4 options.	Hydrology modelling, geotechnical studies, terrestrial and aquatic biodiversity assessments, and climate scenario analysis will inform the shortlisting of options. A detailed assessment of the	These investigations are essential for identifying and managing environmental risks, and for ensuring compliance with environmental

Theme	Feedback/ suggestion	Response	Justification
		preferred options will then follow.	impact assessment processes.
	There was concern about how climate change is being considered.	The project will assess long-term operational resilience, including the impacts of climate change. This assessment will draw on NARClIM climate modelling and scenario analysis to evaluate a range of possible future climate conditions, including extreme droughts and high rainfall events. The analysis will inform our assessment of future benefits to water security. The Full Business Case will include a carbon assessment, including consideration of energy efficiency opportunities and greenhouse gas emissions over the project lifecycle.	The project is required to assess long-term operational resilience, including the impacts of climate change, and to ensure alignment with NSW Government climate change and adaptation policies.
	There were questions about whether existing environmental flows will be maintained.	Initial desktop hydrological and environmental studies have been completed. These will be expanded with field investigations to confirm any potential impacts on any changes to environmental flows.	Further investigations will be completed to inform any impact on environmental flows.
	There is concern that the project might impact the springs connected to the Belubula River and Lake Rowlands Dam. There is concern that existing streams are currently under stress, and questions remain about how much water is being taken from the environment.	Initial biodiversity and hydrological assessments have identified Coombing Creek as a sensitive aquatic environment connected to Lake Rowlands Dam and the Belubula River. While no direct impacts to springs have yet been confirmed, further hydrological and ecological studies are underway.	Further detailed analysis is required to address these concerns and will be conducted during the next stage.
	Concerns have been raised about the impact on biodiversity in the Belubula region, with a recommendation to develop a natural reserve.	An initial environmental assessment has been completed to inform shortlisting of options. Further environmental studies, including assessments of aquatic and terrestrial biodiversity, will be undertaken as the project progresses. Identifying nature reserves is not within the scope of this project.	Further environmental studies are necessary to avoid or mitigate impacts on sensitive ecosystems and to explore opportunities for environmental enhancement, in line with planning approvals. This will include calculation of aquatic and terrestrial offsets.
Water quality and safety	There were concerns about water quality at Belubula and Carcoar Dam,	Dam owners are responsible for risk assessment, monitoring and reporting on raw water	Any future projects must comply with regulatory requirements for water

Theme	Feedback/ suggestion	Response	Justification
	particularly regarding contamination in the Belubula River and the potential build-up of forever chemicals in the dam if water is not regularly flushed. There were also concerns about water quality when the dam is at low levels.	quality in their storages. While catchment activities cannot be directly controlled, risks such as algal blooms, accumulation of contaminants, and low-level water quality are managed through monitoring programs, operational measures (e.g. selective off-takes, flushing strategies) and reporting to relevant regulators. This ensures that any deterioration in water quality is identified and addressed as part of dam operations.	quality under relevant public health and environmental legislation.
Existing infrastructure	There was a question about whether existing access roads or low-level bridges would be affected by the construction or operation of any of the options.	Preliminary engineering reviews indicate that existing infrastructure will not be directly impacted by the construction or normal operation of any of the 4 project options. Further investigations will be completed for the shortlisted options.	Preliminary engineering reviews indicate that construction activities can be managed to avoid impacts on existing infrastructure.
Flooding	There were questions whether the construction and operation of any of the project options could flood or potentially damage the Belubula Caves, noting these are listed on the National Trust Register and the State Heritage Register.	Initial hydrological assessments have found that there will be no impact on the Belubula Caves. This will be confirmed through further hydrological and environmental assessments.	An initial cultural heritage desktop assessment confirms limited interaction with sensitive areas. Further fieldwork will be undertaken to confirm avoidance or mitigation strategies.
	There were questions about the expected levels of inundation to private property for both dam options.	Water level rise associated with options 2 and 3 will mostly occur on land owned and managed by Central Tablelands Water. This will be further investigated for the shortlisted options, if options 2 or 3 are shortlisted.	Minimising impacts on private property has been a key design objective, and land tenure has been mapped to inform the feasibility of each option.
Opportunity for renewable energy	There were questions about whether the pipeline pumps will be powered by renewable energy sources and whether the movement of water through the pipeline could generate renewable energy.	These options will be considered if one of the pipeline options (option 1 or 4) is shortlisted for further investigation.	Renewable energy sources might be considered to align with NSW Government objectives on decarbonisation and to enhance the project's sustainability credentials.
Cost	There were questions about the operating cost for option	The costs will be calculated and described in the finance section of the Full Business Case.	Financial viability and affordability are critical inputs to ensure that shortlisted options

Theme	Feedback/ suggestion	Response	Justification
	1 and who would be responsible for covering it.		deliver long-term value for money to the community and stakeholders.
	Concerns were raised about the cost of developing the business case and the overall cost of the project.	A business case involves a thorough investigation of options, including complex environmental, technical studies and cost analysis, to ensure that all NSW Government infrastructure investment decisions are based on robust evidence.	The NSW Government mandates business cases be developed for major infrastructure projects to ensure decisions are based on cost-effectiveness and community benefit.
	Concerns were raised about whether constructing any of the 4 options would lead to an increase in water prices.	The Full Business Case will include modelling of any potential price impacts.	This ensures that any potential cost impacts on users are understood and managed transparently in line with regulatory pricing principles and government affordability policies.
Property prices	There was a question whether the construction and operation of any of the project options would negatively affect property prices.	Construction may temporarily disrupt land practices and transport corridors for a short period of time. The long-term benefit of enhanced water security in the region has the potential to increase property values.	Ensuring long-term water security supports regional prosperity and liveability, which can influence property values. Temporary construction impacts are minimised through careful planning and community engagement.
Water allocation/ equity and environment	Concerns were raised whether the project might benefit regional mines, particularly if a pipeline is built near mining areas or if additional water is allocated to the mines from Carcoar Dam. There are also concerns the project is being investigated to benefit water supply to regional mines.	The project aims to improve water availability and increased drought resilience for residents, businesses, and the environment – our whole community. The 4 options being considered as part of the Full Business Case have emerged from, and are supported by, regional water planning policies including the Lachlan Regional Water Strategy and the Macquarie-Castlereagh Regional Water Strategy. This project has not been developed with a focus on supporting the mining industry.	The purpose of the project is to address regional water security issues broadly, rather than serve individual beneficiaries. The options have been shaped by regional strategic plans to ensure equitable outcomes and alignment with broader government priorities.
Water allocation/ equity	There is concern that pipeline only options may not provide local benefit and	The Full Business Case will specifically assess the impacts of each option on different categories of water users, including towns, critical human	The Full Business Case requires a detailed analysis of how each option affects water users, system reliability,

Theme	Feedback/ suggestion	Response	Justification
	could potentially increase system vulnerability.	needs, stock and domestic supplies, irrigators and environmental flows. This assessment will also focus on the benefits arising from each option. This will enable a determination of whether benefits are local or regional. The Ful Business Case will also consider optimal operating models, with a view to decreasing system vulnerability and consider whether pipeline-only options could reduce local benefits or increase system vulnerability.	and resilience. This includes hydrological modelling, risk assessments, and distributional analysis to identify who benefits and whether any option increases system vulnerability.
	Concerns were raised regarding the viability of transferring water from Carcoar Dam to Lake Rowlands via pipeline due to the likely limited availability of water in Carcoar Dam when Lake Rowlands is at dead storage levels.	Initial hydrological assessment indicated that the connecting pipeline option results in a substantial reduction in the frequency and duration of water restrictions. Further hydrology assessments are underway to optimise the operating rules, so that water is available for transfer as needed.	The current options align with policy direction and previous feasibility analysis and will be investigated in further detail.
	Concerns were raised about water being taken from Canowindra and Blayney to supply Orange and Bathurst. It was suggested that Orange and Bathurst should have their own water supply.	Potential impacts on downstream users are being investigated as part of the business case. The short-listed options will be shared with key stakeholders and the community for further discussion during the next phase of engagement.	Transparent engagement is essential for understanding and addressing local concerns. This approach aligns with the NSW Government's principles for community engagement.
Community engagement	A question was raised about how the needs and concerns of downstream water users are being considered in the decision-making process.	Community information sessions have been held across a wide area to ensure inclusivity to all interested and impacted water users and communities. Additionally, as requested, we are planning a future Community information session in Condobolin, to provide direct, in-person access for downstream water users. Future information sessions will be promoted across the region.	Meaningful and appropriately targeted engagement should inform each stage of the business case development in accordance with NSW Government guidelines.
Alternatives	There were questions about whether improving access to Wyangala Dam has been considered as an alternative.	Wyangala Dam access options are not being considered in the FBC.	The current options align with policy direction and previous feasibility analysis.

Theme	Feedback/ suggestion	Response	Justification
	For example, constructing a pipeline from Wyangala Dam to Burrunga or from Wyangala Dam to Central Tablelands Water catchment.	The 4 options being considered as part of the Full Business Case have emerged from, and are supported by, regional water planning policies such as Lachlan Regional Water Strategy and the Macquarie-Castlereagh Regional Water Strategy. The suggested pipelines were not recommended in the Regional Water Strategy.	
Alternatives	There were questions about whether the re-use or recycling of stormwater and wastewater had been considered as an alternative.	Water infrastructure and water recycling programs need to work hand in hand to enhance regional water security. While a water recycling program does not form part of the scope of the Full Business Case, these initiatives are on the radar of, and fall under the responsibility of, other state and local government departments.	Water reuse is a complementary initiative led by other agencies. Excluding it from this business case avoids duplication and helps maintain a targeted scope. Recognising the importance of recycling supports integrated water planning.
	There were questions about whether other alternatives have been explored. For example, incentives for water tanks, water saving education programs.	Water infrastructure and behaviour change programs need to work hand in hand to benefit regional water security. Regional councils are implementing water saving programs with the support of the NSW Government.	The Full Business Case focuses on options that directly enhance supply and system resilience, working alongside other water saving initiatives.

3.3 Next steps

The next phase of the Belubula Water Security Project involves shortlisting options for more detailed consideration and consultation.

Future engagement on the short-listed options for all stakeholders is currently being planned and will include:

- online information and engagement opportunities
- in person engagement with the opportunity to speak directly with the project team
- a wide range of continued accessible opportunities to engage
- further reporting back to the community on 'what we heard' and our response.

The Department will continue to work with local First Nations stakeholders and community to ensure culturally safe and inclusive consultation throughout the planning and decision-making process.

Future First Nations engagement activities will:

- provide updates to key First Nations stakeholders
- provide clear information on environmental assessments and cultural safeguards

- include community-focused summaries of infrastructure benefits
- create opportunities for First Nations participation in the project where possible, including in cultural heritage assessment, site preparation and works delivery.

We sincerely thank all community members and stakeholders for your valuable insights, thoughtful feedback, and active participation so far. Your contributions have played a vital role in shaping the project's direction, and we look forward to continuing this meaningful collaboration as we refine the options and finalise the Full Business Case.

The Full Business Case is expected to be finalised in 2026.