

Department of Climate Change, Energy, the Environment and Water

# Macquarie-Wambuul Water Security Project

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## What We Heard

March 2026



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# Acknowledgement of Country



The Department of Climate Change, Energy, the Environment and Water acknowledge 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.

Macquarie-Wambuul Water Security Project

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# 1 Executive summary

The Macquarie-Wambool Water Security Project, led by the NSW Department of Climate Change, Energy, the Environment and Water (the Department) aim to improve water security and reliability and support a healthy river environment across the Western Plains region of New South Wales.

The NSW and Australian Government are jointly funding \$9.35 million to develop a Full Business Case to investigate options to meet these aims. Four options aligned with the Macquarie-Castlereagh Regional Water Strategy were initially identified for consideration:

- a regional pipeline connecting Dubbo to Nyngan and other towns
- using some of Burrendong Dam’s flood mitigation storage to increase water supply
- a new weir to potentially replace Gin Gin Weir located between Warren and Narromine
- other options identified in the regional water strategy, including consideration of accessing groundwater during a drought.

A phased consultation program is being undertaken so the Department can share information and gather feedback as the options are assessed and refined. Initial stakeholder consultation on the proposed options was undertaken from August 2024 to February 2026.

Overall, feedback indicated strong support for the project’s overarching aims to improve water security and reliability and support for improving drought resilience. There was also strong support for a healthy river environment.

Four options were presented to stakeholders for feedback. Feedback regarding the specific options presented has been mixed.

Option	Key feedback
A regional pipeline connecting Dubbo to Nyngan and other towns	There was limited support for a regional pipeline connecting Dubbo to Nyngan and other towns.  This included strong opposition for this option, especially within the Dubbo community.
Using Burrendong Dam’s flood mitigation zone, including the option to set aside more water in Burrendong Dam for critical needs.	Using Burrendong Dam’s flood mitigation zone to increase water supply received the highest level of support in general as it offered meaningful improvements to town water security during drought, however strong concerns about environmental impacts were noted.  Additionally, the Carinda community was not supportive of this option, with concerns about flow regimes.  These sentiments also relate to the option to set aside more water in Burrendong Dam for critical needs.

Option	Key feedback
A new weir to potentially replace Gin Gin Weir	There was limited support for the Gin Gin weir replacement option.
Access to groundwater during drought (this includes expanding Dubbo Regional Councils access to groundwater)	There was neutral to positive sentiment for the Dubbo groundwater option.

The key themes stakeholders raised during consultations were:

- concerns about downstream impacts, cultural and environmental impacts and extending water delivery during low flows
- consideration for including a fish passage for the Gin Gin Weir option
- the importance of maintaining connectivity to the Barwon-Darling River
- the importance of data and monitoring for effective flood management
- concerns for environmental impacts to the Macquarie Marshes
- the importance of maintaining cultural heritage and value of cultural water
- the potential for employment opportunities associated with the pipeline option
- the value of community education for water efficiency and engagement
- the value of water allocation and equity processes for future resilience
- the health toll of experiencing extreme weather events, particularly the impact of the Tinderbox drought on the community.

We sincerely thank all stakeholders and community members for their valuable and insightful contributions and generously sharing local knowledge. Your feedback has been heard and will play a vital role in shaping the next steps of the project.

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## 2 Introduction

### 2.1 About this report

The department 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. We aim to ensure all voices are heard, and all opinions considered.

This What We Heard Report gives an overview of community and stakeholder feedback on the key elements and options for the Macquarie-Wambuul Water Security Project received during targeted and public consultations from August 2024 to February 2026.

The report outlines the responses from key stakeholders, First Nations groups 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 Full Business Case

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

The FBC weighs up the benefits and impacts of the 4 identified water security options:

- a regional pipeline connecting Dubbo to Nyngan and other towns
- using some of Burrendong Dam's flood mitigation storage to increase water supply
- a new weir to potentially replace Gin Gin Weir located between Warren and Narromine
- other options identified in the regional water strategy, including consideration of accessing groundwater during drought.

An option to set aside more water in Burrendong Dam for critical needs was considered early in FBC development as it had been identified in the Macquarie-Castlereagh Regional Water Strategy. This option did not proceed because it was duplicating work underway as part of the NSW Government's Minimum Inflows Project that is focussing on reviewing water that flows into dams during drought and how much water could be set aside in dams and water ways to meet high-priority needs under different future climate conditions. Consultation on the Minimum Inflows Project is also being undertaken by the Water Group in 2026-27.

The NSW Government is investigating the options in more detail and will integrate stakeholder consultation to ensure the best infrastructure solutions are identified and progressed.

The outcomes of these studies and consultations will be included in the FBC, which will guide future funding decisions for the project by the NSW and Australian Governments.

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## 2.3 Engagement overview

During this first phase of engagement, we provided a wide range of opportunities for communities and stakeholders, to engage with us and provide feedback on the options.

We are grateful to everyone who participated in a range of engagement activities including public webinars, public information sessions and individual meetings. The Department engaged with a wide range of people including:

- community members and organisations
- First Nations communities

- local Members of Parliament
- industry and environmental groups
- local councils and local water utilities
- peak organisations.

### 2.3.1 Communications and engagement snapshot from August 2024 to February 2026



## 2.3.2 How and who we engaged

Date	Activity	Description	Stakeholders	Key metrics
August 2024	Briefings	Meetings	Local members of Parliament	2 meetings
August 2024	Meetings	Meetings	Local councils	4 meetings
August 2024	Meetings	Meetings	Industry	1 meeting
August 2024	Meetings	Meetings	Environmental groups	2 meetings
August 2024 – July 2025	First Nations meetings	Meetings	Local Aboriginal Land Councils	7 meetings
August 2024 – July 2025	Email update	Project update and advertising opportunities to engage	All stakeholders	63 emails
November 2024	First Nations meetings	Meetings	Registered Aboriginal Parties	4 meetings
November 2024	Community Information Sessions	Drop-in sessions in Warren, Carinda and Dubbo	Community members, council, First Nations, irrigators, environmental groups, NSW Government agency	3 sessions, 56 attendees
February 2025	Meeting	Online meeting	Local Council	1 meeting
March 2025	Email update	Project update	Local Area Land Councils and Registered Aboriginal Parties	17 emails
Mid 2025	Briefings	Phone briefings	Councils, industry and environmental groups	7 phone calls

Date	Activity	Description	Stakeholders	Key metrics
Early 2026	Meetings	Meetings	Council and NSW Government agency	1 meeting

## 3 What we heard

### 3.1 First Nations engagement outcomes

A variety of engagement activities including face-to-face meetings, phone calls and emails were used to inform First Nations stakeholders of the project and options. We engaged with traditional owners, Local Aboriginal Land Councils, and other First Nations stakeholders.

Additionally, First Nations peoples were invited to attend community information sessions and to participate in the feedback survey.

Engagement prioritised ensuring communities felt heard and respected, particularly in relation to any loss of access to significant cultural sites.

Overall, First Nations stakeholders did not express a preferred option, however there was considerable concern regarding the Gin Gin Weir replacement option.

Key themes raised were:

- employment opportunities
- cultural heritage concern regarding Gin Gin weir option.

## First Nations themes and responses

Theme	Feedback	Response	Justification
Employment opportunities	Interest in the pipeline option, particularly in relation to potential employment opportunities through cultural heritage assessments and the pipeline construction. There was a desire for in-depth information.	The potential for employment opportunities will be assessed when the shortlisted options have been selected, and we look forward to discussing this further with community.	The NSW Government is committed to building authentic and caring partnerships, respect and opportunities with First Nations people. This project will be guided by the NSW Government Aboriginal Participation Strategy as well as an Aboriginal Procurement Policy.
Cultural heritage	Feedback that removal of Gin Gin Weir would result in the loss of access to a significant cultural site.	This feedback has been noted, and cultural assessments will be completed to inform the assessment of options.  Safeguarding cultural heritage impacts will continue to be discussed during future engagement.	Cultural heritage assessments inform mitigation strategies during design and planning.  Cultural heritage assessments are carried out in close consultation with First Nations communities.

## 3.2 Engagement outcomes

A variety of communication styles and engagement opportunities were used to engage with key stakeholders and the broader community. This included digital and traditional communication methods, in-person discussions, online briefings and meetings, community information sessions, online webinar, online and paper feedback survey and phone calls to seek key stakeholder and community feedback.

Overall, feedback indicated strong support for improving water security and drought resilience, however, feedback on the options was mixed.

Using Burrendong Dam's flood mitigation zone to increase water supply received the highest level of support overall, although the Carinda community was not supportive and concerns about environmental impacts to the Macquarie Marshes and its flow regimes were noted.

There was limited support and strong opposition, especially within the Dubbo community, to the Dubbo to Nyngan regional pipeline option. There was also limited support for the Gin Gin Weir replacement option, with some community sectors opposing this option.

There was neutral to positive sentiment for the Dubbo groundwater option.

Key feedback themes included:

- Support for improving water security and drought resilience
- Fish passage
- Connectivity to the Barwon-Darling River
- General support and strong environmental concerns for using Burrendong Dam’s flood mitigation zone
- Flood management
- Environmental impacts
- Pipeline concerns
- Cultural water
- Community education and engagement
- Water allocation and equity
- Mental health and toll of experiencing extreme weather events, such as the impact of the Tinderbox drought on communities.

## Themes and responses

Theme	Feedback	Response	Justification
Support for improving water security and drought resilience	Overall support for the project’s overarching aims and improving infrastructure from all groups, with a view that the focus should be on delivering water in times of low flows.	<p>We acknowledge the support for improving water security and drought resilience and one of the project’s overarching goals is to improve water security and reliability.</p> <p>This means that the project seeks to improve town water availability and increase drought resilience for all water users.</p> <p>The options being considered are supported by the Macquarie-Castlereagh Regional Water Strategy.</p>	The purpose of the project is to address water security issues regionally. The options have been shaped by regional strategic plans to ensure equitable outcomes and alignment with broader government priorities.

Theme	Feedback	Response	Justification
Fish passage	Feedback from the Dubbo community that Gin Gin Weir needs a fish passage, and this should be maintained to be structurally sound.	A fish passage is being considered as part of the Gin Gin Weir option.  Maintenance of the weir is the asset owner's responsibility, WaterNSW.	The NSW Government requires all new weirs to include fish passages.
Connectivity to the Barwon-Darling River	Concern that the project appears focused on delivering water to the Macquarie Marshes and didn't adequately address the issue of maintaining connectivity to the Barwon-Darling River during low flow periods.	We acknowledge this concern and maintaining connectivity to the Barwon-Darling River during low flows was identified in the Macquarie-Castlereagh Regional Water Strategy and is being addressed through the Northern Basin Connectivity Program.  Further environmental studies may be required to avoid or mitigate impacts on the Macquarie Marshes and to explore opportunities for environmental enhancement, in line with legislative requirements.	We acknowledge the interconnectedness of the system and are working closely with other water management projects also underway for a balanced approach to water security. This project is seeking to improve town water availability and increase drought resilience for all water users, whilst maintaining the flow to the Macquarie Marshes.
Using Burrendong Dam's flood mitigation zone.	There is strong support from the Warren community for using Burrendong Dam's flood mitigation zone, while feedback from Carinda and Dubbo reflects more mixed views.	We acknowledge the range of perspectives provided, and this feedback will be incorporated into the assessment of project options.  Economic and social benefits will be evaluated to ensure the project delivers value for money and supports positive outcomes for the region.	The project is designed to address regional water security challenges at a regional scale.

Theme	Feedback	Response	Justification
Environmental impacts	Environmental groups from Dubbo expressed strong opposition to using Burrendong's Flood Mitigation Zone, citing environmental impacts from altered flow regime to the Macquarie Marshes e.g. bird breeding events.	We acknowledge this concern. Community feedback, robust hydrology modelling and environmental and economic assessments informs option shortlisting.	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.
Flood management	Concerns that Ewenmar Creek does not have adequate data including telemetry and monitoring stations, for effective flood management.	A flood risk assessment is being completed for the Flood Mitigation Zone option. Should more flood monitoring stations be required, this assessment will confirm them.	These investigations are essential for identifying and managing risks associated with change to flood risk. The NSW Government requires water infrastructure proposals to demonstrate public benefit. The project will assess all potential impacts on existing water users.
Flood management	Feedback that floods (dam releases) could be managed better to avoid exacerbating downstream flooding. Feedback that better floodwater dispersal and recovery policies are needed to recover from over-extraction during drought.	Flood management is the responsibility of WaterNSW - <a href="#">Floods - WaterNSW</a> This project was not established to review flood management practices or policies. NSW Floodplain Harvesting Program is a separate action under the Regional Water Strategy. We will pass this feedback onto relevant teams.	The purpose of the project is to address regional water security issues regionally. Any infrastructure options will include investigations to identify and manage risks associated with any change to flood risk.

Theme	Feedback	Response	Justification
	Concerns that any infrastructure project upstream of Warren could impact flood management from Burrendong Dam through to Warren.	A robust flood risk investigation and assessment will be completed to fully inform the Flood Mitigation Zone option assessment.	These investigations are essential for identifying and managing risks associated with change to flood risk.
Pipeline concerns	Strong opposition to the Dubbo to Nyngan pipeline, especially in Dubbo. Concerns it could cut off river flows to Dubbo, including local water supply, environmental impacts and fish breeding.	Community feedback will inform the development of options. Hydrology modelling, geotechnical studies, terrestrial and aquatic biodiversity and climate scenarios will also inform the shortlisting of options. More detailed assessment of preferred options will then occur.	Economic and social benefits are assessed to ensure the project demonstrates value-for-money and supports regional outcomes, as required in the NSW Government Business Case guidelines.
Cultural water	A request to allocate cultural water at Goan Waterhole and Buddah Lake.	This project scope does not include changes to cultural water however we will pass this feedback onto relevant department teams.	The NSW Government will continue engaging with First Nations stakeholders to ensure cultural and equity considerations are addressed when assessing any potential water transfer impacts.
Water allocation/ equity	A strong desire to see 2-3 years' worth of critical and environmental water in the system.	The project seeks to improve town water availability and increase drought resilience for all water users.  The metric to assess this will be confirmed during assessment of the project options.	The project is required to assess long-term operational resilience, including the impacts of climate change, and to ensure alignment with the NSW Government climate change and adaptation policies.

Theme	Feedback	Response	Justification
Water allocation/ equity	Desire to incorporate the Tinderbox drought and historical Gin Gin Weir data into future water allocation processes.	We can confirm that the hydrological modelling currently underway will replicate the base-case conditions of the Tinderbox drought to ensure accurate assessment of water flows.  This project does not include changes to water sharing/ allocations planning.	The project is required to assess long-term operational resilience, including the impacts of climate change, and to ensure alignment with the NSW Government climate change and adaptation policies.
Water allocation/ equity	Concern that the Macquarie-Wambuul system is being over - allocated (900GL allocated, 400GL available).	This project does not include changes to the water sharing plan.  We acknowledge this concern and will pass this feedback onto relevant department teams.	The options have been shaped by the Macquarie-Castlereagh Regional Water Strategy to ensure equitable outcomes and alignment with broader government priorities.
Water allocation/ equity	Concern that current environmental water releases are inadequate. Feedback that a 90-day cycle is preferred.	This project was not established to review the environmental releases process, however, will assess long-term operational resilience including the impacts of climate change.  We acknowledge this specific concern in relation to environmental releases process and will pass this feedback onto relevant department staff.	Our assessments will ensure alignment with the NSW Government climate change and adaptation policies.

Theme	Feedback	Response	Justification
Community education for water efficiency	Resources should be allocated to promote more water-efficient practices, while also limiting extractions to slow down water depletion rate.	<p>Improving water infrastructure and community education on water saving work hand in hand to benefit regional water security.</p> <p>The NSW Government offers a range of water education resources for use with children, school students and communities.</p> <p>Regional councils are also undertaking water saving programs with the support of the NSW Government.</p>	The NSW Government follows best practices in community engagement.
Community engagement	Feedback that it is not clear what each government agency does in water security. Feedback that terms such as ‘Critical Needs’ and ‘Planned Environmental Water’ are not clearly defined, and that the water allocation process is not transparent.	<p>We acknowledge the complexity of water management and seek to make information clear and transparent, including through drafting this business case.</p> <p>The <a href="https://water.dpie.nsw.gov.au/about-us/legislation-and-policies/extreme-events-policy">NSW Extreme Events policy</a> includes definitions of what critical human needs are and the priorities for making decisions during extreme events.</p> <p><a href="https://water.dpie.nsw.gov.au/about-us/legislation-and-policies/extreme-events-policy">https://water.dpie.nsw.gov.au/about-us/legislation-and-policies/extreme-events-policy</a></p>	<p>The NSW Government is committed to engaging with our stakeholders in a clear and transparent manner.</p> <p>Transparent engagement is essential to understanding and responding to local concerns, and this approach aligns with the NSW Government’s principles for community engagement.</p>

Theme	Feedback	Response	Justification
Mental health and toll of experiencing extreme weather events	Community members expressed the significant mental health impacts associated with extreme weather events, particularly droughts and floods, and the distress of seeing the river run dry. Many also voiced concern that climate change may intensify these events, increasing the urgency to protect environmental assets that support long-term resilience.	We sincerely thank community members for sharing these deeply personal experiences. We recognise the emotional strain caused by prolonged dry periods and the profound impact of witnessing the river run dry. We are working hard on strengthening drought resilience for our communities.	Strengthening drought resilience remains a key priority for the NSW Government, and we are committed to identifying the most effective options to support communities during future climate challenges.

### 3.3 Next steps

Development of the Macquarie-Wambuul Water Security Project Full Business Case is a multistep process, and the Department is taking a phased approach to community and stakeholder engagement so that feedback can be shared and integrated progressively.

Your feedback informs the options assessment process, and we will be returning to the community to present the shortlisted options and seek further feedback.

Future engagement will include:

- community information sessions
- meetings with key stakeholders
- continued communication
- updating the fact sheet and website as required
- continuing to share what we hear and our responses with community members and stakeholders.

The Department will continue to engage in a respectful, culturally safe and inclusive way throughout the planning and decision-making process.

We are sincerely thankful to all First Nations peoples, 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 for the Full Business Case.

The Full Business Case will be completed in 2026.