

Building the pathway to improved northern Basin connectivity

The Connectivity Expert Panel has provided their independent recommendations on delivering better water management outcomes across the connected catchments of the northern Basin. The department will undertake detailed hydrologic and economic analysis to fully understand the benefits and impacts and inform next steps.

We are on a journey of improved water management

Improving connectivity across the northern Basin at important times is a NSW Government priority, with the Northern Basin Connectivity Program established to progress this. Improving connectivity across the northern Basin and flows into and in the Barwon-Darling is particularly challenging, as over 90% of its flows come from upstream catchments, with most of these occurring during periods of high flows.

The Minister for Water convened the Connectivity Expert Panel (the Panel) to review the work the department has done and provide independent expert ideas on ways to improve connectivity. The Panel provided its [final report](#) to the Minister for review and consideration in July 2024. This independent advice will be an important input into determining the next steps to improve connectivity.

Since the Water Management Act was introduced in 2000 and the first water sharing plans released in 2003, we have been on a continual journey of improvement of how water is managed in NSW. Key changes already implemented to improve water management in the northern Basin include active management to protect environmental water, metering reforms, licensing floodplain harvesting, and changes to the Barwon-Darling water sharing plan to better protect low flows (Figure 1).

Between 2017 and early 2020, northern inland NSW experienced record drought conditions that severely impacted water availability for human and environmental needs. The Western Regional Water Strategy undertook significant analysis and consultation to better understand what changes needed to be taken in water sharing plans across the northern Basin to provide for critical needs in dry times in the Barwon-Darling and downstream. This focus on dry times was to address key recommendations from reviews arising out of events that occurred in the 2017-20 drought, including

the Independent Assessment of the 2018-19 fish deaths in the lower Darling (Vertessy review) and the Independent Panel Assessment of the Management of the 2020 Northern Basin First Flush Event.

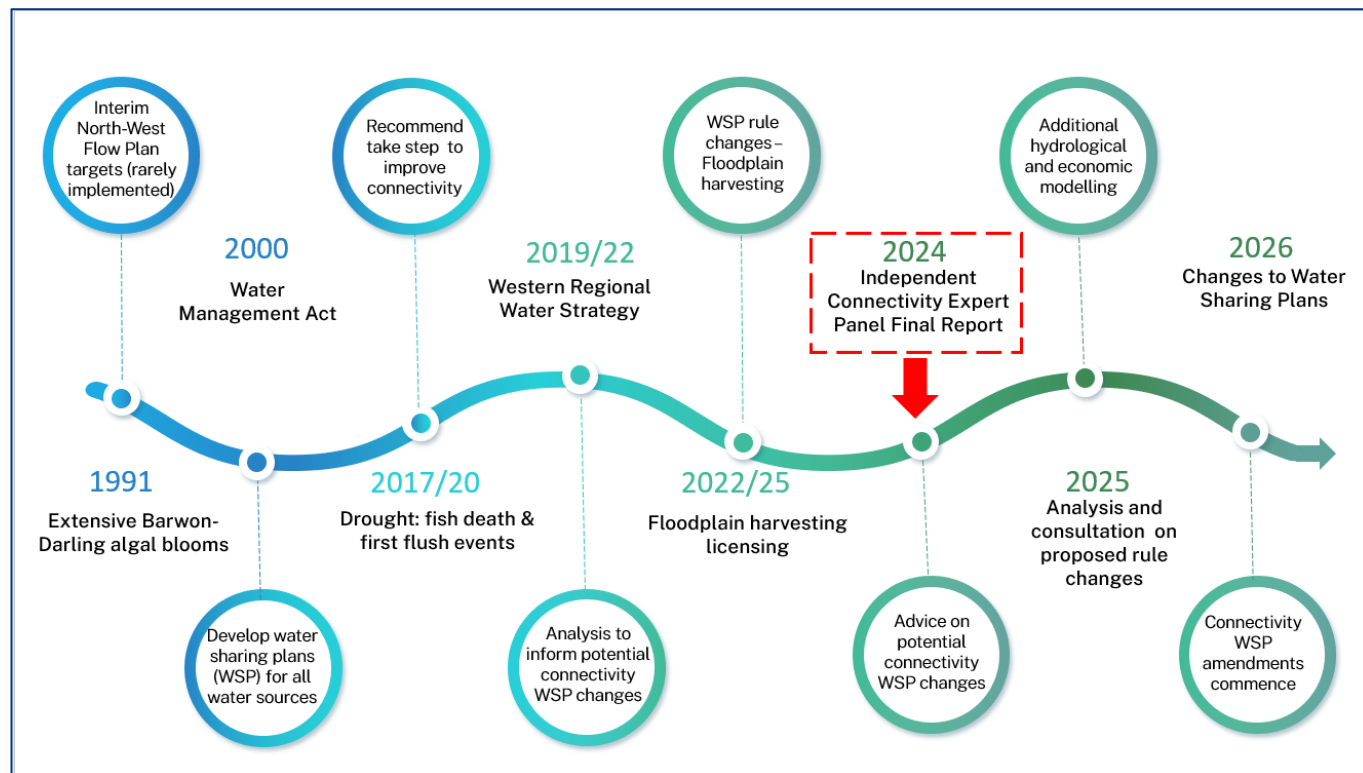


Figure 1 The journey of improved connectivity

What we will do first

The Panel has recommended changes to improve connectivity across the northern Basin. The recommendations have been completed independent of the government and there are still many unknowns about what they could mean for communities and the environment.

The department will use the next 6 months to consider the report and do more analyses to ensure we have the right data in front of us before determining the next steps.

Complete hydrologic and economic assessments of panel's proposed flow targets

Not all the Panel's recommended flow targets or recommendations have been modelled and therefore the full extent of the potential environmental benefits and impacts on all types of entitlement holders is unknown.

Between July-December 2024 the department will use the latest approved models to complete detailed hydrologic and economic assessment of all the panel's recommendations to fully understand their potential benefits and impacts.

The department will release the results of this analysis and meet with key stakeholders in early 2025 to discuss the findings and provide input on local experience and issues. This will be used to inform the development of our 'Pathway to improved northern Basin connectivity' which will outline the next steps the government will take and will be released mid-2025.

The pathway to improved northern Basin connectivity will be used to inform water sharing plan amendments and will be consulted with the community in late 2025. Implementation of the final connectivity water sharing plan amendments will commence 1 July 2026 (Figure 2).

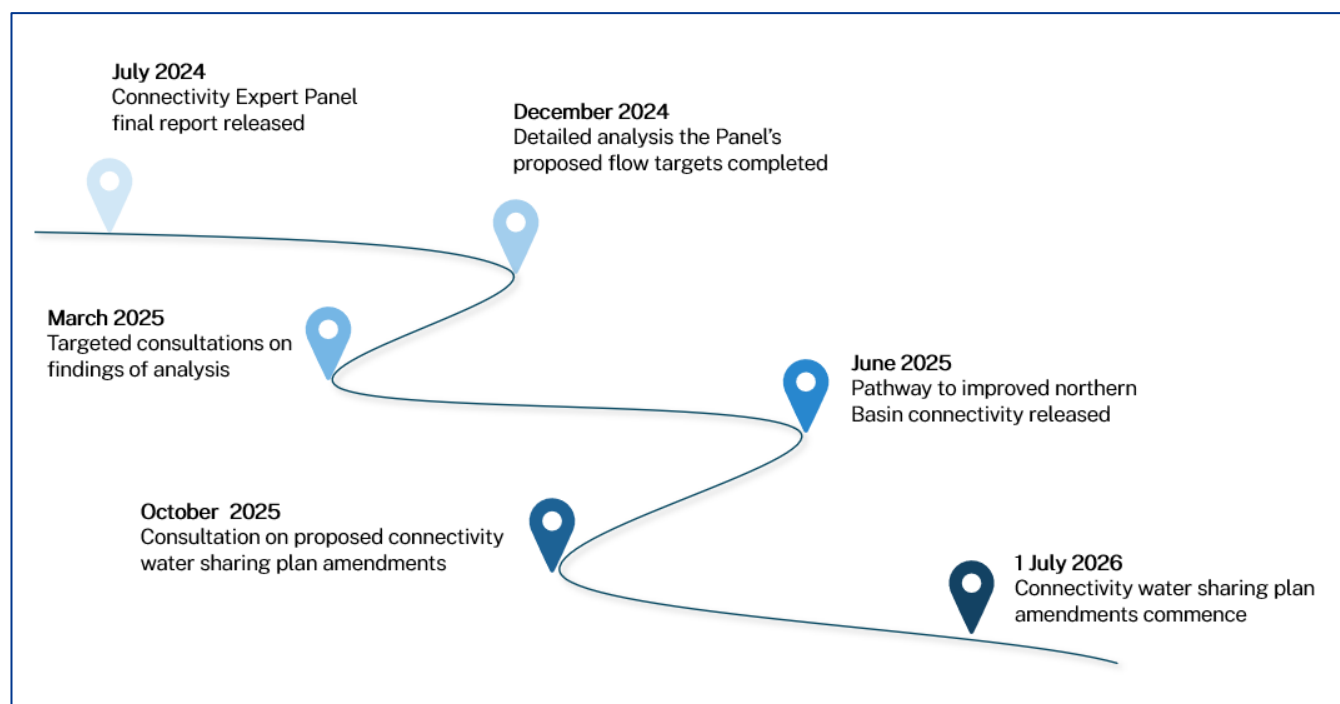


Figure 2: Mapping the Pathway to improved northern Basin connectivity

Establish Northern Basin Connectivity Program oversight

The government has existing proven and successful cross-agency governance processes for implementing improved water management actions in the northern Basin, for example floodplain harvesting and Barwon-Darling 2020 water sharing plan reforms. The Minister for Water supports continued use of these proven arrangements, which include concurrence from the Minister for the Environment for water sharing plans changes, over establishing new independent governance processes recommended by the Panel. The department will publish six monthly updates on progress to improving northern Basin connectivity.

For more information on the Northern Basin Connectivity Program and progress updates visit [Northern Basin Connectivity Program | Water \(nsw.gov.au\)](https://www.nsw.gov.au/northern-basin-connectivity-program)

We will continue our current work to improve outcomes

While the analysis of the Panel's recommended flow targets is completed, the department will progress actions underway to improve water management outcomes across the northern Basin. This will include to:

Complete licensing of floodplain harvesting in the northern valleys: Floodplain harvesting licences are all the northern valleys except for the Namoi, which will be in place by the early 2025.

Commence review of unregulated water sharing plans: The Panel has recommended that critical unregulated water sources be reviewed to improve connectivity with the Barwon- Darling River. The department will review these water sources over the next six to twelve months and will have the hydrological risk assessment methodology peer reviewed.

Continue the northern to southern Basin environmental flow protection trial: Active management rules have been implemented to protect active environmental water from extraction in the unregulated Barwon-Darling, Gwydir and Macquarie water sources. This protects water through to Menindee Lakes. In May this year, Basin states agreed to undertake a 12-month trial to extend this principle of active management, to protect environmental water that enters Menindee Lakes so it can be used to meet downstream environmental needs.

Contribute to the Murray-Darling Basin Authority (MDBA) led review of the operation of Menindee Lakes. The review will be led by the MDBA and examine the suitability and performance of water management arrangements currently in place for the system.

Improve the northern Basin gauge network: High-tech river gauges have been installed or upgraded at 20 key locations across the northern Murray-Darling Basin, including four in unregulated systems. The new hydrometric gauging stations provide detailed live information on the volume of flows coming down the rivers which will help us better understand connectivity, flood risk, and drought preparedness. The new river gauge site locations were selected through extensive consultation, following a detailed review of existing hydrometric networks, identifying knowledge gaps and where improvements could be made. The project is part of the Australian Government funded \$35 million Hydrometric Networks and Remote Sensing Program.