

Macquarie–Cudgegong Environmental Water Advisory Group

Meeting summary of the annual planning meeting held 5 and 6 May 2026 at Dubbo NSW.

The Wambuil Macquarie-Cudgegong Environmental Water Advisory Group (EWAG) met at Charles Sturt University, Dubbo for a planning session focussed on providing recommendations for environmental water use in the 2026–27 water year and beyond.

Summary of catchment conditions

Weather conditions and dam levels

The catchment has experienced seasonally warm and very dry weather in recent months. Forecasts suggest warmer-than-average conditions will continue, with lower-than-average rainfall for winter 2026. *El nino* trends indicate this may extend to late 2026.

Burrendong Dam was at 27% capacity (315 GL) and Windamere Dam was nearly full at 83% capacity (305 GL). Recent water flows into the dams have been very low, with no general security allocations since December 2025, and 31% for the water year so far.

Environmental conditions

The Marshes were in a generally moderate condition, though non-woody vegetation condition is declining, and inundation area receding. Approximately 2,500 hectares (ha) remained inundated in late April 2026.

Environmental water demands

Due to ongoing dry conditions, there is widespread demand for water across multiple assets to buffer drought impacts in streams and core wetland areas. Additionally, native fish populations require continued targeted assistance to support their ongoing recovery.

Future river operations

In the absence of significant rainfall, high water demand is expected across the regulated Macquarie-Cudgegong system in 2026-27. Water users indicated they will likely exhaust most

General Security carryover in the 2026–27 water year. Environmental water managers also plan to draw down a notable portion (72%) of their holdings. This demand, combined with environmental water use (described below), will necessitate a Bulk Water Transfer from Windamere Dam to Burrendong Dam, which is likely to commence in late 2026.

CEWH ‘FlowMER2’ program update

A presentation was provided to the EWAG on the CEWH Flow-MER 2.0 program (2024–29). The program monitors and evaluates how environmental water supports ecological outcomes in the Wambuul Macquarie River and Marshes. It tracks 5 key themes such as cultural outcomes, river flows and connectivity including inundation, native vegetation, waterbirds and native fish.

Early 2024–25 results show mixed outcomes. Some waterbird breeding and 11 species of conservation significance were recorded in ‘watered’ areas, but no large rookery events occurred. Vegetation responses were observed with 131 native species recorded. Native fish results showed poor condition and limited recruitment, with barriers like weirs identified as restricting movement.

The program also progressed cultural outcomes with 4 On Country visits, workshops and engagement to develop cultural priorities.

Group deliberations

Key topics discussed by the group included environmental watering objectives, flow plan components, risks and trade-offs associated with a year of decreased water availability, high demand and highly uncertain rainfall.

The group assessed ‘extreme drought’ and ‘drought with minimum inflows’ weather scenarios. The primary distinction between the two is the certainty of carryover deliverability in 2027–28, a complex risk on which it was difficult to reach a consensus.

The EWAG discussed key recommendations for watering objectives, flow components (including approximate volumes), and priorities for the 2026–27 water year. These are outlined below.

Recommended watering priorities 2026–27

Wambuul Macquarie River

The EWAG has identified 3 high-priority watering actions for the Wambuul Macquarie River to mitigate drought impacts and support ecosystems:

1. **Macquarie Marshes Inundation:** delivery of a ~70 GL spring pulse to the northern/southern Marshes (spring 2026) and a 10 GL flow-triggered pulse to the eastern Marshes. This will

target 12,000–15,000 ha of inundation to benefit waterbirds, frogs, and wetland vegetation, while there is certainty of deliverability of General Security orders in 2026.

2. **Mid-Macquarie River Native Fish Support:** implement flow smoothing and a minimum flow 'floor' at the Baroona gauge (0–5 GL) in summer 2026–27 to aid breeding of Murray cod, freshwater catfish, and small-bodied generalist species. This will be followed by a 10 GL autumn 2027 dispersal pulse to assist recruitment of young-of-year.
3. **2027–28 Carryover Target:** securing a minimum 15 GL carryover balance to support 'avoid loss' outcomes for native fish in the subsequent water year.

Cudgegong Regulated River

Bulk Water Transfer (BWT) Scenario: In the absence of significant rainfall, a BWT will be required from Windamere Dam. Under this scenario, dedicated environmental flow releases will not be necessary, allowing the environmental water allowance balance to be carried over for future use. Opportunities to achieve environmental outcomes will be pursued where possible.

If a BWT does not occur, the EWAG recommended:

1. **Native Fish priming and flow variability:** delivering a late-spring 2026 pulse to boost primary productivity and to add flow variability in the most heavily regulated reach above Lawsons Creek.
2. **Native fish breeding:** elevated summer 2026–27 base flows. This will support the breeding and recruitment of native fish in the regulated river, specifically targeting freshwater catfish, Murray cod and small-bodied native species.

Consideration was given to other priorities, including:

- **Connecting between catchments:** this was not seen as a viable primary objective in 2027-28 due to limited volumes available. A minor flow connection to the Barwon River via the Lower Macquarie River would be expected with the recommended 70 GL spring 2026 Marshes pulse.
- **Trial new watering sites:** a proposed trial flow to the Marra Creek was discussed. Consensus was not reached. The majority position was no to including the Marra Creek watering trial. The majority of EWAG members did not endorse this as a high priority for 2026–27, recommending instead that actions in drought periods focus on reducing likely water shortage impacts in known high conservation value target assets first.
- **Drought refugia support, particularly for native fish in 2026–27:** under current essential supplies volumes, WaterNSW will support the regulated river reaches until the end of the 2026–27 water year. However, assistance could be needed if drought conditions persist or deepen into 2027–28. Under severe drought protocols, carryover balances may be

quarantined to protect critical human needs. This operational shift would leave some regulated river pools vulnerable, as observed in the mid-Wambuul Macquarie River downstream of Warren in 2019.

Despite these risks and uncertainties, the EWAG recommended reserving a minimum of 15 GL specifically to support native fish outcomes in 2027–28, which could include drought refugia. This decision would be made adaptively depending on conditions.

It was proposed that event details for each recommended high priority be developed by NSW and CEWH environmental water managers and reviewed by interested EWAG members out of session.