Proposed access rule change in Cudgegong River Downstream Management Zone

This fact sheet supports additional consultation to finalise the draft Water Sharing Plan for the Macquarie/Wambuul Bogan Unregulated Rivers Water Sources 2025

Background

The draft replacement Water Sharing Plan for the Macquarie/Wambuul Bogan Unregulated Rivers Water Sources 2025 (the draft replacement Plan) was publicly exhibited from 4 November 2024 to 10 January 2025. The consultation period was then extended until 2 February to continue consultation with stakeholders on proposed wetlands in the draft replacement Plan.

On 1 July 2025 the *Water Sharing Plan for the Macquarie/Wambuul Bogan Unregulated Rivers Water Sources 2012* lapsed. The Department of Climate Change, Energy, the Environment and Water (the department) has since reconsidered the proposed access rules, and further consultation is now required to ensure we can get the plans right.

While the original draft replacement Plan did not propose changes to access rules in the Cudgegong River Downstream Management Zone, the department is now proposing a revised access rule for the Cudgegong River Downstream Management Zone.

Proposed change to the access rule

The existing access rule in the Cudgegong River Downstream Management Zone prevents water being taken when there is no visible flow at an individual pump site.

We propose to revise the access rule to prevent water being taken when flow is 3 ML/day or less at the Cudgegong River at Rylstone gauge (421903). This rule is proposed to apply to all access licences in the management zone (Table 1), except for the Domestic and Stock (Town Water Supply) subcategory access licence which is exempt from access rules and pool rules. This change will not affect other existing access rules such as take from in-river pools, in-river dam pools or off-river pools, existing exemptions to access rules or the application of historical access rules that are more restrictive, where relevant.

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Table 1 Amount of entitlement and number of access licences and licence holders in the new management zone (Water Licensing System)

Licence category	Number of licences / Licence holders	Amount of entitlement
Unregulated River	14 / 13	854 unit shares
Domestic and Stock	5 / 5	38.5 ML/year

Some licensees may hold multiple licences in one or more categories.

Why this change is proposed

The water source is ecologically significant and under pressure from extraction

The *Water Management Act 2000* requires the Minister for Water and Minister for the Environment to prioritise the protection of the water source and its water-dependent ecosystems when sharing water, while also considering the other principles of the Act.

The Cudgegong River Downstream Management Zone forms part of the Upper Cudgegong River Water Source. The water source has high instream values[1] and supports many threatened aquatic species, including the Murray cod and others that are important in the river food chain. Critically, it supports endangered species, including the Booroolong Frog, Golden Bell Frog[2], Purple-Spotted Gudgeon and Eel-Tailed Catfish[3].

There is a reported high risk of increased zero and low flow periods in the water source due to previous rules for licensed extraction[1]. This means the creek is likely to stop flowing or have flow at low levels more often than what would occur naturally, impacting the life cycle and viability of species that require some level of flow in the river.

In addition, periods of no or low flow can lead to the fragmentation of aquatic habitats, reducing connectivity between pools and threatening the survival of native fish and other aquatic species. They can also decrease the quality of water, such as reduced oxygen levels, leading to further stress on important ecosystems.

[1] DCCEEW, 2018. Risk assessment for the Macquarie—Castlereagh Surface Water Resource Plan Area (SW11). Risk Assessment for the Macquarie–Castlereagh water resource plan area

[2] Green and Golden Bell Frog - profile | NSW Environment, Energy and Science

[3] Schilling, H., Crook, D., 2025. Basin Plan Fish Monitoring Summary (2014/15 – 2023/24): Water Resource Planning Area Reports. NSW Department of Primary Industries and Regional Development. Port Stephens Fisheries Institute. 625pp. (PUB25/277) 2024_Final_Chapter_6_Macquarie-Castlereagh.pdf

Changes to water management are needed to reduce risks to the water source

Many aquatic species are in a state of decline across the NSW Murray–Darling Basin. For example, the endangered Eel-Tailed catfish was formerly very abundant across most of the NSW Murray–Darling Basin. Due to alterations of natural flows, introduced species, and poor water quality, the fish is now restricted to parts of the northern Basin, including the Macquarie/Wambuul catchment. The Cudgegong River Downstream Management Zone provides an important refuge habitat for the fish.

The main way to protect aquatic and water-dependent ecosystems in the water source is to reduce how often the creeks stop flowing throughout the year and to protect low flows and very low flows. This is especially important during the breeding season of endangered species (spring to summer).

The proposed change to the access rule is intended to lower the risks to the water source, improving protections for aquatic ecosystems and species by:

- reducing, on average, how often the river stops flowing
- increasing how long flows stay above low and very low flow conditions
- supporting adequate water depth to enable native fish and other aquatic animals to travel throughout the water source and river system more broadly for as much of the year as possible. The proposed access rule aims to protect an approximate flow depth of 30 cm at the Cudgegong River at Rylstone gauge (421903). While this rule won't maintain 30 cm flows at all times—as the river will naturally reduce to very low flows and cease to flow at times—it is expected to protect the natural recession of lower flows in line with natural conditions and increase the time when flow supports movement of aquatic species
- improving river connectivity and how often refuge pools are filled
- supporting species condition during flow periods to enhance resilience of native fauna and ecosystems through dry spells, including cease-to-flow events
- reducing water quality issues by ensuring a minimum flow velocity past the gauge.

The proposed rule also provides benefits for basic landholder rights and ensures water is available for human needs and the environment in the longer term. Linking access rules to an active telemetric gauge improves implementation of the rules and compliance.

Why this change wasn't proposed during public exhibition

The department did not initially propose to change access rules for affected licences during public exhibition due to less flow data being available than what is preferred when developing access

rules. The Cudgegong River at Rylstone gauge (421903) became operational in 2017. While the gauge has been operational since 2017, the department considered there was not enough data to assess the effectiveness of the existing rule and test scenarios for proposed rule changes.

Following further consideration of the entire water sharing plan and adjacent water sources, it became clear the potential risks to the environment remained high. For example, a no visible flow cease to pump rule does not reduce the reported risks to the water source or management zone and is unlikely to protect endangered fish and frogs in the system. Despite earlier considerations, further adjustments to access rules are needed to better balance environmental outcomes.

While there is less gauge data than what is usually preferred, there is enough information available to estimate flows required to provide minimum flow depths for native fish. Additionally, the gauge is operational and daily flow (discharge) rates are published based on observed water level measurements and the most recent rating relationship. WaterNSW routinely reviews and updates these rating relationships. If a substantial change occurs, the cease to pump threshold could be reviewed and updated if required.

The Cudgegong River Downstream Management Zone is one of 2 water sources or management zones in the Macquarie/Wambuul Bogan Unregulated Rivers Water Sources being reconsidered by the department. It was identified because of the reported high risks to the high instream values, and the opportunity to improve connectivity within and between water sources.

What this change would mean for licence holders

The number of days per year that a licence holder cannot take water under the existing access rule (no visible flow at the pump site) will be different for each licence holder depending on the location of their pump site. To show the impact of the proposed access rule change, the number of days per year where access is restricted is provided as a long-term average for both the existing and proposed access rules. However, the scale of change between the existing and proposed access rule will vary for each licence holder.

The average number of days per year when access is restricted under the existing and proposed access rules has been calculated using the flow data available at the Cudgegong River at Rylstone gauge (421903, Table 2), since the gauge began operating in 2017.

Based on the information in Table 2, the proposed change in access rule would result in licence holders being restricted from taking water for approximately 32% of the year on average over the long term with the greatest reductions in access occurring in winter and spring.

Table 2. Statistics for the Cudgegong River at Rylstone gauge (421903)

Time period	Average days/year that take is not permitted at no visible flow (existing rule[4])	Average days/year that take is not permitted at 3 ML/day (proposed rule)	Change between existing and proposed rule
Full gauge record (2017–2024[5])	47	116	On average, based on historic data, there were a minimum of 69 additional days per year where affected licence holders could not take water under applicable licences

Importantly, the analysis in Table 2 is only representative of the scale of change in access for licences that extract water from the Cudgegong River. Where licences extract water from other creeks and streams within the management zone not connected to the Cudgegong River, there is no practical way to estimate the number of days of access under the existing no visible flow rule, as the hydrological relationship between the gauge and these licence locations is unknown. This means the change between existing and proposed rules cannot be quantified. However, the reported average number of days per year that take is not permitted under the proposed rule would apply to all licences in the management zone subject to the proposed rule, if adopted.

Targeted consultation and feedback

The department is seeking feedback from affected licence holders and peak stakeholder groups on the proposed access rule for this management zone. Additional consultation, including a webinar information session and a virtual meeting will be held to discuss this proposed access rule with licence holders and stakeholder groups. To provide an opportunity to have your say this additional consultation period will be open between 4 September 2025 and 8 October 2025.

A submission form is available on the department's website and written submissions can be sent via email to water.enquiries@dcceew.nsw.gov.au by 8 October 2025.

[4] Substitute for no visible flow at individual pump site.

[5] Data was collected for analysis until May 2024.