



Nature Conservation Council

The voice for nature in NSW

NSW DPI

Regional Water Strategy Team

18 November 2022

By Email: regionalwater.strategies@dpi.nsw.gov.au

Submission: Second Draft Macquarie-Castlereagh Regional Water Strategy

The Nature Conservation Council of NSW (NCC) is the state's peak environment organisation. We represent over 170 environment groups across NSW. Together we are dedicated to protecting and conserving the wildlife, landscapes and natural resources of NSW.

We welcome the opportunity to comment on the Second Draft Macquarie-Castlereagh Regional Water Strategy (RWS).

This submission indicates which actions NCC supports, and any actions we consider are missing across the four priorities of the Water Strategy.

Priority 1: Secure water supplies for growing regional cities and towns

Missing action: Review of regulated river water accounting and allocation process.

The drought of record is capped in the Macquarie at 2004, meaning the 1937 drought is the worst-case scenario considered when water allocations are determined. This is despite more frequent and significantly more severe droughts occurring since 2004. The current rules compel the Department to make water allocations based on the assumption that Burrendong dam will fill every two years, regardless of the climactic outlook.

We are already experiencing the impact of more severe weather events being fuelled by climate change coming on faster than predicted.

“Many of the impacts of climate change such as increased weather extremes are now playing out faster than predicted, even though the warming itself is very much in line with model projections,” American climatologist Michael E Mann, of Pennsylvania University.¹

The first draft RWS stated that:





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“..these results indicate that just relying on our historical data to make water management decisions no longer represents the best course of action and that we have an opportunity to put plans in place to make sure we are prepared and resilient if there are future changes in the climate.”²

Climate change predictions in this draft RWS include the driest scenario, where:

- average inflows into Burrendong dam could decrease by up to 50% by 2070
- the chances of a drought as severe as the 2017-2020 drought have been predicted to increase from 1 in one thousand years, to as frequent as 1 in thirty years by 2070

Despite being strongly supported by the community in the first draft RWS, the action of updating the drought of record for all water access account types was not progressed to the second draft RWS, rather it was shifted to the NSW Water Strategy.

The NSW Water Strategy promises to deliver a discussion paper on the action of more conservative water allocation for most inland valleys by 2024.

NCC strongly objects to the action not being progressed to the second draft RWS, and finds the prospect of a discussion paper within 2 years as an unacceptable timeframe for action on such a critical issue as responsible water management.

Listed actions:

Actions 1.1, 1.2, 1.4, 1.5, 1.7 would not be necessary if the drought of record was updated, and water allocations considered all available drought data. The towns in the Macquarie catchment could have some of the most reliable water supplies in NSW.

Actions 1.3, 1.6, 1.8 should be preceded by an urgent review of the volume of water captured on farm in the Upper Macquarie under the 10% harvestable right allowance.

NCC strongly objects to increasing the volume of water that Orange can access through the Macquarie to Orange pipeline being increased.

Priority 2: Reduce water security risks in the region's west

Water security for the entire catchment and through to Cobar would be significantly increased if the drought of record for all water access licences (not just high security) was updated to include all droughts.

Listed actions:

Action 2.1 NCC is supportive of additional off river storage being constructed at Nyngan.





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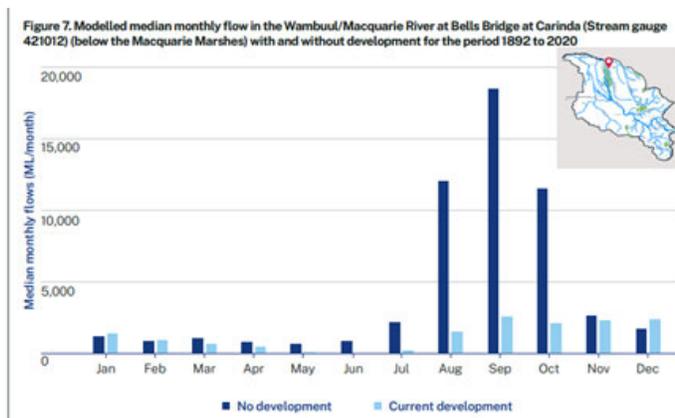
Action 2.2 NCC could conditionally support the changed operation of the regulated dispensary creeks, if the local community was not strongly objecting to it.

Action 2.3

- NCC strongly objects to increasing the full supply level of Burrendong dam to 113%. Any increase to the regulated water supply would mean a decrease to the unregulated water supply. Bird breeding events only occur when natural flooding occurs, which is when the dam is spilling. Should dam spills be stopped once the dam gets to 113%, flows would cease and water levels under ibis nests would suddenly drop, causing the breeding event to be abandoned.
- NCC strongly objects to any more public money being spent on investigating the Gin Gin re-regulating storage project, which has been re-named the Macquarie-Wambuul Water Security Scheme.
- NCC could conditionally support a pipeline from Dubbo to Nyngan if the Albert Priest Channel was going to be filled in. However, the drought of record must be updated for all water access licence types before this action is advanced.

Action 2.4 Investigate ways to improve connectivity with the Barwon– Darling on a multi-valley scale.

Historically, the Wambuul-Macquarie contributes 20.8% of flows to the Barwon-Darling.³ Re-establishing riverine connectivity is an objective of the Basin Plan. As referenced in this RWS, irrigation extraction has significantly decreased the frequency and duration of connectivity events where the Wambuul-Macquarie River reports to the Barwon River.



Ref: RWS page 33

NCC supports in-valley and end of system flow targets in the Unregulated Macquarie Water Sharing Plan that are based on the flow targets in the Long-Term Watering Plan, and supports increased connectivity.



Priority 3: Support industry and community climate adaptation

The following actions are supported by NCC:

3.1 Invest in continuous improvement to surface and groundwater modelling – all water models should be calibrated to climate change predictions, and be made available to the Murray-Darling Basin Authority for annual validation.

3.2 Improve public access to climate information and water availability forecast.

3.3 Support adoption of farm climate adaptation and water efficiency measures – all water recovered through efficiency measures should be assessed for return on public investment, and that information be made public.

3.4 Undertake research to inform reviews of groundwater extraction and condition limits – all groundwater dependent ecosystems must be mapped, and the baseline condition of aquifers established. Research must be publicly funded and not connected to expected economic output.

Missing Action: NCC supports First Nations' existing human rights to access and manage water. This strategy fails to identify a pathway for the allocation of water for cultural flows. A structural adjustment of water access entitlements in the NSW Murray-Darling Basin should establish suitable volumes of entitlements for cultural flows.

3.5 Develop ongoing arrangements for participation of local Aboriginal people in water management – NCC supports new Indigenous Water Institutions controlled by Traditional Owners and established through a Treaty process.

3.6 Support place-based initiatives to deliver cultural outcomes for Aboriginal people – supportive.

3.7 Support the development of new water related Aboriginal business opportunities in the Macquarie – Castlereagh region – supportive.

3.9 Improve public access to the Macquarie Marshes – supportive of Traditional Owners managing the Macquarie Marshes reserves.

NCC strongly objects to increasing the availability of high security licences in the catchment – action

3.8 Modernise the water management framework so it can continue to support sustainable economic diversification





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Priority 4: Best use of existing water for the environment

Feedback from the first draft RWS showed public support for reversing historical ecological damage, with particular concern for increasing connectivity and protecting wetlands.

These actions would require more water be allowed to remain in the rivers than is currently the case.

Missing Action: install in-valley and end of system flow targets based on the flow targets in the long-term watering plan in the Macquarie Unregulated Water Sharing Plan to ensure historic ecological damage is reversed, that connectivity is increased and Ramsar wetlands protected.

NCC is supportive of actions 4.1 to 4.6 and 4.8

Action 4.7 Fully implement the NSW Floodplain Harvesting Program. This action is strongly opposed by NCC. The in-valley and end of system flow targets gazette for the Macquarie catchment are not adequate to protect the environment.

No floodplain harvesting access licences should be handed out until there has been an assessment of the cumulative environmental and cultural impact of floodplain harvesting.

Thank you for the opportunity to participate in the consultation.

Your key contact point for further questions and correspondence is [REDACTED]
[REDACTED] We welcome further conversation on this matter.

Yours sincerely,

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¹ [COP27 climate summit: window for avoiding catastrophe is closing fast](#) – The Guardian, October 30 2022

² Draft Macquarie-Castlereagh Regional Water Strategy, September 2020, page 44

³ https://www.industry.nsw.gov.au/_data/assets/pdf_file/0007/478096/critical-needs-analysis.pdf page 7

