



Nature Conservation Council
The voice for nature in NSW

20 December 2021

Department of Planning, Industry and Environment–Water
Locked Bag 5022
Parramatta NSW 2124

Via email [REDACTED]

To whom it may concern,

Short term conditions to trigger s324 cease to pump

The Nature Conservation Council of New South Wales (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.

NCC is pleased to be engaged in the Connectivity Stakeholder Group and is supportive of its inclusion of a range of interested parties. This process has provided a broad and productive perspective of relevant issues.

We welcome the opportunity to comment on the discussion paper regarding the critical needs trigger. Water is a scarce resource in Australia. Climate modelling indicates that water resources will diminish further in the future. Effective and sustainable management of our water resources is therefore a critical responsibility of the NSW government.

1. Discussion Paper on critical needs trigger for s324 order

It was clear from the information provided by DPIE Water in the first stakeholder consultation session that the entire length of the Darling-Baaka River had never experienced dry riverbed conditions in recorded history, to the extent experienced in the 2017-2020 drought.

If the cultural, social and economic impact of those dry riverbed conditions to river communities downstream of Bourke during this drought were measured, the results have not provided to the stakeholder group.



Regardless, the extent of the dry riverbed conditions that prevailed during the 2017-20 drought must be avoided. However, the proposed triggers allow the Barwon-Darling/Baaka to decline to very poor condition before providing important flows. As proposed, ongoing deterioration of the river ecology over time is inevitable. Short term conditions to trigger a s324 Cease to Pump Order must consider:

- protection of a variety of pulses through the river system before severe drought conditions occur to prevent irreversible damage and unnecessary prolonged drought impacts.
- the identified need to undertake further work to understand cultural needs in the context of an extended drought and first flush. No estimates of water for native title rights and cultural water requirements are considered for the draft triggers.

The triggers proposed in this draft discussion paper must be significantly lifted. In particular:

1.1 Cease to flow period of 120 days at Wilcannia

- This trigger is far too late and does not consider the condition of other reaches of the river upstream of tributary inflows.
- A sudden flush that does not continue past Wilcannia will cause significant water quality issues, particularly increased salinity.

1.2 Menindee Lakes fall below 195 GL capacity

- Travel times for flows must be factored in before Menindee Lakes reach a low-capacity level.

1.3 Northern valley and/or Barwon-Darling in critical stage 4 drought

- The proposed trigger is weighted to critical human needs.
- Ecological needs must be also addressed through greater access to a variety of flow rates. This will prevent critical conditions being reached at the beginning of a prolonged drought.

2. Flushing flow release in the lower Baaka-Darling

The proposed draft triggers for flushing flows in the lower Baaka-Darling are at a critical stage for freshwater ecology and need to be improved.

Flushing flows must occur before fish are gasping for oxygen. Stress levels for different freshwater species must be better understood and prevented.

2.1 Stratification of refuge pools

- The larger the refuge pool, the more flow is needed to provide mixing, flushing and reoxygenation, to avoid stratification before fauna become stressed.



2.2 Dissolved oxygen < 5mg/L and falling

- Flow times for releases to reach critical refuge pools must be considered.

2.3 Blue-green algae > 4mm³/L and rising

- Flow times for releases to reach critical refuge pools must be considered.

3. Options for changes to North-west Flow Plan

It is essential that tributary flows are protected so they can move into the Barwon-Darling/Baaka before critical ecological threat occurs.

3.1 Riparian Target

- The existing targets, while they may be no longer necessary to provide basic rights, are still important to prevent the Barwon-Darling/Baaka from reaching critical dry conditions.
- We support Option 1 unless a much better proposal is put forward.

3.2 Algal Target

- NCC supports a combination of Option 1 and Option 2
- The purpose of the existing algal suppression rule is to protect flow and prevent the river deteriorating, in case this is the last good flow preceding drought.
- The rule needs improvement because it does not require protection from three months before October in the case that the rule will not be satisfied by flows already going down the river.
- The Option 2 rule, while having some benefits, appears to only protects flows after the river is already in a poor condition

3.3 Fish Passage Target

- NCC supports a combination of Option 1 and Option 2 to allow a duration target at Bourke as well as at Brewarrina.
- If a 15,000 ML flow cannot be achieved at Bourke then there is at least the possibility of 10,000 ML flow for 5 days between September and February.
- The addition of spawning, as well as migration targets is supported.
- Similar targets must also extend to other structures upstream, for example at Walgett on the Barwon.
- A report on the frequency and success of the North-west Flow Plan fish passage target would be useful to further consideration of this important flow rule.



Nature Conservation Council

The voice for nature in NSW

NCC welcomes further discussion. Your key contact point for correspondence is Strategy and Operations Director, Jacquelyn Johnson, available at [REDACTED]

Sincerely,

Jacqui Mumford

Acting Chief Executive

Nature Conservation Council of NSW