

Connectivity Stakeholder Reference Group

The third meeting of the Connectivity Stakeholder Reference Group was held on 29 November and focused on the review of the Interim unregulated flow plan for the north-west flow (North-west Flow Plan), the connectivity options for the draft Western Regional Water Strategy and a further discussion about the climate data presented in the first meeting.

The Connectivity Stakeholder Reference Group (the group) has been established to provide feedback to the Department of Planning, Industry and Environment's approach on river connectivity as part of the development of the draft Western Regional Water Strategy.

While this process does not replace public consultation with the community and other stakeholders, the participation of this group provides the department with a range of diverse perspectives on connectivity before public consultation on the draft Western Regional Water Strategy.

The group consists of representatives from Koori, Murri and Goori nations, water user groups, conservation groups, local government, the Murray Darling Basin Authority and the Commonwealth Environmental Water Office.

A summary of the third meeting is provided below.

The third meeting

The meeting took place online via MS Teams from 3pm – 5:30pm on 29 November 2021. The objective of this meeting was for all members to:

- discuss proposals from the North-west Flow Plan review
- discuss the draft Western Regional Water Strategy connectivity options
- respond to questions and comments about how the department undertook analysis of cease to flow and low flow data.

A presentation was shared about the draft connectivity options. A summary is outlined below.

1. North-west Flow Plan

Summary of data:

The North-west Flow Plan was published in 1992 and aims to improve connectivity by limiting access to lower priority licences upstream when targets in the Barwon-Darling have not been met

The plan has not been implemented to date because of operational challenges. However, the group was advised that most of the barriers to implementation have been overcome, especially flow forecasting

The department is reviewing the flow targets in the plan. The following options were presented to the stakeholder group for comment:

Flow target	Purpose of the flow target	Options
Riparian	To meet basic landholder rights access requirements	1: Implement existing targets 2: Remove riparian targets and instead rely on the raised A-class cease to pump thresholds and resumption of flow rule 3: Remove current targets but extend the resumption of flow rule to apply to supplementary access in the tributaries
Algal	Seasonal flow to “flush” the system with smaller flows to replace water in weirs to minimise the conditions for algal growth	1: maintain current targets 2: update targets based on updated literature
Fish passage	To “drown out” the weirs (Brewarrina and Bourke) to enable fish migration Note the North-West Flow plan states “once the fishways are operational, the target flows for fish migration will be suspended”	1: Implement existing targets 2: Install fishways at Bourke (and other weirs), remove some non-town weirs and remove the fish passage target 3: Change the purpose of the rule and increase the fish passage targets to help improve the health of fish

Key points raised by members of the group

Members of the group:

- queried how some of the proposed options and targets would operate with existing rules
- noted that the principles of equity and simplicity are important
- noted that they need more data on the effectiveness of the resumption of flow rule before they can provide detailed comments
- noted that there needs to be additional clarity on how the algal targets would operate. One member suggested that the water quality needs to have a greater focus.

DPIE-Water noted that the next steps would involve further analysis of the options and targets. There will also be public consultation on the proposed targets and an expert panel will be set up to review the proposed targets.

2. Connectivity options in the draft Western Regional Water Strategy

Summary of data:

DPIE-Water summarised that the data available to date has indicated that:

- There have always been periods of no flow in the Barwon-Darling during dry times. However, extended dry periods have significant impacts on communities, ecosystems and industries
- Low flows and short cease to flows are impacted by both development and the climate but long cease to flow events are primarily driven by the climate

- Given this, to improve low flow connectivity:
 - Existing tools such as temporary water restrictions under section 324 of the *Water Management Act 2000* and changes to water sharing plan rules can help improve flows as we move from dry to wet periods and influence shorter cease to flow periods, but
 - reducing extended dry periods may not be possible without wholesale reform and other options like larger storages, and holding water back in storages for much longer, which will need to be considered at a basin scale.

The stakeholder panel was presented a draft long list of connectivity options for discussion. The options are from the draft Western Regional Water Strategy long list and have not yet been analysed or modelled to assess their impacts or benefits. As such not all options may progress.

Options	
1. Temporary water restrictions	7. Review B and C-class licence thresholds
2. Using water for the environment to achieve connectivity objectives	8. Deliver water down the Great Darling Anabranch
3. Changing end of system flows	9. Climate change preparedness
4. Increasing dam reserves	10. Changing weirs
5. Reviewing and implementing the North West Unregulated Flow Plan	11. Regulating the Barwon-Darling
6. Strategic purchase of licences	12. Removing unapproved floodwork structures

Key points raised by members of the group

- There was discussion about the merits and impacts of regulating the Barwon-Darling River. Some members noted that it could be the only way to significantly reduce cease to flow periods, but dams won't create additional water and will have other impacts. There was limited support for this option.
- Stakeholders noted that the following options should also be considered in the long list:
 - Inland diversions from the NSW coastal regions
 - Queensland options – including buying water from Queensland and resumption of flow rules in Queensland
 - Embedding Menindee targets in water sharing plans
 - Establishing an Aboriginal Water Holder and purchasing water
 - Rules around management of Menindee Lakes
 - Renegotiating water required to be provided to South Australia under the Basin Plan
- The group queried how these connectivity options would integrate with options in other regional water strategies
- There was discussion about whether the entire river has stopped flowing naturally in the past. Some members do not agree that the Barwon-Darling river has completely stopped flowing along the length of the river, and instead noted that the information available only

demonstrates that sections of the river stopped flowing in dry periods, while other sections of the river flowed. DPIE-Water's response was that the evidence we have is sufficient to suggest the river has stopped flowing in the past.

3. Cease to flow and low flow data analysis – response to Wentworth Group questions

The Wentworth Group of Concerned Scientists provided a critique of DPIE-Water's analysis of cease to flow periods in the Barwon-Darling. DPIE-Water responded to the key elements of the critique. A follow up discussion may be required.

Members of the stakeholder group have been invited to provide submissions and comments by 20 December 2021 on any of the information discussed in meetings 1 – 3.

All documentation will be posted on the Department of Planning, Industry and Environment Water website.

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