

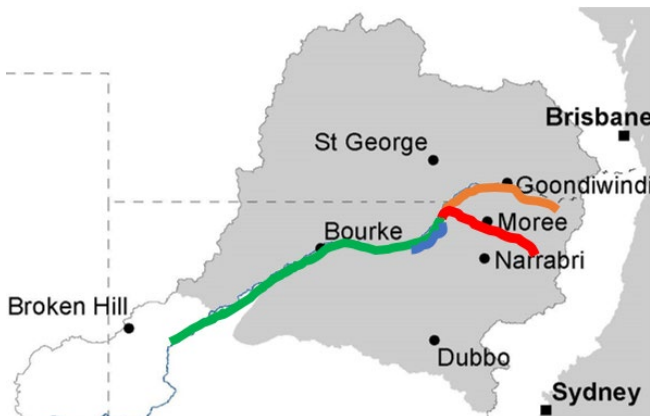
Northern Waterhole Top-up – Flow Update 4

Final flow update – 11 February 2021

Objectives:	Help native fish survive by improving water quality in drying waterholes
Volume:	8 ggalitres
Dates:	December 2020 – January 2021
Target areas:	Gil Gil Creek, Macintyre River, upper Barwon River (Mungindi to Walgett)
Other flows:	Releases of water for the environment are coordinated with releases of water for other purposes

Flows reached Menindee Lakes (‘Minandichee’ in Barkandji language)¹

Early plans for this Northern Waterhole Top-up were focussed on the section from Mungindi to Walgett (around 230 km). However, additional unregulated flows meant that flows reached over six times further, all the way to the Menindee Lakes!



Map showing the source of all flows that supported the Northern Waterhole Top-up and unregulated flows. The orange line shows the Macintyre River and the red line shows the Gwydir and Gil Gil Creek. The blue line shows where the water was focussed originally. The green line shows part of the flow reached Menindee Lakes.

Sources of water

Water was sourced from dams in two different systems to support this flow—Border Rivers (3 GL), and the Gwydir River (5 GL).

Of this water, 6 GL was supplied by the Commonwealth and 2 GL from NSW. In late January, an unregulated flow from the Moonie River in Queensland also added to the flow.

Early outcomes



River connected along the Barwon-Darling from Mungindi, past Walgett to Menindee Lakes



More oxygen in water to help native fish over the hot summer months

Water quality improved

Maintaining water quality, particularly dissolved oxygen, was a key objective for the Northern Waterhole Top-up.

The varied conditions over summer along with organic material from several small unregulated flows caused oxygen levels to decline.

Water from the Northern Waterhole Top-up provided additional water to the river, which has helped buffer this, protecting native fish.



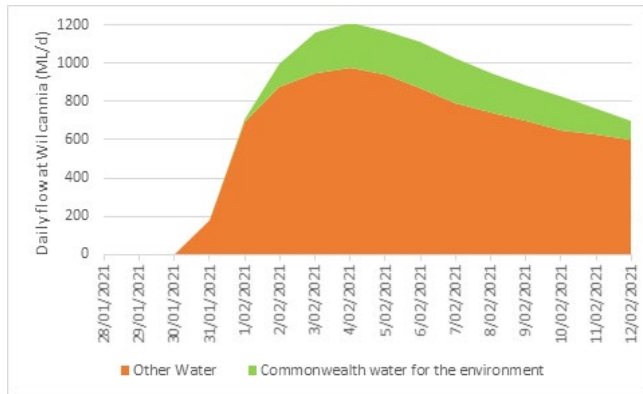
Staff from University of New England (UNE) monitoring on water oxygen levels in the river. Photo, UNE.

Flows protected in the Barwon-Darling

On 1 December 2020, NSW put ‘active management’ arrangements in place for the Barwon-Darling. These new arrangements are designed to protect water for the environment from extraction.

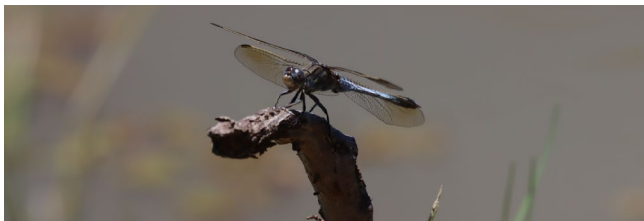
Active management made a big difference to protect flows during the Northern Waterhole Top-up. It meant that water delivered to improve water quality and river health, stayed in river.

Active management meant that, for example, an additional 137 megalitres per day of water for the environment flowed past Wilcannia today. As shown below, about a sixth of the flow passing Wilcannia was Commonwealth water for the environment.



It's not all about the Barwon-Darling

The Northern Waterhole Top-up provided benefits along all of the streams that received additional flow. The Macintyre River supports a healthy native fish community, including species such as Murray cod and silver perch that have benefited from recent flows downstream of Pindari Dam. These flows also support the broader river ecosystem helping to provide food for fish and waterbirds.



Dragon fly at Mungindi, January 2021. Photo: UNE

The flow also extended the flow connectivity in the Gwydir catchment from Copeton Dam, past Moree and Garah, all of the way along the Carole / Gil Gil Creek system and ultimately into the Barwon River.

Important country for Aboriginal nations

The Barwon-Darling River is long and the country of many Aboriginal nations including the Barkandji, Murrawarri, Ngemba, Ngiyampaa, Yuwaalaraay and Gomeroi, who have a deep and enduring connection with the river.

The connection of Aboriginal people to the Barwon-Darling dates back tens of thousands of years. One of the oldest human-made structures on earth are the Brewarrina fish traps on the Barwon River (see below).



A section of the Brewarrina fish traps, July 2019. Photo: CEWO

We pay our respects to the Aboriginal Nations along the Barwon-Darling and their elders: past, present and emerging.

Working together

Managing water for the environment is a collaborative effort, working in partnership with communities, Traditional Owners, scientists and government agencies - these contributions are gratefully acknowledged.

More information

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The Barwon River at Barnaway Crossing (Mogil Mogil Weir), January 2021. Photo: CEWO