



Northern Waterhole Top-up – Flow Update 2

Objectives: To help native fish survive by improving water quality in drying waterholes

Volume: Up to 8 gegalitres

Dates: December 2020 – January 2021

Target areas: Gil Gil Creek, Macintyre River, upper Barwon River: Mungindi to Walgett

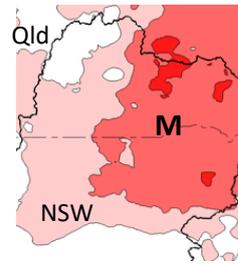
Other flows: Releases of water for the environment will be coordinated with releases of water for other purposes

December was much wetter than November, as shown below. The rainfall has mostly been soaked up in catchments, with more intense storms not widespread.

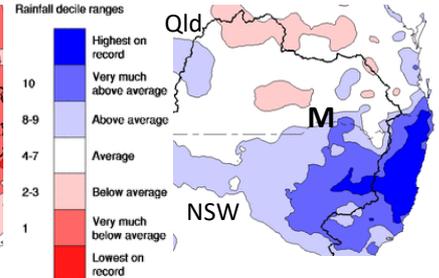
Happy New Year!

Happy New Year from the CEWO! We wish communities in the northern Basin a peaceful 2021. We hope you have had an opportunity to take a break and enjoy nearby rivers, as some of the CEWO crew did recently.

November 2020



December 2020



Monthly rainfall deciles. Source: BoM. M = Mungindi

Flows from recent rain

Isolated heavy rainfall in December resulted in peaky, patchy stream flows. There have been minimal flows in the Barwon River between Mungindi and the upper end of the Collarenebri weir pool. Some flow passed from the Gwydir catchment along Gil Gil Creek (labelled 1 in the map below) and the Mehi River (label 2) into the Barwon, and briefly peaked at 400 ML/d at Collarenebri.

(As of 5 January 2021, unregulated flows had also provided 27 GL past Walgett – as detailed below).



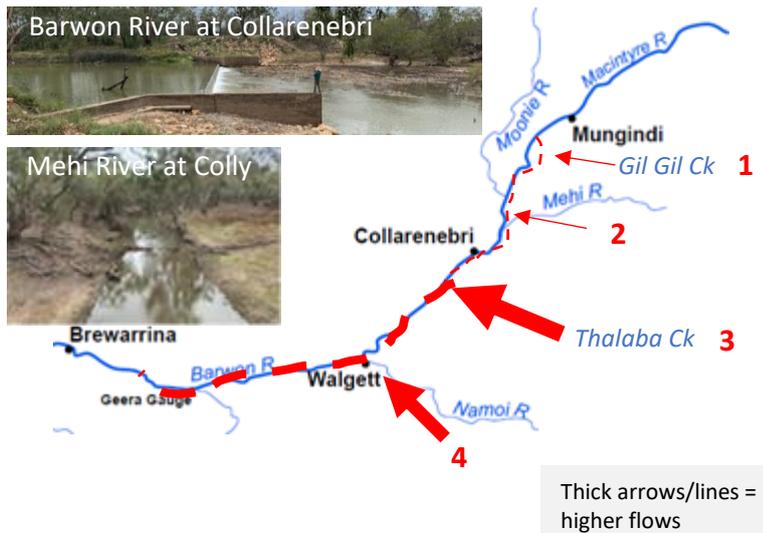
CEWO's Neal Foster enjoying time out along the Severn River

In 2021 we hope there are opportunities for northern rivers and wetlands to re-build their health, resilience and vigour too!

Adapting to changing conditions

Many northern rivers including the Barwon-Darling ceased to flow in October 2020. November was extremely hot and dry with maximum temperatures in the northern Basin about 5°C above average.

Waterholes were at risk of drying out or the dissolved oxygen becoming too low. To manage these risks, 8 gegalitres (GL) of additional water for the environment is being provided in the Northern Waterhole Top-up.



Barwon River at Walgett

Photos taken on 29 December 2020. Source: CEWO.

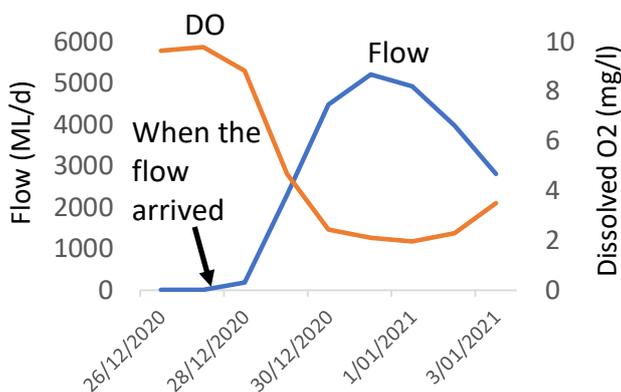
Downstream of Collarenebri there has been a large unregulated flow from Thalaba Creek (label 3) into the Barwon River near Calmundi Weir (between Collarenebri and Walgett).

Gauge records show the Thalaba is dry much of the time. However, following intense rainfall just before Christmas, flows in Thalaba Creek peaked at 7,000 ML/d.

This flow contributed to the Barwon River at Walgett peaking at 5,300 ML/d on New Year's Eve. Unregulated flows from the Namoi also contributed to the flows in the Barwon River at Walgett (label 4). This morning the flow at Walgett was 1,100 ML/d.

Upstream of Collarenebri strong environmental demand remains to top-up drought refuges; flows from the Northern Waterhole Top-up will soon arrive.

As some of the unregulated flows after rain inundated dry stream beds, leaf litter was swept into the rivers and combined with warmer water temperatures, reduced the oxygen in the water. Below are the flow and dissolved oxygen levels in the Barwon River at Walgett as the Thalaba flow arrived. There was a sharp decline in oxygen levels, stressing native fish, including Murray Cod.



Water for the environment from the Northern Waterhole Top-up will improve water quality as most of the flow will pass down Gil Gil Creek, which has been flowing since early December, so oxygen levels will be good. The flow will also help link up the river systems and push flows further downstream into the Darling, priming the system for later flows. The water is making a positive contribution in the Macintyre River and Gil Gil Creek and will start flowing into the Barwon River later this week.

Community cod spotting!

Murray cod have a special significance to many communities in the Basin. Collarenebri claims to be the 'Home of the cod'.



Photo:
Jason
Wilson,
CEWO

Ashford proclaims it is 'Cod's own country'. Towns with cod statues in the Murray-Darling Basin include Goondiwindi, Tocumwal, Swan Hill, and Mathoura.

Other towns show their love of native fish in other ways – like seats featuring native fish at Wentworth: this one is a yellowbelly.



Photo:
Richard
Mintern.
CEWO

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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.

The CEWO also acknowledges the Traditional Owners of the northern catchments and acknowledges their continuing connection to land, sea and community. We pay our respects to them and their elders both past and present.