



*Healthy Rivers,
Healthy Communities*



Objectives: To boost river flows (if required) and help native fish feed, breed and move into the Murray valley.



Target areas: Lower Darling / Baaka River and Greater Darling Anabranch

A wet summer

Over summer 2021-22 high inflows continued to flow from the northern Murray-Darling Basin via the Barwon-Darling (Baawan-Baaka) into the Menindee Lakes. To manage lake levels and flood risks throughout the last summer, surplus water was released by river operators down both the lower Darling-Baaka River and the Great Darling Anabranch.

In the lower Darling/Baaka River, these releases provided the largest overbank flows in 10 years. The flow is expected to have:

- Connected with many of the wetlands and billabongs of the lower Darling-Baaka River, providing significant benefits for vegetation, waterbirds, aquatic bugs and frogs.
- Assisted dispersal of golden perch (aka yellowbelly or callop) from the northern basin and Menindee Lakes to the lower Darling-Baaka River and ultimately into the River Murray.
- Provided plenty of food for juvenile fish

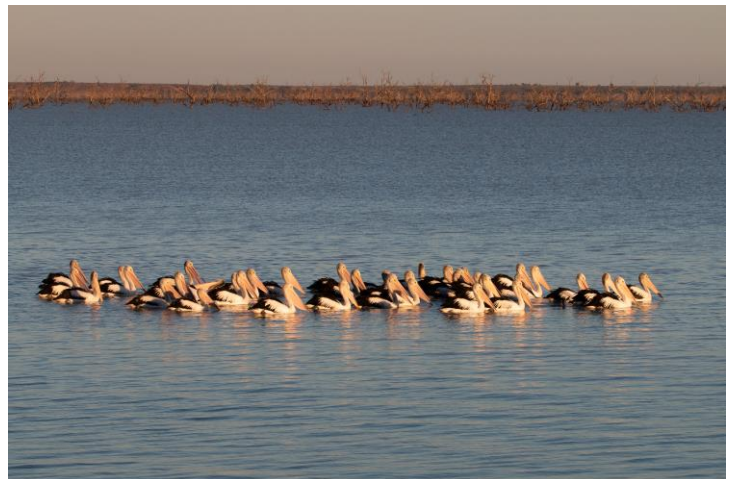


Billabong Inundation at Pooncarie. Credit: DPI Fisheries

In the Great Darling Anabranch, operational releases followed a combination of operational and environmental flows released during Spring.

These releases have been the first into the Anabranch in almost five years. The flows have contributed to a great response from aquatic plants and animals. Vegetation communities have benefited from a much-needed drink.

While waterbirds have been 'spoilt for choice' of places to breed and feed across eastern Australia this year due to the wet conditions, there has been some native bird breeding events of black swans and wood ducks. The cormorants and pelicans have been making the most of the abundant fish stocks coming out of the Menindee Lakes and heading down the Greater Darling Anabranch.



Caption. Pelicans returning to Menindee Lakes for a good feed of fish Credit: Mark Henderson.

As the floodplain waters are receding wading birds such as the great egret and the blue crane are also being spotted.

Monitoring results

Fisheries scientists are monitoring the fish response to flows in the lower Darling-Baaka and have reported Murray cod and golden perch spawning in spring 2021.

Multiple age cohorts of these species have been picked up in the Menindee Lakes and lower Darling-Baaka indicating a good rate of survival by fish that spawned across the rivers of the northern Basin in the last 18 months.

The CEWO acknowledges the Traditional Owners of the Murray-Darling Basin. We pay our respects to them and their elders past, present and emerging.

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Fisheries Scientist with juvenile golden perch. Credit DPI Fisheries

A particularly exciting find was by fisheries scientists when they came across a tiny olive perchlet as part of CEWO-funded fish surveys at the Menindee Lakes – the first record of this species this far down the Darling/Baaka River below Bourke in decades! Another great example of native fish taking advantage of flows connecting the north to the south.



Credit: DPI Fisheries

During late summer, low dissolved oxygen conditions were recorded upstream of and within the Menindee Lakes. River operators managed releases to the lower Darling-Baaka to encourage mixing with fresher water, to reduce the risk to fish populations in the river. Some isolated fish kills were observed, which were mostly carp and bony herring. It is understood that these fish perished due to trauma passing through turbulent sections or infrastructure, rather than due to poor water quality.

Fish movement tracking is also underway. 300 golden perch have been tagged so far in the lower Darling-Baaka and Great Darling Anabranch, with more to come. Strategically placed receivers along the lower Darling-Baaka, Anabranch and River Murray will allow scientists to map the movements of the fish.



Tags and receivers used to track fish. Credit: MDBA

We know from recent research that juvenile perch spawned in the north make an important contribution to fish numbers in the lower Darling-Baaka River and the River Murray. This gives us confidence that flows from the Menindee Lakes over the last two years are bringing a new generation of native fish to the southern river system.

The Barwon-Baaka 'golden highway' has traffic moving in two directions. While juvenile perch have drifted south, adult perch have also migrated north. One individual perch tagged at Wilcannia was recorded in Goondiwindi on the Queensland border!

What's next?

Surplus flows from the north are continuing to be released to the lower Darling-Baaka and Great Darling Anabranch. This means water for the environment is not currently being used. Environmental releases will be provided if needed once operational flows reduce, for example to continue modest flows down the Great Darling Anabranch.

Fisheries scientists will continue monitoring fish response in both the lower Darling-Baaka River and Great Darling Anabranch in coming months. The results will be shared with community, including in future flow updates. The results will also allow water managers to adaptively plan and manage water deliveries.

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As the 2021-22 water year approaches its end, agencies are gearing up for planning of the next water year. Stay tuned!

Who is involved?

Environmental flows to the lower Darling-Baaka and Great Darling Anabranch are delivered based on careful planning and collaboration with NSW government agencies, the Murray-Darling Basin Authority, river operators, fish ecologists and the local community.

How can I keep track of the flows?

[Water NSW Operations updates](#)

[NSW Real-time Water data](#)

[CEWO Lower Darling / Baaka flow updates](#)

[CEWO Facebook](#)



[River Murray Weekly Report](#) – river operations, inflows, river gauge heights, rainfall and salinity

[Whose water is in the river](#)—Regular updates of water for the environment and other water users.

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*Floodplain habitat adjacent to the Great Darling Anabranch.
Credit: CEWO*