



Healthy Rivers, Healthy Communities

Objectives:



- Reconnect rivers in the Lower Balonne and further downstream.



- Help native fish move and breed.



- Inundate Narran Lakes (Dharriwaa) Ramsar site to support waterbird breeding.

Target areas:



- Lower Balonne rivers, Dharriwaa, and the Darling (Baaka) River.

Wettest season in 10 years and the biggest e-water event in the northern Basin helps the Lower Balonne recover!

We have seen the wettest conditions in the Lower Balonne since 2012. More than 4,500 gigalitres (GL) flowed past the St George gauge in Queensland in 2021-22. Almost 317 GL of Commonwealth water for the environment was accounted for at St George with over 127 GL flowing past the NSW-QLD border.

These flows supported the ecological values of large areas of the Lower Balonne floodplain, including sections of the Culgoa National Park (NSW), Culgoa Floodplain National Park (QLD) and the Narran Lakes (Dharriwaa). Flows from the Culgoa and Bokhara rivers provided over 1,200 GL to the Barwon-Darling (Baawan-Baaka), helping connect all the way to the Menindee Lakes. Over 700 GL reached Dharriwaa, which is one of the largest inflow volumes in recent decades with more to come!

The Commonwealth Environmental Water Office (CEWO) prepared a grant program to deliver water from a private storage on the Narran River to help keep water levels stable so waterbirds could complete their breeding. Nature did the job for us this time without needing to implement the grant, but this preparation has set us up well for the future.



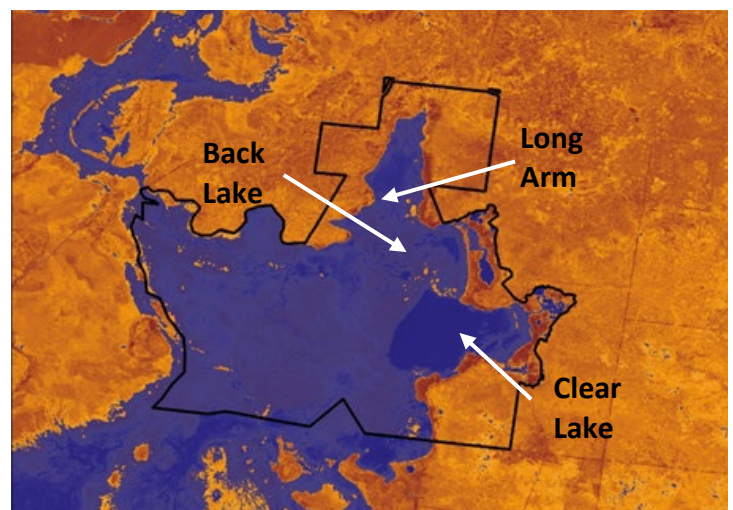
Dharriwaa, April 2022. Photo: CEWO.



Dharriwaa, April 2022. Photo: Kate Brandis, USNW.

Outcomes Inundation

As of the end of June, nearly all the central floodplain between the Narran Lakes Nature Reserve and Narran Lake was full and Narran Lake itself is overflowing with water heading west. Lots of waterholes and wetlands also look to be filling from Clear Lake and Back Lake.



Satellite image of the Ramsar site showing inundation as of 16 June 2022 (Ramsar boundary shown in black). Image: MDBA.

Waterbirds

Colonial-nesting waterbirds bred at Dharriwaa this year for the first time in 10 years. Further, this is the first time in 24 years that breeding has occurred at the [Macquarie Marshes](#), [Gwydir wetlands](#) and [Narran Lakes](#) concurrently.



Great cormorant at Clear Lake, June 2022. Photo taken during scientific monitoring. Joanne Ocock, NSW NPWS.



Juvenile straw-necked ibis at Narran Lake, April 2022. Photo taken during scientific monitoring. Photo: Pat Johnston, volunteer NSW NPWS.

Over 10,000 Straw-necked ibis' nests were recorded as well as Spoonbills, Egrets, Cormorants and Darters. Monitoring identified a nest success of 86%.



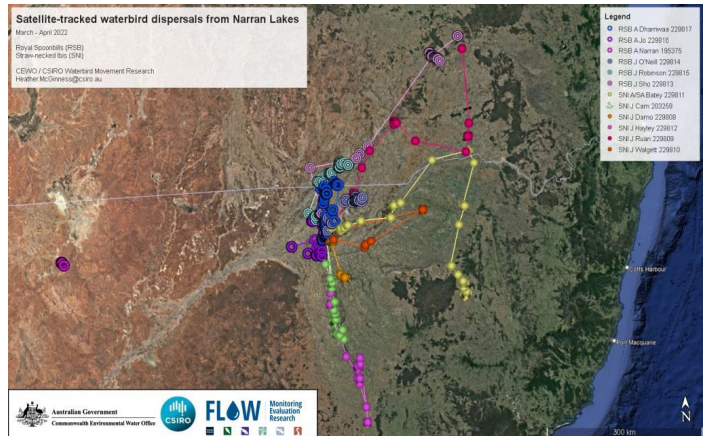
Australasian darter chicks at Narran Lakes, April 2022. Photo taken during scientific monitoring. Photo: Pat Johnston, volunteer NSW NPWS.

Over 30 species of waterbirds were observed at Dharriwaa in 2021-22, including the threatened Freckled duck, White-bellied sea eagle and Black-necked stork.



Clear Lake, April 2022. Photo: NSW NPWS.

Satellite trackers were used to tag birds at Dharriwaa, giving us new information on bird movements.



Flight paths of Royal spoonbills and Straw-necked ibis around Narran Lakes. Image: Heather McGinness CSIRO.

Vegetation

All key waterbird breeding habitat was inundated (around 6,000 hectares of the Narran Lake Nature Reserve Ramsar site). Vegetation monitoring at Dharriwaa found plants are responding well to the wetter conditions and water for the environment. However, the areas hardest hit during the extreme dry are still recovering and good flows over the next couple of years will be critical to their ongoing recovery.



Vegetation monitoring at Narran Lakes showing an improvement in condition from March 2020 to December 2021. Photos: Ben Vincent, UNE

Native fish

Monitoring partly funded by the CEWO looked at how native fish survive and recover after drought. The project found that while drought had severe impacts, native fish are fighting back with local breeding supporting their recovery. The lower reaches of the Condamine-Balonne may act as a source of Golden perch for the Baawan-Baaka during wet times.

Engagement in the Lower Balonne

Despite COVID-19 restrictions and flooding during 2021-22, CEWO's intrepid staff still ventured out. There were several highlights including:

- A visit to Dirranbandi/Hebel and Dharriwaa.
- The MDBA Listening Tour.
- The Northern Basin Environmental Watering Group meeting at Lightning Ridge including a site visit to Dharriwaa.
- The Lower Balonne Roundtable at St George.
- A visit to Lightning Ridge Central School for NAIDOC celebrations.



Commonwealth water agency staff engaging with stakeholders at Lake Bokhara, June 2022. Photo: CEWO.



NBEWG delegates looking at cultural artefacts at Dharriwaa. Photo: CEWO

What's happening in 2022-23?

We are getting ready for another wet year. There is a chance waterbirds will breed again at Dharriwaa in 2022-23 as vegetation condition continues to improve. We will set up waterbird monitoring again in partnership with the Narran Joint Management Committee and NSW partner agencies. We will also set up arrangements for another grant if needed.

While several monitoring projects at Dharriwaa have now wrapped up, we will set up another series of projects. These new projects will include First Nations engagement and participation as a central part of the work. We are also building our relationships with First Nations communities in the Lower Balonne, including through a new artwork project and working with the River Ranger Program.

To protect nesting birds, Narran Lake Nature Reserve is not open to the public. Please contact the [Narrabri NPWS office](mailto:narrabri@npws.gov.au) (02 69727300).

The CEWO acknowledges the contribution of our partner agencies and research and monitoring providers in the Lower Balonne during 2021-22, including the Murray-Darling Basin Authority, CSIRO, Queensland Department of Regional Development, Manufacturing and Water, Department of Environment and Science and Department of Agriculture and Fisheries, Southern Queensland Landscapes, NSW Department of Planning and Environment, NSW National Parks and Wildlife Service, the Narran Joint Management Committee, WaterNSW, University of New South Wales, University of New England and 2Rog Consulting.

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The Commonwealth Environmental Water Office pays respect to the Traditional Owners of the Murray-Darling Basin. We acknowledge their enduring cultural, social, environmental, spiritual and economic connection to the rivers, wetlands and floodplains of the Basin.