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Commonwealth Environmental Water Office

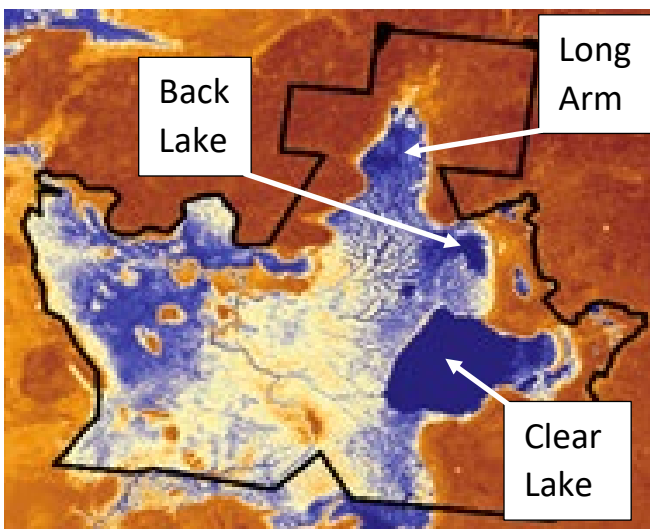
Rebuilding waterbird habitat at Narran Lakes – monitoring update (December 2020)

Environmental flows in early 2020

The recent exceptionally hot and persistently dry weather has meant parts of the Lower Balonne floodplain have been under stress for years. Prior to flows in early 2020, large parts of Narran Lakes had no decent inflow since April 2013.

Around 90 gigalitres (GL) flowed to Narran Lakes in early 2020, up to half of which was Commonwealth environmental water. This volume also included 9 GL from a pilot project where an upstream licence holder was reimbursed for not pumping water from the Narran River.

The flow filled the three lakes within the Narran Lake Nature Reserve inundating an area of 4,550 ha, with all key waterbird breeding habitat inundated. The inundated area was over three times the area inundated in the last small inflow to the lakes in 2016.



Satellite image of Narran Lakes Nature Reserve, blue being the area inundated. 21 March 2020. Source: Sentinel2, MDBA

How is native vegetation responding?

Vegetation monitoring in March 2020 before the inflow found waterbird habitat in Narran Lakes was showing signs of severe stress due to the drought.

Monitoring in September 2020 following the inflow and some local rainfall showed the response of the vegetation varied. Some vegetation started to recover, whereas other vegetation is still showing signs of stress given the preceding seven years of drought.



Lignum (a hardy needle-like shrub) responded well to flows at a Back Lake survey site improving from (a) 'Poor-intermediate' in March 2020 to (b) 'Good' in September 2020. Photos: University of New England.



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Waterbirds, budgies and parrots galore!

NSW National Parks and Wildlife Service completed several waterbird surveys during the flows in 2020. In April, 30 waterbird species were spotted at Narran Lake Nature Reserve. Notable sightings included groups of threatened freckled duck on Back Lake and the southern boundary near South Arm Channel.

At least 8,000 waterbirds were recorded during one survey in June 2020, including the threatened blue-billed duck and black-necked stork.

Large noisy flocks of budgies, red-winged parrots, red-necked avocets, black-fronted dotterels, black-winged stilts, and royal and yellow-billed spoonbills were all seen at Narran in September.

These outcomes are encouraging, however inflows of at least 150 GL would be required during warmer months to trigger a large-scale waterbird breeding event.



Clear Lake teeming with ducks. Photo: Patrick Johnston

A collaborative monitoring effort

Vegetation monitoring was undertaken prior to, during and after the flows in early 2020 to help us better understand how the lakes and surrounding vegetation

are responding and to inform planning for and future use of Commonwealth water for the environment.

Monitoring was undertaken by the University of New England, with the CEWO; NSW National Parks and Wildlife Service; the NSW Department of Planning, Industry and Environment; and local Indigenous representatives from the Narran Lakes Nature Reserve Joint Management Committee. The collaboration allowed for an invaluable exchange of knowledge between researchers, water managers and Traditional Owners.

The need to keep driving recovery

Narran Lakes has been identified by the Murray-Darling Basin Authority as a priority for environmental watering in 2020-21. Additional flows over summer would continue to help vegetation recover, increase the chance of waterbirds breeding and bring benefits for other animals around the lakes.

Feedback wanted!

Feedback and information about this monitoring program from local community, landholders, and managers is always welcome. Please contact:

- Email: ewater@environment.gov.au
- Follow us on Twitter: @thecewh
- Contact our Local Engagement Officers: Jason Wilson on Jason.Wilson@environment.gov.au or 0418 210 389 / Jane Humphries on Jane.Humphries@environment.gov.au or 0437 141 495.

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

