Healthy Rivers, Communities

Water for the environment supports bird breeding in the Gwydir Wetlands

Objectives

ustralian Government



Maintain low flows to support waterbird breeding across the Gwydir Wetlands.

Timing and volume



28.4 gigalitres (GL) delivered between late December 2021 and late March 2022.

Waterbirds flocked to the Gwydir Wetlands for the first large local bird breeding event in a decade!

In our <u>last update</u>, we reported the first significant waterbird colonies seen in the Gwydir wetlands since 2012. Overall, 9 main colonies were recorded, consisting of 14 species and an estimated 25,000 – 30,000 nests across the Gingham and Lower Gwydir Wetlands. The species that bred included Ibis, Egrets, Herons, Spoonbills, Cormorants and Darters – just to name a few.



Egret chicks seen during scientific monitoring in the wetlands in January. Photo: Jared Reid, 2Rog.

Why is this breeding event important?

Waterbird numbers across the Basin are declining with fewer opportunities for breeding. No large waterbird breeding has occurred in the Gwydir Wetlands for 10 years due to extended dry conditions. Triggered by flooding and wet conditions, this boom year has allowed numbers to start rebuilding across the northern Basin. As many waterbirds may only live for 10-15 years, long intervals between flood events in areas such as the Gwydir Wetlands have led to decreased opportunities for them to breed within their lifespans.

This fantastic result also demonstrates the Gwydir Wetlands are still able to support large waterbird breeding events as they have done historically.



Cattle egret. Photo: Jared Reid, 2Rog.

How has environmental water helped?

Commonwealth and NSW environmental water managers worked together to give the baby birds the best chance to fledge and leave their nests.

In total, 10.7 GL of Commonwealth and 17.8 GL of NSW water for the environment was delivered, building on mother nature's work by maintaining low flows to ensure water levels were kept stable under nests. This helped support the waterbirds to fledge in locations that otherwise would have drained, leaving the nests high and dry and susceptible to predation and abandonment. Flows also helped maintain feeding habitat.



Straw-necked ibis were nesting on lignum in the background at Goddard's Lease Ramsar site in January. Photo: Jane Humphries, CEWO.



We are always learning

During the event, localised rainfall led to some short, sharp flows. It was critical for environmental water managers and river operators to work together to keep a steady low flow and maintain water levels under the nests. This required flexibility to adapt deliveries to changing conditions and minimise landholder impact.

What monitoring has been undertaken?

Both waterbird breeding and diversity were monitored throughout this event. Collecting and analysing information such as colony size, stage of nesting and water depth helped environmental water managers ensure water was delivered to the right place at the right time and for the right duration. This helped support difference species.



Joanne Ocock from NSW NPWS and Roxane Francis from UNSW monitoring waterbird nesting colonies in the Gwydir Wetlands State Conservation Area in January. Photo: Jane Humphries, CEWO.

*All waterbird monitoring is undertaken under scientific licences with animal care and ethics approvals that adhere to waterbird colony monitoring protocols.

We are grateful to all involved in this collaborative monitoring. This includes NSW Department of Planning & Environment, NSW National Parks and Wildlife Service (NPWS), University of New England (UNE), University of NSW (UNSW), 2rog, and the Commonwealth Environmental Water Office (CEWO).

In addition, we would like to say a big thank you to local landholders who provided access to their properties to enable this monitoring to occur.

2022 is a big boom year for waterbirds across the northern Basin!

More broadly, this year's waterbirds have been spoilt for choice! Widespread colonial breeding has occurred throughout the northern Murray-Darling Basin, including at <u>Macquarie Marshes</u> and <u>Narran Lakes (Dharriwaa)</u>.

CSIRO is using <u>satellite trackers</u> to follow the movements of waterbirds across the Basin. In February, Laurie the Straw-necked ibis was seen to fly all the way from Kerang, Victoria, to the Barwon River near Collarenabri, then turned around and headed south in March. He has now settled upstream of the Macquarie Marshes. Check out the <u>CSIRO website</u> to find out more about birds such as Laurie's travels across the Basin.



Old Dromana Ramsar site in March. Photo: Joanne Ocock, NSW NPWS.

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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.