Low flows of water for the environment support waterbird breeding in the Gwydir

Objectives

- Maintain flows to support waterbird colonies breeding in the Gwydir Wetlands.
- Maintain inundation of core wetland habitat.

In our last update, we reported that during spring high water flows and water across floodplains triggered large-scale colonial-nesting waterbird breeding in the Gwydir Wetlands. This has happened for the second year in a row and for only the second time in 10 years.

Funding from both the Commonwealth Environmental Water Holder (CEWH) and NSW Department of Planning and Environment (DPE) has supported waterbird colony monitoring. A total of 16 species nesting across 8 large colonies of several thousand nests were observed.

**Main flow path near a colony, Gwydir Wetlands State Conservation Area – December 2022. Jane Humphries, CEWH.*

How water for the environment helps

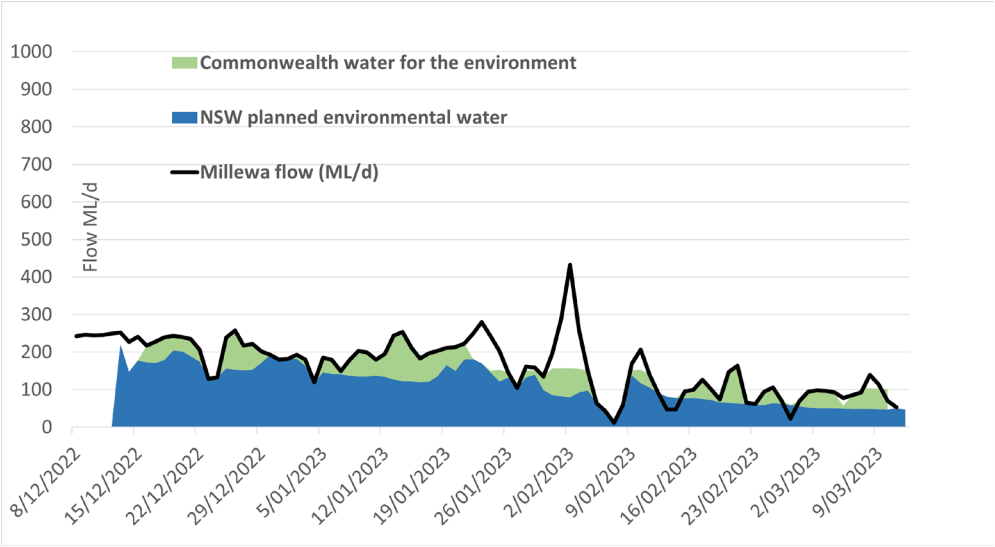
Water for the environment cannot create the large flows and flooding that triggers these breeding events. However, environmental water does play a crucial role in supporting successful bird breeding. Maintaining steady low flows under nests minimises the risk of abandonment, predation and diseases. It also maintains feeding areas, allowing chicks to grow and successfully leave their nests.

**A Straw-necked ibis creche in the Gwydir wetlands –late December 2022. Photo: Jane Humphries, CEWH.*

While it is good to see nesting numbers in the Gwydir Wetlands in the tens of thousands, it is much less than historic breeding numbers.

The main species breeding in the Gwydir Wetlands this year were Straw-necked ibis (in the tens of thousands) and Glossy ibis, Nankeen night herons and egret species (in the thousands). Other herons, Australian white ibis, spoonbills, darters and cormorants were also observed. Several waterbird species prefer to nest close together in large numbers when suitable habitat is available at sites called colonies. These breeding waterbirds find food in nearby water, including fish and frogs/tadpoles.

This plot, created using NSW DPE data, shows environmental water flowing into the Lower Gwydir wetlands through the nesting season. Flow slowly reduced as young birds started to leave their nests. Commonwealth environmental water deliveries ended in mid-March when juvenile birds were ready to fly.



Why we support waterbirds?

River regulation and recent extended dry conditions have impacted waterbird breeding opportunities. It is critical for waterbirds and other native species to rebuild. Natural flooding also helps wetlands recover and build resilience for when dry times return.

Over 8.5 gigalitres of Commonwealth and NSW water for the environment has supported waterbirds breeding in the Gwydir Wetlands.

**Straw-necked ibis at Bunnor, Gwydir Wetlands State Conservation Area – December 2022. Jane Humphries, CEWH.*

We harness opportunities when we can

The recent very wet conditions and small environmental water releases have helped Gwydir ecosystems recover and for plants and animals to rebuild healthier populations.

Environmental water can be used to supplement river flows and to support wetlands and the plants and animals that rely on them. Environmental water releases are managed in response to conditions, both within a watering event and over the longer term. Environmental water managers continue to closely watch wetland conditions, river flows and environmental needs. Feedback from local landholders and the community is vital for the management of environmental water deliveries.

**** Waterbird photos captured during approved scientific monitoring. Monitoring undertaken collaboratively by NSW DPE EHG, NSW National Parks and Wildlife Service, University of New England, CEWH and 2Rog.***

What's next?

With colonial waterbird breeding winding up, environmental deliveries have been reducing and will be finishing up shortly.

A separate community update for the nearby Mallowa Creek is being prepared.

Bureau of Meteorology forecasts suggest we are likely moving into a drier period. Under extended dry conditions, water for the environment may be required to help mitigate water quality issues if needed or to provide low flows to help native fish.

Changes in the Raft area (woody debris and silt) have altered how water flows in the upper-Gingham, including water deliveries. This has been challenging for all. We will share advice on these issues once further information becomes available.

Sunset over the Gwydir Wetlands. Photo: Felix Noble.

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The CEWH 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. We acknowledge the Gomeroi/Kamilaroi Nation of the Gwydir system.