



Australian Government

Commonwealth Environmental Water Office

Macquarie River Valley 2017–18 Water Use

Building on the boom: delivery of water for the environment



Sinclair's Lagoon, Macquarie Marshes (CEWO)

An increase in available water in the Macquarie catchment in 2016 provided a good opportunity to use environmental water in 2017–18 to further improve the condition and resilience of the Macquarie River and Marshes. Improving resilience in the Macquarie Marshes helps them to survive and function during dry years and respond well in wetter years.

A total of 195 GL of water for the environment (NSW and Commonwealth) was made available for use in the Macquarie in 2017–18. This water was intended to support semi-permanent wetland vegetation in the Marshes, and to provide benefits for native fish and waterbirds. This was based on planning undertaken by the Commonwealth Environmental Water Office and NSW Department of Planning, Industry and Environment, with advice from the Macquarie Cudgegong Environmental Flows Reference Group

How was water for the environment used in 2018–17?

A total of 134,377 ML of NSW and Commonwealth water for the environment was delivered to the mid-Macquarie River and Macquarie Marshes in winter-spring 2017.

5,939 ML of water for the environment was delivered in July and August to pre-wet the Northern and Southern Marshes, increase delivery efficiency and maximise the inundation extent.

The remaining 128,438 ML was delivered between August and November to the Northern, Southern and Eastern Marshes to:



Inundate up to 20,000 hectares of wetland vegetation, and improve vegetation condition and recruitment.



Support the recruitment of waterbirds.



Build resilience and increase capacity of the Marshes to persist through future dry years.



Provide opportunities for the movement and breeding of native fish such as Murray cod and freshwater catfish in the mid-Macquarie River.

Additional water set aside to support native fish movement and dispersal was not delivered because the triggers and conditions required to deliver those flows did not arise during the year. This water was carried over into the 2018–19 water year.

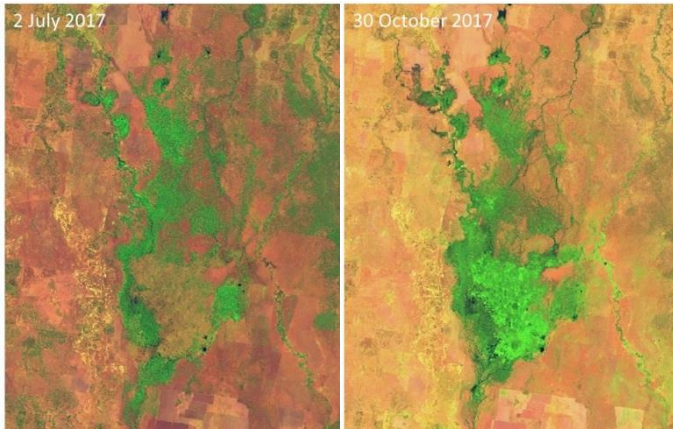


Swamp buttercup (CEWO)

What was the response to water for the environment?

Wetland inundation

Water for the environment wet 19,412 hectares of the Northern, Southern and Eastern Marshes. Many sites were wet for the minimum target of 90 days, with some being wet for up to 136 days.



Satellite imagery of Northern Marshes before and during watering (Sentinel Playground Hub)

Vegetation

Wetland plants responded very well to the delivery of water for the environment, showing improved health and being wet long enough to set seed.



Before watering (NSW DPIE) During watering (NSW DPIE)

Waterbirds

Waterbirds responded well to water for the environment, which provided them with good feeding and foraging habitat. NSW waterbird ground surveys found a good diversity of species with 50 species recorded, the highest observed since surveys commenced in 2012. Species recorded included the endangered Australian painted snipe and Australasian bittern, and two migratory shorebird species.

Although there was no large scale waterbird breeding in 2017–18, seven waterbird species were seen breeding in small numbers including white ibis and spoonbills.



Cormorant chicks (NSW DPIE)

Frogs

Flow responsive frog species including the barking marsh frog and the eastern sign bearing froglet responded well to water for the environment. Recruitment was widespread in sites that were still wet in November.

Although overall recruitment was lower than in 2016 when conditions were wetter (which was expected), the final pulse delivered to the Eastern Marshes in November supported successful recruitment similar to levels observed in 2016.



Barking marsh frog (NSW DPIE)

Our partners

Delivery of water for the environment in the Macquarie River Valley is planned and managed by the Commonwealth Environmental Water Holder and the NSW Department of Planning, Industry and Environment.

The Macquarie Cudgegong Environmental Flow Reference Group, which includes community members from local interest groups and government, provides important local advice.



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Local Engagement Officers

The Commonwealth Environmental Water Office has two Local Engagement Officers based regionally in the northern Murray–Darling Basin, who can be contacted for further information:

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