



Australian Government

Commonwealth Environmental Water Office



In partnership with:

Department of Planning,
Industry and Environment

Macquarie River Valley 2020–21: Event Update #3

9 December 2020

Objectives: Supporting the recovery of native fish, particularly Murray cod, and core wetland vegetation in the Macquarie Marshes.

Timing: October 2020 – February 2021

Target areas: Mid-Macquarie River, Macquarie Marshes, lower Macquarie River.

will also maintain inundation of the inner core areas of the Marshes including the reedbeds, which is an important part of the Marshes. This will benefit growth in the North Marsh reedbed and support recovery from fire and drought. Low summer flows will also support nesting birds such as Australasian bittern; provide areas for young birds to find food; and allow more frogs to breed.



Macquarie Marshes, spring 2020 (CEWO)

Macquarie Marshes reedbeds

The Macquarie Marshes are a diverse wetland system that supports some of the largest waterbird breeding events in Australia. Around 19,850 hectares of the Marshes is listed as a Wetland of International Importance under the Ramsar Convention.

The Marshes includes one of the largest reedbeds in the Murray-Darling Basin at approximately 3,500ha. The reedbeds are particularly important for waterfowl breeding including Australasian and little bitterns. They also provide habitat for other waterfowl such as magpie geese, crakes, swamphens, moorhens and duck species.

Progress of the flow

A relatively stable flow in the Macquarie River in October 2020 supported Murray cod nesting and breeding. We're pleased to report that monitoring found Murray cod larvae had successfully hatched near Trangie.

Flow rates were then gradually increased to support the dispersal of larval fish and the continued drought recovery of wetland vegetation in the Macquarie Marshes. Flows peaked in November 2020 and are now gradually receding.

The current plan is for water for the environment to continue to provide a low flow through summer to provide habitat for the recently hatched Murray cod. It



Magpie geese, autumn 2020 (Nicola Brookhouse, NPWS).

The reedbeds of the Marshes are also culturally important to the Wayilwan people and provide a source of traditional food and resources.



For example, common reeds and typha were used for making bags, baskets, string and jewellery. Underground stems and roots of reeds, typha and marsh club-rush corms were an important food source.

Fires

Fires occur relatively commonly in the Marshes. In the last twenty years there have been ten fires in the North Marsh reedbed, of which six have been wildfires and four hazard reduction burns. Lightning strike is a common cause of wildfire in the Northern Marshes. Reedbeds can withstand low intensity fires without much damage, particularly when reeds are green and soil moisture levels are high. However, severe fires that damage the rhizomes (underground stems) may impact the ability of reeds to recover.



North Marsh reedbed re-sprouting in November 2019 following the October 2019 fire (Joanne Ocock, NPWS)

Around 3,000 hectares of the North Marsh reedbed was burnt following lightning strike in October 2019 during extended dry conditions.

Reedbed recovery

Healthy reedbeds stand between two and four metres high. Reeds grow using energy stored in their rhizomes. Once the reeds shoot, the green shoots help provide energy for further growth from sunlight. When the reeds fully mature and flower, energy is stored in the rhizome for future.

With support from local rainfall and river flows earlier this year, the burnt North Marsh reedbed has re-sprouted.

Water for the environment has been delivered from October onwards to continue this important recovery.

Currently, the reeds in the North Marsh reedbed vary in height to about 2 metres. Ongoing inundation for the next few months is needed through summer to allow the reeds to continue growing and recovering from the drought.



North Marsh reedbed growth, November 2020 (CEWO)

Contacts

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Previous event updates published on 19 & 30 October 2020 can be found at:

<http://www.environment.gov.au/water/cewo/catchment/macquarie/2020-21-macquarie-river-valley-updates>

30 March 2020

Area burnt spring 2019



18 November 2020

Some active growth, recovery continuing

