

Australian Government

Commonwealth Environmental Water Office

Murray Wetland Flow 2021

1 October 2021

Murray Wetland Flow

Widespread heavy rainfall in the upper catchments have seen high flows down the Murray River for much of winter and early spring. These natural high flows are critical to the health of the environment.

Large dams and weirs typically capture these flows, meaning many of the Murray's wetlands and floodplains miss out on the regular flows they need to stay healthy. But with natural high flows and Hume dam overflowing, the river has re-connected to its wetlands and floodplains, revitalising river red gum forests and woodlands.

High flows flushing the floodplain in the cooler months also benefits the river. Leaves, grass and other plant material are being washed into the river—this plant matter is eaten by bacteria, which multiply and eventually become food for fish, bugs and other animals that live in the river.

Water for environment has been used in between these high flows to keep water in the low-lying wetlands, particularly in Barmah-Millewa Forest, throughout spring. This is what would have occurred under natural conditions and aims to benefit the Moira grass plains and support feeding and breeding habitat for waterbirds.

Some of the water for the environment that exits the forest will also contribute to wetlands further downstream. This includes the Chowilla, Pike and Katarapko floodplains, which are currently getting a drink due to a combination of natural flows and the use of infrastructure.

Delivery of water for the environment from Hume Dam is planned to recommence once flood operations cease (and flows recede to 15,000 megalitres per day downstream of Yarrawonga).

Mid Murray objectives	Provide water for creeks and low-lying wetlands in Barmah-Millewa Forest to trigger Moira grass and other wetland plant germination, support feeding and breeding habitat for waterbirds and native fish
Downstream benefits	Flows will support downstream wetlands along the Murray River in both Victoria and South Australia
Volume and release dates	Over 100 gigalitres released from Hume Dam between 12 August and 3 September 2021
Flow rate	Combined with other flows to target up to 3.0m at Tocumwal. (~15,000 megalitres per day downstream of Yarrawonga Weir)



© Sonia Cooper, 29 July 2021, Barmah Lakes wetland system starting to fill.

Why Barmah-Millewa Forest needs regular flooding

Barmah-Millewa's river red gum forests need water in most years to stay healthy. In 19 of the past 20 years, the forests would have been naturally flooded.

However, Hume and Dartmouth dams now capture much of the winter and spring high flows. This has reduced the frequency and area of forest that gets inundated – this has seen some trees die and many others are poor health from a lack of water.

Leaves and plant matter can also build up on the floodplain when it is not flushed regularly. This buildup increases the risk of hypoxic (low-oxygen) blackwater events when floods do flow through the forest, particularly if they occur in warmer months.

Without natural flooding, environmental flows reach only a small portion of the forest (less than a quarter) because of current flow limits (3 metres at Tocumwal or ~15,000 megalitres per day downstream from Yarrawonga Weir).

When environmental flows are released following a flood, the flows help consolidate the benefits from the higher natural flows. For example, keeping some water in the core wetlands helps improve the health of vegetation and allows waterbirds to complete breeding cycles.



© Sonia Cooper, 29 July 2021. On Barmah Lake.

How do I find out more?

More about this flow:

https://www.environment.gov.au/water/cewo/catchm ent/murray-wetland-flow-2021

The next update will focus on downstream wetlands. More about the river:

- <u>Real-time River Murray flow</u> information.
- <u>River Murray Weekly Report</u> river operations, inflows, river gauge heights, rainfall and salinity
- <u>Whose water is in the river</u> monthly update of water for the environment and other water users.

Working in partnership

The Murray Wetland Flow is being managed in partnership with NSW, Victoria, South Australia governments and the Murray-Darling Basin Authority.

In the Murray valley, water for the environment is co-ordinated with flows from other major rivers including the Goulburn, Murrumbidgee and Baaka (Lower Darling) rivers.

Flo the Flow Mascot

This year, the Murray Wetland Flow has a mascot – an Australian white ibis named Flo. She represents one of the species of waterbirds that the flow aims to help by providing places to feed, nest and breed.



Flo, the Murray Wetland Flow mascot, watching water being released from Hume Dam for Barmah-Millewa Forest

Local Engagement Officers

Anthony Wilson (Wodonga, VIC) • 0419 188 430

@ anthony.wilson@environment.gov.au

Richard Mintern (Mildura, VIC)

• 0437 218 649

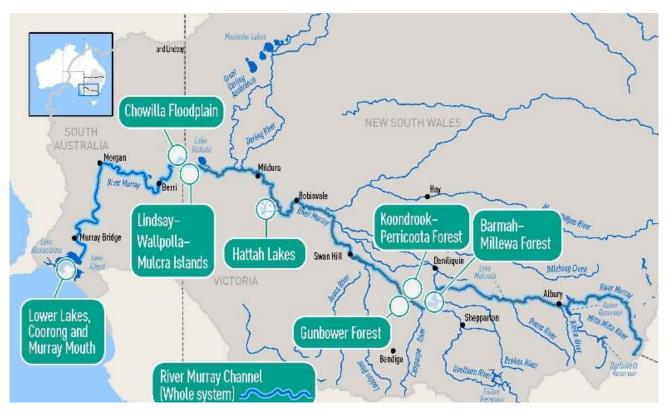
© richard.mintern@environment.gov.au

Michelle Campbell (Berri, SA) O437 064 664 michelle.campbell@environment.gov.au



© Sonia Cooper, 29 July 2021. Eastern part of Barmah National Park at Kynmer Creek. Heading up the creek.

5



Location of Barmah-Millewa Forest and the other icon sites along the River Murray.