

## Upper Murrumbidgee River high-flows 2022

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The NSW Government has been working with the Victorian and Australian governments, Snowy Hydro Limited and the community to implement a program of environmental water releases to improve the health of the Upper Murrumbidgee River below Tantangara Dam.

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### How much water will be delivered?

A total of 36,979 megalitres of environmental water will be released to the Upper Murrumbidgee River below Tantangara Dam during the 2022–23 water year. The release of environmental water will include three separate high-flow events. The daily flow for each of these events will be above 1,000 megalitres per day and occur between 23 June 2022 and 11 October 2022. Each high-flow event will include 24-hour peaks, commencing at 12pm (midday). No flow will be over 1,500 megalitres per day.

It is statistically likely that substantial natural tributary inflows will occur along the river, this will contribute considerably to the flow regime and ecosystem processes occurring in the lower reaches of the Upper Murrumbidgee River.

### Why have three high-flow events?

The long-term aim of Upper Murrumbidgee environmental flows is to restore the river below Tantangara Dam. The releases encourage movement of fine sediment and inundation of lower lying connected ponds to provide habitat for water dependent species.

The flow pattern is designed to better mimic the natural flow characteristics that are typically seen in Snowy montane rivers. This flow pattern incorporates a higher degree of natural seasonality and daily variability, while still maintaining natural high-flow events in the Murrumbidgee. The three high-flow events allow the river to re-establish stream function and improve the in-stream habitat.

The high-flow events wet the riparian zone, promoting the establishment of aquatic and riparian vegetation and providing important habitat for water dependent animals, including native fish, waterbugs, frogs and Platypus.

### Will there be days with no flows?

There will be no environmental flow released from Tantangara for 20 periods totalling 140 days, as there is insufficient water available to maintain the flow regime for every day of the year that includes multiple high peaks. During this time, Snowy Hydro Limited is required to make releases to maintain flows at or above 32 megalitres per day at Mittagang Crossing, if tributary flows do not provide this level of flow.

### Why have high-flow events in winter and spring?

The environmental water release strategy attempts to mimic the natural hydrological characteristics of the Upper Murrumbidgee River. Before the Snowy Scheme was constructed, high-flow events during winter and spring were commonplace.

Historically, the flow regime of the Upper Murrumbidgee River at Tantangara showed a greater frequency of flood peaks during winter and spring. The smaller winter flow peaks were typically associated with the passage of cold fronts delivering rain to lower elevation catchments and snow to higher elevations.

### Where will the water flow?

The water will be released into the Upper Murrumbidgee River from Tantangara Dam and travel down the river, through the ACT and continues until it enters Lake Burrinjuck, NSW. The intent is to rework a smaller channel within the former Murrumbidgee riverbed to improve instream habitat for aquatic biota.

### How do the 2022 high-flow releases differ from the 2021 releases?

The rainfall, snowfall and hence the streamflow of the Upper Murrumbidgee River varies from year to year. This variability in the timing, peak flow rates, duration and volume of events is a key characteristic of Australian rivers.

The daily flow targets differ from the 2021-22 water year, as a different inflow sequence was used to generate the annual release strategy. This year there will three high-flow events (the same as in 2021), with two winter events and one in spring.

### Why is there more water available in recent years?

The partner governments agreed to recover from western irrigation areas a volume of environmental water for the Snowy montane rivers. The amount of water available each year is subject to the amount of rainfall, snowmelt and inflows into the southern Murray-Darling Basin storage dams. When there is sufficient environmental water available, a modified ‘flow scaling’ approach has been applied to the Murrumbidgee River to assist in providing natural seasonality and daily variability.

With wetter conditions and stronger inflows across the southern Murray-Darling Basin this year, the allocation is similar to that of 2021.

### When will the releases take place and how big will they be?

Table 1. Release schedule

Date	Volume
Thursday 23 June 2022	Daily peak flow of 1,025 megalitres per day over 24 hours

Date	Volume
Wednesday 27 July 2022	Daily peak flow of 1,300 megalitres per day over 24 hours
Tuesday 11 October 2022	Daily peak flow of 1,500 megalitres per day over 24 hours

Note: The high-flow releases will commence from 12pm (midday) Australian Eastern Standard Time. The release date for these flow peaks could change as they are weather-dependent.

### How high will the water rise in Murrumbidgee River?

The maximum annual flow volume is dependent on both the weather and annual water determinations in the southern connected Murray–Darling Basin, therefore peak flow releases will vary from year to year. In some years they may be higher or lower than the peak flow rates used to date. The peak will naturally reduce as it progresses downstream, but could still be detected near the ACT border at Lobbs Hole.

We anticipate that during the largest of the 2022 events on 11 October, **the river level will rise from 1.06 metres to over 1.29 metres at the Yaouk#2 gauge**. The rise in water levels will vary depending on your location and inflows from tributaries, **but flows are intended to remain within the river channel**. In confined gorge reaches, the water level increase could be slightly greater than elsewhere.

The NSW Government recommends that equipment should be secured or elevated three metres higher than the existing base water level in the Murrumbidgee River.

### Can I view the flows?

Members of the public are reminded that they should exercise their own judgment about the safety of any viewing site based on the conditions on the day.

### Can I swim and use my water sports equipment anywhere along the river?

Recreational use of the river during the period in which the high flows are taking place is **not recommended**. These high-flow events are considered unsafe for recreational water activities as the flows could dislodge debris in the river.

### What actions should I take?

Individual landholders should take all necessary precautions with stock and property, both before and during the additional flows. This may involve moving any assets away from the bank of the river.

### What is the NSW Government doing to ensure the flows are delivered safely?

Landholders are advised to take all necessary precautions with their stock and property, both before and during the flows. The NSW Department of Planning and Environment, along with Snowy Hydro Limited, will continue to monitor flow conditions – both the storage releases and any natural

downstream inflows occurring at this time. If heavy rainfall appears likely, the release may be reduced or postponed to avoid adverse effects on river levels and an announcement will be made accordingly.

**More information**

[www.industry.nsw.gov.au/water/basins-catchments/snowy-river/initiative/snowy-montane-rivers/upper-murrumbidgee-river-increased-flows](http://www.industry.nsw.gov.au/water/basins-catchments/snowy-river/initiative/snowy-montane-rivers/upper-murrumbidgee-river-increased-flows)