

Upper Murrumbidgee River high-flows 2023

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.

How much water will be delivered?

A total of 40,755 megalitres of environmental water will be released to the Upper Murrumbidgee River below Tantangara Dam during the 2023–24 water year. The release of environmental water will include three separate high-flow events. The daily flow for each of these events will be in the order of 1,500 megalitres per day and occur between 10 July 2023 and 20 September 2023. 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 likely that substantial natural tributary inflows will occur along the river. These 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 Dam for 12 periods totalling 94 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.

Can I take water during an environmental flow release?

Unregulated licence holders in the Murrumbidgee I and II water sources **cannot** take water if flows at their nominated gauge are below the temporarily raised access thresholds published in the order for that day.

Details on the raised access thresholds and the days they apply can be found on page 4 and 5 in the [Temporary Water Restriction \(Murrumbidgee I Water Source and Murrumbidgee II Water Source\) Order 2023](#). If flows are above the raised access thresholds, these unregulated licence holders **can** take water.

Stock and domestic licence holders and water users with basic landholder rights can continue to take water during the environmental flow release.

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 2023 high-flow releases differ from the 2022 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 2022-23 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 2022), 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 2022.

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

The planned release schedule is shown in Table 1. Whilst the department will endeavour to achieve these dates, it may be necessary to modify or cancel flows as a result of climatic, environmental or operational conditions that occur closer to the time of the planned release. Any changes will be published on the DPE Water website.

Table 1. Release schedule

Date	Volume
Monday 10 July 2023	1,500 ML/d over 24 hours from midday
Monday 14 August 2023	1,450 ML/d over 24 hours from midday
Tuesday 19 September 2023	1,500 ML/d over 24 hours from midday

Note: The high-flow releases will commence from 12pm (midday) Australian Eastern Standard Time. Note that dates and volumes may change subject to environmental, climatic or operational conditions.

How high will the water rise in the Murrumbidgee River?

The annual volume allocated to environmental flows is dependent on the annual water determinations in the southern connected Murray-Darling Basin. Natural flows in the system are weather dependent. The combination of varying release volumes and natural conditions means that the peak flows in the river will vary from year to year. The peak will naturally reduce as it progresses downstream, but the pulse could still be detected near the ACT border at Lobbs Hole.

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?

The NSW Department of Planning and Environment, along with Snowy Hydro Limited, will monitor flow conditions, including storage releases and any natural downstream inflows prior to and during an environmental release. If heavy rainfall appears likely, the release may be cancelled or modified 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