

Environmental flow releases into the Upper Murrumbidgee from Tantangara dam – Frequently Asked Questions

The NSW Government is implementing environmental water releases to improve the health of the upper Murrumbidgee River below Tantangara dam.

What is a high-flow event?

High-flow events are releases of 1,400 ML/d or greater. This is the flow threshold at which the department and Safety Technical Advisory Committee consider that potential safety risks may begin to occur, based on local risk knowledge and evidence from past releases. For flows of 1,400ML/d or greater, the department instigates the processes set out in the Safety Management Plan including extensive public communications.

The threshold has been incrementally increased from 1,000ML/d to 1,300ML/day and now to 1,400ML/d as evidence from past releases has been collected.

Why are there less “high-flow” events happening?

Changes to the definition of high-flow over recent years mean that less releases are classified as ‘high-flow’ events for safety management purposes. Large flows are still being made (i.e. between 1,000 and 1,400 ML/d).

How much water will be delivered?

The volume and timing of “high-flow” environment flow releases (in excess of 1,400 ML/d) for the upcoming water year are listed on the department’s website. No flow will be over 1,500 ML/d, due to limitations to Tantangara Dam infrastructure. All daily release volumes are listed on Snowy Hydro’s website.

What time are high-flow releases made?

Each high-flow event will commence at 12pm (midday) local time for a 24-hour period.

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 continue until it enters Lake Burrinjuck, NSW.

Are smaller releases made throughout the year?

In addition to the high-flow releases, frequent moderate and smaller releases are made throughout the year. These are listed on Snowy Hydro's website.

Will there be days with no flows?

There will be periods throughout the year where no environmental flows are released from Tantangara Dam. This is because there is insufficient water available to maintain a variable flow regime (including multiple large releases) for every day of the year. During this time, Snowy Hydro is required to make releases to maintain flows at or above 32 ML/d at Mittagang Crossing if tributary inflows do not provide this level of flow.

Will the volumes or dates of planned releases change?

Planned flows may be modified or cancelled subject to climatic environmental or operational conditions near to the time of release. The department will endeavour to inform the public of changes to high-flow releases, where possible.

The volumes of smaller releases (less than 1,400 ML/d) may be changed at any time without notice.

What is the influence of tributary inflows?

Natural inflows from tributaries will generally have a significantly larger influence on river flow rates, water levels and ecosystem processes than the environmental flows, particularly further downstream. The influence will be more significant in wetter years with more natural runoff.

How high will the water rise in the Murrumbidgee River?

Rising water levels may result from a combination of the environmental releases and natural tributary inflows. 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 and below.

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 greater than elsewhere.

Can I extract 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 how to comply can be found on WaterInsights page:

- for the Murrumbidgee I <https://waterinsights.watarnsw.com.au/16477-murrumbidgee-i/updates>
- for Murrumbidgee II <https://waterinsights.watarnsw.com.au/16481-murrumbidgee-ii/updates>.

The commence to pump guide on those pages also explains that if flows are above the raised access thresholds, these unregulated licence holders can take water:

<https://waterinsights.watarnsw.com.au/api/water-source/v2/updates/2758/attachment>

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

What is the purpose of 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 intent is to rework a smaller channel within the former Murrumbidgee riverbed to improve instream habitat for aquatic biota.

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 high degree of natural seasonality and daily variability, while still maintaining natural high-flow events in the Murrumbidgee. High-flow events allow the river to re-establish stream function and improve the in-stream habitat.

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.

Why are the high-flow events generally 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.

Why is there more water available in some years?

The NSW, Victorian and Commonwealth 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 upper Murrumbidgee River to assist in providing natural seasonality and daily variability.

In recent years there have been wetter conditions and stronger inflows across the southern Murray-Darling Basin.

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.

What safety action 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.

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

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

The NSW Department of Climate Change, Energy, the Environment and Water works with Snowy Hydro, local councils, the State Emergency Service, the Bureau of Meteorology and other key stakeholders to review risks prior to high flow releases. Flows may be modified or cancelled with short notice if risks are deemed unacceptable. We encourage the public to check our website for any changes closer to the scheduled events.

More information

www.industry.nsw.gov.au/water/basins-catchments/snowy-river/initiative/snowy-montane-rivers/upper-murrumbidgee-river-increased-flows