

Snowy River high-flows 2020

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 Snowy River below Jindabyne Dam.

How much water will be delivered?

A total of 91.5 gigalitres (GL) will be released to the Snowy River below Jindabyne Dam during 2020–21. During winter and spring, water will be released to the Snowy River under four separate high-flow events between 29 June and 28 October 2020.

Why have four smaller flows?

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

The results from previous studies from the Snowy Flow Response Monitoring and Modelling Program show most of the physical work in the river channel occurred within hours of the peak flow rate. This means high-flow events of shorter duration work better than one longer event.

The continuation of the pattern of multiple high flows with short duration draws on the results of previous releases, which demonstrated that regular flow disturbances establish a new, smaller channel within the former channel of the Snowy River. Additionally, the four events wet the riparian zone, promoting the establishment of aquatic and riparian vegetation.

Why release high flows in winter and spring?

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

Historically, the flow regime of the Snowy River at Jindabyne 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. The typically larger spring flow peaks resulted from rain-bearing weather systems in association with rapid melting of snow.

This release strategy provides for an increase in flow variability to better reflect the natural hydrology, with additional winter and spring high flows to represent winter and spring rainfall and snowmelt events.

Where will the water flow?

The water will be released into the Snowy River from Lake Jindabyne and travel down the river to the estuary at Marlo, Victoria. The intent is to rework a smaller channel within the former Snowy River bed to improve instream habitat for aquatic biota. **Flows are designed to remain within the banks of Snowy River channel.**

How do the 2020 high-flow releases differ from the 2019 releases?

The rainfall, snowfall and hence the stream flow 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 2019–20 water year as a different inflow sequence was used to generate the annual release strategy and because there is less water available for environmental flow releases due to the drought. This year, there will only be four high-flow events (as opposed to five events in previous years), with two winter events and two in spring.

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

Table 1. Release schedule

Date	Volume
Monday 29 June 2020	equivalent peak flow 3,500 ML/d for eight hours
Monday 27 July 2020	equivalent peak flow 1,600 ML/d for eight hours
Thursday 3 September 2020	equivalent peak flow 4,500 ML/d for eight hours (largest flow)
Wednesday 28 October 2020	equivalent peak flow 1,500 ML/d for eight hours

Note: The peak flow releases will occur during daytime hours from 8 am to 4 pm. The release date for these flow peaks could change as they are weather-dependent.

How high will the water rise in Snowy River?

The peak flow rate for the largest high-flow event on **3 September 2020 of 4,500 ML/d** is slightly lower than the peak 2019 event. We anticipate that the peak will naturally reduce as it progresses downstream, but could still be detected near the mouth of the Snowy River at Jarrahmond in Victoria.

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.

We anticipate that during the largest of the spring 2020 events on 3 September, **the river level will rise from 1.0 m to approximately 1.49 m at the Dalgety 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 Snowy 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. The township of Dalgety and the Snowy River at Jacks Lookout have suitable viewing locations.

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, Industry 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.

More information

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