

Regional dam flood operations



How WaterNSW operates its regional water storages

Please note: This information relates to dams located in regional NSW (not Greater Sydney). For information on the operation of Warragamba Dam (which is located in Greater Sydney), please see waternsw.com.au/floodinfo

What is 'airspace' and how is it managed during a flood event?

Airspace is the amount of space available in a dam to capture flows, or in other words the difference between the actual volume of water in storage and the volume when the dam is full.

Prior to rainfall events (at any time of year), WaterNSW will assess airspace and create additional space by making releases from its dams (while maintaining water security). This provides space in the dam to help capture future floods.

When it rains, WaterNSW will minimise these releases to allow downstream tributary inflows to pass before making releases from the dams, with the aim of reducing the flood peak downstream.

For most storage dams, WaterNSW must leave the water levels of dams at 'full supply level' (when the dam is full) or at a pre-release target at the completion of the flood event.

In the lead up to irrigation season, as per the statutory and regulatory rules of the storage, WaterNSW manages airspace to capture winter inflows.

Managing airspace during times of flood is complex and requires dynamic decision making. WaterNSW are constantly monitoring and adjusting releases during a flood event to create capacity to capture future inflow events.

What rules does WaterNSW use to manage its water storages/dams?

WaterNSW adheres to all relevant legislation, regulations, instruments and guidelines when operating its regional storages and dams.* During times of flood, this means careful management of the dam's storage to ensure the safety of the structure, maintain water security, and where possible lessen downstream flooding impacts.

WaterNSW manages flood operations and airspace releases to:

- ensure the safety of the structures
- maintain water security
- mitigate and minimise the impacts of events on downstream communities.

* WaterNSW manages its dams pursuant to the Water NSW Act 2014 (NSW), the Water Management Act 2000 (NSW) (Water Management Act), its Operating Licence, dam safety requirements, the NSW State Flood Plan and relevant statutory approvals (Governance Framework). Pursuant to the Water Management Act, water sharing plans and water management work approvals set out system operating rules and requirements that include provisions for the operation of dams during flood and spill events, including airspace operations.

How does flood mitigation work at different dams?

Generally, there are two types of dams:

1. Gated spillway dams - which allow WaterNSW to manage airspace releases, flood operations through the spillway gates
2. Fixed crest dams - which have no gates, and which allow water to spill naturally over fixed crest spillways (either over a crest or via a 'morning glory' spillway) when water reaches full supply level.

Two WaterNSW storages - Burrendong and Glenbawn dams - have additional designated airspace called 'flood mitigation zones' to capture inflow to provide downstream mitigation, meaning that water can be held above the dam's full supply level and then scheduled for release when downstream tributaries have reduced.

More information on individual dams is available on the [WaterNSW website](#).

How does WaterNSW work with other government agencies during a flood event?

The **NSW State Flood Plan** outlines the NSW Government's multi-agency arrangements for responding to floods in NSW to protect life and property. The State Emergency Service (SES) is the NSW Government's lead combat agency for responding to floods.

Part of WaterNSW's role is to provide information and data about river and dam levels to the SES and the Bureau of Meteorology for the purposes of their public reporting, including public notifications, warnings and reporting.

WaterNSW does not issue flood warnings as this is the responsibility of the Bureau of Meteorology.



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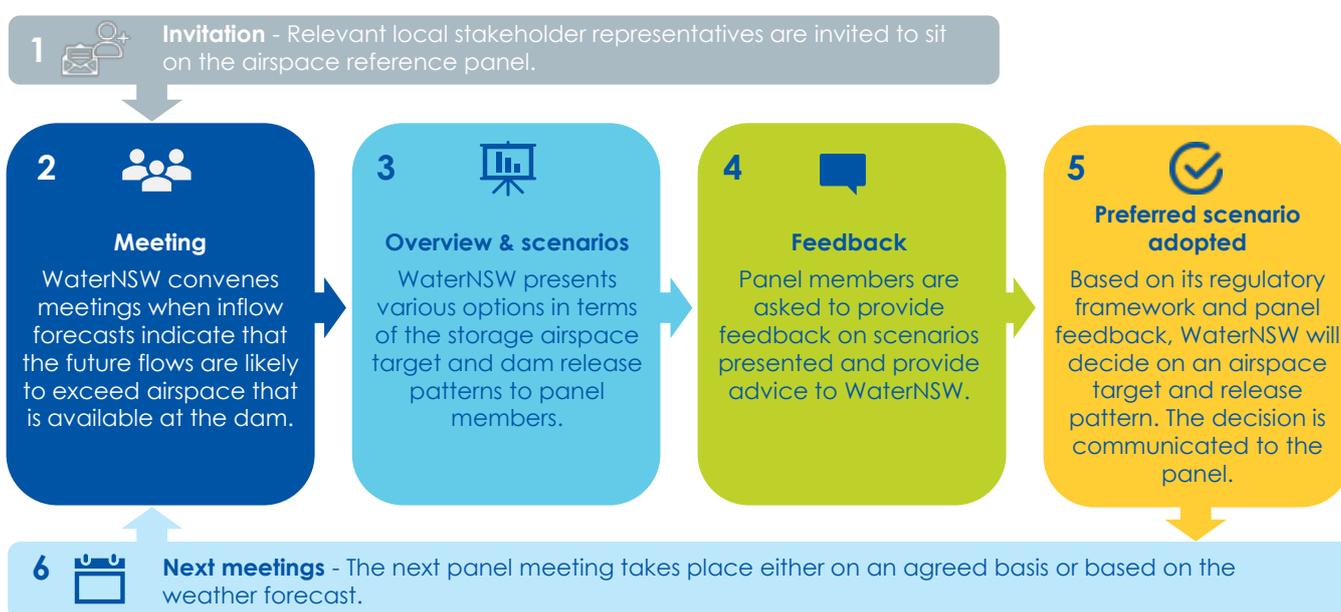
How does WaterNSW consult with the community during a flood event?

When regional storage dams that have control gates are at risk of spilling, WaterNSW sets up Airspace Reference Panels to consult with downstream stakeholders.

These stakeholders and WaterNSW consult on the necessity, timing, and circumstances for controlled releases of water and how that might affect communities downstream. Issues discussed include water irrigation and environment demands and targets, river constraints, and other local water related issues.

At these meetings, WaterNSW provides various options in terms of target airspace and dam release patterns. The role of the panel is to examine trade-offs with each of the options for management and provide advice to WaterNSW on the preferred options for management of the particular flood event.

How WaterNSW airspace reference panels operate



Where do I get information during a flood event?

If you are at risk of flooding downstream of a WaterNSW storage, please sign up to the WaterNSW **Early Warning Network**.

During a flood event you should:

- Visit the **Bureau of Meteorology** for forecasts and flood warnings
- Visit **NSW SES** or call 132 500 for help or emergency information
- Monitor the NSW Government's **Hazards Near Me** app.

While the BoM should be the primary source of information for these events, WaterNSW also provides a range of information, including near real-time information which is available through the **WaterInsights** portal or the WaterLive App (downloadable through your App Store).

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