

Wyaralong Dam Information sheet for residents downstream

December 2017



Introduction

This information sheet is for residents living downstream of Wyaralong Dam. It outlines how the dam has been designed and constructed, what Seqwater does to manage the dam, and how the dam performed during the heavy rainfall associated with ex-Tropical Cyclone Debbie in March 2017.

About Wyaralong Dam

Wyaralong Dam was built in 2011 and is the newest dam in South East Queensland. The lake and its surrounding areas provide fantastic recreation facilities and have become a major tourism drawcard for the Scenic Rim region.

Wyaralong Dam is located on the Teviot Brook, a tributary of the Logan River, and is 14.2 kilometres north-west of Beaudesert, and 51 kilometres south-west of Brisbane. The catchment extends west up Teviot Creek all the way to Teviot Gap in the Great Dividing Range.

How the dam works

The main body of Wyaralong Dam is mass concrete. The upstream and downstream faces of the dam are conventional concrete. Wyaralong Dam has an un-gated spillway which means when water reaches the level of the spillway, water flows over and into the Teviot Brook downstream.

Water flows into the dam from the surrounding catchment of 546 square kilometres.

The concrete dam wall has a maximum height of 48 metres and is 463.6 metres long. At full supply, the dam holds back 102,884 million litres of water and is 63.6 metres above sea level.

Flood mitigation

All un-gated dams help mitigate flooding to some extent. The peak outflow from an un-gated dam during a flood event is less than the peak outflow that would have occurred had the dam not been built, because some water is held in the dam while it is spilling. This means that water flow slows down as floods pass through the dam.

As an un-gated dam, Seqwater has no control over water spilling from Wyaralong once the water level goes above full supply level. It is not possible to influence the outflow from the dam during a flood event.

Seqwater's primary responsibilities during flood events are to monitor the safety of the dam and provide dam outflow information to the relevant emergency agencies as required. Such agencies will generally be the Bureau of Meteorology and the local council responsible for the area impacted by the dam outflow. For Wyaralong Dam, this is the Scenic Rim Regional Council.

Dam safety

Dams are long-life assets and require continual assessment, monitoring and maintenance. Queensland has a good dam safety record, but just like cars, dams need regular checks and maintenance to keep them in good working order. The engineering and safety features of cars have improved over time and so too have those of dams. Seqwater's Dam Improvement Program is about upgrading our dams in line with the latest engineering standards, while meeting the current Queensland Dam Safety Guidelines.

A number of dams across South East Queensland have been identified for improvement works as part of Seqwater's Dam Improvement Program.

For more information about the program, visit seqwater.com.au/damimprovement.

Quick facts

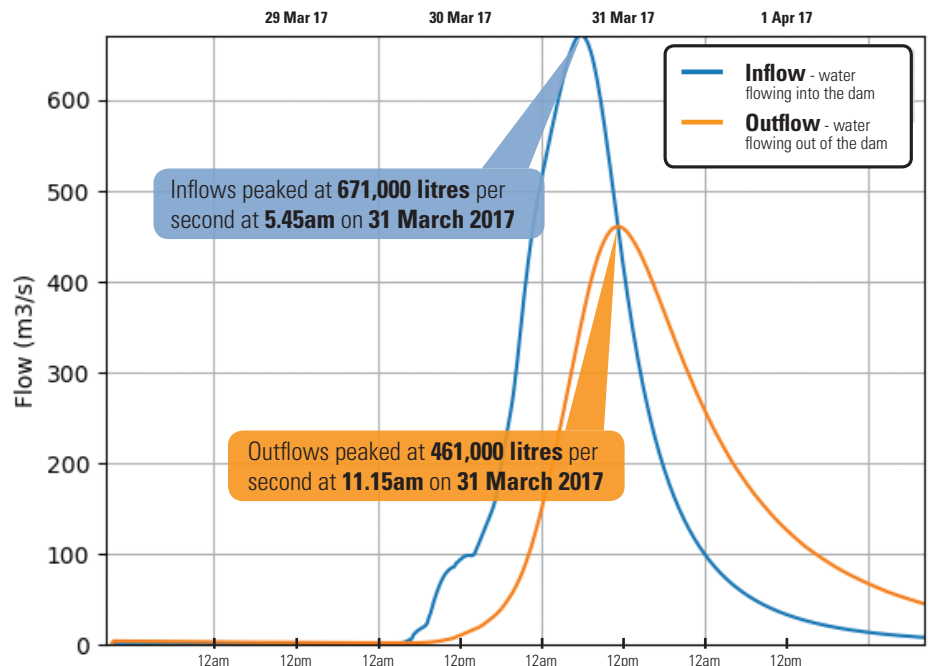
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|------------------------------|---|
| Watercourse: | Teviot Brook |
| Location: | North-west of Beaudesert |
| Catchment area: | 546.0km ² |
| Lake surface area: | 1233ha |
| Full supply capacity: | 102884ML |
| Year completed: | 2011 |
| Crest level: | 70.1m AHD (above sea level) |
| Wall height: | 48m |
| Outlet system: | Vertical submerged discharge valves and fishway |
| Type of construction: | Roller compacted concrete gravity |
| Length of dam wall: | 463.6m |

Wyaralong Dam information sheet

Ex-Tropical Cyclone Debbie – March 2017

How did the dam perform?

- Ex-TC Debbie produced the largest flows in the Logan River since 1974.
- During the event, inflow into Wyaralong Dam peaked at about 671 cubic metres per second (or 671,000 litres per second) at 5.45am on 31 March 2017 – the equivalent volume of almost eight Olympic-sized swimming pools every minute.
- The water level at Wyaralong Dam peaked at 65.18 metres above sea level – about 1.6 metres above the spillway.
- This peak level was still 0.15 metres below the flood of record for Wyaralong Dam which occurred during January 2011.
- The peak outflow through the un-gated spillway at Wyaralong Dam during ex-TC Debbie was about 461 cubic metres per second (or 461,000 litres per second).



The flow hydrograph for Wyaralong Dam associated with the March event is shown above. Inflows into the dam began at 4am on Thursday 30 March 2017 and Wyaralong Dam began spilling on Tuesday 21 March 2017. The peak inflow occurred at 5.45am on Friday 31 March 2017, and the peak outflow occurred at 11.15am later that day. At the same time, the lake level reached its peak at 65.18 metres above sea level, which is 1.6 metres above the dam's full supply level.



Other flood impacts

Your local council provides information about potential flood risks in the Scenic Rim including mapping and tips on how to be prepared.

To find out about the impacts of localised flooding or flash flooding in your area, you should contact Scenic Rim Regional Council or visit scenicrim.qld.gov.au.

Dam release notification service

Seqwater provides updates about dam levels and spilling at www.seqwater.com.au and on 1800 613 122.

You can also register for email and SMS dam release notifications on our website or download the Seqwater public safety app (via Google Play or Apple's App Store) to receive regular updates.