

Callide Dam Gates Project

Fact sheet: project overview

May 2021

This fact sheet shares information about Callide Dam, its operations including the gate functions, project and the anticipated outcomes of the project in reinstating the gates for continued safe operations.

Project overview

The Callide Dam Gates Project has been set up to investigate, repair and restore the spillway gates to address intermittent occurrences of vibration during their operation and ensure ongoing dam safety and long-term water security.

Since their installation in 1988, the spillway gates have operated on seven flood event occasions, and during three of these, Sunwater has observed vibrations in the gates. Despite ongoing investigations, including engagement with numerous experts, no cause has been identified for the vibration events.

With current low water levels and the dry season ahead, this is an opportune time to gain access to the gates to conduct maintenance, testing and investigate and address the gate vibration whilst minimising the impact on available water supply.



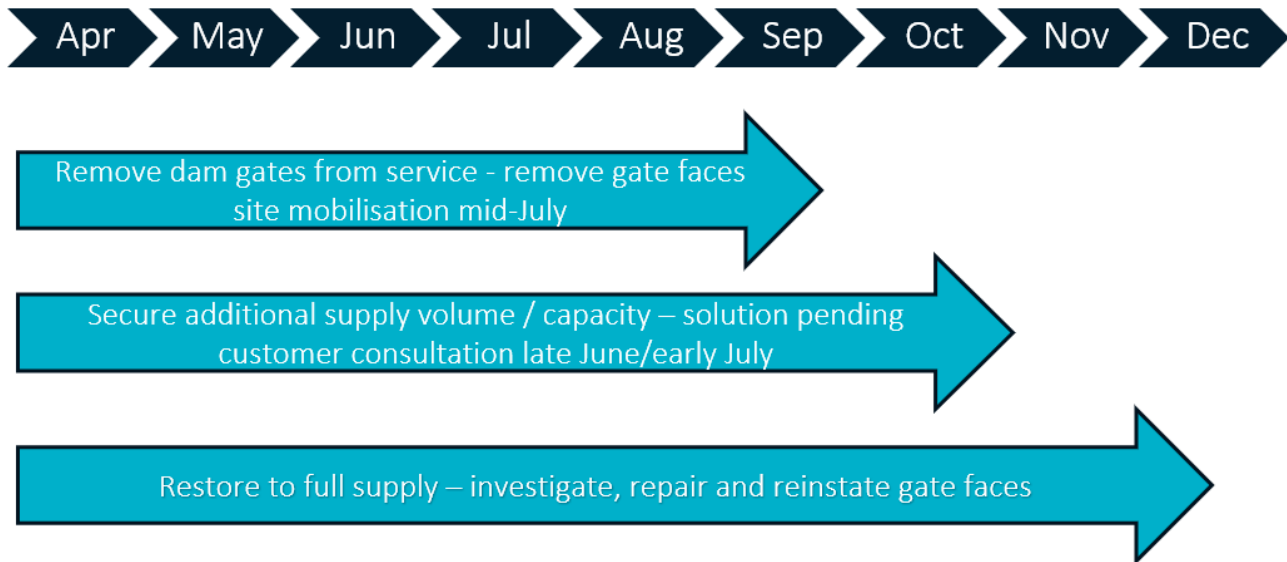
Project works

The project is made up of four work packages and targeted completion is the end of 2021. This is subject to determining a permanent solution for the gates. This work will involve:

- Removing the gates from service, including removing the gate faces from the gate arms
- Carrying out maintenance work
- Investigating temporarily increasing the dam storage level
- Investigating, remediating and restoring the gates with an engineering solution to address the gate vibration.

Removing the gates from service is the fastest and most effective way to undertake the required investigations. Physically removing the gate faces will enable expert inspections and testing of the faces, gate arms and associated infrastructure that would otherwise be difficult or impossible to carry out with the gates still in place.

Project timeline

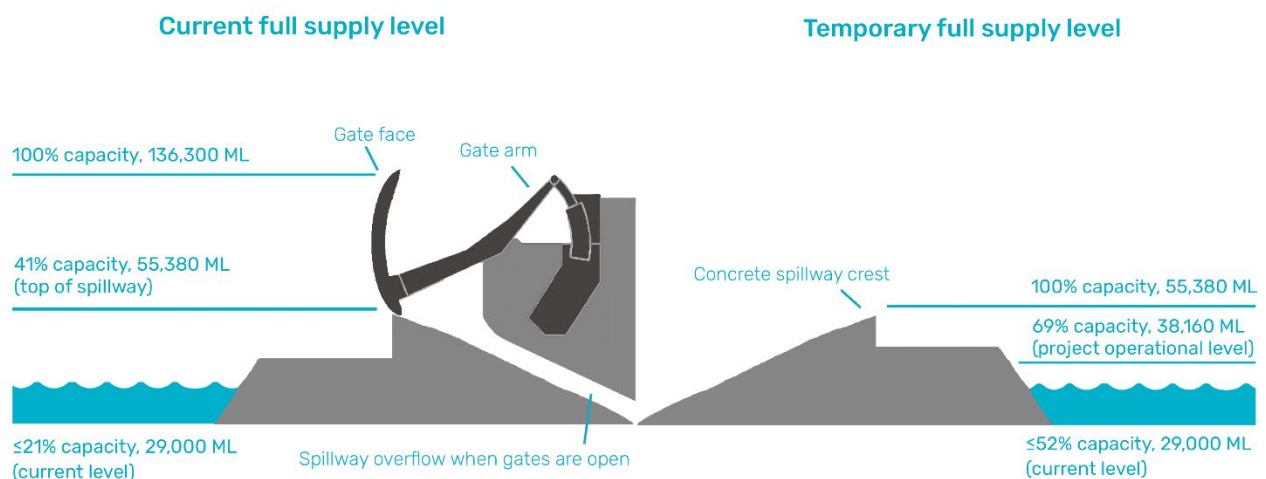


Safety and emergency management

Once the gates are removed, the top of the concrete spillway crest will reflect the maximum height of the dam wall. With the gates in place, the top of the concrete spillway represents 41% of the dam’s capacity; however, for the duration of the project, Sunwater will refer to the top of the concrete spillway as the dam’s full supply level of 100%.

This temporary change is necessary for communicating accurately and consistently to the community and emergency bodies because in the instance of extreme weather events, the water level reaching 100% must signal a forthcoming spill. In accordance with regulatory guidelines, Sunwater will update the Callide Dam Emergency Action Plan and the Operations and Maintenance Manual to reflect the changed conditions during the project.

The below infographic further explains this change.



About Callide Dam

Callide Dam, located near Biloela in Central Queensland, is an earth and rock-fill dam built on Callide Creek in 1965. The dam is filled by natural inflows from Callide Creek and water pumped from Awoonga Dam through the Awoonga-Callide pipeline to Stag Creek. The dam's main purpose is to supply water for the cooling towers at the Callide A and Callide B Power Stations and to supply water for regional irrigation, industrial and urban use. The dam was not designed for flood mitigation and does not include a flood mitigation component.

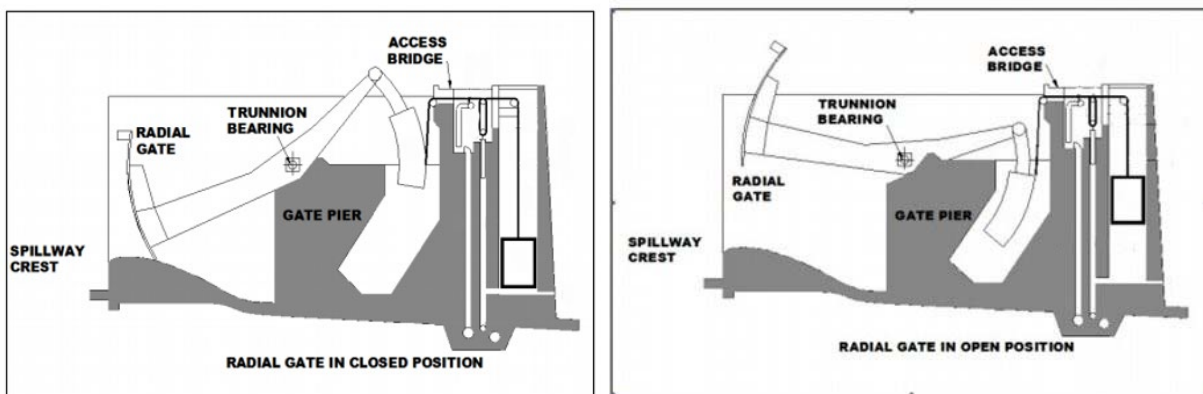


Callide Dam gates

Callide Dam has six large radial spillway gates (three sets) which were installed in 1988 to double its storage capacity to 136,300ML. The dam's spillway gates are positioned within the dam wall and are designed to protect the integrity of the dam structure from water rising above the full supply level to minimise the risk of dam overflow.

The three sets of spillway gates are configured to automatically respond to rising storage levels. The gates have a series of chambers and counterweights connected to the water and once the dam's water level rises above full supply level, the gates begin to open in a phased approach dependent on the volume and rate at which water is entering the storage.

In early 2019, an upgrade to the control system allowed for manual gate operations, which increased the ability for finer control of the gates.



Community engagement

Sunwater is committed to engaging openly and transparently with its customers, stakeholders and community. The safety of our people and the community is our number one priority.

A project information display is located at Biloela Shoppingworld with a Sunwater representative available for questions regarding the project at the following days and times:

Friday, 28 May 2021 10:00am—1:00pm

Saturday, 29 May 2021 8:00am—11:00am.

The project is also engaging with customers through industry briefings and information sessions.

More information is available at sunwater.com.au/projects/callide-dam-gates-project. If you have additional questions regarding the project, please contact community@sunwater.com.au or media@sunwater.com.au.