

Seqwater Dam Improvement Program

North Pine Dam Upgrade

September 2020



North Pine Dam is one of several dams to be upgraded as part of Seqwater's Dam Improvement Program.

Like all major infrastructure, dams are regularly assessed and upgraded to comply with improving engineering standards and latest guidelines.

Dam safety

In Queensland, dam owners are responsible for the safety of their dams under the *Water Supply (Safety and Reliability) Act 2008* (the Act).

The Department of Natural Resources, Mines and Energy requires Seqwater to comply with the Queensland Dam Safety Management Guidelines under the Act.

We also seek to meet the national guidelines set by the Australian National Committee on Large Dams (ANCOLD).

North Pine Dam was built in 1976. Since then, there have been significant changes including:

- population growth downstream
- advances in dam design
- improved estimation of extreme rainfall and flood events
- improved understanding of earthquake probabilities and loads
- updated guidelines and standards.

In 2012-13, Seqwater commissioned an independent review which found improvements are needed at many of our 26 dams to meet the current dam safety guidelines and bring them in line with the latest engineering standards.

About the upgrade

The existing dam can withstand rare and extreme floods including possible inflows much greater than the January 2011 flood. However, the largest possible flood we can estimate would exceed the capacity of the dam.

With a large population living downstream of North Pine Dam, the risk to downstream communities means the dam needs greater capacity to withstand the Probable Maximum Flood (PMF).

The early planning stages will involve a series of technical investigations including geotechnical drilling and sampling to better understand the foundation of the dam and its structural integrity.

This process will also involve an analysis of all the possible upgrade options to make sure the dam can continue to perform safely and protect downstream populations in the future.

Timing

We are in the early project planning stages and construction is not expected to start until 2025, subject to approvals. Planning for a dam upgrade takes time, but it's what we must do to keep our dams operating safely.

Seqwater Dam Improvement Program

North Pine Dam Upgrade

September 2020

Reduced Full Supply Level

On 27 December 2019, Seqwater reduced the Full Supply Level (FSL) for North Pine Dam.

Lowering dam water storage levels is an accepted and long-established way of reducing the safety risks associated with rare and large flood events. Dams which have previously been lowered as part of our Dam Improvement Program include Sideling Creek, Cooloolabin and Leslie Harrison dams.

The reduced FSL for North Pine Dam is 36.0 metres Australian Height Datum (AHD). This level is equivalent to about 68% of its original water storage capacity or Full Supply Volume (FSV).

With the reduced FSL, it is possible releases from North Pine Dam may occur more frequently in minor flow events (much smaller than those that flood houses). This may result in temporary closures to roads in low-lying areas downstream.

When inflows from rainfall occur in the future, there will be flood releases if the lake level is expected to exceed 36.0 metres AHD (68% of its original water storage capacity).

Any future flood releases will continue to be managed in accordance with the 2019 Flood Mitigation Manual for North Pine Dam.

The reduced FSL is not expected to impact the long-term water supply security for South East Queensland and there will be minimal impacts to recreation at the lake as a result of this change.

The reduced FSL will be reviewed periodically until the dam is upgraded to make sure there are no negative impacts to water supply and long-term water security.



Keeping you informed

There will be stakeholder and community engagement opportunities at various times during the project planning process. In the meantime, there are several ways you can find out more:

w seqwater.com.au/project/north-pine-dam-upgrade

e communications@seqwater.com.au

s seqwater.com.au/subscribe-our-e-updates

p 1300 SEQWATER (1300 737 928)

Non-English speakers call 131 450 and ask for Seqwater on 07 3035 5500.

If you have a hearing or speech impairment contact us through the National Relay Service and give the number 07 3035 5500 a call or visit: www.relayservice.gov.au for more information.