

Seqwater Dam Improvement Program

e-update



March 2017

Latest news

This year, Seqwater will begin detailed design of the Lake Macdonald Dam upgrade, as part of the Dam Improvement Program. This phase will involve further site investigations, refining the design for the preferred option, investigating construction methodologies, regulatory approvals and procurement.

We will also begin the process of obtaining the necessary environmental and regulatory approvals and will be talking with neighbours and the broader community about the upgrade and potential impacts.

Dams are long-life assets and require continual assessment, monitoring and maintenance. Seqwater's Dam Improvement Program is about keeping our dams compliant with the latest industry standards and meeting current Queensland safety guidelines.

Seqwater has upgraded a number of dams across South East Queensland in recent years, with Lake Macdonald Dam one of a number of dams identified for upgrades over the next six years.

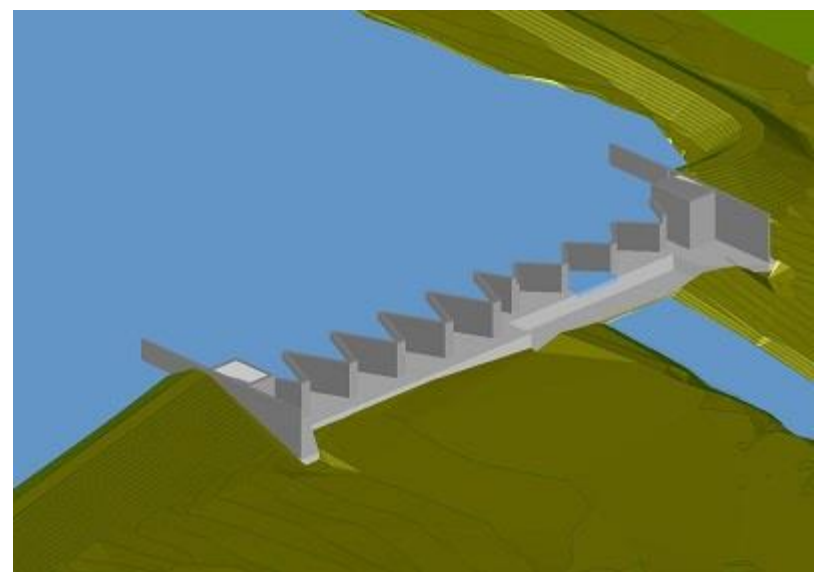
Dam upgrade

Since identifying the dam for potential upgrade we've developed a design option to:

- increase the flood capacity of the dam
- increase protection from dam over-topping
- reduce earthquake risk
- comply with modern design and engineering standards and safety guidelines.

As a part of the preferred option, Seqwater intends to build a new 'zig zag' or labyrinth spillway. The new spillway will enable the dam to safely pass large floods due to the additional surface area of the 'zig zag' crest.

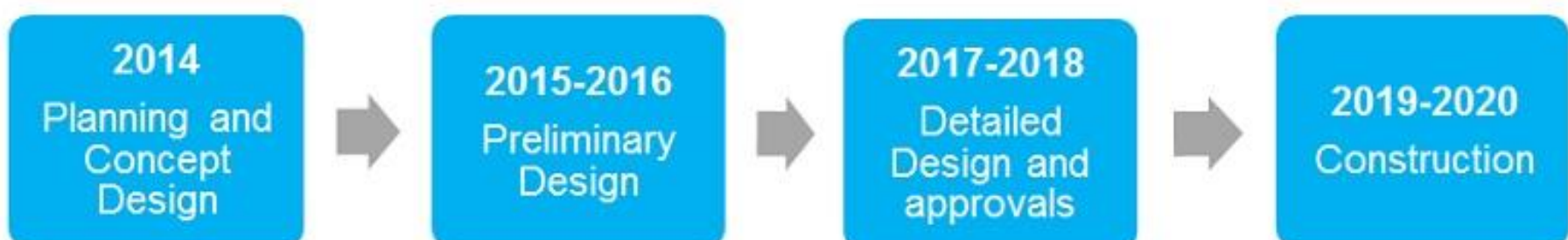
Other upgrade elements include improvements to the right and left embankments, along with a parapet wall on the Lake Macdonald Drive side of the dam.



We will finalise construction plans during the detailed design phase throughout 2017 and into 2018.

Timeframe

The following is an indicative timeframe and is subject to change.



You may have noticed that the water level in Lake Macdonald Dam is lower than usual at the moment. This is the result of low inflows from rainfall in the catchment and is not related to the upgrade. The lake level will need to be lowered temporarily during construction so we can complete the upgrade safely – however the construction phase of the project is not expected to begin until 2019.

We'll be in touch with neighbours and stakeholders impacted by construction and the lake lowering this year, well before any work is scheduled to begin. To find out more, email communications@seqwater.com.au, phone 1800 771 497 or visit our website www.seqwater.com.au/damimprovement

About the Dam Improvement Program

Dams supply our drinking water and they play a very important role in the SEQ Water Grid – making sure everyone in South East Queensland has water to live, work and play.

We operate dams that were built decades ago and, just like cars, they need regular maintenance to keep them in good working order. In fact, our oldest dam was completed in 1866.

Lake Macdonald Dam was completed in 1965 and raised in 1980 to increase its storage capacity.

What we know about dams, earthquakes and floods has changed a lot since the 1960s. Since Lake Macdonald Dam was built and upgraded, there have been:

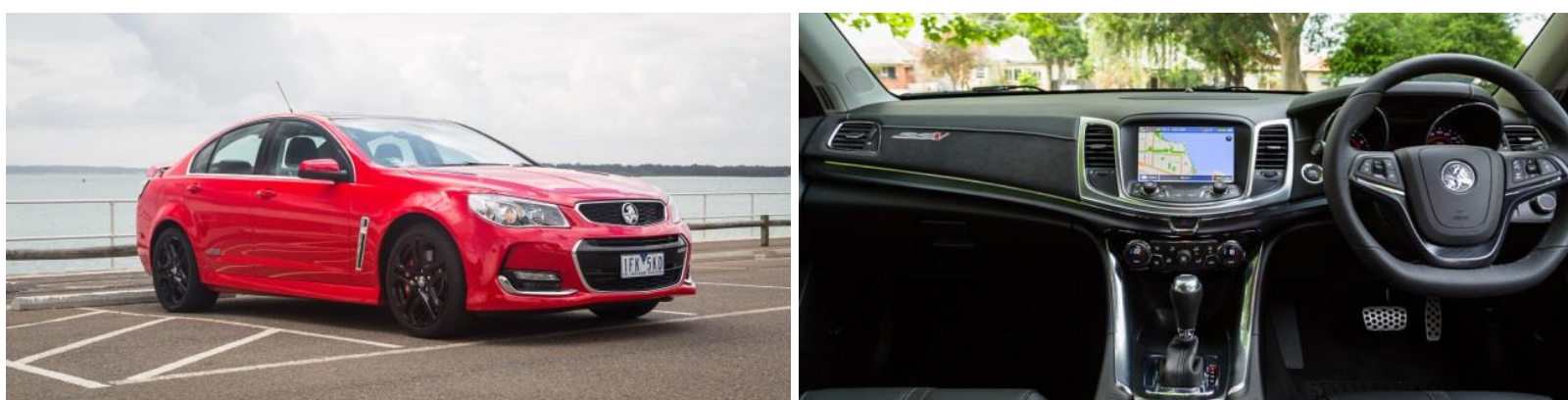
- increases in the number of people living downstream of the dam
- advances in dam design and construction
- improved understanding of extreme weather events such as earthquakes and potential rainfall events
- increases in regulation for owners to maintain and operate dams to the highest environmental and safety standards.

All dam operators in Queensland must comply with the Queensland Dam Safety Guidelines. These guidelines are mandated in Queensland by the Dam Safety Conditions issued to owners under the Water Supply (Safety and Reliability) Act 2008. Our Dam Improvement Program considers all of these factors so our dams can operate as they should, now and into the future.

To put this in context, consider how the engineering and safety features we expect in our cars have changed since the 1960s. The technology and safety standards for a 1960s Holden Commodore gave us a car that looked like this:



Today, the Holden Commodore looks like this:



Essentially, the Dam Improvement Program is about keeping our 1960s dam in line with current guidelines and regulated standards, checking it against new data on floods, earthquakes and the downstream population.

A growing population downstream means more people are at risk in the extremely unlikely event that the dam should fail. While we can't change the number of people already living downstream, we can make changes to the dam, improving its ability to perform during floods and earthquakes.

Please feel free to share this e-update with interested friends and neighbours. We welcome your feedback, email communications@seqwater.com.au, phone 1800 771 497 or visit www.seqwater.com.au/damimprovement to contact us.

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