

# Seqwater Dam Improvement Program

## Ewen Maddock Dam

February 2019



Dams are long-life assets and require continual assessment, monitoring and maintenance. In 2012-13, Seqwater commissioned an independent review of our 26 referable dams, which found improvements were needed at a number of our dams to meet the Queensland Dam Safety Management Guidelines into the future.

Ewen Maddock Dam is located near Landsborough on the Sunshine Coast, and is one of a number of dams identified for upgrade in the next six years.

### Assessing our dams

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 Energy and Water Supply requires Seqwater to comply with the Queensland Dam Safety Management Guidelines under the Act. Like all dam operators across the country, we also seek to meet the national guidelines set by the Australian National Committee on Large Dams (ANCOLD).

Our Dam Improvement Program considers all of these factors, so our dams can operate as they should, now and into the future. There are some key changes since Ewen Maddock Dam was built, which impact on its compliance with the dam safety guidelines, including:

- the latest estimates of extreme rainfall
- data from flood events and updated flood modelling
- improved understanding of earthquake probabilities and loads

- significant population growth downstream
- advances in dam design and development of consistent methodologies for assessment of dam condition.

### About the upgrade

Ewen Maddock Dam is part of the SEQ Water Grid – a connected network of dams, treatment plants, reservoirs and pipelines supplying drinking water to the region. The dam was constructed across Addlington Creek, a tributary of the Mooloolah River. Construction of the dam was completed in 1976 and the full supply level (FSL) was raised in 1982.

Following the independent dam safety review in 2010, a number of improvements were identified at Ewen Maddock Dam and approved for delivery in two stages.

In 2012, the stage one upgrade of the dam involved the installation of pressure relief wells into the foundation materials, and construction of a sand filter buttress and overlying weighting berm made of clay along the downstream embankment toe.

In 2016, Seqwater engaged an engineering consultant to develop the second stage of the upgrade design. More than twenty-one options were identified during this process. The selected stage two upgrade option will:

- upgrade the existing earthfill embankment with sand filters
- raise the existing earthfill embankment to increase flood capacity
- strengthen the concrete spillway
- raise the training walls of the spillway, but not the ogee crest
- install emergency outlets in the spillway to enable reservoir drawdown in the case of a dam safety incident.

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### Timing

The detailed design is nearing completion and we are now moving into the project planning phase. We plan to start construction from mid - 2019 and expect that the work will take up to 18 months, subject to weather and onsite conditions.

More information about what to expect during construction will be available once a contractor is appointed in June 2019.

We will minimise disruptions wherever possible.

### Recreation

To complete the project Seqwater will temporarily lower the lake level by three metres, to approximately 50% of storage capacity. This lower water level will be in place for the duration of the upgrade so contractors can work safely. Once the upgrade is complete, the lake will return to its full supply level with rainfall inflows.

In the interest of public safety and the safety of our contractors, on-water recreation activities such as swimming and paddling will be prohibited during the upgrade. Maddock Park and the beach area will be closed to public access for the 18-month construction period. Access to the recreation areas will be re-instated once the upgrade is complete and on water recreation will re-open when the lake returns to its normal water level.



2011-2014	
<b>DAM SAFETY REVIEW</b>	
2014	
<b>OPTION ANALYSIS &amp; CONCEPT DESIGN</b>	
2015-16	
<b>PRELIMINARY DESIGN &amp; APPROVALS</b>	
2017-19	
<b>DETAILED DESIGN &amp; APPROVALS</b>	
2019	
<b>PROJECT PLANNING</b>	
2019	
<b>CONSTRUCTION</b>	

### Living near our dams

It's important neighbours and people downstream of Ewen Maddock Dam know what to do in the unlikely event of an emergency. The dam has an Emergency Action Plan in place to enable us to respond quickly to potential incidents in partnership with emergency services and local council and, through targeted intervention, prevent an incident from developing into an emergency.

You can subscribe to dam release notifications for Ewen Maddock Dam on Seqwater's website or by download our app from Google Play or the App Store.

In addition, emergency services have a range of ways to warn the community about severe weather and other emergencies that require preparation and action at the household level. For help with preparing an emergency kit and evacuation plan, visit [getready.qld.gov.au](http://getready.qld.gov.au)

### Keeping you informed

You can stay up to date with the progress of the Ewen Maddock Dam upgrade by subscribing to our e-updates. To subscribe or for more information:

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