

Paradise Dam Community Update

May 2021

Sunwater understands the Bundaberg community's concern about water security for the region. Safety is the key driver for the work we are doing at Paradise Dam.

Dam failure risk reduced

In March, we confirmed that with the completion of work on the dam spillway, the risk of dam failure has been reduced to a 1 in 5000-year event. The dam failure risk before the start of the Essential Works was equivalent to a 1 in 200-year event, which is similar to what the community experienced in 2013.

With the risk of a dam failure reduced, Sunwater has now amended the Paradise Dam Emergency Action Plan (EAP) evacuation triggers in consultation with the Bundaberg and North Burnett local disaster management groups.

Read more in the [Essential Works Risk Reduction Fact Sheet](#) and the recently updated [Paradise Dam Emergency Response Overview](#).

Planning for the next phase of work

A range of activities including Roller Compacted Concrete (RCC) shear strength testing, post-tensioned anchor trials, geotechnical investigations and complex hydrology studies together with the future water demand study will inform an assessment of the long-term options for Paradise Dam.

A number of primary spillway heights are being considered to meet dam safety and water security objectives, and alternative supply options will also be examined. Decommissioning the dam is not on the table.

An options report and recommendation will be provided to the Queensland Government, which is expected to make a decision about the long-term future of Paradise Dam by the end of 2021.

Read more in the [Detailed Business Case Fact Sheet](#).



Direct links to more information are included in the electronic version of this newsletter. If you are reading a printed copy and need help finding the linked information, please call or email and we can assist.

Demand study findings

In April, NCEconomics presented findings of the future water demand study to the Paradise Dam Community Reference Group and Paradise Dam Industry Forum, Bundaberg Regional Council, and grower representatives.

The study assesses how much water is needed, from which customer segments and when, out to 2050 for the Bundaberg Water Supply Scheme (BWSS).

You can read about the study and its findings in the Paradise Dam NCEconomics Future Water [Demand Study Fact Sheet](#).

Sunwater and NCE have recently held further discussions in the region to respond to feedback and answer questions on the findings presented.

Roller compacted concrete (RCC) test results

The results of RCC shear strength testing have been analysed and reviewed with the Technical Review Panel and additional independent experts, Tatro Hinds and Rizzo International. They have provided feedback that the sampling and testing program has been thorough and of a high standard.

This latest RCC testing used a comprehensive 63 samples from locations across the primary and secondary spillways. The final reviewed results are consistent with the analysis that initiated the Essential Works in September 2019.

The results are being incorporated into revised dam stability assessments as we plan for the long-term remediation of Paradise Dam. The results will not lead to any significant change to the design of, or need for, further strengthening and stabilisation works at Paradise Dam, which is increasingly likely to include mass concrete buttressing. Post-tensioned anchors are still being considered but are a higher risk solution for this dam. Read more in the [RCC Results Fact Sheet](#).

Announced allocation scenario map

In April, Sunwater shared an announced allocation scenario map with customers in the Bundaberg Water Supply Scheme to assist with irrigation planning for the next water year.

The scenarios considered water demand and storage losses based on relevant historical data and are an estimate only. From 1 July 2021, Sunwater will calculate the actual start of water year announced allocations using the volume held in storage at the time. Announced allocations for 2021-22 could fall outside the figures presented in the scenario map based on variables such as inflows, weather conditions and customer usage. Read more in the [Announced Allocation Scenario Map](#).

Water releases for safe work no longer required

With the completion of the lowering activity at Paradise Dam, Sunwater no longer needs to conduct water releases to maintain a safe working environment. The dam is now able to fill to the temporary crest level. When activity on site commences for the next stage of remediation works a reduced supply level will again be required.

Ongoing work

Ancillary works will continue at Paradise Dam through 2021. This will include further drilling for core samples and geological investigations to inform the next stage of design work, construction of a new improved fishway, and completion of the initial work to place concrete downstream of the dam to prepare for the next stage apron extension and some interim protection against scour.

[For further information on Paradise Dam:](#)

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