

## Paradise Dam Community Update

### December 2019

*The technical reports that informed Sunwater's decision to undertake immediate essential works at Paradise Dam were released on 29 November 2019.*

#### Is Paradise Dam safe?

Under normal and current forecast weather conditions, Paradise Dam is safe.

However, in the unlikely event of another significant flood such as the one in 200-year (1:200) event which the community experienced in 2013, the dam may fail.

It is important to note that the recently updated Emergency Action Plan in place for Paradise Dam would see downstream communities evacuated during a flood should a 1:50 year event be predicted.

#### What's actually wrong with the dam?

The key concern to Paradise Dam's stability is the strength of bonds between each layer of the roller compacted concrete (RCC) that forms the wall. This is in addition to other issues identified with the dam to date such as downstream scour and foundation risks, would mean that under enormous pressure, an example being an event like the 2013 flood, the dam wall could shear, or effectively come apart.

#### What has Sunwater done ahead of the wet season?

- **Released water** from the dam to reduce the amount of water stored to 42 per cent of the dam's full capacity.
- **Updated** the Dam's Emergency Action Plan (EAP) in conjunction with Councils and other agencies.

- **Worked closely with the Local Disaster Management Group (LDMG)** who manage local flood risks and emergencies.

#### How and when did Sunwater identify a problem with the dam?

The damage sustained to Paradise Dam during ex-Tropical Cyclone Oswald in 2013 was significantly more than expected given the dam was designed to pass much larger floods. From that point Sunwater has been conscientiously working through a series of studies and undertaking physical investigations.

Sunwater commenced the Paradise Dam Improvement Project in 2015 over several phases; and in planning for further longer-term works, a Technical Review Panel (TRP) comprising national and international experts was convened. Geotechnical work undertaken in 2019 clarified an issue with the bonds in the layers of roller compacted concrete resulting in a revised stability assessment in August 2019. The TRP reviewed the geotechnical results and assessment and confirmed the revised stability assessment with a report to Sunwater in September 2019.

#### What is Sunwater planning to do?

Lowering the dam wall is the most effective way to improve the stability of the dam during significant flood events, and Sunwater is initially targeting a 5m reduction starting post-wet season 2020.

#### Keeping informed about Paradise Dam:

If you live immediately downstream of Paradise Dam, **register for SMS updates** at [sunwater.com.au](http://sunwater.com.au)

**Download the Sunwater App** to receive push notifications when the dam is spilling water and to monitor dam levels.

**Follow Sunwater** on Facebook and Twitter and **visit [sunwater.com.au](http://sunwater.com.au)** for updates.

Visit **[bom.gov.au/qld/](http://bom.gov.au/qld/)** for the latest weather information and your local council website for emergency updates.



At a minimum, major strengthening works will also be required to ensure the dam's long-term stability.

A dedicated web page has been established for the works where the technical reports are available, along with monthly updates like this and information about the project's dedicated Community Reference Group (CRG)—[sunwater.com.au/projects/paradise-dam-essential-works/](http://sunwater.com.au/projects/paradise-dam-essential-works/)

### What will happen if there is another significant weather event before the essential work is complete?

If another significant weather event similar to 2013 occurs, Sunwater will:

- **Trigger the Emergency Action Plan** for Paradise Dam working with the Local Disaster Management Group (LDMG).
- **Communicate up-to-date information** via text messages directly to downstream residents, as well as to the broader community via the Sunwater App, our social media channels (Facebook and Twitter), local media broadcasts and emergency alerts.

### Will a dam failure impact the amount of water and the severity of the flooding that occurs?

Paradise Dam is not a flood mitigating dam so does not play a role in reducing flood events downstream. Should another flood of record occur many parts of Bundaberg and other downstream communities would already be evacuated.

In the unlikely event that the dam failed as well, hydrological mapping shows that there is the potential for areas that did not flood in 2013 to be impacted. Maps that show the potential impact are publicly available in the Emergency Action Plan (EAP). Updating the EAP with the LDMG means that regionally, the disaster response teams are across the impacts of any scenario and while an event of this nature is unlikely, are prepared to respond and keep the community safe.

### How can the community keep informed and influence what's going on?

Since the need for essential work at Paradise Dam was announced on 23 September 2019, Sunwater has held nine community drop-in sessions in Bundaberg, Childers, Wallaville and Gayndah with more planned. We advertise sessions on our website and the Sunwater Facebook and Twitter pages.

A Paradise Dam Community Reference Group began meeting on 31 October 2019 with Major General Richard Wilson (Retd) as Independent Chair. Members have been drawn from across the region as representative of downstream residents, local government, customers and environmental groups.

#### Meet the Chair

Major General Richard (Dick) Wilson has served as the Chair of the Queensland Reconstruction Board since September 2011.

For the previous 39 years he was an officer in the Australian Regular Army.



**For further information on Paradise Dam:**

**Community** enquiries, contact:

3120 0270 or via [community@sunwater.com.au](mailto:community@sunwater.com.au)

**Customers and non-customers** wishing to access water, contact:

13 15 89 or via [customersupport@sunwater.com.au](mailto:customersupport@sunwater.com.au)

**Media** enquiries, contact:

3120 0047 or via [media@sunwater.com.au](mailto:media@sunwater.com.au)