

## Paradise Dam

### Fact Sheet: Dam Improvement Project - required work

Updated April 2022

#### Background

The Queensland Government has announced that Paradise Dam will be returned to its original full supply height. This decision follows detailed technical investigations which have shown that a combination of strengthening and improvement works will address the identified safety issues.

#### Dam Improvement Project

The full remediation of Paradise Dam is a significant undertaking and will include buttressing with mass concrete, new training walls, extending the existing downstream apron, and raising the secondary spillway. Figure 1 shows the original dam primary spillway profile and how it will change following the improvement works.

The work components for the Paradise Dam Improvement Project (PDIP) are described in Table 1 and shown in Figure 2.

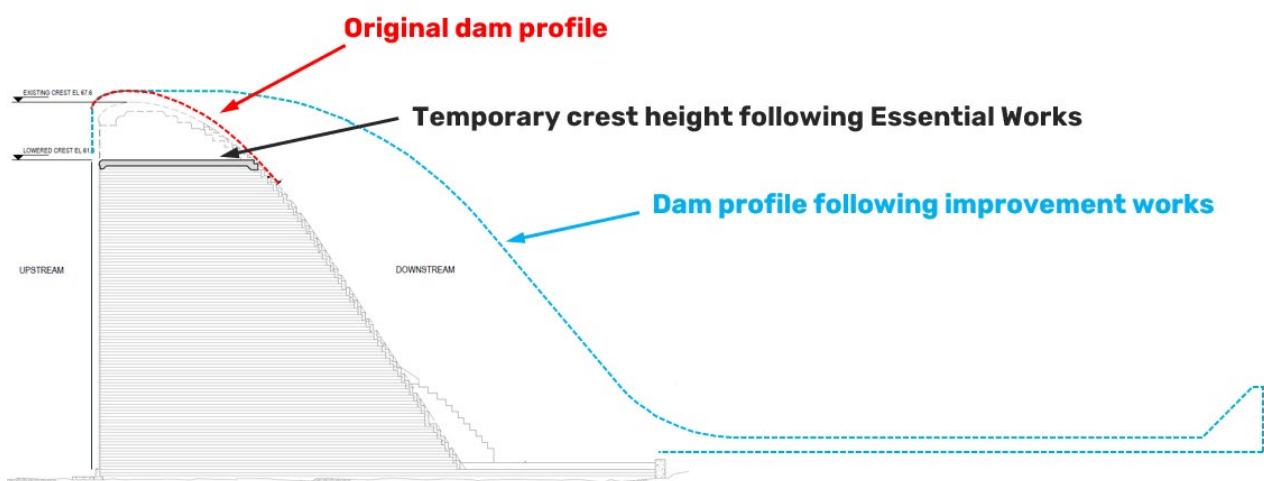


Figure 1 – Paradise Dam – primary spillway profile

Table 1– Paradise Dam Improvement Project works

Work component		Details
1	Raising the primary spillway and adding a new crest	The primary spillway will be returned to its original height (67.6 metres) with a smooth crest
2	Buttressing with mass concrete to widen the base of the dam and increase the wall thickness	This strengthening work is required on the: <ul style="list-style-type: none"> <li>Primary spillway – up to 22 metres</li> <li>Secondary spillway- up to 10 metres</li> <li>Left abutment wall – up to 10 metres</li> </ul>
3	Extending the existing downstream apron	<ul style="list-style-type: none"> <li>A 60-metre extension of the existing apron to protect the downstream riverbed and the dam’s foundations from being damaged by water flowing over the spillway</li> <li>Concrete slab reinforced with up to 3,000 steel anchors installed 11 metres deep into the foundation</li> </ul>
4	Adding new training walls	<ul style="list-style-type: none"> <li>20-25-metre-high training walls either side of the 60 metre downstream apron</li> <li>To prevent recirculation of water and reduce the risk of scour during high flow flood events</li> </ul>
5	Raising and replacing sections of the secondary spillway	<ul style="list-style-type: none"> <li>Remove poor strength foundation soil (that could be eroded in a spill event) and demolish 270 metres of the existing secondary spillway</li> <li>This will require a temporary cofferdam to be built upstream of the secondary spillway</li> <li>Raise the secondary spillway by five (5) metres to reduce spill frequency</li> <li>Buttress with mass concrete (as noted in item 2 above)</li> <li>New 15-metre-wide apron below the secondary spillway, with a piled cut-off wall to stop scour</li> </ul>
6	Improvements to the left abutment	<ul style="list-style-type: none"> <li>Buttress with mass concrete (as noted in item 2 above)</li> <li>New 15-metre-wide apron with a piled cut-off wall</li> </ul>
7	Improvements to the intake tower and dam outlet conduits	<ul style="list-style-type: none"> <li>Structural deficiencies and operational restrictions to be addressed to provide for ongoing release of water for customer use and environmental flows</li> </ul>

Post-tensioned anchors may also be required in discrete locations where downstream buttressing isn’t practical, e.g., near the outlet works.

It is important to note that final details of all work components will be refined with ongoing design development and finalisation of construction processes.

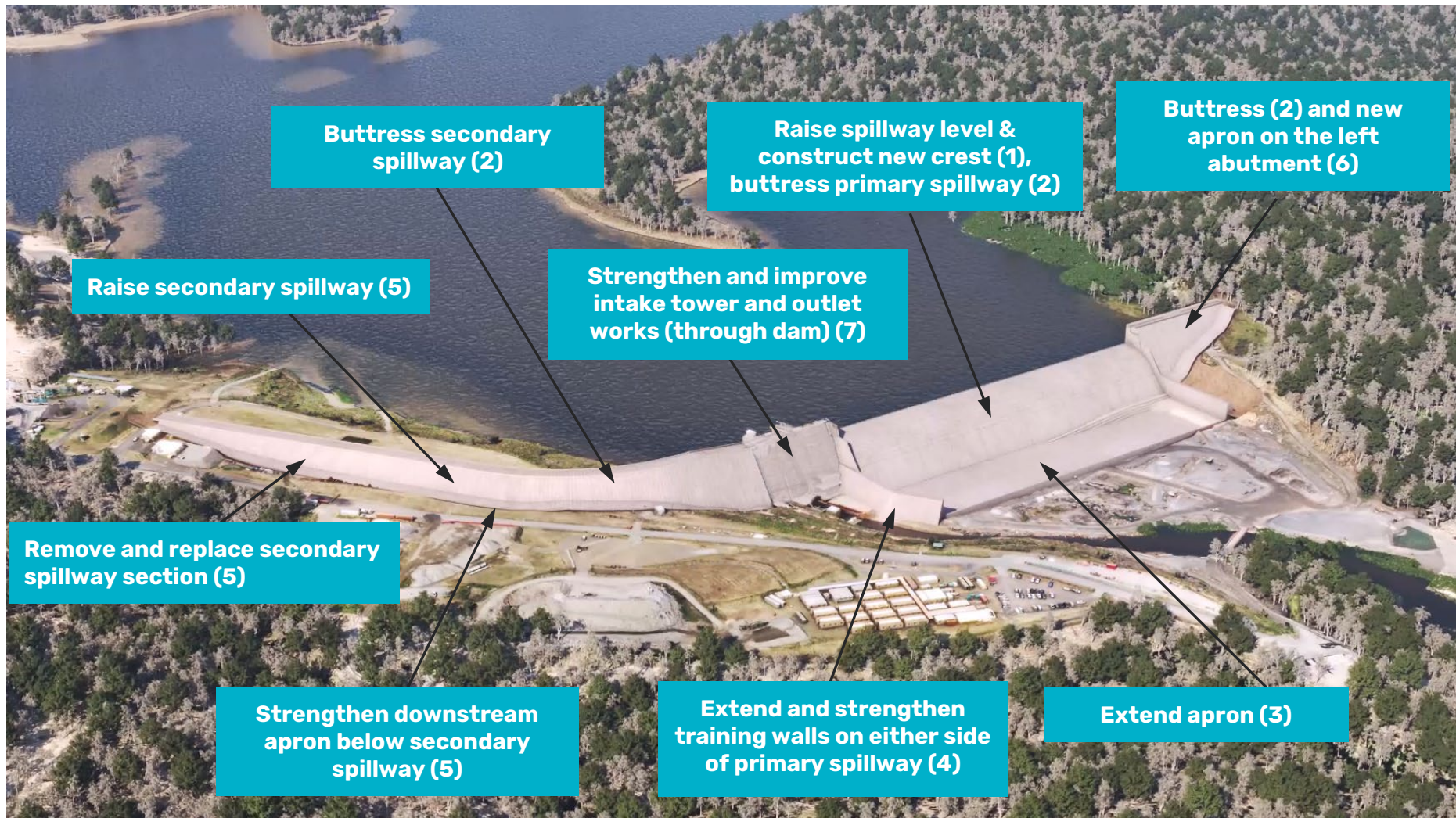


Figure 2– Impression of Paradise Dam Improvement Project work components (numbers in brackets correspond with items in Table 1)

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## Project timeline

The next stage of the project includes:

- progressing design
- environmental and planning approvals
- procurement activities necessary before construction can commence – including early contractor engagement

In February 2022, the Queensland and Australian Governments each announced a commitment of \$600 million, a total of \$1.2 billion, towards the Paradise Dam Improvement Project.

The following early works are expected to commence in 2023:

Early works	Details
Material sourcing and investigations	<ul style="list-style-type: none"><li>• Critical due to the large volumes of concrete required</li><li>• The project will require approximately 370,000 cubic metres of concrete – over 90 per cent of the amount used to originally build the dam</li></ul>
Road upgrades	<ul style="list-style-type: none"><li>• Major haul roads – upgrades required to transport significant materials – e.g., pavement strengthening</li><li>• Local roads – upgrades required for increased general traffic movements – e.g., safety improvements</li></ul>
Planning for a workers accommodation camp	<ul style="list-style-type: none"><li>• Up to 250 workers are anticipated to be accommodated across the PDIP project</li></ul>

Major construction activities are anticipated to commence in 2024. A detailed project schedule and construction methodology will be developed in collaboration with construction proponents.

## Stakeholder engagement

Sunwater is committed to ongoing engagement with our customers and the broader community to ensure transparency during the works at Paradise Dam. We will continue to share updates as the work progresses with a dedicated Community Reference Group and Paradise Dam Industry Forum that include representatives from local government, peak bodies, customers, and downstream residents. Information is also regularly shared on Sunwater’s Paradise Dam Facebook [page](#) and the project webpages on the [Sunwater website](#).

## Questions?

Please contact us on 3120 0270 or [paradise.dam@sunwater.com.au](mailto:paradise.dam@sunwater.com.au) with any questions about this project. For general enquiries, please contact customer support by phone on 13 15 89 or live chat via [sunwater.com.au](https://www.sunwater.com.au), Monday–Friday 8.30am–4.30pm.