sunwater

Project overview
September 2024

Burdekin Falls Dam Raising and Improvement project

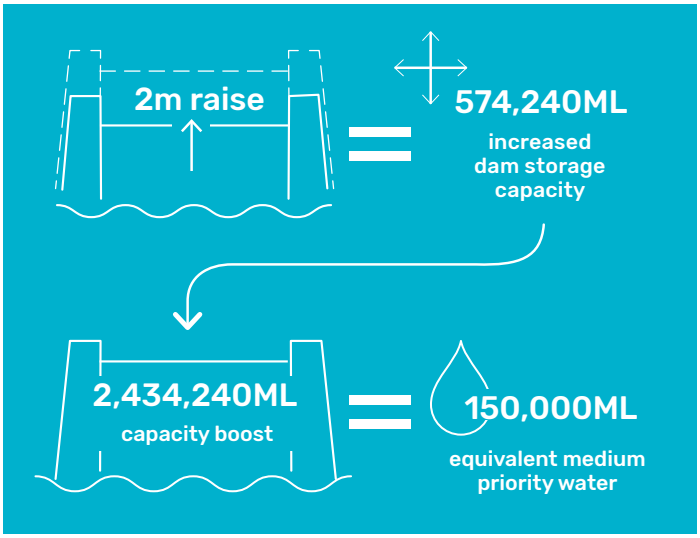
A two-metre raise of Burdekin Falls Dam will deliver increased water security, meet future water demand and provide considerable long-term benefits to North Queensland.

Background

Sunwater is planning for a two-metre raise of Queensland's largest dam, alongside safety improvements to increase the water supply and long-term viability.

The work includes raising the spillway and abutments using concrete buttressing, raising and widening the saddle dams, and constructing a new saddle dam on the right bank.

The two-metre raise will increase the dam's storage capacity by 574,240 megalitres, boosting capacity to an estimated 2,434,240 megalitres. It would also provide approximately 150,000 megalitres equivalent of medium priority water per annum.



Burdekin Falls Dam spilling

Why two metres?

An independent assessment demonstrated that projected water demand from the dam may exceed current availability by 2031 and that a raising of two metres would address this future need. The assessment also found that raising beyond this height is not cost-effective.

A two-metre raise is the most efficient option to ensure the water security needed to cater for future agriculture, industry and urban water demands. This also considers growing demand from the emerging hydrogen industry.

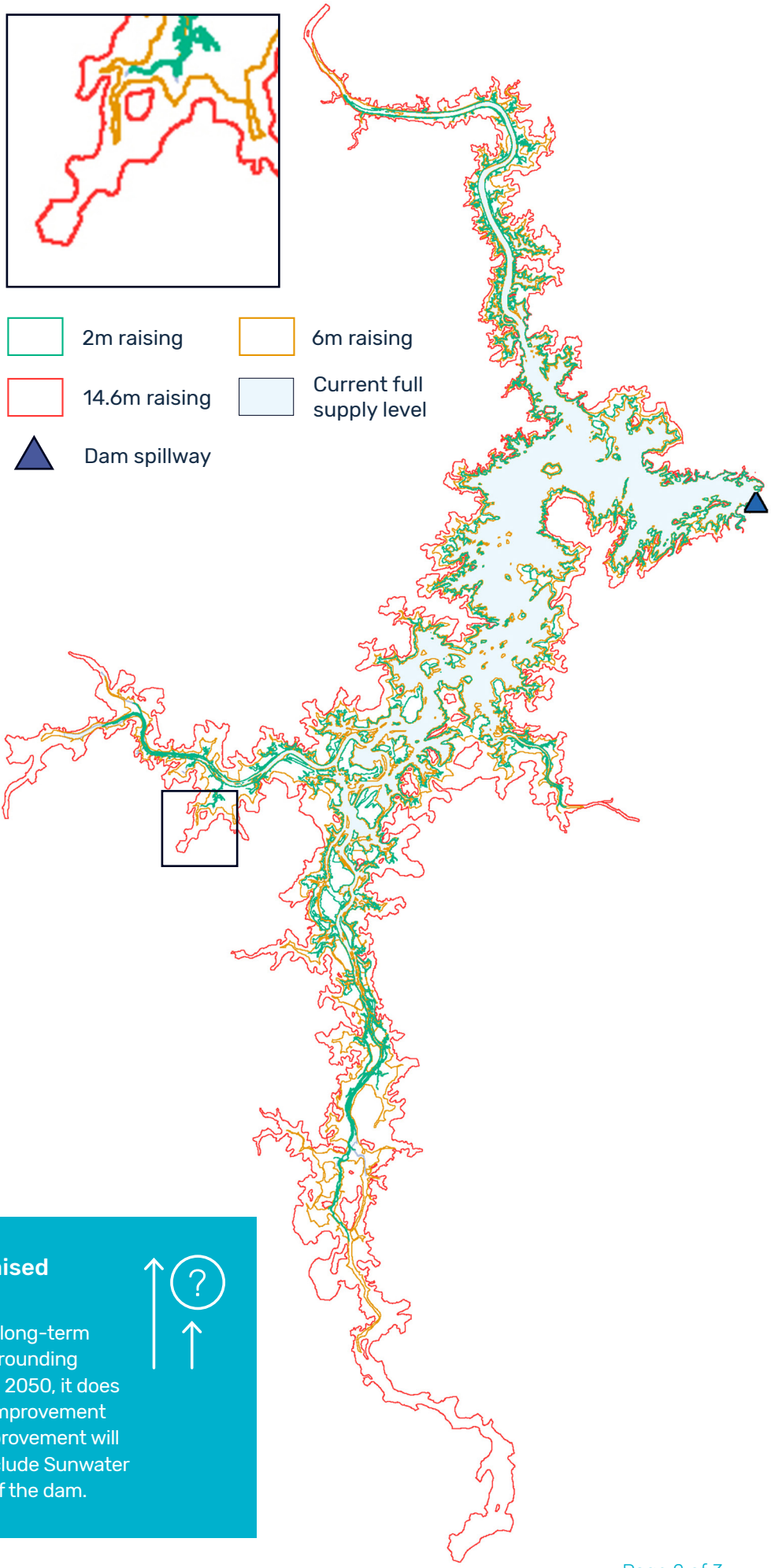
A two-metre raise will also ensure the dam continues to pass flood waters safely and complies with modern design standards and guidelines.

Sunwater owns more than 98 per cent of the additional land required for a two-metre raise at full supply level. It would also ensure environmental flows are maintained, and unlike the other height options, is in line with the strategic reserve volume currently allocated with the Burdekin Basin Water Plan.

A preliminary assessment of 14.6 and six metre raising options concluded there would be significant negative environmental and cultural heritage impacts due to the large inundation areas.

A 14.6 metre raising option is not pursued, and would inundate a further 69,607 hectares of land, excluding all alternative land uses. This large inundation area would also result in numerous impacts to cultural heritage, remnant vegetation, threatened ecological communities and fauna habitat.

Burdekin Falls Dam flood map dam height inundation comparison



Can the height of the dam be raised further in the future?

While the two-metre raise will meet the long-term water demands in the Burdekin and surrounding regions under all scenarios until at least 2050, it does not prohibit additional raising or other improvement projects in the future. The raise and improvement will be designed in a way that does not preclude Sunwater being able to undertake future raising of the dam.

31%

Increase the dam's storage capacity by approximately **574,240 megalitres, or 31 per cent**

Increase the yield of medium priority water from **150,000 megalitres** per annum

Support the region's **agriculture, aquaculture, mining, and energy industries**

Help manage the risks of **climate variability and climate change**

Provide **significant economic benefits** to the Burdekin and surrounding region during and after project construction

Project update – September 2024

The next stage of planning for the project includes progressing design, collecting detailed geotechnical information, undertaking cultural heritage surveys, and procurement planning activities.

Sunwater is undertaking an Environmental Impact Statement and has submitted a draft for adequacy review to the Office of the Coordinator General.

Sunwater is continuing to engage directly with the community, landholders and Traditional Owners to ensure local interests and expectations are considered and managed during project activities.

Project timeline

- Detailed Business Case
- Cultural heritage
- Environmental Impact Statement (EIS) process
- Government funding and approvals
- Major construction
- Raising option supported
- Concept design
- Enabling works
- Alliance establishment and procurement
- Commissioning and ongoing operations

Contact us

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