

Paradise Dam

Fact Sheet: Alternative storages assessment findings

March 2022

Introduction

The Queensland Government has announced that Paradise Dam will be returned to its original height. As such, alternative storages will not be required to meet water demand out to 2050. This Fact Sheet provides information about the alternative supply options that were examined as part of the evaluation of options for Paradise Dam. More information is available in the Paradise Dam Improvement Project [Options Evaluation Report](#).

Identifying alternative storage options

The Paradise Dam Industry Forum Working Group 3 was established to allow irrigators to assist in the identification and assessment of alternative storage options. The group met eight times from May 2020 to February 2021. Information about the PDIF membership is available [here](#).

The working group was asked to identify possible alternative storage locations noting the lowering options considered in the Options Evaluation:

- A 5-metre lowering – under this scenario it is expected medium priority allocations in the Burnett River sub-scheme would be reduced by approximately 47,000 megalitres (ML).
- Up to a 10-metre lowering – under this scenario it is expected medium priority allocations in the Burnett River sub-scheme would be reduced by up to approximately 96,000 ML.

A list of options was workshopped in consultation with the group and seven alternative storage options were identified for further assessment:

- Ned Churchward Weir Raise
- Bucca Weir Raise
- Degilbo Creek Dam
- Perry River Dam
- Offstream Storage – ring tank GV01
- Offstream Storage – gully dam BS01
- Offstream Storage – gully dam NS03.

The location of each option is shown in Figure 1 (note, option numbers do not represent priority).

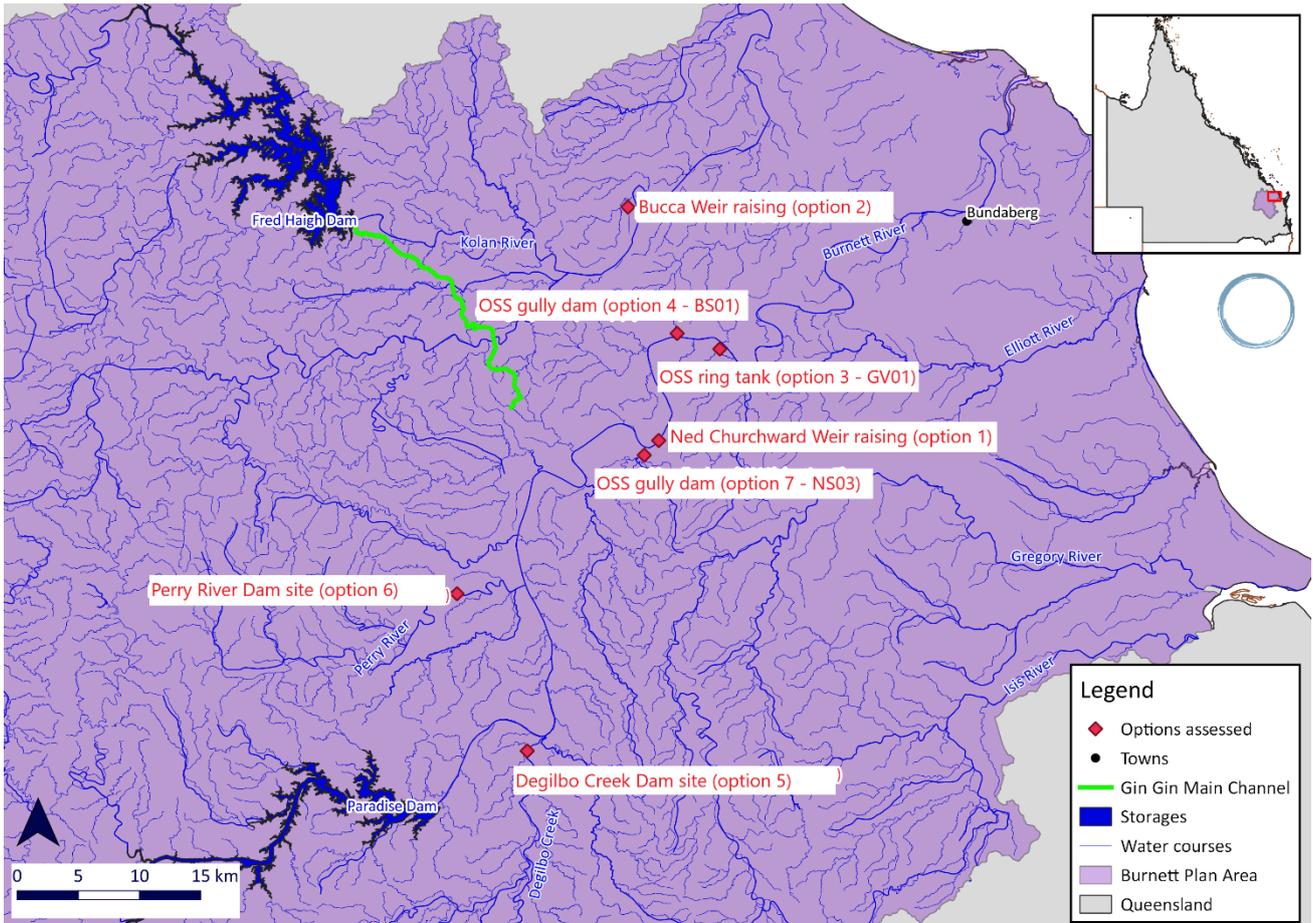


Figure 1 – Alternative Storage Options

The options were assessed against:

- outcomes from hydrological modelling to determine yield
- technical complexity, concept designs and capital costs
- water planning implications
- potential environmental and social impacts.

As Perry River Dam was requested for inclusion by the working group after the initial shortlisting, the assessment of this option focussed on environmental and hydrological considerations. For comparative purposes, cost estimates from Degilbo Creek Dam were adopted for this option, given the similarities in dam type and sizing.

Table 1 shows a comparison of the alternative storage options.

Table 1 – Comparison of Alternative Storage Options

Category	Option	Potential Medium Priority Yield (ML/annum)	Potential Development Timeframe (Years)	Relative Capital Cost (\$/ML)	Initial Environmental Risk Assessment
Raising options	Ned Churchward Weir	10,000	4.5	\$	High
	Bucca Weir	3,000	4	\$\$\$	Medium
New dam	Degilbo Creek Dam	52,000	8	\$	High
	Perry River Dam	35,000	8	\$\$	High
Offstream storages	BS01 (Gully Type)	4,000	4	\$\$	Medium
	GV01 (Ring Type)	3,000	4	\$\$\$	Low
	NS03 (Gully Type)	10,000	5.5	\$\$	High

Conclusions

The assessment of options concluded that:

- From an environmental perspective, the degree of impact increases with the size of the storage and the associated inundation area.
- Ned Churchward Weir raise and Degilbo Creek Dam offer the best cost per yield (\$/ML) ratio.
- In a scenario where Paradise Dam is permanently lowered by 5 metres, Ned Churchward Weir raise could offset the lost yield as a minimum solution for the evaluation period out to 2050.
- In a scenario where Paradise Dam is permanently lowered by 10 metres, Ned Churchward Weir raise and Degilbo Creek Dam could offset the lost yield.

If any of these options were to have been pursued, further work would have been required to consider how climate change may have impacted on yield over time.

These conclusions were used to evaluate the options considered in the Options Evaluation for the Paradise Dam Improvement Project which led to the recommendation that Paradise Dam be returned to its original height.

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 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.