

South Para Dam Safety Upgrade

Client

SA Water

Location

Williamstown, SA

Procurement

ECl from Panel

Engagement

AS2124 Construct Only

Contract Value

\$5.7 million

Duration

August 2011 to June 2012

Project Description

SAWater's objectives for this project were to reduce the risk of embankment failure during a flood or earthquake, increase the security of the water supply, improve safety for those residing below the dam and to have a further design life for structures of 100 years. This was achieved by constructing the following works.

- Excavate a section of the embankment between the top berm and the crest.
- Construct a sand filter from the existing top berm to the crest level of the embankment.
- Raise the crest level of the embankment by raising the embankment fill, combined with a concrete parapet wall.
- Extension of the clay core at the left and right abutments.
- Relocation of crest services.
- Partial hydro-demolition of the existing of ogee crest to enable the raising of the crest profile over the entire width of the spillway save for the 10m central section inclusive of "active concrete cooling" of the ogee concrete mass.
- Excavation of a cutoff trench at the upstream extent of the new spillway crest.
- Installation of rock anchors in the cutoff trench.
- Construction of a debris catcher for the spillway.



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