Little Para Dam Safety Upgrade

Client: SA Water
Location: One Tree Hill
Procurement: ECI & Direct Negotiation
Engagement: AS2124 Construct Only
Contract Value: $7.5 million
Duration: May 2008 to April 2010

The concrete faced rock-filled dam was over 25 years old and had performed adequately, however, it did not comply with the Australian National Committee on Large Dams (ANCOLD) guidelines in respect to flood capacity. To reduce the risk posed by the dam and ensure that it complied with current ANCOLD guidelines the following works were constructed:

- An additional 52m wide auxiliary spillway to operate when storm flows exceed the current spillway capacity of 410m³/sec.
- 310,000m³ excavation in rock material by blasting and crushing for high end reuse applications.
- Temporary lowering of the earth fill on the existing crest to facilitate offsite spoil removal and subsequent raising of the crest with reinforced concrete and earth backfill.
- Extension of the existing grout filled curtain beneath the new auxiliary spillway.
- Rock anchors to negate structure uplift resulting from water backpressures.
- New spillway fusegate system.
- Fire access tracks and internal maintenance road upgrades.