



BLOWERING DAM SAFETY UPGRADE GROUND ANCHORS & SPILLWAY STRENGTHENING

NEW SOUTH WALES, AUSTRALIA



STEEP TERRAIN CONSTRUCTION & TECHNICAL PERMANENT RE-STRESSABLE GROUND ANCHORS

PROJECT OVERVIEW:

Owned and operated by State Water Corp, Blowering Dam is the 6th largest embankment dam and 9th highest in Australia. The main construction works completed by MacMahon's consisted of a parapet wall on top of the dam wall crest and raising the spillway training walls.

SOLUTION:

Geovert completed several packages of work during the safety upgrade firstly installing rock bolts for the spillway strengthening and widening and secondly post tensioned anchors through the crest and new wing walls. Works on the 45° slopes and spillway required roped access and winches to complete the drilling safely in freezing temperatures during the winter to over 45° heat in the summer months.

Permanent post tensioned anchors were installed through the crest towards the end of the project to depths of 30m and consisted of 19No. 15.2mm strands. Precision drilling was required along with meter by meter video surveillance of the drilling holes prior to the pre-grouting process. Anchors were

tested and locked off with re-stressable heads to allow for continued monitoring of their performance on State Water's asset.

The work on the crest wall and spillway was proven to be successful immediately after the completion of the works to raise the crest as the region experienced severe rainfall in December 2010 resulting in the dam exceeding its capacity.

Services related to this project

- Rock Bolting
- Post Tensioned Ground Anchors
- Injection Grouting

More information is available online at www.geovert.com