

AWOONGA DAM, QLD

FOUNDATION DRILLING AND GROUTING



Sustainable Technology



Contractor: Thiess Contractors
Specialist Contractor: Austress Menard Pty Ltd

Client: Awoonga Alliance

THE PROJECT

The Gladstone area located in Central Queensland is a world recognised location for the establishment of internationally competitive process industries, and has the identified potential to support a range of new manufacturing and process industries. The availability of a reliable water supply is an essential criteria considered by potential industries when assessing the suitability of the region for establishment. Water plays an essential role in the future development in the region.

With the only water source in the region being the Awoonga Dam on the Boyne River, alternative water sources such as recycling, desalination and feeder dams were all investigated as part of studies undertaken for the EIS and State Government approval. The studies concluded that the raising of Awoonga Dam was the most feasible option to supply Gladstone's need for water.

An Alliance was established by the Gladstone Area Water Board to design and construct the \$106 Million raising of the Awoonga Dam on the Boyne River, including the relocation of the Gladstone Monto Road, local access roads, rail, power and telecommunications in the Boyne Valley. The Alliance comprised the Gladstone Area Water Board, PPK and Environmental Consultants, Sunwater and Thiess Contractors.

AUSTRESS MENARD'S ROLE

Austress was awarded the subcontract by the Awoonga Alliance for the foundation grouting works associated with the dam raising. Drilling, water testing and a combination of up-stage and downstage grouting techniques were completed using a hydraulic drill rig and hydraulic powered grout stations.

Access at each of the abutments was very limited and very steep, hence all drilling operations were performed with the drilling equipment supported on air winches. Grouting was also required across the top of the existing spillway and all drilling and grouting equipment was lowered into position using large cranes.

The specialised foundation grouting works were successfully staged over a six month period and when completed in November 2001, a total of 4,000m of drilling, approximately 400 hookups and in excess of 50 tonnes of cement had been completed and injected into the works. The project was completed in a timely and cost efficient manner with the Alliance approach being successfully implemented.

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