

HARRIS RIVER DAM

CEMENT BENTONITE SLURRY WALL & GROUTING



Water Corporation

Specialist Contractor: GFWA

THE PROJECT

The Harris Dam, located 12 km north of Collie, was opened to supply high quality drinking water to the Great Southern region. Before the dam was built, these communities were served by the Wellington Dam on the Collie. It is the second largest dam in the South West, after Wellington Dam, and holds 72 million cubic metres of water.

The earth dam is made of compacted clay and has taken two years to construct. The ground consisted of alluvium and residuals soils that could not retain the water as required; hence as part of this project it was required to construct a cut-off wall to mitigate water ingress.

THE ROLE OF GFWA

GFWA was awarded the contract for constructing the impervious plastic barrier below the proposed dam. This was the first time that such a wall was to be built in Western Australia.

The overall length of the cut-off wall was 475 m.

The trench was excavated to depths as great as 27 m using a grab which was subsequently followed by a chisel to key into bedrock. Stability of the open trench was provided by a cement, bentonite and water slurry.

The rock strata itself was grouted to depths of 60 m below the ground surface. More than 800 holes were drilled for the grouting works, and the total length of drilled holes in the overburden and rock exceeded 15,000 m.