



CIVIL CONTRACTORS FEDERATION
EARTH AWARDS

ROWALLAN DAM

Embankment Works

Date: 2015

Principal: **Hydro Tasmania**

Project Value: **\$6.34M**



TASK

Rowallan Dam is situated in a remote area of Tasmania in an area of high rainfall and compounds the headwaters on the Mersey Forth Power Scheme.

The main parts of the project were:

- Construction of dual filter zones downstream of the dam core at the spillway walls
- Raising of the earth fill core to crest level and provision of dual filters from crest level to a depth of 7m across the entire dam crest
- Supply, production and processing of all construction material on the project

CHALLENGES

Construction of dual filter zones downstream of the dam core at the spillway walls:

- Installation of a sheet piled wall keyed into the upstream toe of the earthfill core
- Open excavation up to depths of 14m at each spillway wall
- Trench excavation in the base of excavation, clean up of foundation and backfilling

Raising of the earth fill core to crest level and provision of dual filters from crest level to a depth of 7m across the entire dam crest:

- Removal and reinstatement of intake tower access bridge
- Open Excavation into the dam crest and downstream shoulder to a depth of 5.9m exposing the fill width of the earth core and downstream filters
- Excavation of the filter trench a further 1.2m depth and backfill with a dual filter
- Backfill of the open excavation

Supply, production and processing of all construction material on the project:

- Zone 1 Earth fill core was produced both from the existing core material and on site borrow pits. Both materials required screening and processing to ensure correct grade and moisture
- Zone 2A & 2B Fine filters were sourced from external quarries and had tight specifications. Materials delivery and testing had to be tightly controlled

CHALLENGES Cont'd ...

- Zone 2C Coarse Filters were sourced, processed and conditioned on site to minimise the import of material
- Zone 3 Rock fill was sourced from excavation in the existing dam wall and supplemented from onsite borrow pits

OUTCOMES

Works were completed on time meeting all contractual handover dates.

Works were carried out over a period of 8 months with 4 crews working a 24/7 roster on works at the spillway wall. Over 32,500 man hours were worked on the project with no LTI's.

In excess of 450 individual soil tests were carried out by Shaw to ensure material supply and placement compliance in line with the specification.

No significant environmental incidents were recorded on the project.