

# Logue Brook Dam Spillway Remedial Works



Value \$9.2M



Works completed as Watpac Civil & Mining

**Director's involvement – Tim Malseed – Operations Manager/Pete Hancock – Project Manager**

## FACTS

|                 |                         |                   |                         |
|-----------------|-------------------------|-------------------|-------------------------|
| <b>Client</b>   | Water Corporation of WA | <b>Division</b>   | Civil and Mining        |
| <b>Contract</b> | Schedule of Rates       | <b>Market</b>     | Dams and Storage Basins |
| <b>Location</b> | Harvey, WA              | <b>Commenced</b>  | October 2014            |
|                 |                         | <b>Completion</b> | September 2015          |

## PROJECT OVERVIEW

The works involved demolition of an existing concrete spillway and bridge and the replacement with new structures. The works included:

- Clearing for the Works
- Demolition of existing spillway crest, approach channel, side channel, spillway chute and spillway discharge channel
- Demolition of existing energy dissipator
- Excavating asphalt road surface and excavation for approach road on right abutment, fill from the dam crest, rip rap from the upstream side of the embankment and earth fill from the downstream face of the embankment
- Construction of a new spillway including
  - approach channel, ogee crest, abutment walls, approach walls and approach floor
  - Construction of new spillway bridge
  - Blasting of insitu rock within proposed spillway stilling basin and outlet to existing stream bed;
  - Construction of new stilling basin
  - Construction and maintenance of coffer dam; operate and maintain the diversion works
  - Reconstruction of dam crest, upstream and downstream sides of the embankment
  - Construction of associated roadwork
  - Site restoration and rehabilitation
  - Soil conservation works

## SPECIFICATIONS

- 65,000m<sup>3</sup> of bulk excavations
- 4,500m<sup>3</sup> of drill and blasted material
- 5,000m<sup>2</sup> Foundation preparation
- 3,500m<sup>3</sup> of conditioned, placed and compacted Zone 1A clay
- 900 of Zones 2A, 2B and 3A filter layers placed and compacted 600 of Zone 3B rock fill placed
- Construction of 2,700m<sup>3</sup> of Structural concrete and bridge abutments
- Installation of a new Tee-roff bridge
- Anchor bar installation
- Underdrainage installation
- Bidim geotextile installation
- Stormwater drainage installation
- 2,000m<sup>2</sup> of pavement and 2 coat seal to Main Roads WA specifications
- Asphalt installation on Bridge deck