

MUNDARING WATER TREATMENT PLANT

Amec Services / Brookfield Multiplex E & I

Location

Mundaring, WA

Commencement

Dec 2011

Completion

Dec 2012

Project Value

\$5.7 million

Client

Amec Services / BM E&I



Zero Harm

The project is 100% complete and there have been no lost time injuries.

LTIs: 0

MTIs: 0

Overview

The Mundaring Waste Water Treatment Plant is located in the Perth Eastern town of Mundaring. The plant was scheduled to commence operating in 2013.

The plant treats dam water to an acceptable drinking quality level and supplies many people including Kalgoorlie.

Contract Supervision

The project was managed by Amec Services & Brookfield Multiplex with Cobey as Subcontractor.

Scope

Cobey was awarded the contract for the below ground piping installation and above ground piping fabrication at the treatment plant.

The works required were:

- Below ground DN1200 MSCL Flocc inlet pipeline
- Dual DN1000 MSCL plant inlet pipelines
- Below ground DN1000 HDPE waste/scour lines
- Clear Water Pump Station DN1750 MSCL suction and DN1400 MSCL discharge manifolds.
- Above Ground DN800 HDPE pump station C bypass pipeline
- Valve installations
- Above ground MSCL pipe fitting fabrication for others to install.

Project challenges

Main Contractor's construction program was delayed substantially by incomplete earthworks. This required Cobey to work with many subcontractors on site at any time including earthworks and concrete contractors. Cobey was required to liaise and cooperate with other works.

With lengthy delays, numerous contractors on site and conflicting construction programs in place, Cobey were forced to re-sequence works on a regular basis as required by the client.

Compaction specifications for trench backfill meant that spoil could not be compacted easily.

Interface with other contractors posed significant challenges with site storage, deliveries and construction of pipelines.

Managing the challenge

On such a confined site with restrictions to working areas, Cobey attended regular meetings with the client and other contractors to ensure the best outcome for the project.

We re-worked the construction program to accommodate numerous design changes and re-sequenced our works based on delays and site access & availability. Resource levels fluctuated regularly.

Excavated spoil had to be treated before it was compliant for backfilling of trenches. This delayed pipeline construction. Cobey accelerated progress by applying additional resources to complete the works to a point where earthworks were causing delays to Cobey.

Communication was vital to ensuring deliveries and construction could progress on site.

Adding Value

We added significant value by pro-active approaches to site works including altering the construction programme to suit other site works, design changes and project delays.

Cobey also worked closely with the Client on the many changes to design. This resulted in fast tracked solutions to design clashes saving time and money.

Cobey fabricated all MSCL & HDPE fittings offsite and combined with flanges & other bends to reduce site installation time.

Cobey's knowledge and employees trained in Water Corporation Confined Space Entry, Mechanical and Welding standards meant work was carried out safely & correctly the first time.

