

# YANCHEP WATER DISTRIBUTION MAIN

Yanchep Beach Estates / Water Corporation

## Location

Yanchep, WA

## Commencement

Dec 2010

## Completion

Mar 2011

## Contract Value

\$0.69 million

## Client

Yanchep Beach Estates



## Zero Harm

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

**LTIs:** 0

**MTIs:** 0

## Overview

The Yanchep Water Distribution Main is located along Marmion Ave at Yanchep in the northern suburbs of Perth. The project, which consisted of DN600 MSCL and DN355 HDPE pipelines, enables new subdivision development to proceed to cater for Perth's growing population.

## Contract Supervision

The contract was managed by a Design Consultant with Cobey as Main Contractor.

## Scope

Cobey was awarded the contract to construct 580m of DN600 welded joint MSCL and 280m of DN355 HDPE pipe to be installed below ground.

The works required were:

- Locate/Protect existing services
- HV Power Supervision
- Excavation & Backfill works
- Rock Excavation
- Directional Drilling in rock
- Importing of suitable fill
- Pipe handling & installation
- Supply of MSCL pipe fittings
- Cathodic Protection Provisions
- Site welding of MSCL & HDPE
- Traffic Management
- Hydrostatic Pressure Testing
- Pipe Disinfection
- Full site reinstatement

## Project challenges

The original alignment of the new water main was designed between existing communications and HV power. Upon award Cobey located the HV power and found that its alignment and depth varied making the water main installation & future maintenance unsafe.

Hard rock was expected and was found in almost all areas along the pipeline route.

The DN600 MSCL section of this pipeline was to be supplied as rubber ring joint, but weld restraint pipe was received.

Traffic flows had to be maintained whilst constructing the pipeline and road crossings were required to be bored in hard rock.

### Managing the challenge

We managed the job successfully working with the Design Consultant and Water Corporation by providing quick and efficient responses to changes.

Together with the Design Consultant and Water Corporation, Cobey implemented a solution to the existing HV power alignment changes. Cobey was able to install the new water main by shifting the alignment of the water main between an existing DN1200 sewer main and the HV power.

Cobey ensured rock would not be a threat to the completion date by ensuring adequate sized excavators were mobilised with suitable attachments used.

Experienced in rubber ring and welded joint pipelines, Cobey quickly mobilised our Welders to site and completed the pipeline without delay.

A traffic management plan was developed for the site and directional drilling of HDPE carried out with adequate rock drilling heads.

### Adding Value

We added significant value by pro-active approaches to site changes.

Cobey are vastly experienced in trenching around existing services and carried out the works without damage.

MSCL fittings were fabricated by Cobey's at their workshop and combined with valves or other combination bends and transported to site. This maximised workshop fabrication and minimised site welding, reducing time and safety risks.

Having qualified Welders in house allowed Cobey to begin welding of the weld restraint pipe immediately.

