



1 Pipe connections. 2 Lengths of pipe sectioned off. 3 Inside the treatment plant with incoming and outgoing pipes.

## OROPi ROAD - ASB PIPE REPLACEMENT

Harrison Grierson for Tauranga City Council

Project Location: Tauranga



Following a catastrophic piping failure, Tauranga City Council commissioned Harrison Grierson to design the upgrade for the Clean In Place (CIP) pipework for the Oropi Road Water Treatment Plant.

A complete pipe network replacement was required as there had also been several chemical solution leaks. This was a major challenge as any pipework installation had to be completed with a fully operational plant.

Our brief was to design and replace the currently leaking and defective pipework without affecting plant operations.

We were also responsible for project management, acting in the role of Engineer to Contract. We completed the design, tender specification, contractor selection, quality inspections, Safety in Design (SiD) and HAZOP workshops required for the upgrade.

A complex element to be factored into the design was the use of highly corrosive chemicals, including heated acids, which are periodically carried in the CIP piping network. This impacted project management, risk management and Health and Safety considerations associated with these substances, as well as implementing the design solution under a fully operational plant.

Adopting a design and procurement approach not generally used in the water industry, we selected a highly competent contractor, Page MacRae, based on proven track record and capability. This was a key factor in the success of the construction phase, which involved replacing the existing pipework with stainless steel pipework to a power plant pipework design and installation standard.

The project came in under budget and was delivered ahead of schedule.

### Judging & Copyright Statement

This project is an entrant in the 2016 INNOVATE NZ Awards of Excellence competition. The winners will be celebrated at our Awards Gala Dinner on Saturday, 12th August 2017 in Taupo.

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