

Project: McKays Creek Flume Replacement

Client: TrustPower Limited

Location: West Coast

Date: 2007

The McKays Creek power station, located on the West Coast, was originally commissioned in 1931 with water being diverted from the Kaniere River through 3.3km of open race, 500m of tunnel and 300m of flume to a small power station generating 1.1MW of electricity.

The Problem

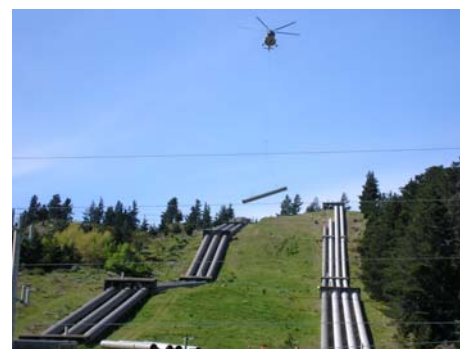
The recent need for an upgrade highlighted the fact that the existing 220m wooden trestle flume, crossing Blue Bottle Creek, was unable to pass consented flow of $5\text{m}^3/\text{s}$. The flume had also become a safety hazard.

The Solution

Coleridge power station had recently decommissioned several penstock lines and therefore, in order to minimise costs, it was decided to utilise this pipework to upgrade the McKays Creek scheme.

The 1.23m riveted steel pipe sections were removed from the steep Coleridge penstock slope by helicopter before being transported over the Alps to the new site.

The McKays Creek syphon was constructed in early 2007 with pipes laid in parallel to achieve the required flow. Despite a number of technical challenges involved with the welding of a 95 year old penstock the reconstruction has proved successful with generation increased by 25 per cent.



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