Project

Design of the main highlift pumpstation at Tsomo WTW, the Jojweni Booster pumpstation and the rising main from Tsomo WTW.

Location

Tsomo
Eastern Cape
South Africa

Client

Maluti GSM Engineers (Main Consultant)
Chris Hani District Municipality

Project Manager

David Still with Matthew Holmes and Jon Kirkman

Project Value

R 20 million

Date Completed

2018

Brief Description

The Tsomo Water Project is a regional scheme serving the town of Tsomo as well as a large number of villages in the region. The Jojweni Booster pumpstation has a capacity of 230 m³/hr, pumped to a head of 220m. The main Tsomo pumpstation has a capacity of 388 m³/hr and pumps a head of 260 m via a 350 mm ductile iron pipe.

An unusual feature of both pumpstation designs was the use of flywheels instead of pressure vessels for the reduction of surge pressures on pump shutdown. Flywheels are a robust solution which, unlike surge vessels, cannot be incorrectly set up or bypassed.