



Project Sheet

Johannesburg PRV Maintenance and Zone Sectorising

LOCATION: Johannesburg, South Africa

CUSTOMER: Johannesburg Water

Postal Address: P.O. Box 61542, Marshalltown, 2107

Contact Persons: Ms Mbalie Matiwane, Manager: Physical Losses Operations Department

Tel: +27 (11) 688 1422, Fax: +27(11) 688 1524, Cell: +27 (0) 79 494 3020

Email: mbalie.matiwane@jwater.co.za

STATUS: Ongoing January 2013 - to November 2015

OBJECTIVE: Re-commissioning PRVs together with sectorising pressure management zones

DESCRIPTION

The project involved the following tasks:

- Assessment of 764 hydraulic control valves and servicing of 542 of those in the Johannesburg Water system. The servicing included replacement of defective parts and replacing some control valves.
- Logging of Pressures and Flows in each PRV zone before and after the servicing of PRVs. GSM loggers were used and the logging results were displayed on a web-based data acquisition system (Zednet).
- Confirming the zones discreteness for 267 PRV zones. This task involved checking each boundary valve, assessing the logging results and in some cases pressure drop tests to confirm discreteness.
- Installation of pressure controllers at selected PRVs
- Preparation of an Operation and Maintenance Manual for each PRV zone. The O&M manual includes information on the control valves and settings, logging results, boundary valves, locality map, operation and maintenance steps and conclusions and recommendations.
- A web-based database was prepared for the project to manage and store all the information used on the project. The database was also programmed to develop the Operation and Maintenance Manuals and various other summary spreadsheets.

RESULTS

Total savings achieved to date is 12.7 million kl/a

