



Project Sheet

Ekurhuleni Metro Top 500 Meter Consolidation Project

LOCATION: Ekurhuleni Metropolitan Municipality, Gauteng, South Africa.

PROJECT TITLE: Ekurhuleni Metro Water Loss Project

CUSTOMER: Ekurhuleni Metropolitan Municipality (EMM), Mr Andries Kruger, Tel 082-3344056, Revenue Services, Boksburg Civic Centre, C/O Trichards Rd and Commissioner St, Boksburg Tel 011 999 5355, Fax 011 917 1318, email Andries.Kruger@ekurhuleni.gov.za, Additional Contact: Johan Vorster 011-999 5684 email: Johan.Vorster@ekurhuleni.gov.za

STATUS: Complete **DURATION:** March 2010 to date.

OBJECTIVE: To consolidate multiple water connections to the top water consumers in Ekurhuleni and verify and correct water account information on the EMM Workflow and Venus Billing systems.

CHALLENGE: EMM is the industrial heartland of South Africa and supplies approximately 314 million m³/annum (860M/day) to 800 000 households and is the fourth largest municipality in the country by population. Metering of the top consumers in EMM has not been a high priority for the metro for many years with the result that many of the supply meters to existing consumers are either broken or unreliable. In addition, many of fire connections to the consumers are not metered due to previous policies and therefore water supplied through these connections is not accounted for. In 2010, EMM launched a campaign to investigate, design and consolidate multiple connections into a single metered supply.

DESCRIPTION

The project includes the following main tasks:

- Identification of top water consumers in EMM
- Engaging with consumers to inform them of the reasons and need for the project.
- Investigating all water supplies to consumer's properties and capturing all information
- Conducting zero pressure tests to confirm that all water connections have been located and can be isolated.
- Conducting a drawdown test on the municipal network adjacent to the property to determine the flow and pressure capacities of the existing network.
- Sizing the new consolidated meter installation through the assessment of fire, domestic and process water requirements, taking the water networks flow and pressure capacities into consideration.
- Designing the consolidation of existing water connections through the installation of short pipe runs on the consumer property and combining fire and domestic reticulations and plugging redundant connections. Compiling the above into coherent design report for approval by EMM
- Supervising the construction of the consolidated meter installation including notifying all affected parties of water outages and locating and testing municipal valves to affect successful shutdowns.
- Commissioning new water meter infrastructure and capturing all information of removed and new meters and compiling into a coherent completion report including "as-built" drawings for the purpose of updating the municipal billing information system.
- Conducting 6 month courtesy visits to all consumers to verify meter operation, clean strainers, determine any problems or consumer complaints, verify meter information is correct on consumer account and repeat zero pressure test.
- Compiling full reports for each consumer with all information from all phases of the project and a report on the savings achieved through the project.

COMMERCIAL CONSIDERATIONS

The project was funded by the EMM. To date the professional fees for the project amount to R 6.5 million. The construction and material cost is approximately R 5.5 million resulting in a total project cost to date of approximately R 12 million.

RESULTS

Benefits to the Municipality - Water, Wastewater and Energy Savings:

Savings achieved through the project are as a result of improved consumer metering and billing, fewer consumer meters to maintain, improved meter installations and improved consumer relations. In some cases consumer billing has increased substantially.

Benefits to the Community:

By improving the management of bulk consumer supply meters, the council is able to improve billing and increase the revenue generated within the organization. This makes funds available to re-invest into other projects to improve water distribution systems and raise the level of service to communities.

