

Client Reference

Municipality Water



Client Background

Each day The Water Department supplies about 880 000 m3 of water to customers. It is the largest department in The Municipality with a staff complement of 4 000, an operating budget of R6.6 billion and a capital budget of R1.5 billion.

Engineering is the maintenance division of The Water Department, tasked to ensure that the facilities and equipment used in water purification, distribution and treatment are in working condition. It is responsible for servicing the water infrastructure in The Municipality, valued at R58 billion. The infrastructure includes over 600 pump stations, 12 potable water and 22 wastewater treatment works.

Key Challenges

- SAP® PM is the ERP system for The Water Department of The Municipality. A lot has changed since its original inception. The Municipality has seen the construction of many new property developments and increased population density resulting in greater demand for water and ultimately a reticulation network is required with as close as possible to zero downtime. This necessitates well maintained physical assets with the up to date Asset Care Plans (ACPs) in place.
- The ACPs that are in place was developed and not kept up to date with new technology and installed equipment. A recent study highlighted that a number of pump stations are only reactively repaired with run to failure methodology.
- By using Asset Care Plan Development (ACPD) it will be possible to establish appropriate maintenance strategies for the pump stations that do not have any formal ACPs.

“Pump stations with no active tactical maintenance plans have been identified. ACP’s are being identified and implemented in accordance to the asset management strategy. Outdated maintenance plans will be identified and improved to align with the asset management strategy.”

Client



Engineering Vision and Mission

Our Vision

- To be your partner in ensuring the reliability of The Water Department infrastructure

Our Mission

- Optimising infrastructure performance and availability through continuous improvement

Tools and Technology

- SAP® and SAP® BI
- Asset Management Improvement Planning
- Asset Management Foundations
- Focused Improvement
- Asset Identification and Verification
- Asset Register Administration
- Work Planning and Control Business Process
- Asset Care Plan development
- The Municipality BI
- MS Excel.

Pragma Intervention

- A total of 589 pump stations were investigated in terms of the three maintenance departments (Electrical, Mechanical and Process Control). The number of pump stations lacking maintenance plans were as follows:
 - Mechanical: 105 (18%)
 - Electrical: 89 (15%)
 - Process Control: 153 (26%).
- 74 (13%) of the pump stations have no ACPs for any of the maintenance departments.
- ACPD is being used to determine the appropriate ACPs for all the pump stations that do not currently have any.
- Apart from the lack of appropriate ACP, some of those currently in effect are outdated. These maintenance plans are under review and will be updated once the appropriate asset management strategy has been identified.
- The next step will be to investigate the asset management strategies at the potable and wastewater treatment plants.