

Water and Sanitation in the News

The importance of water in Africa's future

The next big conflicts in Africa will be on water usage. This prediction was made earlier this year by the late Dr Lawrence Musaba of the Southern African Power Pool and last year's recipient of the African Utility Week Lifetime Achievement Award.

In Dr Musaba's words: "The food-energy-water nexus is becoming a challenge for Africa and African energy pioneers should find a way of how to deal with this dilemma as the population of Africa keeps growing. The demand for water and food is growing, but at the same time we need electricity from hydropower stations to power the industry and as a result, the scramble for water is becoming a huge challenge."

South Africa's National Water Week kicked off earlier this week and will culminate in international World Water Day on 22 March. "Water, while once an abundant natural resource, has become a scarce and therefore more valuable commodity due to droughts and overuse," says African Utility Week event director Evan Schiff. "Effective and innovative water management is fundamental to ensuring the optimum use of our water resources and how technical innovation can improve water delivery."

"Water utilities have to explore both innovative and alternative water supply options in order to meet rapid growth in urban demand, including wastewater reuse, grey water recycling, storm water, rain water harvesting and seawater desalination," he adds.

In South Africa alone, non-revenue water losses total about R7-billion a year, says Dr Nicole Kranz, country coordinator South Africa: International Water Stewardship Programme at GIZ-South Africa. "Drinking water utilities have the potential to steer development towards the sustainability road. This is because water drives other sectors like energy and food supply," adds Pauline Macharia, PhD fellow at Technische Universität Wien.

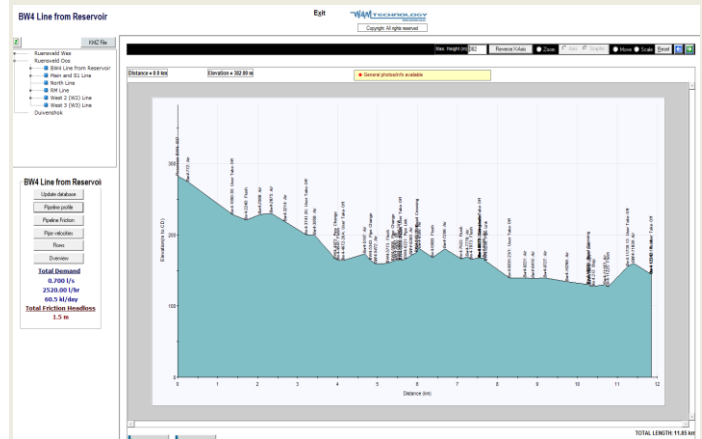
Dr Vaino P Shivute, CEO of Namibia Water Corporation, states: "For Africa's economies to prosper and to improve the living standards of the inhabitants there is a need to invest more in energy and water supply infrastructure. But most importantly, access to energy and water must be affordable. Hence the need for cost effective tariffs for those two commodities."

But pulling all these resources together is no easy task, according to Jason Mingo, Berg River task manager at the Western Cape Department of Environmental Affairs and Development Planning: "The application of Water Sensitive

Urban Design (WSUD) requires a systems approach whereby engineers, urban planners and environmental scientists work together in a manner which integrates the multiple facets of managing water to promote a greater awareness and sensitivity to its needs."

Sources: *IT-Online*, 17 March 2016

The **Municipal Assistant™** System was developed to provide local municipalities with the necessary tools to ensure the sustainable use and management of their water resources. An important component of the system is its **Water Pipeline Profiler**.



During a pipeline survey, the nodes (air valves, flush valves, composite valve chambers, road crossings or changes in elevation) for the pipelines are captured and utilized for optimum practical use to facilitate the management of the bulk water pipelines.

Additional attributes such as pipe diameter, pipe roughness, demand or pump rate are used to provide basic hydraulic outputs such as flow rate, pipe velocities and headloss due to friction (using Cole Brooke White) along the entire pipeline in graphical format. The user can add or change node attributes.

A pipe schedule containing all node and pipe information for each pipeline can be printed to MS Excel and serve as the basis for surveys and inspections. As part of the Municipal Assistant™ training, a module specific to basic hydraulic concepts is included.

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