Better water supply at the click of a mouse

The Water Research Commission (WRC) has teamed up with Emanti Management, developers of the international award-winning Electronic Water Quality Management System (eWQMS) to incorporate water safe plan guidelines into this system.

The WRC published its guidelines for the development of a generic water safety plan last year (**Report No**: TT 415/09). This step-by-step assessment and risk management tool deals with all aspects of risk, from where the water is taken from the catchment to where it is delivered to the consumer. The guidelines assist municipalities in developing the planning and management aspects around safe and sustainable water supply, helping to build the necessary knowledge to understand the general characteristics of the water and the land surrounding their water source, as well as mapping all the real and potential threats to water quality. This is key to ensuring the delivery of clean, safe and reliable drinking water.

A Web-based reporting program that distributes a complete water quality management system over the Internet, the eWQMS has been successfully rolled out nationally, and is already assisting many municipalities around the country to manage their water quality.

The system provides municipalities with the key to successful water quality and related environmental management through the correct identification of risks and the setting up of procedures to eliminate or control those risks. It is now being updated to include sections that must be completed by the user by filling in data boxes which will then report back and highlight the areas with the highest risks, so that organisations know what to prioritise in order to complete a water safety plan.

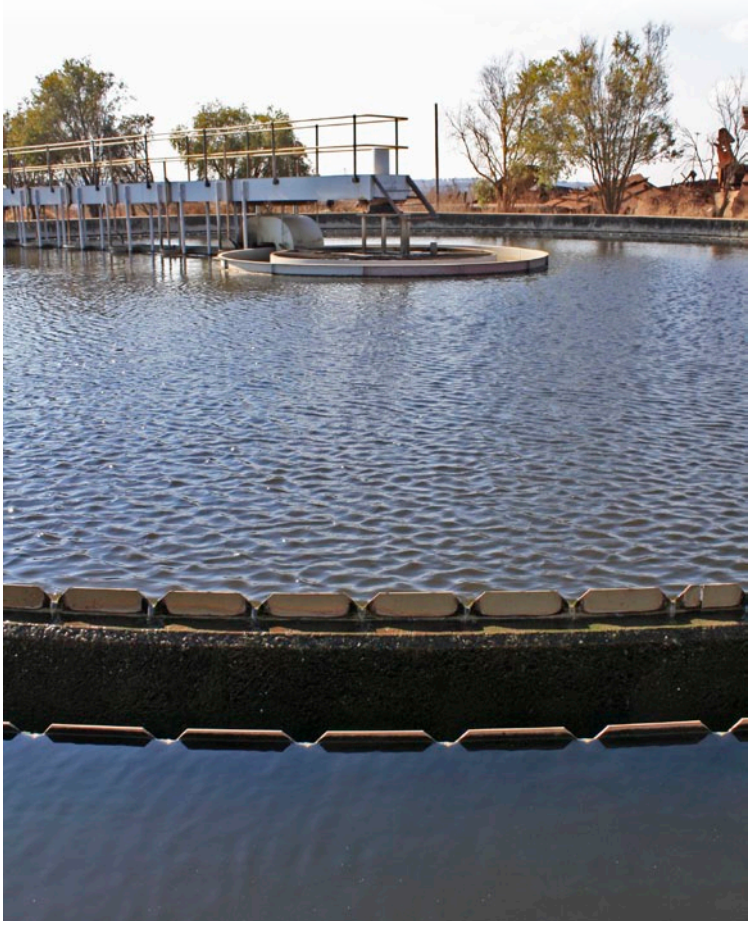
According to WRC Research Manager Dr Jo Burgess, the eWQMS was the obvious vehicle for water safety plans as so many water companies and water service authorities are already making use of the system. "The system makes it possible for people to input relatively simple pieces of information which the programme then correlates into a matrix which feeds back a table with the risk profiles colour coded, so people can focus on any items which pop up in red. In addition, because it is Internet based, it can be accessed anywhere in the country."

At present, the eWQMS is mainly used for, among others, monthly review of legislative compliance, identification of areas requiring urgent attention, quarterly summary review (trend analysis, effectiveness of remedial actions etc), reporting to stakeholders and tracking and managing water quality and related environmental and health risks.

The Department of Water Affairs' Blue Drop/Green Drop certification process already requires a water safety plan, and the WRC is now also developing a similar process nicknamed the wastewater safety plan, which will facilitate achievement of Green Drop status of wastewater treatment works. Using this tool properly will enable users to achieve Blue Drop and Green Drop certification.

All water service providers have access to the eWQMS and tools that reside there. By incorporating water safety plans onto the eWQMS (via a downloadable file and Web enablement of the application), the water safety plan would easily be available to a wide audience.

The development phase is currently underway, and it is hoped that the system will become fully functional towards the end of next year. ❑



Lani van Vuuren

The incorporation of the WRC's water safety plan guidelines into the Electronic Water Quality Management System is expected to help municipalities earn their Blue Drop and Green Drop certification.