

Drinking water supply

Guidelines for using the web-enabled Water Safety Plan Tool

Guidelines, now available from the WRC, introduce Water Safety Planning to the reader, highlight key steps to be considered when developing a Water Safety Plan and provide step-by-step guidance as to how to use the Water Safety Plan Tools currently hosted on the electronic Water Quality Management System (eWQMS).

Introduction

Past and recent studies in South Africa have shown that it is apparent that for a significant proportion of municipalities, sustained provision of service and quality are under threat due to failing infrastructure. The Department of Water Affairs (DWA) reported that there has been significant improvement in terms of water quality monitoring within Water Service Authorities, however there still needs to be improvement until all Water Services Authorities are monitoring as per current SANS 241 requirements.

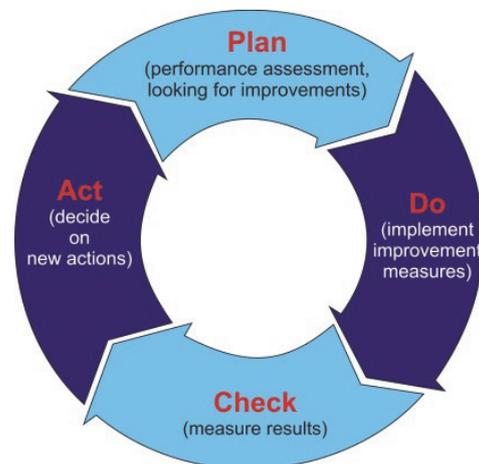
In order to take proper action, the existing situation has to be analysed and required corrective measures must be identified and implemented.

Water Safety Plan tool

A previous WRC project aimed to establish a methodology to identify and manage the risks of water services infrastructure and the means by which Water Services Institutions (WSIs) are better able to identify and manage these through use of Water Safety Planning.

The Water Safety Plan tool developed through this study is a desktop electronic-based tool that requires detailed knowledge of the water-supply system. Some of the required information is available within the municipality, whereas other information can only be obtained via site visits. Site visits are therefore an essential part of the process and should be conducted prior to using the tool.

The tool should also be used in conjunction with the current SANS 241 water quality requirements (i.e. link current SANS 241 determinands to identified risks). This is explained further in the guide. The tool is also available on the WRC website: www.wrc.org.za.



The Water Safety Plan is a guiding plan with respect to managing, avoiding, minimising/reducing chances of water contamination in the water supply system. The process requires development of the plan, implementation of the plan, review of performance and amendment or modification to the plan to ensure that it remains relevant.

Need for water safety planning

Water safety planning is a systematic process that aims to consistently ensure acceptable drinking water quality

that does not exceed the numerical limits in SANS 241 by implementing an integrated water quality management plan, which includes a risk assessment and risk management approach from catchment to point of delivery. In so doing the process allows for better understanding of water supply systems. Once the risk has been identified, control measures can be put into place to mitigate these risks.

The process also needs to identify systems by which these measures are implemented and monitored. Management plans describing actions taken during normal operation or incident conditions and documenting the system assessment (including upgrade and improvement), monitoring and communication plans and supporting programmes, should be included. Key components of a Water Safety Planning include:

- System assessment

- Identifying control measures
- Management plans and risk management.

Water Safety Plan Tool guideline

The purpose of the WRC manual is to introduce water safety planning to the reader; highlight key steps to be considered when developing a water safety plan; provide step-by-step guidance as to how to use the water safety plan tools currently hosted on the eWQMS.

Further reading:

To obtain the report, *Guidelines for Using the Web-enabled Water Safety Plan Tool* (WRC Report No. **TT 515 /12**), contact Publications at Tel: (012) 330-0340; Fax: (012) 331-2565; e-mail: orders@wrc.org.za or Visit: www.wrc.org.za to download a free copy.

