

Sanitation

First of its kind multimedia guide for sewerage systems now available in SA

The WRC has introduced a first of its kind multimedia analysis and design guide on waterborne sewerage design and operation.

Towards healthier communities

The general health of the population improves when people have access to basic clean water supply and sanitation.

The safe disposal of human excreta and greywater is vitally important in the control of infectious and other communicable diseases and the design and construction of appropriate sanitation systems is of paramount importance in contributing to the safe disposal of human excreta.

However, on its own, the proper planning and construction of sanitation systems does not provide a guarantee that the general health of the population will improve. A holistic approach to health care is required, with the provision of suitable sanitation being just one of the necessary components thereof.

A three-pronged approach was followed to source the information required to produce the guide. At the outset, the authors collaborated with a number of local authorities in South Africa and gathered information regarding the design and operation of their sewer systems.

The main concerns raised by the managers of the various sewer networks in South Africa were also noted and were addressed in compiling this report. Secondly, the standards and guidelines used in practice in the design and operation of waterborne sanitation systems were reviewed. Thirdly, many sources of information were consulted and a synthesis of the material was tailored to South African conditions to produce a comprehensive guide on waterborne sanitation systems.

One guide, several systems

In this guide some of the more commonly used alternative collection systems (ACS) such as vacuum, small-bore and simplified sewerage systems are also described and

guidelines are provided for the design of these systems. Because of their relative newness, all ACS types have shown lack of proper design, installation, management, use and application. Some engineers might be hesitant to recommend these new technologies. Thus the purpose of this guide is to provide sufficient information on all available technologies and useful tools to assist engineers in overcoming these concerns and to guide them in selecting, planning and designing the most appropriate system to solve existing wastewater problems and reduce the cost of wastewater management for new developments.

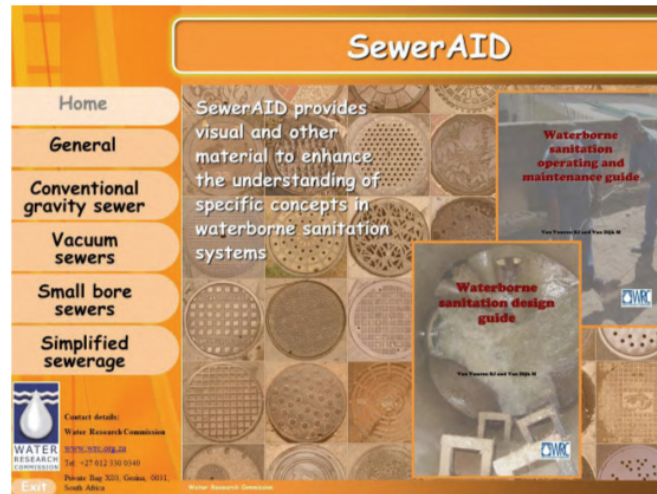
In order to develop a guide for the design and operation of waterborne sanitation for South Africa a good understanding of the existing waterborne sanitation standards and specifications is required. A number of local authorities were visited and data gathered in order to determine the various standards applicable throughout South Africa.

Information has been synthesised from a wide variety of sources and tailored to South African conditions. This guide provides a complete overview of all waterborne sanitation systems used in South Africa.

SewerAID

When setting out to produce the guide, an additional aim was to provide an innovative education component in parallel to the guides. **SewerAID** is a useful design application tool that provides the readers/users of this guide with additional relevant information in the form of:

- Additional literature
- Drawings
- Photo gallery
- Movie clips
- Software



As illustrated above, **SewerAID** provides additional valuable information to assist the designer in planning, design and implementation of the most appropriate waterborne sanitation system.

SewerAID runs on any personal computer, but requires Windows XP/Vista/7, Windows N.T 4.0, or 2000. The program takes up no hard-disk space since it is run from the DVD. Installing the various design software programs will, however, utilise hard-disk space.

Further reading:

To obtain the report, *Development of a South African Guide for the Design and Operation of Waterborne Sewerage Systems* (**Report No: TT481/11**) contact Publications at Tel: (012) 330-0340; Fax: (012) 331-2565; Email: orders@wrc.org.za or Visit: www.wrc.org.za to download a free copy.