

EXECUTIVE SUMMARY

It is understood that the health of a community is significantly influenced by its water quality. The appropriate management of water systems, both the natural resource and municipal water services, is a critical requirement in municipal services provision.

PURPOSE OF THE GUIDE

This guide has been developed with the purpose of providing assistance in terms of:

- Planning for construction of an appropriate wastewater treatment system and determining what is appropriate
- Management to understand what to expect from the contractors and/or consultants in designing a waste stabilisation ponds system
- Good operations and maintenance of waste stabilisation ponds system
- Possible re-use of treated wastewater from waste stabilisation ponds system
- Upgrading waste stabilisation ponds system.

This guide can be used in conjunction with the following Water Research Commission (WRC)/Department of Water Affairs and Forestry (DWAF) guides:

- DWAF (2004) General Authorisation
- Permissible Utilisation and Disposal of Treated Sewage Effluent, Department of Health under reference 11/2/5/3: 30 May 1976
- “South African water quality guidelines – agricultural use” DWAF 1993
- “South African water quality guidelines – industrial use” DWAF 1993
- Handbook for the operation of wastewater treatment works (2006) by Frik Schutte
- All other references at the end of the document
- A guide for operations and maintenance of waste stabilisation ponds system also developed.

WHO SHOULD USE THIS GUIDE?

The guide has been developed in such a way that it will assist the wastewater management team to answer the following questions:

- Is a waste stabilisation pond system appropriate for us?
- What do we need to consider when designing a waste stabilisation pond system?
- Once we have constructed a waste stabilisation pond system, how do we operate and maintain the system?
- Is the treated wastewater in the waste stabilisation pond system suitable for re-use purposes?
- How do we prevent and respond to typical system failures?
- What options are available if we need to upgrade or refurbish the waste stabilisation pond system?