



Capacity Building Workshop

A WATER RECLAMATION AND REUSE GUIDE FOR SOUTH AFRICAN MUNICIPAL ENGINEERS

Background

The treatment and reuse of wastewater for both potable and non-potable purposes is widely practiced in both developed and underdeveloped countries. In South Africa, water reuse has been identified as one of the viable strategies for municipalities to augment drinking water supply to meet the increasing demand. To date, this practice has been implemented with limited successes in the municipal environment. To support the widescale adoption and increased success rate in the implementation of water reuse projects, it is important that there is a common understanding of the current best practices. As a result, a water reclamation and reuse guideline document for South African municipal engineers has been developed through a collaborative effort between the Institute of Municipal Engineering of Southern Africa (IMESA) and the Water Research Commission (WRC) in collaboration with water sector stakeholders represented by the Water Institute of Southern Africa. The document should be regarded as presenting a formal consensus position on best practices for implementing water reuse projects within the municipal environment. The Water Reuse Guide was officially launched in September 2022. The main purpose of the launch was to gather feedback from the early users, create momentum and sector recognition of the guide. Following the launch, a series of capacity building workshops, hosted by IMESA, are conducted around the country, aimed at transferring the knowledge into practice.

The program for the workshop appears on the next page.

ECSA CPD Service Provider: SP_021/2025
ECSA CPD: 1.0 point

FEE PER DELEGATE:

FREE for all Municipal Employees.

IMESA Member: R1380 (incl VAT)

Non-Member: R2300 (incl VAT)

To register, visit: <https://www.imesa.org.za/courses/> or email: technical@imesa.org.za

Please note that *registration is essential*. Attendance without a registration number will not be allowed. If capacity of the venue is reached, preference will be given to municipal employees to attend.



A WATER RECLAMATION AND REUSE GUIDE FOR SOUTH AFRICAN MUNICIPAL ENGINEERS

Workshop Program

Registration from 08:30

| Time | Topic | Presenter |
|---------------|--|--|
| 09:00 - 09:15 | Welcome and introduction to the Workshop | Prof Kobus du Plessis, Stellenbosch University and IMESA (KdP) |
| 09:15 - 09:30 | Overview of the Water Reuse Guide: Aims, Objectives and Layout | Chris Swartz, Reuse Guide Project Leader and Chris Swartz Water Utilization Engineers (CS) |
| 09:30 - 11:45 | Overview of Water Reclamation and Reuse | CS |
| | Legal and Regulatory Aspects | KdP |
| | Feed water sources and water quality | CS |
| | Environmental aspects of water reuse | KdP |
| | Financing and funding of reuse schemes | CS |
| | Planning and implementing water reclamation and reuse schemes | CS |
| 11:45 - 12:00 | Question and answer session | KdP |
| 12:00 - 12:30 | BREAK | |
| 12:30 - 14:45 | Operation and maintenance | CS |
| | Monitoring | CS |
| | Water quality risk assessment | CS |
| | Expert advisory panel | CS |
| | Water reclamation processes and configurations | CS |
| | Natural systems for water reclamation | KdP |
| | Guidelines for process selection and costing | CS |
| | Reuse treatment technology validation | CS |
| | Management of waste and resource recovery | CS |
| | Brine management options | CS |
| | Case studies | CS and KdP |
| 14:45 - 15:00 | Question and answer session | KdP |
| 15:00 | Summary and closure | KdP |