

## WORKSHOP

# Unlocking Circular Solutions: Advancing Wastewater Reuse and Resource Recovery in South Africa

**Date:** Sunday March 16, 2025

**Time:** 10:00 – 13:00

**Location:** Meeting Room 2.4.4 – 2.4.6

### Purpose of the Workshop

This workshop aims to deepen participants' understanding of circular economy principles in the water sector, with a particular focus on South Africa.

The first session will introduce the World Bank's Water in Circular Economy and Resilience (WICER) Framework and its online assessment tool, enabling participants to evaluate the circularity and resilience of their projects. The tool also provides resources and guidelines to support the implementation of circular approaches in water management.

The second session will examine South Africa's policy, regulatory, institutional, and financial landscape, identifying barriers and strategies to foster circular water solutions. It will also showcase examples of wastewater reuse and resource recovery investments, focusing on lessons learned.

The final session will explore the role of nature-based solutions in advancing circularity in the water sector, highlighting benefits, challenges, and practical applications. Case studies from South Africa will illustrate how NbS contribute to wastewater treatment and reuse, and climate resilience.

Through this interactive event, participants will gain practical knowledge, resources and tools to advance circular solutions in water.

### Learning Outcomes for Participants:

- Enhanced understanding of circular economy and resilience principles in the water sector.
- Insights into South Africa's potential for wastewater reuse and resource recovery, including key challenges, opportunities, and lessons learned from municipalities.
- Understanding the role of nature-based solutions in promoting wastewater reuse and climate resilience within a circular approach.

## AGENDA

**10:00: Welcoming Remarks – Soma Ghosh Moulik, Practice Manager, World Bank Group's Water Global Practice**

**10:10 - 10:45. Session 1: Setting the Scene: Reuse and Resource Recovery within the Broader Context of Circular Water and Resilience**

- Introduction to the World Bank's Water in Circular Economy and Resilience (WICER) Framework (*Diego J. Rodriguez, Lead Water Economist, World Bank*)
- Presenting the WICER assessment tool for rapid evaluation of project circularity and resilience (*Anna Delgado, Water Specialist, World Bank*)
- Interactive session: Participants use the WICER online tool to assess their project

**10:45 – 12:00. Session 2. South Africa's Potential for Wastewater Reuse and Resource Recovery: Identifying Barriers and Opportunities**

Introduction and moderation: *Diego J. Rodriguez, Lead Water Economist, World Bank*

- South Africa's vision to increase reuse and resource recovery to become more resilient (*Dietmar Niebuhr, Specialist Engineer, Department of Water and Sanitation, South Africa - TBC*)
- Introduction of WPO's Water Reuse Programme and how it can support municipalities moving forward (*Johann Lubbe, Head, Water Partnerships Office, Department of Water and Sanitation, South Africa*)
- Presenting findings from an in-depth analysis of South Africa's policy, regulatory, institutional, and financial landscape, highlighting challenges, opportunities, and necessary changes to foster circular approaches – (*Chris Wise, Technical Director, JG Afrika*)
- The Case of eThekweni: Drawing Lessons from the Reuse Project with Industrial Users (Paper Mill and Refinery) and Charting a Path Forward for Enhanced Reuse and Broader Circular Solutions. (*Sydney Masha, Acting Senior Manager, Commercial and Business Branch, eThekweni Water and Sanitation, eThekweni Municipality*)

Q&A

**break**

**12:10 – 13:00. Session 3. Nature Based Solutions (NbS) as part of a circular and resilient future**

Introduction: NbS as part of the circular approach in water – 10 min (*Anna Delgado, Water Specialist, World Bank*)

- Capabilities of NbS for wastewater treatment and reuse and their role in climate resilience - 40 min (*Edwina Mercer, Senior Program Officer, Infrastructure and Nature Based Solutions, Global Center on Adaptation*)
  - Case study 1: eThekweni Newlands Mashu site Newlands Mashu Research Site - Washcentre
  - Case study 2: Franschoek Water Hub site The Water Hub | Future Water Institute

Conclusions and closing: *Michael John Webster, Program Manager, 2030 Water Resources Group, World Bank* (10 min)