

SESSION 18:

SUSTAINABLE WASTEWATER RESOURCE RECOVERY AND REUSE

Chair: Phakamani Buthelezi (BGCMA) | Venue: Ballroom 2

According to the United Nations 2017 World Water Development Report, an estimated 80% of wastewater worldwide (over 95% in some developing countries) is globally released into the environment without treatment. On the other hand, target 6.3 of the Sustainable Development Goal 6 aims to halve the proportion of untreated wastewater and substantially increasing recycling and safe reuse globally by 2030. As part of supporting target 6.3, the South African Water Research Development and Innovation Roadmap seeks to, inter alia, utilise 75% of wastewater as an alternative source by 2025. This, therefore, requires a paradigm shift regarding sustainable wastewater management in South Africa to generate social, environmental and economic benefits for all society, contributing to overall well-being and health, water and food security and sustainable development. This session will focus on showcasing current and past WRC-supported research and development work that demonstrates resource recovery and reuse within the water sector. The project outcomes to be presented and discussed provide typical examples of sustainable resource recovery and reuse including implemented case studies in South Africa.

PROGRAMME

13:45 – 13:55	Welcome and introduction of session Chair: Thami Hlongwa (Umgeni Water)	John Ngoni Zvimba (WRC)
13:55 – 14:10	System-wide modelling – Understanding sustainable resource recovery	David Ikumi (UCT)
14:10 – 14:30	Sludge application rate advisor for sustainable agricultural use of municipal wastewater sludge	Eyob Tesfamariam (UP)
14:30 – 14:50	Establishment of a national learning platform for direct potable reuse in South Africa	Megan Schalkwyk (Umgeni Water)
14:50 – 15:10	eThekweni Municipality – Hitachi Sea Water Desalination and Reuse	Lalitha Moodley (eThekweni Municipality)
15:10 – 15:40	Discussion & Closing remarks	John Ngoni Zvimba (WRC)