SESSION 17:

WATER QUALITY AND RISK ASSESSMENT

Chair: Thomas Gyedu-Ababio (IUCMA) | Venue: Boardroom 3

Despite efforts being made at different levels (financial, institutional, policy and technical) problems arising from deteriorating and poor water quality still remain a major challenge in South Africa and across the world. Human health, food security, preservation of ecosystems as well as economic growth and social development continue to be hampered due to water quality. Understanding the big drivers of water quality deterioration from source to sea, including groundwater, in light of different flows i.e. water, sediment, plastic through monitoring is essential. However, what is also of paramount importance is developing and conducting risk assessments (health and ecosystem) in order to ensure that decision-making with regard to water quality management is appropriate and can respond to future scenarios in light of climate change. This session will focus on WRC-funded projects that have been recently completed or are in progress, which illustrate the application of risk in water quality management or are in the process of developing a risk-based approach to water quality monitoring. Risk is determined not only in surface water but sediment as well.

PROGRAMME

Welcome and introduction		**Eunice Umbombo-Jaswa (WRC) & Thomas Gyedu-Ababio (IUCMA)**
11:00 – 11:25	Revision of the 1996 South African Water Quality Guidelines – Development of risk-based approach for recreational water use	Bettina Genthe (CSIR)
11:25 – 11:50	A risk-based assessment of potentially toxic elements and their species in selected water systems (surface water and sediment) in Limpopo Province	Abayneh Ambushe (UJ)
11:50 – 12:15	The development of a preliminary approach to sediment site evaluation and associated risk	Bridget Shaddock (Golder Associates)
12:15 – 12:40	Development of a methodology to determine the risk of microplastics in freshwater resources in South Africa	Ntombekhaya Mgaba (RU)
Closing remarks		Eunice Umbombo-Jaswa (WRC) & Thomas Gyedu-Ababio (IUCMA)