

**WISA WATER RECLAMATION AND REUSE SYMPOSIUM
18-19 SEPTEMBER 2019
BIRCHWOOD CONFERENCE CENTRE, GAUTENG**



“Sharing solutions and facing the future of water together”

The Water Reuse Regional Symposium is the first of its kind and will allow the sharing and discussion of issues related to the current status in the implementation of water reclamation and reuse projects within the region; challenges and opportunities; best implementation practices; as well as developments on research, development and technology innovation. Participants will include government representatives, leading academic researchers, scientists, engineers, as well practitioners from the water industry. The symposium will be hosted over two days, comprising of both plenary and facilitated discussion sessions, as well as technical presentations from experts. Topics to be covered include detailed accounts on the planning and implementation of water reclamation and reuse projects, featuring speakers from globally recognised examples such as the South African Water Chamber (SAWC), Municipalities, DBSA, Aveng Group South Africa, WINGOC, TCTA, Waternet, Veolia, Water Boards and the City of Windhoek, Namibia.

FOCUS AREAS

The main key focus areas for the event are as follows:

- The value and economics of water reclamation and reuse
- Water reclamation and reuse, resource recovery and the SDGs
- Planning for water reclamation and reuse: project preparation, selection and costing of water reclamation and reuse technologies, financing, regulatory approvals and public engagement
- Social, institutional and environmental aspects of water reclamation and reuse
- Direct potable water reuse: water quality monitoring and assurance
- Emerging substances of concern in water reuse and risk assessment
- Water reclamation and reuse technology and industrial development advances

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WHO SHOULD ATTEND?

- Water and wastewater treatment plant practitioners, superintendents and managers
- Consulting Engineers
- Students, researchers and academics
- Regulators and government officials in the water industry
- Public health and environmental health and safety practitioners
- Investors, funders, project managers

SPEAKERS

Prof Krasposy Kujinga, Waternet, Zimbabwe
Dr Thomas Honer, WINGOC, Namibia
Dr Esper Jacobeth Ncube, Rand Water
Chris Swartz, Chris Swartz Water Utilization Engineers
Dr Nonhlanhla Kalebaila, Water Research Commission
Johann Lubbe, DBSA, South Africa
Suzie Nkambule, Aveng Water
Dr Sarah Slabbert, BHI 32
Dr Mthokozisi Ncube, DBSA
Didier Ilunga, Rand Water
Ms Ayesha Laher, AHL Water
Dr Marlene Van der Merwe Botha, The Water Group
Dr Anita Etale, Wits University, Johannesburg
Dr Lakesh Maraj, Umgeni Water
Dr Washington Nyebeze, WR Nyebeze and Associates
Ms Annick Warsdoff, CSIR, Stellenbosch
Ms Bettina Genthe, CSIR, Stellenbosch
Ms Felicia Magutywa, City of Cape Town
Dr Caliphs Zvinowanda, University of Johannesburg
Ms Nompumelelo Msezane, TCTA
Ashton Drummond, Aveng South Africa (Nafasi Water)
Geoff du Toit, Aurecon
Mr Theo Fischer, Escience Pty Ltd
Benoite Le Roy, South African Water Chamber (SAWC)
Zaheer Ortell, Bergstan South Africa
Chris Braybrooke, Veolia Water Technologies,
Prof Alvin Largadien, CPUT
Dr Moshabi Shongoane, ERWAT

**WISA WATER RECLAMATION AND REUSE SYMPOSIUM
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Ms Lalitha Moodley, Ethekewini Metro Municipality

Mr Carel Davids, Lyners Consulting Engineers

Prof Carlos Bezuidenhout, North West University

Mr Pierre Marais, Water and Wastewater Engineering

Mr Tumelo Gopane, ERWAT

Mr Jeremiah Mutamba, TCTA

Mr Sydney Masha, Ethekewini Metro Municipality

Dr Noncy Gomba, NIOH

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DAY 1: WEDNESDAY 18 SEPTEMBER 2019

SYMPOSIUM PROGRAMME

08:00

REGISTRATION

08:30

OPENING PLENARY SESSION: Dr Esper Jacobeth Ncube: Chair WISA WATER REUSE DIVISION

08:40

KEY NOTE ADDRESS 1

DPR in Windhoek: Overview of the history, current situation and future

Dr Thomas Honer, WINGOC, Namibia

9:10

KEYNOTE ADDRESS 2

The Value of Water Reuse and economic impact in changing lives

Prof Krasposy Kujinga, Waternet, Zimbabwe

9:40

KEYNOTE ADDRESS 3

The rejuvenation of the SA Water and Sanitation sector via the SA Water Chamber

Benoite Le Roy, South African Water Chamber (SAWC)

10:10

GENERAL DISCUSSION

10:30

COFFEE/TEA BREAK AND NETWORKING

SESSION 1: FINANCING SOLUTIONS FOR WATER REUSE PROJECTS

SESSION 2: EMERGING TECHNOLOGIES AND APPLICATIONS

11:00

Programmatic and funding approach to establishing water reuse infrastructure as a new asset class in South Africa

Johann Lübbe, DBSA

Improved Solids Measurement for Wastewater sludges leading to Water and Polymer savings

Zaheer Ortell, Bergstan South Africa

11:25

The viability of mine water re-use as a decentralised potable water source

Ashton Drummond, Aveng South Africa

The circular economy: Durban recycling project: creating value from waste

Chris Braybrooke, Veolia Water Technologies,

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11:50	The costs of desalination and water reuse plants , Theo Fischer, Escience Pty Ltd	Water distribution networks: effect of pressure on water leakage through longitudinal cracks due to expansion of the pipe material <i>Didier Ilunga, Rand Water</i>
12:15	The Ethekewini Metro Remix plant , Mr Sydney Masha, <i>Ethekewini Metro Municipality</i>	Using emerging technologies to treat municipal and industrial wastewater for re-use <i>Dr Caliphs Zvinowanda, University of Johannesburg</i>
12:35	Implementation of a Water Reuse Plant-Cost implications <i>Carel Davids, Lyners Consulting Engineers</i>	Role of advanced oxidation processes (AOPs) in wastewater treatment <i>Khanya Ngonyama, Blue Gold Holdings</i>

13:00

LUNCH

SESSION 3: SOCIAL & ECONOMIC ASPECTS OF WATER REUSE

SESSION 4: WATER QUALITY AND RISK MANAGEMENT

14:00	A communication strategy for Water Reuse <i>Dr Nonhlanhla Kalebaila, Water Research Commission</i>	Case study: Advanced Risk Tracking at ERWAT <i>Mrs Moshabi Shongoane, ERWAT and Dr Marlene van der Merwe-Botha, Water Group Holdings</i>
14:25	Water reuse: what does the public know? <i>Dr Sarah Slabbert, BHI 32 Pty Ltd</i>	The spread of ARBs from wastewater plants, appropriate measures for public health protection <i>Prof Carlos Bezuidenhout, North West University</i>
14:50	The importance of trust in water reuse projects <i>Dr Anita Etale, Wits University</i>	Use of risk management principle to promote sustainable water services provision <i>Ms Ayesha Laher, AHL Water and Dr Marlene van der Merwe-Both, Water Group Holdings</i>



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15:15	Public perceptions and acceptance of water reuse <i>Prof Alvin Largadien, CPUT</i>	Ensuring microbial safety of wastewater for reuse through quantitative microbial risk assessment <i>Ms Bettina Genthe, CSIR</i>
15:35	Public participation in water reuse projects: lessons and experiences from South Africa <i>Ms Annick Walsdorff, CSIR</i>	A Multi-barrier Approach in assuring the Quality of DPR for its intended use <i>Chris Swartz, CSWUE</i>

16:00

COFFEE/TEA/NETWORKING

19:00

Gala Dinner Arrival

19:30

GALA DINNER

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DAY 2: THURSDAY 19 SEPTEMBER 2019

SYMPOSIUM PROGRAMME

08:00

REGISTRATION

PLENARY SESSION

KEYNOTE ADDRESS 4

09:00 **Water reuse policy and regulations: Where are we and what are the requirements to drive implementation in order to realize the NDP 2030 and SDG 6 targets**

Dr W R Nyebeze, WR Nyebeze and Associates (WRNA)

KEYNOTE ADDRESS 5

09:30 **Sustaining water services delivery through water reclamation and reuse in the SADC Region**

Ms Suzie Nkambule, Aveng Water

PANEL DISCUSSION

10:00

Perspectives on the implementation of water reclamation and reuse
(Water Reuse Division members, ERWAT, TCTA, DHSWS, DBSA, WRC)

10:30

COFFEE/TEA BREAK AND NETWORKING

SESSION 5: WATER RECLAMATION AND REUSE – CASE STUDIES

SESSION 6: REGULATORY ASPECTS OF WATER REUSE

11:00 **The establishment of a national learning platform for potable water reuse at Umgeni Water, South Africa**
Dr Lakesh Maharaj, Umgeni Water, KZN

Water policy and regulatory aspects for water reuse
Tumelo Gopane, ERWAT

11:25 **Beaufort West water reuse: towards 10 years of operation**
Pierre Marais, Water and wastewater engineering, Cape Town

Enabling legislation and institutional support on water reuse: a national and international perspective
Dr Esper Jacobeth Ncube, Rand Water/WISA

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11:50	Funding, developing and preparing water reuse projects: DBSA experiences <i>Dr Mthokozisi Ncube, DBSA</i>	The impact of wastewater discharge on downstream water users (de facto water reuse) <i>Chris Swartz, CSWUE</i>
12:15	Water reuse: Lessons from South Africa and abroad <i>Jeremiah Mutamba, TCTA</i>	Evaluation of health risks associated with occupational exposures to recycled water <i>Dr Noncy Gomba, NIOH</i>
12:35	Potable Water Reuse in the City of Cape Town to Improve Water Supply Resiliency <i>Geoff du Toit, Aurecon</i>	Balancing the human and ecological reserve needs in water allocation: current challenges <i>Ms Felicia Magutywa, City of Cape Town</i>

13:00

LUNCH

14:00

Workshop: Emerging contaminants of concern in water reuse

16:00

CLOSING REMARKS: Ms Nompumelelo Msezane, Head of Environment, TCTA

For more information and to register, please contact:

Jaco Seaman at the Water Institute of Southern Africa (WISA)

Phone: 011 805 3537

Email: events@wisa.org.za

URL link: <http://wisa.org.za/event/1st-water-reuse-regional-symposium-2019/>