



**water & sanitation**  
Department:  
Water and Sanitation  
REPUBLIC OF SOUTH AFRICA



**Partners:** DWS Regional Office, SALGA NC, Sol Plaatje University, Frances Baard District Municipality

**Dates:** 12-13 March 2024

**Venue:** Sol Plaatje University (South Campus)

## **THE WATER RESEARCH COMMISSION'S NORTHERN CAPE PROVINCIAL PARTNERSHIP SUPPORT**

*Strengthening provincial water and sanitation resilience through research and innovation collaboration*

### **1. Background**

In 2023, the Water Research Commission (WRC) strategy was approved for implementation with the key focus on a stakeholder centric approach that drives strategic outcomes of an innovation driven water sector and climate resilience and adaptation in South African. Several engagements took place during the year with SALGA, Sol Plaatje University (SPU), Office of the Premier and various district and local municipalities to assess specific needs for the province. Key needs identified were limited capacity and skills, limitations in water supply availability, lack of integration of climate resilience and adaptation approaches into provincial and water sector long term plans and practice, drinking water quality issues, high non-revenue water, and sanitation service management and delivery. The WRC was able to match research, development, and innovation interventions to support development in the province over the next 5 years.

Thus, the WRC will be hosting in partnership with Sol Plaatje University, DWS regional Office, and SALGA NC a roadshow in Kimberley, Northern Cape on 12-14 March 2024. This event forms part of National Water Week theme for 2024 which is “**Accelerating Change**” and seeks to strengthen provincial water and sanitation resilience through research and innovation. This event aims to:

- 1) Announce the strategic interventions that the WRC is supporting in NC to accelerate change in water services, research, and development.
- 2) Conduct knowledge sharing sessions on key needs identified during the pre-engagements.
- 3) Showcase and engage with NC partners on innovations and knowledge products that will support improvements in service delivery.

The WRC Provincial follow up engagement should be viewed as a platform to empower municipalities in the province with research-based tools available to solve several issues relating to water and wastewater treatment failures and non-compliance to drinking water quality standards, groundwater management to name a few. While we aim to solve the problems of today, it is also important we maintain a view of the future and plan water services with climate change in mind. Diversified approaches are required to balance water supply and demand and there is a need to explore such innovations at a municipal level. Finally, such challenging problems can only be solved through significant partnership and collaboration, and the WRC aims to play catalytic partner role with the province of Northern Cape.

## ANNEXURE A

### Draft Programme

#### THE WRC NORTHERN CAPE PROVINCIAL ROADSHOW

**Partners:** DWS Regional Office, SALGA NC, Sol Plaatje University, Frances Baard District Municipality

Day 1

Date: 12 March 2024

Time: 09h00 – 16h00

Venue: TBC

Chairperson: Water Research Commission, Board Member (tbc)

Day 1

Time	Session 1	
<b>Plenary Presentations</b>		
<b>ACCELERATING CHANGE THROUGH PARTNERSHIPS</b>		
08:00 - 09:00	Registration refreshments (tea/coffee)	
09:00 – 09:10	Welcome Remarks SPU	Sol Plaatje University (Prof Crouch or representative)
09:10-09:20	Opening Remarks WRC	Dr Jennifer Molwantwa, WRC CEO
09:20: 09:30	Stakeholder Engagement in NC Province	Dr Valerie Naidoo, Acting GE, Stakeholder and Impact
09:30 -09:40	WRC RDI Interventions in NC Province	Prof Stanley Liphadzi, WRC, RDI Group Executive
09:40- 09:50	Remarks from DWS NC Regional	DWS Regional Head
09:30 -09:40	Remarks from SALGA NC	SALGA
09:40 – 09:50	Remarks from COGHSTA	COGHSTA
09:50 – 10:25	Keynote Address: Office of Premier The State of Water in NC	NC Office of the Premier (TBC)/COGTA
	<b>Session2</b>	
<b>ANNOUNCEMENT OF PARTNERSHIPS TO BE ESTABLISHED IN THE PROVINCE FOR SUSTAINABILITY OF WATER AND SANITATION SERVICES</b>		
<b>Facilitator:</b> Dr Mamohloding Tlhagale, Head: Partnerships, WRC		
10:30 – 10:45	Signing ceremony <b>Launch of the Arid Water Centre: Building skills and expertise at local level</b> 5-minute remarks on partnership by CEO WRC and VC SPU	WRC & Sol Plaatje University 5-year MoA
10:45– 11:00	Signing ceremony <b>Training to improve operations for water services (green drop, blue drop, and no drop)</b> 5-minute remarks by WRC CEO Dr Jennifer Molwantwa and CEO WISA Mr Lester Goldman	WRC and WISA (in collaboration with MISA and DWS regional)
11:00 – 11:15	Signing ceremony <b>Training: Climate tools for preparedness and planning and asset management</b> 5-minute remarks by President Mr Sibusiso Mjwara and WRC CEO Dr Jennifer Molwantwa (tbc)	WRC and IMESA

11:15 -11:30	Multilateral agreement - MoA signing ceremony(tbc)	SALGA and CoGHSTA (tbc)
11:30 – 11:45	Closure of plenary by Chair of WRC Board (tbc)	Dr Rethabile
11:45 – 12:00	Networking	
<b>12:00: 13:00</b>	<b>Lunch</b>	
<b>Session 3</b> <b>Knowledge Transfer Workshops – Parallel sessions</b>		
<b>13:00 – 14h00</b>	Improving efficiency in the delivery of water and sanitation services (revenue collection, tariffing, and asset management)	Mr Jay Bhagwan, WRC and DWS Technical
	Water availability – groundwater as alternative source, water supply quality and pollution monitoring.	Dr Shafick Adams, WRC Executive Manager and tbc
	Building resilience in water use in agriculture sector and possible RDI interventions.	Prof Sylvester Mpandeli, WRC
<b>14:00 – 14h30</b>	<b>Tea Break</b>	
<b>14:30 – 15:30</b>	Planning and decision support tools for extreme weather events (droughts and floods) – hydrogeological perspectives, water resource monitoring tools and climate change solutions	Mr Wandile Nomquphu, WRC/ Dr Brilliant Petja
	Water quality management and its significance - water reuse and recycling and contaminants	Dr Nonhlanhla Kalebaila, WRC
	Sanitation Options to eradicate buckets and provide sustainable services	Ednah Mamakoa and Dr Valerie Naidoo
15:30	Closure and networking (tea and coffee)	

Day 2 continued.....

## Day 2

### Draft Agenda

#### AN INNOVATION DRIVEN WATER SECTOR

Date: 13<sup>th</sup> March 2024 | Time: 09:00 -15:30 SAST

Chair: Mamohloding T or Virginia Molose or Manjusha Sunil

Item No.	TIME	DESCRIPTION	PARTICIPANT
	SESSION 1		
	Opening Plenary: An Innovation Driven Water Sector		
1	08:00 – 9:00	Registration and refreshments	
2.	09:00 – 09:10	Welcome remarks	Chair
3.	09:10 – 09:40	WRC Innovations Database overview and testbed partnerships	Dr Manjusha Sunil (WRC)
4.	09:40- 09:55	Introduction of tech pitches	Chair
	09:55 -10:20	Tea Break	
	INNOVATION TECHNOLOGY DEMONSTRATION		
Session 2 10:30 – 12:30			
This session (2) will be presented as follows: Each innovator will be allowed to pitch for 10 minutes on their technology and participants can then engage at the pitch session and at individual stands			
Digital/ICT Tools (room tbc)			Support provided by Dr Shafick Adams and Dr Manjusha Sunil, WRC
1.	LookseeDo – digital twins for remote operations and training		
2.	HydroBLU – machine learning for increasing accuracy of borehole drilling		
3.	Aquatrip for non-revenue water		
Full Recycling Toilets and Sludge beneficiation technologies			Support provided by Dr Valerie Naidoo and Ednah Mamakoa, WRC
4.	Piloting a modified activated sludge process with zero sludge production (Vaal University of Technology)		
5.	Clear full reticulation toilet		
6.	New Generation recycling toilet		
Lunch break. 12:20 to 13:30			
Session 3 13:30 – 15:30			
Water efficient Sanitation innovations and pour flush concepts.			Mr Jay Bhagwan, and Ednah Mamakoa, WRC
7.	Envirosan		
8.	Loo Afrique		
Agricultural Management innovations			Prof Sylvester Mpandeli, WRC

9.	Bag innovation Technology and relevant smart agriculture knowledge products	
10.	Agang Bokamoso Farms (AB Farms)	
	<b>Closing remarks: CEO WRC or delegated rep (tbc)</b>	
	Afternoon tea/coffee	