



Municipal Engagement - Mandela Day Celebration: Demonstrating Citizen Science Tools for Kaalspruit River welfare with Tembisa Community

Date: 18 July 2022

Time: 09:00 – 13:00

Venue: Kaalspruit River, Tembisa

South Africa has all its water resources threatened way above 50%. In fact, rivers and wetlands are close to 75% threatened, hence the projections that by 2030 the country will be having about a 17% potable water deficit. Our dams are not saved from excessive pollution as well, more than 50% of them are hypertrophic. Similarly, estuaries are way beyond 65% threatened. This is unbearable to a country merging from the COVID:19 Pandemic, with close to 35% unemployment, a fast-growing population, escalating poverty, and in need of economic growth. The economic growth of South Africa relies heavily on natural resources, such as water, coal energy, agriculture, and biodiversity services. Almost all our urban rivers and wetlands, here in Tshwane and across the country are in a desperate situation, highly degraded, mainly running sewage instead of water. They are simply unliveable.

There is a need for water security, particularly in the face of a global climate change which calls for a national and unified approach to protect our freshwater ecosystems that include rivers, wetlands, and broader catchments. To achieve this, the Department of Water and Sanitation in partnership with Hennops Revival, City of Tshwane, SANBI and WRC decided to join efforts in hosting the 2022 Mandela Day, on the 18th of July 2022 in Tembisa.

These passionate organisations will be leading a 67-minute campaign to engage communities, politicians, and businesses about the importance of maintaining rivers in good health. This is achieved through empowerment, education and creating awareness about the importance of healthy river catchments. All of these equip citizen scientists (CS) to take responsibility for cleaning their own rivers while collecting data adequate to hold polluters accountable where non-compliance is observed. The newly re-launched Blue/Green drops, as well as No Drop programmes, are all indicators of progress (or lack of) as we go forward. It is extremely important that the authorities and CS work together in preventing excessive pollution and abuse of our rivers, such as those noted in the Hennops river on a weekly basis.

The WRC and DWS continue to develop Citizen Science tools to aid all South Africans to test the health of their local rivers, wetlands, estuaries, dams, and groundwater. All these tools will soon be available online and via social media. Therefore, there is no excuse as to why citizens cannot stop the pollution of our water resources for the benefit of our economy and future generations.

All citizens will be welcome to volunteer their minimum of 67-minutes to clean the Kaalspruit river, a tributary of Hennops in Tshwane. A formal programme is being finalized, to be sent out soon. It will have high-level managers from all the organizations as per the Logos above.

Aim of the Campaign

To empower communities with the importance of river health and familiarise them with relevant science-based citizen science tools and demonstrate how to use them to monitor and act for environmental change. To create a community of practice, with a particular focus on citizen science. The Kaalspruit River is one of the highly polluted systems with solid waste (mainly plastics) hence the site was identified for the campaign. The major cause of pollution includes the dumping of solid wastes on the riverbanks by some residents, businesses, and overloaded sewer systems. Smart cities of the future can only be resilient if they incorporate green infrastructure with built infrastructure. There is no time to act in reversing threats to our natural

ecosystems than now! UN has declared 2021-2030, the decade of ecosystem restoration, no citizen must be left behind! Besides pollution, our natural ecosystems are threatened by the spreading of thirsty alien and invasive plants, which are also a fire hazard. Climate change driving frequent and dangerous floods and droughts often threaten our future survival with “Day Zeros”. We cannot eradicate poverty, reduce unemployment, and ensure equity without resilient ecological infrastructure.

Who should attend?

Ward Councillors, DWS Officials, Community Members, NGOs & NPOs, City of Tshwane Departments (Waste Management, Environmental Health, and Parks), academic and research institutions, Private sector

Draft Programme: Mr Bonani Madikizela, WRC Research Management

09:00-09:30	Arrival and Registration	All
9:30-09:50	Welcoming remarks	Municipality
9:50-10:10	Importance of the day, policy, and research, respectively.	DWS and WRC
10:10-10:20	Presentation of monitoring tools/Poster on river health (Meaning of category A-F)	Ms Ntswaki Ditlale, Triple-P / Mr Bonani Madikizela, WRC
10:20-10:30	Logistics, such as safety and waste packaging/collection	Hennops Riverwatch
10:30-12:50	Cleaning the river and Tool monitoring demons	Demonstrators. Chemical, Clarity Tube, Flows, MiniSASS, and E. coli
12:50-13:00	Vote of thanks	Hennops Riverwatch/City of Tshwane