

Groundwater and communities



Assessing the risk and opportunity in Africa requires an open and participative approach.

Groundwater projects have grown in prominence as government decision-makers explore more ways of managing South Africa's precious water resources.

"Policymakers have come to appreciate the strategic role that the country's groundwater is able to play in future water supply planning," says Regan Rose, an executive associate at JG Afrika.

"These projects provide a very cost-effective alternative to pumping water from other sources of supply. In addition, the resource is more resilient to evaporation than surface water, while recharges of underground aquifers in drought conditions have remained favourable."

He joined JG Afrika's team of geohydrologists earlier this year, following the latter's acquisition of Rose's company, Geowater IQ.

This development merged two respected brands in the public sector groundwater market at a time when water security has been placed firmly on the agenda. Both companies have built a very strong reputation over the years for providing holistic geohydrological capabilities to their clients, which includes municipalities.

Rose says that these technical and scientific skills are essential to ensure the success of any groundwater initiative, and notes that

the failure of many projects in the past can mainly be attributed to the limited manner in which they were implemented. This has been detrimental to the development of the resource and the larger groundwater industry, he warns.

"This is why it is imperative that any existing and future related groundwater initiatives be implemented in a professional manner to ensure their continued support," explains Rose.

Project successes

Rose says there are a host of government projects that successfully continue to demonstrate the larger role that groundwater is able to play in future water systems by bolstering, or even alleviating pressure on existing supply infrastructure.

For example, Geowater IQ has been working closely with a municipality since 2012, helping it develop its groundwater resources for sport complexes. These projects will continue to provide important support to already strained systems in the drought-stricken Western Cape.

They complement many other current JG Afrika projects, including its recent appointment by Ramgoolam as the professional geohydrologist for a large water and sanitation initiative for schools in rural areas of KwaZulu-Natal – another water-stressed region of South Africa. The project, which is being driven

ABOVE LEFT An elevated 5 000 ℓ water tank with a communal standpipe and 500 ℓ drinking trough offer water source security to village life

ABOVE Children enjoy the novelty of pumped groundwater for the first time

by the KwaZulu-Natal Department of Public Works, on behalf of the province's Department of Education, serves as a sound example of the specialist skills JG Afrika brings to these initiatives.

On this project, Rose is working closely with Mark Schapers, another highly respected local groundwater expert. Schapers, who is a technical director at JG Afrika and the firm's Durban branch manager, says that right from the outset, the team of geohydrologists focused on ensuring buy-in from beneficiaries and surrounding communities.

The team continues to consult with relevant political and traditional structures, including councillors, ndunas and headmasters, forming the basis of ongoing communication channels for both during and after the project's implementation cycle.

"This is a critical step in the process that seeks to establish a long-term outlook for the project, and endeavours to make optimal use of the groundwater resource after handover," he adds. **35**