



GROUND WATER
DIVISION

Water Women Wednesday

08 September 2021

As South Africa readies itself for longer and warmer days associated with the Spring, water access needs are highlighted with water uses spanning drinking, other essential and increased recreational uses. This Spring, the Young Professionals Committee of the Ground Water Division speaks to **Awodwa Magingi** about her work as a hydrogeologist who contributes to managing and planning South Africa's precious water resources.



Think back to your earliest memories, what was your first inkling that you wanted to be a scientist?

I grew up in a village with little access to information on the width of career possibilities, and the common careers that were presented to me due to my academic performance were not quite feeling like the right fit. My inclination to science started in grade 10, when I realised my love for chemistry and geography. I just wanted to understand how the nature operates; I was mesmerised by the history of mountain formations and how rivers flow from one side to the other, where they start flowing from, and who/what created them. I was also deeply preoccupied with questions about how it was possible that my village had a spring while other villages did not - that curiosity is what ultimately led me to pursuing a career in earth science, which I considered also due to my passion for outdoor work.

What are your fields of interest in water and what motivated your choices?

After falling in love with chemistry and geography in high school, I gravitated towards geology for my university studies. I then took up work in the water sector, focusing on groundwater, and that introduced me to another part of science that's directly linked to geology that I had not paid attention to before - hydrogeology sparked my interest and I took on further studying on a part-time basis, which exposed me to the challenges associated with groundwater - one of which was the attention this water resource gets as an emergency solution during drought periods. My passion then developed towards the awareness-raising side of groundwater, particularly its importance, management and how can we use science to influence policies to ensure that groundwater is developed, used and managed sustainably taking climate change into consideration.

Who are the monumental people that nurtured your path to being a hydrogeologist?

My parents and my teachers played a huge role in my career path. I had several teachers from primary through to high school (Ms Tyaliti, Mr Tyumre, Mr Mazosiwe, Ms Mayekiso, to name a few) who guided me because they were impressed with my academic performance. My parents did not know anything about science so they entrusted my teachers with any education-related decisions that I made and supported me throughout. My mentor, Fanus Fourie, and other hydrogeologists such as Nicolette Vermaak, Sakhile Mndaweni and Sivashni Naicker played a significant role and continue to mould me as a groundwater scientist.



What are your reflections of being a woman in earth science?

From what I have seen, earth science is a challenging, male-dominated field and it becomes a challenging for women to carry out aspects like field work, especially in a country with high gender-based violence statistics. An opportunity for women to take up space in the water sector has been provided and with more women in the sector, it is evident that women can contribute significantly to the field. Women are believed to be care givers and I am personally concerned with community work, so the water sector plays an important role for me because the science space that I am involved in directly influences the social aspect that I'm also passionate about.

In terms of access, what do you imagine needs to be in place to nurture and especially retain women in earth science?

One of the challenges I have identified are in inequality of opportunities where women miss out on work with the assumption that women starting families will negatively impact company operations. I believe, that women should be granted equal opportunities as men based on their interests and abilities.