

GROUNDWATER:

The water we walk on

WHAT IS GROUNDWATER AND WHERE DOES IT COME FROM?

Groundwater is water that accumulates underground. It is part of the hydrological cycle and often overlooked since it is difficult to see!

Groundwater is found in soils and sands able to retain the water — much like a sponge holds water.

The saturation zone is the portion of the soil and rock that is saturated with water, while the unsaturated zone is the portion of the soil and rock that is not saturated. The top of the saturated zone is called the water table.

When it rains, the water infiltrates the soil and percolates downwards until it reaches the water table. Some types of soils allow more water to infiltrate than others.

Groundwater is the source of water for boreholes and springs and also provides water to wetlands.

GROUNDWATER IN CAPE TOWN

Groundwater is found beneath much of Cape Town and feeds the springs around the city.

The City of Cape Town Metropolitan Municipality gets most of its groundwater from three aquifers:

1. Table Mountain

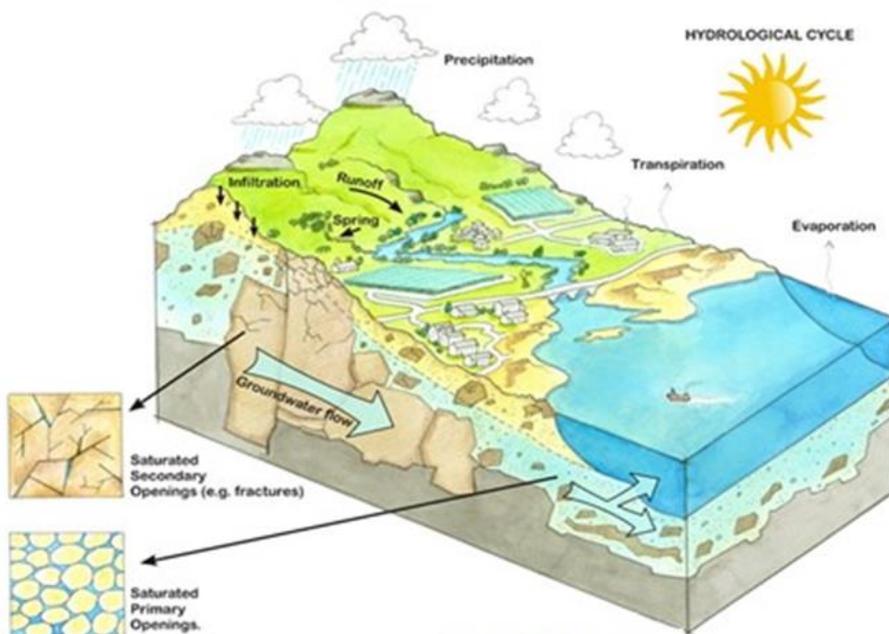
Group Aquifer: A huge aquifer found beneath the mountain ranges of the Western Cape.

2. Cape Flats Aquifer:

A shallow aquifer, which stretches from False Bay to Tygerberg Hills and Milnerton.

3. Atlantis Aquifer:

A large sandy aquifer, stretching inland from the Atlantic Ocean to the town of Atlantis.



By: Helga Hoveka

Isaiah 58 v 11:

The LORD will guide you continually, and satisfy your soul in drought, and strengthen your bones; You shall be like a watered garden, and like a spring of water, whose waters do not fail.

BUT CAN WE DRINK GROUNDWATER?

Is it not dirty?

No, it is not dirty!

You can definitely drink groundwater. Unlike surface water collected in rivers and lakes, groundwater is often clean and ready to drink. This is because the soil actually filters the water.

The soil can hold onto pollutants – such as living organisms, harmful chemicals and minerals – and only let the clean water through. However, it is safest to test the water quality of a borehole before you drink it. Especially if you have a city on top of your groundwater!

<https://www.jacarandafm.com/breakfast-martin-bester/good-morning-angels-special-edition-first-project-waterdrop-borehole-drilled-cape-town/>



HOW DO WE ACCESS GROUNDWATER?

We can reach the groundwater underneath the surface by drilling a borehole (usually deeper than 15 meters) or a wellpoint (where the groundwater is shallow, like on the Cape Flats).

We then put an electrical pump in the borehole and pump the water out from underground, either to irrigate our garden, or use in our household.

PROTECTING CRITICAL GROUNDWATER

The Danish Embassy is funding a groundwater initiative in the Table Mountain Strategic Water Source Area, with WWF being the key implementer of initiatives. The work falls under the Table Mountain Water Source Partnership, operational since 2020, that brings together government, the private sector and local communities – like you – to focus on groundwater. It wants to see groundwater in and around Cape Town well managed, to ensure the continued provision of water to South Africa, supporting its people and ecosystems.

Groundwater awareness is spread in collaboration with the Green Anglicans, a truly exciting collaboration. For more info go to the WWF website (www.wwf.org.za):

www.wwf.org.za/our_research/publications/?32749/Cape-Town-groundwater-fact-sheet

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