



Beneath our Feet : The Hidden Water Source Sustaining Sedgfield

by Charl van der Merwe,
Environmental Ethicist
*On behalf of Sedgfield
Ratepayers Association.*

While most residents of Sedgfield rely on taps, tanks, and rainfall, there is another vital water source quietly supporting the town from below. Just a few metres beneath the sandy soils lies a shallow groundwater system—an alluvial aquifer—that many households already tap into through boreholes or “spikes.”

From the onset it must be made clear that the groundwater we so indiscriminately use is considered a public asset and is subject to national control, meaning that it is common to all and must be managed sustainably. You have a right to use it but use this vulnerable resource responsibly.

Although there is no legislation restricting the water use from these well-points within Greater Knysna, they must be registered with the Breede Gouritz Catchment Management Agency (BGCMA) (<https://www.breedegouritzcm.a.co.za/index>).

Spikes or well points are typically drilled to depths of only 6 to 10 metres and draw water from a sandy aquifer that is both accessible and productive. But as more residents turn to groundwater, questions are being raised about how sustainable this resource really is.

A Natural Underground Reservoir

The Sedgfield aquifer is made up of loose, sandy sediments deposited over time. These sands act like a sponge, allowing rainwater to seep down and fill the spaces

between grains. This process, known as recharge, is what keeps the aquifer replenished. Unlike deeper rock aquifers, this one is shallow and directly connected to the surface. That means it responds quickly to rainfall—water levels rise in wet periods and can drop during dry spells. Because of this, the aquifer is best described as a “local” water source. It depends heavily on ongoing rainfall rather than long-term storage, making it both renewable and sensitive.

A Useful, but Limited Resource

For many homeowners, shallow boreholes are a practical way to supplement water supply, particularly during municipal restrictions or droughts. The ease of access has made groundwater increasingly popular in the area. However, we must be cautioned that the aquifer is limited. If too much water is extracted, especially over extended dry periods, the water table can drop. This will not only affect supply but also quality and can impact nearby wetlands and vegetation that depend on groundwater.

Sedgfield, linked to an open/close estuarine system faces an additional concern: the balance between fresh groundwater and seawater.

The Risk of Saltwater Intrusion

Under natural conditions, freshwater in the aquifer flows slowly toward the ocean, keeping seawater at bay. But if groundwater is over-extracted, this balance can shift.

When pressure from freshwater decreases, salty seawater can begin to move inland, a process known as seawater intrusion. Once this happens, groundwater can become brackish and

unsuitable for use. Even more concerning, this kind of damage can be permanent or take years to reverse.

A Vulnerable System

The same sandy soils that allow water to recharge easily also make the aquifer highly vulnerable to pollution. Anything spilled or discharged on the surface has the potential to seep directly into the groundwater. Common risks include leaking or overflowing septic systems, fertilisers, pesticides, urban runoff, and anything that can be dissolved or is in a fluid system can end up in our groundwater. Water quality can deteriorate quickly if proper care is not taken.

Looking After What Lies Below

The Sedgfield aquifer is a valuable and sustainable resource, if used wisely. To address these risks the following steps can make a significant difference:

- Avoid over-pumping boreholes.
- Regularly assess your water quality as an early warning system
- Maintain septic systems.
- Limit the use of harmful chemicals in your garden.
- Do not dispose of used oil, or any hydrocarbons, paint, or any potential hazardous substance on your garden. It is not a waste sink.

A Shared Responsibility

Groundwater may be out of sight, but it should never be out of mind. The shallow sand aquifer beneath Sedgfield offers a reliable water source, supports local ecosystems, and adds resilience to the community.

Its future depends on how it is used today. As more residents tap into this hidden reserve, the message must be clear: sustainable use is not just an option, it is essential to ensure that this quiet lifeline is there for generations to come. Treat groundwater use with the same respect as you would treat potable water.