

5 ways to start fixing SA's deteriorating water quality

By [Andi Rwegane](#)

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Poor water quality in South Africa is becoming a major crisis across many municipalities in our country, putting at risk our health and economy.



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In April this year, the Department of Water and Sanitation revealed that [34% of South Africa's water systems are at high or critical risk](#). The department plans to further issue 'boil water' notices in several areas with sustained microbiological failures or high levels of E. coli or faecal coliform bacteria.

In May, reports emerged about rapidly deteriorating tap water quality in parts of Tshwane, which the city has since [deemed unsafe to drink in areas such as Rethabiseng and Riamarpark](#).

Rapid urbanisation and growing levels of pollution in our river systems are among key reasons why South Africa is facing major challenges with its water quality. But some municipalities and districts are also running out of money to pay for basic chemicals to clean wastewater, while others lack sound management and expertise.

Compounding this problem is the fact that South Africa is a water scarce country, and more prone to shock climate change events such as extreme droughts or floods.

To start turning things around, several key measures should be adopted, and five of these are outlined below.

1. Making engineers great again

Over the years, many municipalities have started to rely more on administrators and finance managers than engineers when it comes to critical water waste management and maintenance issues.

The reasons for this are varied, with some municipalities seeking structural or cost savings.

To manage water effectively, we do need to start creating an organisational culture of putting engineers more at the centre of decision-making.

These engineers must be of the highest calibre, and should lead administrations on key decisions that will lead to the best quality water and sewage management for an area's residents. Good engineers are like the doctors of our water systems.

Reporting and consequence management

Having the right engineers in place is only one part of the solution. Another critical component is reporting and consequence management within our municipalities and districts.

With the Department of Water and Sanitation moving to republish the *Blue Drop* report this year (after it was paused in 2014), this marks a step in the right direction when it comes to reporting and transparency.

It's important to know that the *Blue Drop* report is not focused solely on water quality but rather with the overall management of water and waste systems. This means that some areas deemed high risk can be just a few steps away from having unsafe drinking water while others actually already need to issue red notices or warnings to residents.

This provides a gauge of where underperformance is occurring. More importantly, it informs government of where it must act swiftly.

In instances of neglect, municipal managers should face the consequences whether it be with fines or even criminal charges. Provincial or national government also then needs to step in and immediately fix problems where local government has failed.

Smarter use of wetlands

[Local research](#) has shown that wetlands can act as additional, natural water filters for our human-made water systems. This is because the plants, soils and even microbes in our wetlands can effectively absorb and uptake many harmful pollutants.

However, this involves a delicate balance as our wetlands also need to be protected in order for them to protect us.

In this regard, South Africa should take a closer look at ensuring that industry should be more responsible when emitting discharge into rivers. This might require implementing stricter rules regarding the quality of water that is pumped from industrial processes into the environment.



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Greater attention to funding, supply chains

Local and provincial governments need to realise that it's a long-term investment when it comes to funding water projects.

It's also important to pay greater attention to supply chains of water maintenance. Purchasing higher quality components or investing more in repairs will go a longer way in ensuring longer term sustainability. We cannot afford to cut corners in this regard, and there must be zero-tolerance for maladministration when it comes to procurement of quality services and products.

Better long-term planning

Finally, bringing all of this together is better long-term planning. Our engineers, working together with our municipal managers, need to ensure that there are long-term plans that seek to improve or maintain high quality water standards for the benefit of citizens.

These plans, such as the building out of new waste water facilities, need to be sound enough that they can stretch over several years and potential changes in administrations. In this regard, we need to become more technocratic as a country when it comes to a precious resource such as water.

As the saying goes, water is life, and we need to do everything we can to ensure that we protect this precious resource so that it doesn't become the next biggest crisis in our lifetime.

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