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Headline: [WATCH] How should the government clean your tap water?

Blurb: South Africa's drinking water comes from rivers and dams, but it's cleaned at water treatment works. Here's how it's done.

Bullets:

- Our drinking water is drawn from rivers like the Vaal, but it goes through a strict cleaning process that removes germs before it gets to our taps.
- However, only half of the water treatment works in a preliminary survey produce water that doesn't have germs that would make you sick.
- Here's how these facilities should work to make sure the water coming out of our taps is safe to drink.

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Water going into taps is cleaned at [water treatment works](#).

For water to be safe to drink, it can't have any bacteria that come from faeces, such as [Escherichia coli](#).

In June, the water and sanitation department released the [Blue Drop watch report](#).

It gives a preliminary overview of the quality of water going into taps.

A tenth of the country's water treatment works were surveyed.

Samples from 75 of the 151 plants surveyed were not safe for drinking.

Here's how water is cleaned so that it's safe to drink.

1. Water drawn from dams goes through mesh screens to remove objects like sticks and litter.
2. It then gets pumped to a pond where chemicals that make small pieces of dirt in the water clump together are mixed in.

The clumps later settle out to the bottom of the pond.

The water flows into another set of bays and the sludge from the bottom is dumped later.

3. Carbon dioxide is bubbled through the water to get the [pH close to neutral](#).

pH is a value between 1 and 14 that shows how acidic or alkaline a solution is. A pH of 7 is neutral.

4. The water passes through a sand filter to remove any remaining bits of dirt.

5. The water gets pumped to a reservoir where it is [disinfected with chlorine](#). Chlorine kills germs like the bacteria that cause cholera.

The clean water is then pumped into underground pipes, which carry it to supply stations. Here [more chlorine is added](#) as an extra failsafe.

6. Clean, safe water is then pumped into large storage tanks called reservoirs.

It is tested more than once to make sure it remains safe to drink.

The water is then supplied to municipalities and distributed to houses.

Which province has the safest water?

According to the [Blue Drop watch report](#), KwaZulu-Natal's treatment works are best, with almost three-quarters of their plants pumping out safe drinking water.

Which province has the least safe water?

Mpumalanga fared worst, with four in five facilities producing water that had more germs than is safe for drinking.

Want more information on the quality of tap water in your area? Use the department of water and sanitation's dashboard [here](#).

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