

Water-wise washing with Green Planet Laundry

As the drought tightens its grip on Cape Town, with level 6 water restrictions now in effect, consumers have implemented various water-saving techniques, from using grey water to flush toilets, to taking two-minute showers and installing rain water harvesting tanks.



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One area of water usage that is particularly difficult to cut back on is laundry. Regular washing machines can use up to 50 litres of valuable municipal drinking water per cycle.

On a mission to save the planet "one load at a time", Cape Town laundromat Green Planet Laundry makes use of purified borehole water instead of the city's municipal water supply. This means that unlike most other commercial laundries, absolutely no tap water is used.

How does it work?

The water used at Green Planet Laundry is 100% groundwater (borehole). Additionally, 50% of the (grey) water used in the machines is recycled therefore further reducing required groundwater.

Water is extracted from a borehole then purified using a custom built water purification system to remove any

contaminants. The water is then ozonated for sanitation and effectiveness in the laundry system. The process is simple, yet highly effective: Ambient air is compressed and then dried. This dry air is then fed through oxygen concentrators to 95% pure O₂. This O₂ is fed into 'Corona Discharge' ozone cells, from which ozone gas (O₃) is produced. The treated borehole water in the storage tank is circulated and via a venturi system, the ozone is injected.

The level of ozone in the tank is constantly monitored and controlled by a sophisticated PLC system with touchscreen control. This ozone-infused water is then pressurized and pumped into Green Planet Laundry's washing machines. The recycled water is recovered and cleaned then also treated with the same circulating and controlled ozone process killing any bacteria and also preparing the water to be used again as prewash or wash water in the next cycles.

This ozone-infused water is then stored in a supply tank, from where it is pumped into Green Planet Laundry's washing machines. Ozone is dissolved into the wash basin throughout the entire wash cycle.

Due to the ozone infusion process, less detergent is required to clean and disinfect clothing and less water is required for the wash and rinse cycles. The entire water purification system including the borehole will be powered by solar energy making their complete water purification system environmentally neutral.

"Municipal water is saved, and our ecological footprint is much reduced," says the company.

Benefits for clothing

According to Green Planet Laundry, there are benefits for clothing too:

- O₃ oxidises soils and eliminates microbes in the linen, leaving clothing clean, sanitised and soft.
- It acts as a biocide, controlling odours and killing viruses and bacteria. It has disinfectant capabilities up to 150% more powerful than chlorine.
- Linen life is increased by up to 50%. Fabrics feel softer and are noticeably whiter.

"Water restrictions in the Western Cape are becoming a permanent fixture, and this is a perfect opportunity through which residents can decrease the number of litres consumed by their household. Green Planet Laundry services are convenient and time-saving, making it the perfect solution for hotels, restaurants, salons., etc. as well as working mothers, students or anyone who wishes there were more hours in a day."

Green Planet Laundry is located in Airport Industria and services all the greater Cape Town areas from Strand to Paarl to Duynfontein to Cape Point.

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