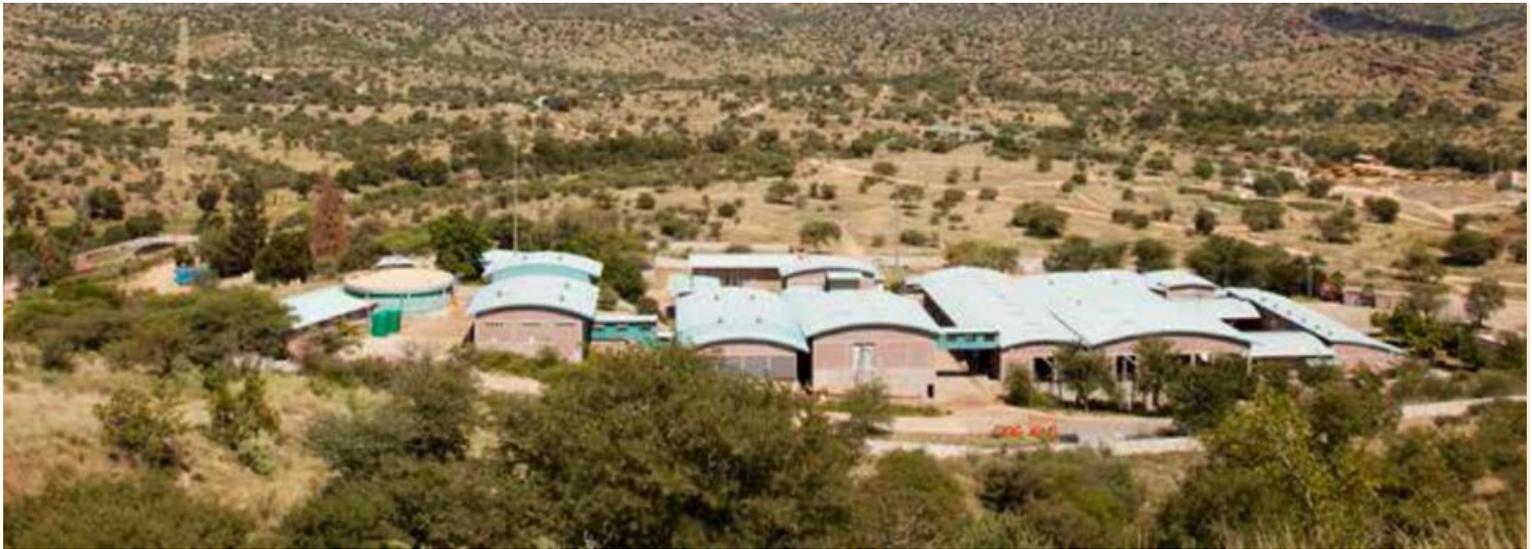


Municipal, Namibia

Windhoek: Wastewater to Clean Water



WASTEWATER TREATMENT AND DRINKING WATER PRODUCTION



CONTRACT DATA

Site: Windhoek, NAMIBIA
Scope: Production of potable water for the City of Windhoek from secondary effluent
 WINGOC Contract
Duration: 20 years since 2002

ACTIVITY SECTOR

Municipal
 Potable water supply

OUR EXPERTISE

- One of the very few plants in the world for recycling treated waste water into clean water,
- The latest technology,
- Constantly monitored water quality.

The challenge

In Namibia, the average rainfall is 250 mm per year. But, due to the heat, 83% of this water evaporates and only 1% filters down into the groundwater. Since this groundwater satisfies app. 40% of the country's requirements, water consumption in the Capital, Windhoek, must be carefully regulated.

In this City, which suffers from chronic water shortage, Veolia and its partner manage the New Goreangab Water Reclamation Plant since 2002.

Veolia's solution

The WINGOC (Windhoek Goreangab Operating Company) contract is a 20-year O&M contract signed in 2001 with the City of Windhoek, Namibia's capital. The two shareholders are Veolia (67%) and VATech Wabag (33%).

The reclamation plant treats large volumes of secondary effluent to produce app. 25% of the overall potable water demand for the capital of Windhoek with more than 400,000 inhabitants.

Windhoek was the first City in the world to directly reclaim drinking water from effluent and is still one of the few places worldwide to do so.

more than
 400,000
 inhabitants
 provided with
 clean water

21,000 m³/day
 produced

First case of direct
 reuse for drinking
 water



The project consists of a potable water treatment plant constructed in 2003. Clean water is produced from waste water originating from the Gammam Wastewater treatment plant, and distributed to the city of Windhoek. The treatment process is very complex with a series of filtration (including a number of membrane stages) and ozonation stages.

This is a global benchmark, as around the world potable water is only produced from waste water in Windhoek and Singapore. In particular, reaching clean water standards is difficult in view of the level of pollution that enters.

The benefits for our client

Contribution to the water supply of the populations of the city in a context of strong urban growth (+ 6% per year).



PLANET

- Contribution to the economic and social progress of the country



WOMEN & MEN

- Transferring skills to local staff.

External Use

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RESILIENCE