case study

Location:
Johannesburg, Gauteng

Customer:
University of Johannesburg

Industry:
Student Accommodation

Final water usage:
Toilet flushing and irrigation of sports fields

Plant information:
64KL Greywater Treatment Plant

Problem statement

The University of Johannesburg (UJ) faced increasing pressure to enhance its water security and reduce dependency on the City of Johannesburg's municipal water supply, especially amid escalating water tariffs. The Ndlovukasi and Horizon student residences generated substantial volumes of greywater daily, which was being underutilized. With rising operational costs and growing demand for sustainable practices, UJ sought a solution that would allow them to reduce potable water use for non-potable applications like toilet flushing and irrigation.

Solution statement

SewTreat provided a full turnkey greywater treatment solution tailored to the university's needs. A 64 KLPD greywater treatment plant was designed, engineered and commissioned to serve both residences. The scope included:

- Design, delivery and construction of a 64 KLPD greywater treatment facility.
- Plumbing retrofits in both residences to redirect treated greywater for toilet flushing.
- Execution of civil works and infrastructure to support distribution and reuse.
- Integration of an irrigation system for surrounding sports fields using excess treated water
- Installation of a municipal top-up line to maintain water availability.

The system uses a combination of biological processes and multi-stage filtration to deliver high-quality water that meets the necessary standards for reuse.

Benefits to the customer

- ✓ Reputational Leadership
- ✓ Water Tariff Reduction
- ✓ Enhanced Sustainability

We saved UJ R1.5 million a year!

SEWTREAT
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