

case study

Location:

Johannesburg, Gauteng

Customer:

Pick n Pay, WBHO

Industry:

Distribution Centre

Final water usage:

Cooling towers and wash bay

Plant information:

500KLPD CWTP and Rainwater WTP

Problem

Pick n Pay Eastport Logistics Park, a major logistics hub located on the R21 highway near OR Tambo International Airport, faced increasing water consumption costs and sustainability concerns. The facility required substantial water resources to operate its cooling plant and truck wash bay, leading to high municipal water expenses. Additionally, traditional water supply methods were not environmentally sustainable, emphasizing the need for an innovative approach to water conservation and cost reduction.

**Solution**

To address these challenges, SewTreat implemented a comprehensive water treatment and reuse system, incorporating rainwater harvesting and biological wastewater treatment solutions.

1. Rainwater Harvesting for the Cooling Plant

- A 3,000,000-liter dam was constructed to collect rainwater.
- The rainwater is treated and stored in a 1,000,000-liter underground sump before being used in the cooling plant.
- This system provides a consistent and sustainable water supply, treating 300,000 liters daily for reuse.
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2. Biological Wastewater Treatment for the Truck Wash Bay

- A biological treatment plant was installed to treat and recycle wastewater from the large truck wash bay.
- The system processes 150,000 liters of wastewater per day, significantly reducing municipal water dependency.

Benefits to the customer

- ✓ Significant Cost Savings
- ✓ Environmental Impact
- ✓ Sustainable and Efficient Operations

We saved Pick n Pay R4.7 million a year!