DURBAN WATER RECYCLING PROJECT
(DWR - KWAZULU NATAL)
Municipal

Water scarcity in the province of KwaZulu Natal in South Africa led to the municipality requiring assistance with treatment of domestic and industrial sewage and wastewater to near potable standard for use in industrial processes. Industrial players in the area were consuming far too high amounts of water and discharging wastewater into the ocean.

| The challenge

- The City of Durban were facing dire water shortages.
- Mondi Paper mill in Merebank (Durban) realised its high water needs, as they were consuming up to 10 Ml/d second class water for almost 4 decades.
- Sapref was the second highest consumer of potable water in the region.
- Reduce discharge of ***high COD*** wastewater into the ocean.

| Veolia's solution

Through collaboration with the eThekwini municipality as well as industrial players, Veolia installed a highly specialised tertiary water treatment process, specifically tailored to meet the high water quality requirements of DWR's main client, Mondi Paper. The specification includes 22 parameters that are measured in the South African Water standard.

It is located in the grounds of of Durban's Southern Wastewater Treatment Works (SWTW), the plant was commissioned in May 2001. The plant has a treatment capacity of 47.5 million litres of domestic and industrial wastewater to a near potable standard for sale to industrial customers for direct use in their processes.

Durban, South Africa

***Contract Facts*:**
Duration: 20 years
Type: concession

47.5 ML/d
wastewater treated

7%
reduction in consumption

24%
reduction in sea outfall throughput

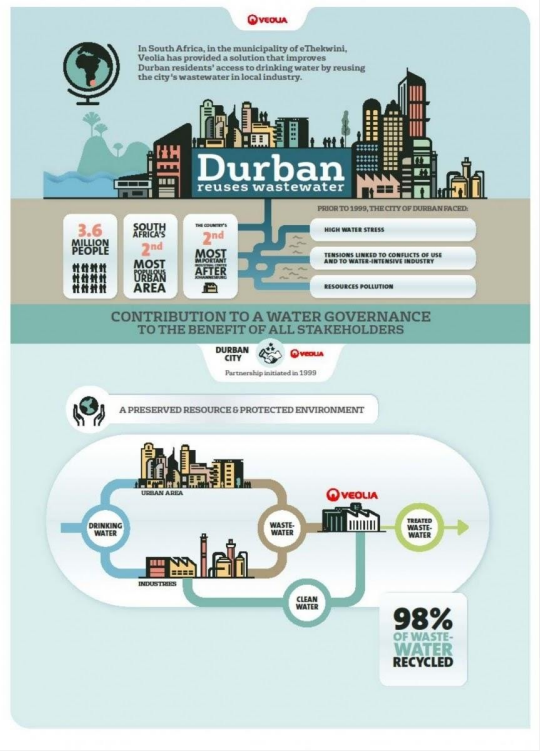
| The benefits

Operation began in May 2001 and the major benefits include a reduction in the overall industrial consumption of potable water and a decrease in the amount of treated sewage being released into the environment.

Further advantages include:

- Economic advantages for all role players (Industry partner enjoys a 52% saving in water tariff),
- Public private Partnership - the first of it's kind, a new contractual and financial model for providing capital for new infrastructure (eThekwini didn't have to do a big capital outlay)
- Conservation and sustainable development of the area's water resources
- Reduction of water demand, Perfect example of ecological transformation model where scarce resources are re-used and there is reduced stress on the marine ecosystem
- Innovative use of water treatment processes and technologies
- Accelerated customer growth in the area as a result of project success

.



> *The success of our DWR plant over the last 20 years has created the confidence to take the concept of water reuse to another level - that of water recycling for potable water consumption and possibility for integration into the current potable water network.*
>
> ***Siva Chetty, DWR Operations Manager***

VEOLIA'S PURPOSE: committing to a multi-faceted performance

SOCIAL

Wealth creation in the supply chain: maintenance spares and consumables, services, products.

COMMERCIAL

Treatment of wastewater consistently produced high water quality to the specification of industrial users = consistent customer satisfaction
Net promoter Score (NPS).

ENVIRONMENTAL

Opportunity for ocean ecology to recover from years of overdischarge of high COD effluent. Avoidance of construction of second discharge line.

HUMAN RESOURCES

Safety is mainstreamed at all levels with ISO9001 and 14001 compliance standards that is reviewed yearly. Since inception no incidents/fatalities.