

# MHLATHUZE WATER

[www.mhlathuze.co.za](http://www.mhlathuze.co.za)

CORPORATE BROCHURE



# A source of inspiration

State-owned Mhlathuze Water is the third largest of the 12 water boards operating in South Africa. Based in KwaZulu Natal, the company supplies an area covering 37,000 square kilometres, from the borders with Mozambique and Swaziland in the north to the Thukela River in the south. The company is responsible for inter-basin transfers, major water treatment plants and an offshore wastewater disposal pipeline, as well as the operation of treatment and sewerage plants on an agency basis for local municipalities. It has been chaired since 2006 by former teacher and noted philanthropist Dudu Myeni.

State utility Mhlathuze Water is not only a full spectrum water company but also a provider of inspiration and support for the people of KwaZulu Natal, South Africa, as Jane Bordenave finds out

## ENGINEERING EXCELLENCE A SOLID FOUNDATION BUILT WITH LONG-LASTING RELATIONSHIPS

Engineers: ILISO in association with MSW and IGODA



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Contractors: Erbacon, Esofranki, Group 5 Pipes, Leomat, PCI Africa



We are proud to be involved with **Mhlathuze Water** in Upgrading the **Nsezi Water Treatment Works**.

The upgrade project involves:

- Upgrading of Raw Water Pump Station: Replacement of old dual lift pumps with a single lift system of submersible pumps (3 duty 1 standby), delivering 205 MI/day.
- Construction of about 4 km of 1200mm steel rising main.
- Construction of new Inlet Distribution Tower, 48m diameter clarifier, 4 filters, pre-chlorination room and 500kl reservoir.
- Upgrading of the Dissolved Air Floatation Plant.
- Refurbishment of the existing works.



“Mhlathuze Water owns and operates the biggest offshore wastewater disposal system in South Africa”

The main source of water in the region is the Mhlathuze River, which rises in the mountainous area of Babanango and flows down to the Goedertrouw dam. This river is of particular importance during times of water shortage and drought, and moving water from the Mhlathuze to other areas is the keystone in one of Mhlathuze Water's main responsibilities: inter-basin water transfer. The centre of the Mhlathuze Transfer Scheme is the Mhlathuze Weir, which has water storage facilities as well as a pipeline running into

Lake Qubu in eSikhaleni. During peak times or when water levels are low, water can be pumped from the weir into the lake to ensure constant, reliable supply.

The weir was constructed in 1983, three years after the company was founded, but was badly damaged by floods and underwent emergency repairs in 1987. Further investment in the facility was made in 2007, using nearly 9,000 tonnes of rock and 1,800 square metres of geotextile to stabilise the riverbed immediately downstream.



## "A Collaborative Approach on Shaping the Future of Workforce & Skills Development"

*We are proud of our partnership with Mhlathuze Water and wish their dynamic leadership team great success.*



***Building the Future:***  
*Embracing Change and Finding Solutions to Workforce & Skills Development with a strong focus on development of local youth, woman and other designated groups. Both in trades and Enterprise Development*

**Richards Bay Technical Training and Assessment Centre (RBTTAC) is an accredited Technical Training and Trade test Centre. The training centre has a rich history that spans 30 years and is owned and managed by Nellenie Naidoo, a local woman entrepreneur.**

RBTTAC is committed to leveraging technology aligned to industry needs to increase access to trade qualifications; learnerships; skills programmes and entrepreneurship. We are in the process of procuring more equipment to enhance additional access as well as to achieve quality of learning outcomes.

Our learning programmes supports the priorities and goals for economic transformation in South Africa - Key focus areas are:- Apprenticeships; Learnerships; Technicians in Training; Recognition of Prior Learning; Skills Programs & customized Industry Focused training.

Our Trade Test Centre currently offers Boilermaking; Electrician; Fitters; Welding & Millwright trade test assessments. We will be expanding this service to cater for additional trades.

Our partnership approach with Mhlathuze Water allows us to grow as an SMME enterprise and we look forward to a progressive strategic partnering to meet our major socio-economic needs in South Africa and our local communities has this is an imperative for economic prosperity.

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Now, as part of the company's five-year plan, R189 million for a further upgrade to increase the water supply was recently awarded.

An additional part of the inter-basin transfer system consists of two pump stations that pump water to Hillendale Mine (Exxaro) to supplement the supply of Lake Nsezi during periods of low rainfall. This augments the water supply to Nsezi Water Treatment Plant, the organisation's flagship installation. Water is pumped from the lake through the raw water pump station by four on-site pumps working at a rate of 2,100 cubic metres per hour (2.1 million litres per hour). The purification process consists of removing large debris such as branches with bar screen rakes, then taking out smaller debris with a fine screen, before the water is chlorinated and purified. The clean water



# Bhekimpilo Trading cc

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is then moved to the special reservoir outside the plant and finally pumped to the uMhlathuze municipality straight to the Brackenham reservoir at a rate of 27,000 cubic metres per day.

The final part of this cycle is wastewater disposal. Mhlathuze Water owns and operates the biggest offshore wastewater disposal system in South Africa, consisting of two pipelines that stretch four and five kilometres out to sea respectively. The first line, known as the A-Line, is connected to Alkantstrand pumping station in the Richards Bay harbour, transferring wastewater from certain industries and domestic effluent in the Richards Bay area. The sewage from this pipe is passed through diffusers and mixed with seawater before being discharged into the sea.

A laboratory information management system (LIMS) has also been put in place to improve the traceability of samples. The laboratory carries out over 200,000 tests annually, with samples coming from water, effluents, sludge, wastes and soils taken from taps, rivers, reservoirs, boreholes, sewage works, drains, farms, factories and estuaries.

For Mhlathuze Water, caring for the local community goes beyond the provision of clean water. One per cent of the company's turnover is invested back into the local area, which is driven not least by Myeni's commitment to philanthropy and corporate responsibility. In December 2007 she was awarded the Inyathelo Award for Women in Philanthropy, and she is also at the forefront of the company's commitment to ensure that both

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While the A-Line deals with 'buoyant' wastewater, the B-Line processes dense wastewater, which can be more problematic. After a 2004 feasibility study, the B-Line was put in place, connecting to the local fertiliser plant, Foskor, and disposing of gypsum diluted with seawater. In 2007, a large-scale project to increase the capacity of the pump station and extend the offshore B-line began. The project was completed in 2008 and consists of a dedicated pump station and offshore pipeline.

In addition to this cycle of movement, treatment, provision and disposal, the company also engages in scientific research for itself and third parties. Mhlathuze Water Scientific Services was originally an internal monitoring system, but now provides world-class services to its clients. It was given ISO/IEC 17025 accreditation by the South African National Accreditation System (SANAS) in May 2002 and, in addition to complying with the rules governing this certification, the laboratory also participates in two inter-laboratory proficiency performance evaluations: the SABS Water Check Study and the Inter-Laboratory Chlorophyll-A Study.

its employees and the people who benefit from its services are treated with respect.

Direct policies driving this high level of corporate and social responsibility include financial support of Zululand University and a bursary for 'Women in water', which is designed to help to balance the ratio of men to women in the water services industry. Myeni is very proud of having increased the number of female employees within her own company; additionally, the organisation has attained a target of 35 per cent of suppliers being black, another of Myeni's initiatives.

In many ways, Mhlathuze Water is two distinct entities: it is a supplier of clean drinking water to the people of KwaZulu Natal, without which the area's municipalities could not thrive and grow. But it is also a provider of stimulation and support to the local community, striving for a future that is even better than it could be. A clear five-year plan and Myeni's strong leadership will ensure that Mhlathuze Water will continue to be a source not just of water, but also of excellence and good practice in business. [www.mhlathuze.co.za](http://www.mhlathuze.co.za)

# Inselelo ENGINEERING

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