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Water and Sanitation in the News

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Water and Sanitation on Waste Water Treatment Plants

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In its effort to stem the tide of pollution of rivers, the Department of Water and Sanitation (DWS) has set aside more than R300 million to upgrade 26 dysfunctional waste water treatment works in parts of Gauteng and the Free State.

This comes amidst fears of untreated sewage flowing into the Vaal River posing a serious threat to the environment, social and economic uses of water. Following the fears, in 2015 the department appointed an engineering and consultancy firm to determine if Refengkgotso Waste Water Treatment Plant in Deneysville contributed to pollution in the Vaal River.

According to the preliminary report released recently, Refengkgotso WWTW which is managed by Metsimaholo Local Municipality, though originally designed to treat 2.0 mega litres per day, exceeded the capacity by more than 150% by the end of 2015. It was instead receiving average daily inflows of about 57 litres per second which works out to about 5MI/d, meaning that the plant was overloaded.

A technical analysis done on the infrastructure of the plant shows that the quarry to which the non-compliant treated sewage was pumped is small. However, the Metsimaholo Local Municipality undertakes regular maintenance on the facultative pond, two aerobic ponds, bio-filter tanks, humus tanks, maturation channels and sludge dry beds as these are in good conditions.

This and other events elsewhere resulted in an emergency intervention being launched by the department to repair 26 dysfunctional WWTW through the allocation of about R300 million.

Addressing a media briefing at the Bothaville and Viljoenskroon Waste Water Treatment Plants in the Free State, DWS' Project Manager in the Free State, Alfred Mbelu, said the department's intervention in refurbishing the 26 plants would have a socioeconomic and environmental spin-offs on the Vaal River and would create jobs for locals.

Acting Chief Executive Officer for Vaal Catchment Management Agency, Dr Khononani Khorombi, said Vaal River is a strategic water resource that supplied the economic hub of South Africa with water for economic development. The river provided 60% of water to Gauteng and 40% to the country, making it the lifeblood of South Africa.

"Since the beginning of the year we have met with municipal managers and technical directors from 18 local governments to get to the bottom of the pollution. In these meetings we found

Municipal Assistant

that dysfunctional waste water treatment plants were at the heart of pollution of the Vaal. We intervened by taking samples of the polluted system and subsequently we put aside R320 million to address the problem," Khorombi said.

Minister Mokonyane promised the mayors of affected municipalities that she would do something about the problem and "our visit here today is part of that intervention."

Mfanukhona Hlatshwayo, Director of Internal Control in the DWS said "the department would train technicians in the municipalities with a view to transfer skills to local governments to ensure proper management of treatment plants after completion of the project. The department planned to complete the refurbishment of all 26 plants by December this year."

Sources: AllAfric.com, 14 Sep 2016

Municipalities can easily do accurate capacity planning for their WWTW and prevent future sewage overflows by using the **Municipal Assistant™** module named **"Sewage Loads Estimator"**. The purpose of this module is to assist clients to calculate the Sewage Loads for a WWTW (Industries Flows and Quality & Domestic Flows and Quality). This is an EASY tool to use to determine if a plant is overloaded.

The system also assists in identifying why and when it is overloaded, and what needs to be done to solve the issue. The module works by taking all the plant components as specific to a particular works and thereby facilitates easily conducting plant specific audits on the adequacy of the design capacity in relation to current or planned operating conditions and loads.



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WAMTech are specialists in implementing technology systems for improved governance, focussing on Water and Public Health Information Systems

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