

Recycling of effluent water raises queries

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UMGENI Water is considering a radical plan to avoid water shortages in Durban and Pietermaritzburg by recycling sewage and other waste water into drinking-quality tap water.

Although no decision has been taken, Umgeni Water has appointed consultants to test public perceptions around the contentious plan.

The water firm is looking at two options. The first is to purify domestic effluent at the Darvill waste-water treatment works near Sobantu, Pietermaritzburg, while the second involves collecting water from the heavily polluted Umgeni River and purifying it at Umlaas Road, near Camperdown.

Umgeni initiated the first studies in 2006, which led to a focus group meeting late last year to test public perceptions.

Although several cities around the world are exploring options to purify and reuse waste water,

Namibia's capital, Windhoek, is believed to be the only African city which purifies sewage effluent to drinking-quality tap water.

But according to a report prepared by consultants Knight Piesold and Phelemanga Projects, concerns were raised at the focus group meeting that the first option to purify sewage effluent at Darvill ran "the risk of public sabotage"

because of sensitivities associated with drinking purified sewage effluent.

The second option also involves an indirect form of recycling sewage effluent since it relied on drawing water from the Umgeni River, which is polluted by several industries and informal human settlements, along with semi-treated water discharged from the Darvill works.

Surprisingly, however, the report suggested that the semi-treated effluent from Darvill was of higher quality than the Umgeni river water and actually helped to dilute and purify the river water.

The report also noted that several concerns were raised at the focus group meeting about cultural and religious-based objections to drinking purified effluent.

There was also concern that if certain municipalities were unable to operate sewage-treatment plants properly in some parts of South Africa, there could be doubts in the minds of the public about the safety of drinking purified sewage water.

A further concern was that more work was needed to establish the level of heavy metals and endocrine disrupting chemicals (EDCs) in the treated water from the Darvill works.

This was because there was

growing concern about the volume of "gender-bending" natural or synthetic EDC hormones and chemicals in human-polluted waters which have the potential to cause sexual deformities or altered sex ratios.

There were also a number of environmental concerns about

both options, since drawing large volumes of water for human use would reduce the amount of water in the Umgeni River.

Some of those at the first focus group meeting suggested that before any decisions were taken, alternative options, such as building new dams, desalinating sea water or harvesting rain water from the roofs of houses, should be examined.

According to the report, between 36% to 39% of water was going to waste in Durban because of leaking pipes and the theft of water.

The eThekweni Municipality is spending R850 million to curb water loss by replacing nearly 2 800km of old asbestos cement water pipes with PVC pipes in greater Durban before July 2010.

Although a final date has not been set, the consultants plan to organise a "reference group" meeting in mid-April.

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