

Water and Sanitation in the News

SA's perilous water problem

South Africa's perilous water predicament is being exacerbated by **shoddy infrastructure, non-paying consumers and tariffs being charged that do not cover the cost of providing water**. These are some of the key findings of a performance and expenditure review of the country's water delivery chain, initiated by the National Treasury between 2014 and 2016.

Average water levels in the country have dipped below 50% and water restrictions have been imposed in major cities. The El Niño climate phenomenon has run reservoirs and dams dry, forcing the national government and municipalities to institute stringent restrictions to save the little water the country has left.

But despite these measure, there are numerous water wasters in the largest metros: for instance, Jo'burg phased in water restrictions last year. Households using more than 20 000 litres a month now face penalties. The biggest household water users live in Waterval in Midrand, where each property laps up 159 000 litres a month, trailed by Witpoort at 111 000 litres and Westcliff, where homes use 96 000 litres a month. Households in Parktown use on average 90 000 litres a month, and North Riding properties use 87 000 litres a month. Meanwhile, the department of water affairs has warned Gauteng's 13-million users that water must be used sparingly, with the Vaal River at its lowest level ever.

At eThekweni (the greater Durban area), measures taken include shutting down the water supply overnight to reach its target of 15% water savings. The area's supplier, Umgeni Water, is also considering implementing a drought levy on the municipality, among others, to ensure that the water left can last until the drought breaks. eThekweni's biggest household water users consume on average 43 499 litres a month and live in Broadway, Glen Anil, La Lucia and Umhlanga. Hot on their heels are the residents of Rosburgh, Clairwood, Ocean View and the Bluff, who sponge up about 42 618 litres a month, and Jacobs and Isipingo, where homes use some 42 051 litres a month. Waterfall, Kloof, Pinetown, Dawncliffe and Reservoir Hills use on average 41 445 litres a month, and residents of Waterloo, Redcliffe, Belvedere and uThongathi average 39 246 litres a month.

Besides water being wasted and hugely overconsumed, the cost of water, **water losses and non-revenue water continue to be major concerns nationwide**. The budgets of several water providers were analysed during the review by National Treasury, including Umgeni Water Board, Magalies Water Board, eThekweni Metropolitan Municipality, Swartland Local Municipality, Rustenburg Local Municipality, Westonia Local Municipality, and Vaalharts Water.

Trends identified revealed that bulk purchases of water accounted for nearly 50% of municipal water services costs. Water service providers had little direct control over unit costs per kilolitre of bulk water. However, **improving the efficiency of water use and reducing physical water losses would help reduce the need for bulk water**.

"Water loss is considerable – the physical loss of water in the sampled municipalities ranged between 4.4% and 28%, which negatively affects their revenues," said the executive summary of the review report. "Repair and maintenance spending varied between 4% and 23% of total expenditure in the sampled municipalities. **Spending generally fell short of the levels required to maintain and improve the water infrastructure assets.**"

Weak revenue management undermined the sustainability of providing water. "The tariffs set by the four municipalities in the review did not cover the full cost of providing water. The shortfall averaged about 30% of total costs per cubic metre, which is both unsustainable and too large to be covered by the equitable share grant." Adding to the problem was the fact that not all consumers paid for water – either because they were not billed, did not pay or their debts were not properly recouped.

Infrastructure was a major concern. "Physical water infrastructure should be substantially improved. The review found very high levels of non-revenue water (water that incurs costs but generates no income). This includes both water losses through leakages in the system and water for which consumers fail to pay". "In the four municipalities reviewed, discrepancies between the volume of water sold and the volume of water managed ranged between 18% and 58%. These numbers support recent estimates of non-revenue water being around 37% across municipalities nationally," said the review.

If repairs, maintenance and refurbishment led to a reduction of non-revenue water to 25%, the four municipalities could realise an additional R800 million a year. Extrapolated across all municipalities, the R25 billion revenue collected for water services in 2013/14 could rise by about R5 billion a year.

The review noted that an estimated 60% of municipal water infrastructure needed to be renewed. A Department of Water and Sanitation report in 2012 estimated that new investment of about R400 billion was needed, over 10 years, to address these needs.

Sources: *TimesLive*, 01 November 2016; *Mail & Guardian*, 13 October 2016

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