WAMTECHNOLOGY
www.wamsys.co.za

WAMTech Bulletin 44, Volume 2
09 July 2015

Water and Sanitation in the News

South Africa probing socially acceptable low- and no-water sanitation alternatives

South Africa might face significant water stress and possible outright water scarcity in 10 to 15 years, unless its citizens adapt their behaviour with regard to efficient water use and sanitation systems. Significant work is being done to assess the viability of low-water and no-water sanitation technologies, yet the main barrier to their effective deployment remains the behaviour of users and their acceptance and adoption of these technologies.

Waterborne sanitation is an aspiration and end goal for most people in South Africa, regardless of their local context or the availability of water and infrastructure to support waterborne sanitation. However, the development and deployment of new or alternative sanitation systems by commercial companies are also beginning to provide the context for users to change their habits pro- actively and supported by suitable products and services. "There are many evolving technologies that can eventually form part of the sanitation delivery chain. We must allow new technologies and innovations space to emerge and to form part of a new and more diverse, sanitation industry," says Water Research Commission (WRC) water use and waste management executive manager Jay Bhagwan... However, environmental and contextual constraints must be considered when deploying new technologies and are some of the key reasons that no single technology can effectively address all the sanitation challenges in South Africa, notes Bhagwan.

About 40% of water consumed by South African households is used only to flush toilets, while about 60% of the total water and sanitation costs in South Africa is used to fund treatment of this contaminated wastewater, he emphasises. On average, 200 g per person of human waste a day is flushed down the toilet, while 6 ℓ to 9 ℓ of pure water is used for each flush. "This is unsustainable in South Africa and, while waterborne sanitation has been an effective barrier to diseases since the Renaissance, it is economically and feasibly impossible to provide all South Africans with waterborne sanitation," he says.

About 74% of South Africans have access to sanitation. Many of the country's wastewater treatment plants are unable to cope with the volumes of wastewater they must treat, and many of the country's rivers are polluted with inadequately treated effluent from these plants, which may harm the health of downstream communities, damage ecosystems and increase the treatment burden to clean water abstracted from rivers for drinking…

Source: Engineering News, 03 July 2015

Context

Given the droughts persisting in large parts of the country, the introduction of technologies that would help lessen the tremendous pressure on current waste water treatment plants (with already inadequate capacity, aged and poorly maintained infrastructure) could play a vital role in protecting ecosystems and ensuring future water supply. In May, Minister of Water and Sanitation, pledged her department's commitment to a "sanitation revolution" in the country by pursuing the implementation 'dry flushing' technologies in South Africa's communities. Mokonyane said this included using chemicals, heating systems and far greater use of recycling methods – for example, using "grey water", which can be used over and over for more than five years.

Source: News24, 21 May 2015