

Wastewater management is a critical pillar to preserving our water - and environment



By [Kate Stubbs](#)

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It's no secret that South Africa struggles with water scarcity, and many believe that the country will face a major water crisis in the coming decade.



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The Department of Water Affairs and Forestry's (DWAF) has acknowledged this reality itself and has said that South Africa is under threat if resources are not better managed. So, choices must be made. Choices which will have implications not only around water availability, but must seek to alleviate poverty, support job creations, as well as drive electricity generation and access. All these choices not only relate to the energy future of this country, but the development of our economy.

Diverse water mix

With 7 of the 13 major water systems in South Africa predicted to be in deficit by 2040 and the demand for water expected to exceed available supply by 2030, we need to find solutions. For some, a starting point may not be waste management – but its impact on supporting sustainable water supply cannot be understated, especially if we want to reach a point where SA's water needs are met, then a much more diverse water mix is required, including groundwater and water reuse.

Recycled water

So today, wastewater has become a critical consideration, and the treatment thereof even more so. In fact, wastewater, treated to the required standards - as set out by national environmental agencies - means that this water can be reused effectively and nearly all effluent can be recycled.

As a result, a large bank of water could become available, which previously may not have been considered as 'safe' for the environment or community. The different technologies are so advanced that effluent can even be treated further to provide potable (drinking) water for areas where it is in short supply.

Focus on management

Yes, we must also fix the infrastructure and skill deficiencies – as well as start embracing technologies – but, right now, correct wastewater management will not only result in the redistribution of water into the environment (for example for irrigation or dust suppression) but to replenish rivers and catchment areas in our water infrastructure networks. And this is why wastewater treatment can, and must, play a pivotal role in reducing water scarcity.

Shifting models

However, we have a conundrum where business, community and at some levels of Government - are still under informed about the potential of well-managed, compliant, and innovative waste management solutions.

Therefore, to make an impact, we need a shift from the traditional linear production process – ‘the take-make-dispose model’ - towards one that aims to reduce all unnecessary waste materials, while still decreasing the consumption of energy and raw materials and being able to feed these back into the production cycle. The ‘Circular Economy’ model.

Adaptable solutions

It also means that solutions need to be developed that are adaptable for the big corporate, as well as the ‘man on the street’ – where wastewater treatment becomes the norm and not a far-off vision. Without this approach the lack of adequate clean water required to meet human drinking water and sanitation needs will remain. So, as we move into 2024, there has never been a better and more pressing time for companies within the public and private sector to play their part in sustainable management.

More effective management

Protecting our limited water resources is going to require not only better recycling and reuse, but more effective wastewater management and water conservation strategies.

Water is a limited resource that is essential for all life on this planet, which makes it more astounding that so many of us simply take it for granted, especially in a semi-arid country like South Africa. Given the unpredictable nature of climate change and the increasing demands on limited water resources, the potential for water scarcity to become a severe crisis in South Africa unfortunately remains.

ABOUT KATE STUBBS

Kate Stubbs is the current group business development and marketing director for the Interwaste Group which forms part of Séché Environment, an international environmental solutions business.

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