

Water management – a part of sustainable construction

Comparatively, South Africa is renowned for having one of the cleaner water supply systems in the world. While constant access to fresh water has been a given to most of us for all our lives, water is not infinite and is increasingly coming under threat. We have witnessed climate changes that have seen rainfall patterns fluctuate unpredictably. Various factors are progressively rendering water a scarce resource. As major consumers of water, the role of industry in conserving this precious resource is paramount.

With a population of over 50 million to provide for, South African municipalities have the mammoth task of providing access to clean water. Amongst other things, rapid population growth, urbanisation, increased economic activity and industrialisation have all put pressure on already insufficient water resources. The existing infrastructure is deteriorating and there is a worrying decline in the quality of municipal water, making an increasing amount of water unsafe.

While the government has a major role to play in managing our natural resources, we can all make a difference. It is necessary for conservation efforts to come from both industrial and home environments. With enough time and effort invested, industrial and manufacturing facilities provide ample opportunities for more efficient use of water. With little or no additional treatment required, it is possible to recycle and reuse water. Besides being cost effective, water conservation is a must if we are to consider the needs of generations to come.

With industry consuming a high percentage of water, conservation efforts can also be the solution to the ongoing water pollution challenges that we frequently experience. So often, industrial waste products such as heavy metals, solvents, toxic sludge and others pollute our fresh water systems. Sustainable water management practices could offer solutions to such challenges.

In the construction industry, efforts should be directed towards good site management practices, including designing the project for efficient water use, even after completion. Investing in efficient water use can yield major cost savings throughout the life of the structure. Construction projects offer opportunities to implement water-efficient programmes and learn from the various strategies that have been developed from around the world.

There is an increasing need for us to adopt processes that best serve the interests of the environment. It all starts with a conscious decision to work towards water conservation and then thoroughly scrutinising all processes for opportunities. Aspects such as awareness building, efficiency measurement systems, monitoring and reporting are a good start. As we build on this knowledge, we can always adjust solutions to incorporate new learnings in order to achieve maximum efficiency.

Together, we can make a difference.