

GBCSA shares water-saving tips

South Africa is the 30th driest country in the world, and water is becoming one of our most scarce resources. The impacts of our uneven and irregular rainfall patterns have been sorely felt this summer, with serious water restriction measures having been put in place by most municipalities.



Dorah Modise, CEO of GBCSA

There are a number of solutions, however, and green building is one of the simple and highly effective ways to save water, explains Dorah Modise, CEO of Green Building Council South Africa (GBCSA).

“Green buildings not only encourage water savings but ensure water is used wisely with innovative water-efficiency and water-capturing solutions,” says Modise. “They help to assess existing water resources and identify opportunities for reducing water demand, as well as capturing water and using alternative water supplies.”

Green Star SA and EDGE

GBCSA’s rating tools – Green Star SA and EDGE – have aspects that focus specifically on water, while the Energy Water Performance (EWP) tool specifically allows benchmarking of existing office buildings’ water and energy consumption against an industry mean.

“We are acutely aware of evaluating potable and non-potable water use in design, construction and operation of buildings according to best practice. Our rating tools reward projects for doing well in their water initiatives,” explains Modise.

Some of the most common features of green buildings include efficient plumbing fixtures, submeters to better manage water supply and use, rainwater harvesting for uses such as irrigation and ablutions, and locally adapted or water-wise landscaping.

Top-rated projects

Among the top-rated projects for water conserving measures is Growthpoint Properties' developed and owned Grundfos Building in Germiston, Gauteng. It has a rainwater harvesting and filtration system that uses Grundfos pumps and filtration equipment, purifies water to drinking quality and supplies both the office block and the warehouse. Municipal water is used for top-up only in the dry winter months.

Another stand-out water-smart building is the Aurecon West Building in Century City, Cape Town, which was developed by the Rabie Property Group for owners Ingenuity Property Investments. Its potable water is conserved by using treated effluent from the Potsdam Wastewater Works for all the irrigation needs as well as also treating it to an improved quality and using it to flush all the toilets and urinals, thus negating the two largest water demands.

It isn't only water-saving buildings the GBCSA is encouraging, it is entire water-saving communities.

Its latest tool, the Green Star – Communities rating tool, is being piloted and applied to the local context in South Africa. It will help governments, development project teams, contractors and other stakeholders to develop more water-efficient and sustainable large-scale projects, including neighbourhoods and precincts.

The GBCSA has suggested the following water-saving tips for office environments and municipalities:

For the office:

- In addition to flushing and irrigation, harvested rainwater and grey water can also be used in fire sprinkler systems and cooling towers.
- Offices can also reuse black water (treated sewage water) in some instances.
- Besides low-flow taps and shower heads and dual-flush toilets, sinks in office bathrooms can also be fitted with taps that only run for a few seconds at a time or heat pumps that ensure hot water flows immediately, to avoid people wasting it before it heats up.
- Install automatic shut-off valves that utilise a leak detection system, especially for schools and offices.

For municipalities:

- All of the above can be implemented at their own premises.
- Run education and awareness campaigns internally and with rate payers.
- Install automatic shut-off valves that utilise a leak detection system, especially for schools and offices.
- Focus on cost-saving benefits for water users, not just punitive measures.
- 'Humanise' the water shortage story without being sensational, such as SARS did with the tax story.
- Make consumption more relatable to the consumer, such as explaining that a kilolitre of water can be used to fill 55 buckets with water for washing.
- Share the story of water in green certified municipal buildings versus non-certified buildings, and show how much money green buildings save.

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