

Environmental Design and Construction Magazine

Toilet Water Used for Drinking Getting over the "Yuck Factor"

Posted: April 21, 2011

According to recent reports, the island nation of Singapore is aggressively developing systems to recycle toilet water into tap water.

The reports note this is necessary because the island, with 5 million people, currently imports water from nearby Malaysia.

The Singapore government believes this reliance on another country for drinking water is no longer in its country's self-interest, which most of its inhabitants agree.

This is not happening just in Singapore, according to Klaus Reichardt, CEP and founder of Waterless Co., LLC, manufacturers of no-flush urinal systems and other restroom products. "It's even happening here in our own backyard."

Reichardt says that parts of Orange County, California, began purifying sewer water as far back as the 1970s. In recent years, due to California's chronic water problems, this capacity has been ramped-up significantly.

"Many experts say water will likely be the oil of the 21st century," adds Reichardt. "Once we get over the 'yuck factor,' recycling sewer water will likely become more accepted. Thankfully, we have the technologies to do this safely."

It is estimated that nearly 900 million people worldwide currently lack access to safe drinking water. This number is expected to increase with population growth and as many emerging nations lift their living standards, amplified water consumption needs.

According to reports, among other steps in the water recycling process, sewer water travels through a process called microfiltration, passing through hundreds of membranes smaller than a human hair to remove impurities.

It is then "zapped" with high intensity ultraviolet lights and hydrogen peroxide is added to kill remaining organisms.

"In Orange County, the water department even conducts tours so visitors can see how sewer water is converted to potable (drinkable) water," Reichardt says. "After the tour, most people are so impressed, they often feel comfortable drinking the water."

For more information, visit www.waterless.com.