

Public Notice

REACHING THE CUSTOMER

Use Water Science to Bolster Customer Appreciation

BY MATTHEW JUNKER

Water utilities depend on customer support for a wide range of initiatives, from new budgets to special projects that require additional charges. Customers who are favorably impressed with a water utility are most likely to support increased service charges when they're required. Also, where there are good public relations, customers will be more tolerant of problems such as temporary tastes and odors, voluntary conservation measures, or repairs that require service disruptions.

Many customers take the availability of safe drinking water for granted and don't react well to service disruptions. To adjust this thinking, the Municipal Authority of Westmoreland County (MAWC) in Western Pennsylvania has employed outreach efforts—primarily to students—that combine a water science demonstration and education about the world's unmet needs for safe water.

Although water professionals know the delivery of safe, clean, adequate, and affordable water to homes is a privilege many don't enjoy, a challenge we often face is how to make the public appreciate how lucky they are. If you've ever received a phone call from a customer who's had their shower interrupted, it's clear customers tend to take their water service for granted. Many customers have come to expect their water service to continue uninterrupted and aren't understanding when it doesn't. So how can we change customers' attitudes?

USE OUTREACH TO ENGAGE CUSTOMERS

At MAWC, we use outreach as a tool to change customer attitudes a little bit at a time. Combining a water science demonstration with some history, we describe instances when water service was unavailable or even the source of disease, then contrast that with how good we collectively have it now.

The presentation has two components. First, we show customers (mainly school-age children) a flocculation demonstration: I decant some muddy water, usually from a nearby swamp, into a clear bucket. After explaining that drinking this water would likely make us sick because of bacteria, parasites, or viruses, I add a packet of water treatment chemicals formulated jointly by the Centers for Disease Control and Prevention (CDC) and Procter & Gamble to reduce waterborne disease. At the high school level, I present to classes ranging from general science to advanced chemistry, where I can present the unsolved equations for ferric sulfate and

calcium hypochlorite and their interaction with water as students watch the reactions play out in the bucket. We then talk about the use of gaseous chlorine, chloramine, and polyaluminum chloride at our plants and discuss corrosion control chemistry.

The second part of the presentation highlights how great the water service is in the United States—the CDC calls it *one of the 10 greatest public health achievements of the 20th century*. I explain that the flocculation the students witnessed is similar to what goes on at many surface water filtration plants, and because our customers need water every day, we can't stop treating and delivering it when the water turbidity is high.

While the audience watches the chemicals work and the dirt drop out of the solution, I provide perspective about the value of safe drinking water, relying in part on DrinkTap's (www.drinktap.org) "The Story of Drinking Water." After I discuss the ancient Egyptians being the first to record sand and gravel water filtration, I describe how in early US history we contaminated our drinking supplies much as we assume the ancient Egyptians did—by using our waterways as a means of waste disposal as well as a source of drinking water. Farm animals' waste also corrupted our water sources.

I present a graphic from the CDC that illustrates the drop in waterborne disease in the United States and correlate it with the adoption of chlorine as a disinfectant after its first use in the country in 1908, stressing that the safe and clean water we take for granted today wasn't always available and still isn't in many places around the world. According to the [World Health Organization](http://www.who.int), nearly 800 million people worldwide lack even basic access to clean and safe drinking water, meaning they live farther than 30 minutes from the closest supply. And despite the effort involved

Water Science Engages Customers

A five-step flocculation demonstration shows basic water treatment principles in action.



in lugging 8.34 pounds per gallon back home, that water can still make them sick. Worldwide, more than 800,000 people die each year due to waterborne disease, nearly 300,000 of whom are children under five years of age.

SEE CHALLENGES AS OPPORTUNITIES

The water industry's problems are daunting. Lead, per- and polyfluoroalkyl substances, and other contaminants of emerging concern; the push-pull of overdue system reinvestment; and affordability are just a few issues we face. When it comes to projects to replace old infrastructure, meet new regulations, or upgrade our systems, customers opening their wallets a little wider is largely where we're going to get the money to

conquer these difficulties—and these young people are our future customers.

We also use our outreach efforts to talk to older students about AWWA's Water Equation campaign—the fact that there aren't enough young water treatment plant operators in the pipeline to replace those who are eligible for retirement in the near future.

When talking about how to help those in need of access to clean water, I also discuss Water for People. I compare it to the flocculant/disinfectant powder used in the demonstration, which has a short-term impact, and the construction of water treatment and wastewater facilities by communities under the direction and guidance of Water for People volunteers. Water for People is obviously more

sustainable but more expensive and difficult as well. Both programs have a role in supplying safe drinking water to those who need it. In concluding discussions with the students, I encourage them to visit the websites of both programs, www.csdw.org and www.waterforpeople.org.

Although there are many available tools to reach your existing customer base, such as newsletters, surveys, and bill stuffers, active outreach to all age groups can be a powerful tool to adjust customer appreciation for water and wastewater services. The point of outreach is to affect the present and win in the future. Engaging young people will go a long way toward achieving these goals, as they are our future customers and, potentially, future water professionals. 