

Solutions for Water Scarcity



By Kristi Mailloux

Best practices can help prevent water supply from becoming an issue

As the population increases and the demand for more water grows stronger, the state of water supplies is becoming an issue. Water supplies are dependent on factors including location, annual precipitation, nearby facilities available to transport water, the source's reliability, and timing. Today, there is a definite need for new, more cost-effective water conservation tactics that take all factors into account. Understanding the current state of water in the U.S. is paramount in efforts to find a water supply solution. According to the U.S. Environmental Protection Agency, water supplies are not infinite. The Earth is made up of 70% water, but less than 1% is available for human use. This contrast between the total water supply and the amount of water adequate for use speaks volumes about how critical a resource issue this is.

Past Solutions for Water Scarcity

There are many solutions for customers to support their water conservation efforts. The city of Ventura, Calif., sought assistance in achieving its conservation initiatives. The city works to provide sustainability kits to residents through community events or form submissions. The sustainability kits it provides include AM Conservation Group's (AMCG) products, from flappers to custom-made indoor and leak conservation kits.

The company delivered water-efficient shower

heads and nozzles, among other products that would help the city of Ventura with its community outreach practices. The end result amounted to grouped products that not only benefited this client's sustainability movement, but also were economically sound. AMCG's work with the city of Ventura has demonstrated how each community can be transformed by applying easy-to-follow sustainability practices. Communities can be compelled to utilize water supply best practices through education on the current state of America's water supply. Communities must understand all of the factors that come into play when it comes to the nation's water supply.

Effects on Water

As the climate, industrialization activities and our daily routines change, the water supply is affected. In an effort to keep water supply dangers in check, federal, state and local governments have enacted water policies, while others have worked to educate on the issues of water conservation.

The following are some direct factors related to water supply:

Sedimentation: This gradual environmental process reduces reservoirs by 1.5 million acre-ft per year. Sedimentation can be altered and accelerated due to drain patterns, changes in the use of land and the characteristics of a stream flow. In the U.S., the agricultural industry has been a major source of sedimentation, eliminating large amounts of soil and accelerating erosion.

Evaporation: This natural process diminishes water as a result of growing reservoir surface area. As temperatures increase, less water is retained and areas begin to dry instead of holding water. Rainfall percentages come into play as well; in the course of the last 50 years, western states have had lower rainfall percentages and faced more frequent droughts.

Water quality: Flooding and runoff are not positives in terms of water supply. They mean low-quality water and eventually can impair water treatment, transporting and delivery structures. In areas with higher rain percentages, water quality can be an issue. Another issue related to water quality is drought, which can create a more saline water supply as a result of fewer available freshwater sources.

Resources to Increase Water Supply

Throughout history, America has confronted water supply issues in diverse ways. With time, water supply approaches have evolved and come to include efforts in the realms of engineering and construction.

With the uncertainty of water supplies, water saving techniques have emerged, including dams and reservoirs, desalination, cloud seeding and water recycling.

Creating sustainable infrastructure is a definitive means of restoring water supply. By improving water efficiency, operating costs can be reduced. Now, utilities have turned to consumer conservation programming and water efficiency.

One example of consumer conservation practices is utilizing leak prevention products to detect leaks. Leak detection in water supplies is crucial because, according to national studies, leaks contribute to a 14% loss of water in water treatment systems. By monitoring these leaks, water systems can gain supply rather than lose momentum.

System leaks can be prevented quickly and efficiently by using the right product. For example, if a customer installs a five-year toilet flapper on his or her toilet, he or she can prevent the loss of up to 200 gal per day of water. Another leak prevention solution is leak detection tablets, which can rapidly identify whether there is a leak in a toilet tank.

Additional water saving strategies include public-driven education and inducing conservation rates

for water supplies. In all of the preceding strategies, supply-side and demand-side approaches for water suppliers can be taken.

Wasting Water at Home

Going further, customers can insufficiently manage their water supplies. According to a U.K. water conservation group, sprinklers can use 265 gal of water in the span of only one hour. By regulating their sprinkler usage, and remaining attentive to when their sprinklers are running, customers can avoid this wasteful practice.

Swimming pools are another means of water

waste. Pools can lose 1,000 gal of water in a month due to evaporation. Finally, customers can overuse water when washing their cars or dishes. Car washing uses from 80 to 140 gal of water in comparison to a professional car wash, which uses an estimated 30 to 45 gal in total. Handwashing the dishes is no different: Handwashing utilizes 20 gal of water, compared to dishwashing, which uses 10 gal depending on load size.

Solutions for Water Efficiency: Small & Large Scale

These consumer-based water issues can be solved

by remaining cognizant of water best practices. From customers regulating their sprinklers constantly, to not letting the water run when washing their dishes or cars, they can avoid astronomical water overuse.

Water supply issues and water loss are evolving issues picking up momentum. Through education and utilizing water practice tips, customers can take the necessary steps to saving water. **w&wd**

Kristi Mailloux is chief marketing officer for AM Conservation Group. Mailloux can be reached at kmailloux@amconservationgroup.com.



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