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Research Shows Water Conservation Helps Keep Rates Low In Arizona Communities

Investments in conservation help avoid unnecessary costs that would be passed on to customers

Water conservation has helped keep water rates lower in three U.S. communities, according to new research released today by the Alliance for Water Efficiency.

In Tucson, Ariz., customers recently pay water and wastewater rates that are at least 11.7% lower than they might have been if they had not conserved for the past 30 years. Water customers in Gilbert, Ariz. today pay water and wastewater rates that are 5.8% lower, and tap fees for new development that are 45% lower than they would be without 20 years of conservation. A 2013 AWE report also revealed that customers in Westminster, Colo. pay water rates that are 47% lower than what they would be had conservation not been made a priority more than twenty years ago.

"These findings demonstrate that conservation – often blamed when rates increase – is an important sustainable water management strategy that actually keeps rates lower over time. When communities come together and conserve, it adds up to benefit water providers and customers' wallets in the long-term," said Mary Ann Dickinson. "By investing in conservation now, communities can keep water available and affordable into the future, and avoid or minimize unnecessary infrastructure investments."

Water rates continue to rise and increased by 4% on average for a family of four across major U.S. cities in 2016, creating growing concerns about affordability^[1]. Many of these costs are driven by needed infrastructure investments, with more than \$1T needed to bring water systems up to par, according to one estimate^[2].

The AWE analyses examined how water demands would be met today if the communities had not implemented measures to conserve water and consumptive demand had not changed. Common conservation measures include fixture and appliance replacements, outdoor water efficiency programs, smart water metering, efficiency-oriented rates, green infrastructure strategies, changes to building codes, and customer education.

"Thanks to conservation, each person uses 31% less water today than they did 30 years ago. Had we not invested in long-term conservation programs, we would have needed to secure, treat, and deliver more water to serve our current population," said Candice Rupprecht, Water Conservation Manager, Tucson Water. "We now know that conservation ensures we raise rates only as much is absolutely necessary to keep reliable water service flowing, and should be prioritized in our supply planning".

Today, Tucson is able to store over one-third of their annual renewable supply for future use, because they are producing the same amount of water they did in the mid-8o's, despite a 40% increase in population.

Had these communities not chosen to conserve, increasing demand from their growing populations would have required larger investments in their systems. Tucson, Ariz. reduced it's per person water use from 188 gallons per person per day in 1989 to 130 gallons per person per day in 2015. Without conservation, the city would have likely needed to invest \$350M in new infrastructure to deliver and treat more water and wastewater. These costs would have been passed on to customers through a significant rate increase. In Gilbert, the city would have needed to raise rates to cover nearly \$341M worth of investment costs for new water resources and water and wastewater treatment capital costs. In both communities, water and wastewater customers avoided the costs of acquiring, delivering and treating additional water supplies just by conserving water.

"Thanks to reduced demand on the existing system, we didn't need to build as much capacity to meet demands for new development," said Haley Paul, Water Conservation Specialist, Town of Gilbert. "A residential unit's system development fee is \$7,700 lower today than it would have been. Water conservation contributes to our economic success story and affordable system development fees make Gilbert an attractive place to move to or grow a business."

The Alliance developed this research as part of its Financing Sustainable Water initiative, which seeks to help water providers develop rate structures and financial policies that balance revenue management, resource efficiency, and fiscal sustainability. To help explain how water conservation helps keep rates low, AWE also released this week a new video, entitled "Good Question: Why Are My Rates Going Up?".

Communities can also use AWE's Water Conservation Tracking Tool to determine how conservation might help them avoid future rate increases. The reports were authored by AWE Technical Advisor and Principal of WaterDM, Peter Mayer.

- Download the Tucson Report and Fact Sheet
- Download the Gilbert Report and Fact Sheet
- View the Infographic

About the Alliance for Water Efficiency

The Alliance for Water Efficiency is a non-profit organization dedicated to promoting the efficient and sustainable use of water in the United States and Canada. Headquartered in Chicago, the Alliance works with more than 400 water utilities, water conservation professionals in business and industry, planners, regulators, and consumers. AWE delivers innovative tools and training to encourage cost-effective water conservation programs, conducts cutting-edge research, and pursues programs and policies necessary for a sustainable water future. In 2014 the Alliance won the U.S. Water Prize in the non-profit category for its work.

SOURCE: The Alliance For Water Efficiency