

## Growth, Cost, and Other Excuses: Challenges to Water Conservation

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Water districts across the Southwest devote considerable effort to promoting water conservation, yet many homes and businesses continue to waste water. Why? *Southwest Hydrology* spoke with water conservation managers to find out what reasons they have heard.

### Conservation Supports Growth

Nearly all managers face customers who claim saving water will only support urban sprawl—“Why should I scrimp so somebody else can move here?” Doug Bennett at Southern Nevada Water Authority (SNWA) asks his audience how many have lived in Las Vegas more than five years; most are recent arrivals and have no real basis for supporting this argument.

But Bennett also points out that the conservation programs his agency offers to current residents are paid for by the next generation of residents, who will be held to even higher conservation standards.

Although anti-growth sentiment is often heard, managers believe it is the sentiment of a vocal few rather than the public majority, as overall per-capita water usage is declining. Furthermore, while none of the utilities promote growth as a reason for conservation, they all plan for increasing population.

### Conservation is Expensive

This argument has merit, especially for outdoor conservation. Converting a water-intensive landscape to xeriscape

with new plantings and an irrigation system is expensive, and because water is relatively cheap, the time for return on investment is long, even with rebates. Melissa Elliott at Denver Water hears this excuse most often. It can take 10 years to see a return; residents may not live in their house that long. Katherine Yuhas at the Albuquerque-Bernalillo County Water Utility Authority agrees cost is a valid objection, although her customers receive an even higher rebate if their new xeriscape uses harvested rainwater. She thinks a change in rate structure is needed to adequately address the issue.

Economic downturn is also impacting conservation efforts, noted both Elliott

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Billboard from Denver Water's conservation campaign.

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and Fernando Molina at Tucson Water. In Denver, the number of rebates given for low-flush toilets continues to rise, but those for efficient washing machines—a larger investment—have recently declined: people replace washing machines that are broken, but not many

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that are simply inefficient. Toilet and irrigation rebate programs introduced last fall in Tucson have been slow to catch on despite rebate increases in 2009.

## Conservation? Huh?

Lack of awareness of or commitment to conservation remains an issue among much of the population, says Jean Witherspoon, formerly with the City of Albuquerque. Some people don't believe what they do makes any difference, and some large residential users may have outrageous bills but don't know or don't care. Bennett at SNWA sees complacency as the biggest source of resistance to conservation: people are content with their lifestyles and water bills.

Denver Water identified more than 350 of its largest and most inefficient residential irrigators and offered them a full irrigation audit, assistance in making efficiency changes, and the opportunity for significant savings. The response rate was just 15 percent; clearly, neither economics nor ignorance were factors.

Several managers noted difficulty reaching people with the authority to make conservation changes in the commercial and industrial sectors. Frequently the person who pays the water bill lives outside the service area and is unaware of local conservation programs; meanwhile, building and grounds managers do not receive conservation messages.

## How Will I Look (or Feel)?

The perception of changed social status or personal comfort is another argument against conservation. Bennett thinks peer influence can help or hurt. Ten years ago in Las Vegas, he found some homeowners worried what their grass-growing neighbors would think

if they converted to xeriscape. With time, education, and an attractive rebate program, public acceptance shifted and removing grass is now popular.

Likewise, Elliott believes the poor response to her efficiency audit offer was related to social pressure—the targeted neighborhoods were generally high-income areas where residents may feel judged by the look of their yards.

Bennett also meets people who think xeriscaping would hurt their lifestyle. And Witherspoon in Albuquerque is convinced some people are emotionally attached to their high-flow toilets and just don't want to give them up!

Molina finds some opponents of conservation have simplified the message in their minds to “Do not use water,” which, if implemented, *would* be a hardship. Tucson Water realizes it must clarify that they're asking people to simply use water more efficiently.

Laziness also is a factor. Elliott claims that getting customers to install a sprinkler system is one thing, but convincing them to make seasonal adjustments to their irrigation schedule is another: people just don't want to mess with them, and few lawns die from excess water.

## By the Sectors

When Albuquerque began its conservation program, it first targeted the residential sector to increase public buy-in. That worked; Yuhas has seen the best response from residents, with institutional facilities following suit. The commercial sector is responding, too, but like everywhere else, reaching the right people is a challenge.

In Denver, savings vary by sector. Comparing 2008 water use to pre-2002-drought use, the government sector was down 24 percent, commercial and multi-family down 23 percent, single-family residential down 16 percent, and industrial down only 5 percent. Elliott noted that some industries cannot change their processes easily or economically.

In contrast, water savings from conservation in Las Vegas are similar across sectors. One area where Bennett continues to see mismanagement of irrigation water is the landscaping of

common areas, which represents about four percent of metered water use.

## Different Approaches

Conservation programs vary according to local needs. Las Vegas spends three times the effort on outdoor conservation as indoor. The region receives return-flow credits for Colorado River water for nonconsumptive (most indoor) use, thus indoor savings do not extend the region's resources. However, an extensive recycling provides infrastructure, energy, and environmental benefits.

San Diego sits literally at the end of the pipeline—the terminus of both the Northern California and Colorado River water systems. Groundwater is too saline for use. The city has promoted conservation for nearly two decades, but on July 1, implemented its first water-use restrictions. Kurt Kidman of the City of San Diego reports the switch met little resistance from customers, a response he attributes to strong advance publicity. The mandatory restrictions focus on outdoor water use whereas existing rebate programs target indoor fixtures. San Diego County figures show urban water use has dropped 24 percent compared to last year.

Tucson is still working out specific reasons for conservation, aside from compliance with state mandates. Molina believes any city's conservation response should be appropriate to its needs. Tucson is not San Diego: it has groundwater resources to supplement Colorado River water in times of shortage. Nor is it Las Vegas: indoor savings have value.

To ensure it selected conservation strategies that would be effective and widely supported, Tucson convened a task force that evaluated 123 possible water-conservation strategies and selected 48 that were feasible and appropriate for the community. A cost-benefit analysis of that subset led to the recommendation of 22 strategies for adoption over the next five years, including the recently introduced rebate program. The selections are tied to overall water-resources management and extending the time until new water supplies are needed. As with every community, determining Tucson's conservation needs is far more complex than simply importing programs from elsewhere. ■