

## A victory in Western water wars? Study shows progress in water use.

**Per-capita water use has declined in 100 communities that depend on the Colorado River, the primary source of freshwater to much of the southwest. But as populations expand, overall water consumption is still climbing.**

By *Pete Spotts*, Staff writer / June 24, 2011

Water conservation efforts in the western US over the past 20 years appear to be paying off. Major communities that rely partly or completely on the Colorado River for their water have reduced per-capita demand on the river an average of 1 percent or more each year between 1990 and 2008, according to a new study. In all, that's some 2 million acre-feet of water saved – enough to supply Los Angeles for about three years.

But as populations grow, per-capita efficiency isn't enough. Communities are still siphoning ever-larger amounts of water from the river.

During the study period, the volume of water drawn from the Colorado River – by 100 municipal and regional water authorities – grew by 5 percent, even as the amount they drew from all sources rose by 10 percent, according to the report, which was issued Thursday by the Pacific Institute, a water-resource policy group based in Oakland, Calif.

The increased demand was fueled by a population that blossomed from around 25 million in 1990 to 35 million by the end of the study period.

### Signs of progress

Still, the steady decline in per-capita demand is noteworthy, says Michael Cohen, a senior research associate with the Pacific Institute and the author of the study.

"The rate of decline was a little surprising," he says. One percent per year "is considered to be pretty good. That's better than I was expecting."

In some notable cases, including southern California's Metropolitan Water District, which serves some 19 million people in six counties, the overall amount of water delivered – including water from the Colorado River – declined, even in the face of population growth.

Indeed, 28 water authorities in five states experienced this pattern of reduced water deliveries in the face of growing populations, although to varying degrees.

Reducing the draw on the Colorado River is critical in no small part because its water already is

oversubscribed, many specialists say. Indeed, since the middle of the last decade, water use in the states relying on the river has outstripped the river's ability to supply the demand. The balance has come from groundwater or water stored in reservoirs, which face their own long-term supply challenges.

And while this past winter has seen heavier-than-average snow pack build in the mountains whose streams feed the Colorado and its tributaries, snow pack over the long term has been declining as the climate has warmed – a trend that is expected to continue as greenhouse-gas emissions grow and the climate continues to warm.

Meanwhile, the region continues to draw newcomers from other parts of the country.

### What shrunk per-capita water use?

Several factors have contributed to the drop in per capita consumption, Cohen notes. Changes to federal and state water conservation standards have played a key role. "You don't see six-gallon toilets anymore," he says.

Prolonged drought also has played a role, prompting communities to adopt additional conservation measures that have ranged from setting water rates based on the amount of water consumed to paying people to remove lawns and landscape their property with plants that thrive in arid conditions.

In some areas, the mortgage-foreclosure crisis also has played a role, Cohen says. In heavily hit cities such as Las Vegas, no one waters the lawns of foreclosed properties.

The study does not address agriculture use, which accounts for at least 70 percent of the demand for Colorado River water. Moreover, the study notes that at least 40 percent of the water cities and towns draw from the river returns as treated waste water.

Still, the study focuses on municipal use because that's where the biggest growth in demand appears.

Although farm use accounts for the lion's share of water drawn from the Colorado River, "demand has been more or less flat," Cohen says.

Farmers certainly could use water more efficiently, he continues, "but the real driver for new supplies comes from the cities."

He says the study should provide encouragement for communities that haven't yet come to grips with their looming water-supply issues -- a critical need as urban and rural interested vie for limited water resources.

"The cities should demonstrate that they in fact are being as efficient as possible before they start demanding water from other sectors," he says.