

The first thing to notice here is perhaps the enormous disparity between urban and rural water use patterns. Statewide, it is said that agriculture accounts for 80% of total water consumption. The remaining 20% is labeled “domestic” but actually includes industrial and commercial as well as residential uses. In our small “domestic water” district, for example, 14% of our annual water production is consumed by one large customer – a fertilizer factory. 14% of “domestic” water in this district is therefore actually used for agriculture, to make liquid fertilizer and pesticide products.

Nearly all California’s “20%” consumption of “domestic” water takes place in a few large urban centers but in the rural areas the water allocation is very different. Consider for a moment only the Alpaugh Irrigation District and the Alpaugh Community Services District, producing respectively irrigation water for agriculture, and domestic water for all other uses. Both districts rely entirely on groundwater, pumped from the same deep “confined” aquifer of the Tulare Lake Basin. In 2013 the A.I.D. pumped 11,000+ acre-feet of water. The ACSD pumped 250 acre-feet, or 2.2% of the total. Those figures do not take into account several large-scale farmers with their own irrigation wells. Nor do they take into account the thousands of acres of newly planted pistachio trees, served by newly drilled, large wells tapping the same aquifer. Between April 2012 and April 2014 the “static level” in that aquifer declined by 102 feet (from 249 to 351). By September 2014 it had declined further to 396. Over winter 2014-2015 it recovered to 330 feet (by February 2015), but by April 6 it had declined again to 348 feet. Someone must have switched on big pumps somewhere that day, because the NEXT DAY (April 7) the static level was down to 360 feet, a drop of 12 feet in 24 hours.

It must be apparent from these numbers that water usage by residential customers in Alpaugh has and can have no detectable effect on the groundwater resource. A 25% reduction in residential usage, if achievable, would mean at most one half of one percent reduction in local water usage – but probably less, because of substantial usage, not included in the Irrigation District numbers, by private farms, duck hunting clubs and newly planted pistachio orchards.

There is not a lot of amenity in Alpaugh. We have no golf courses (and few or no golf players) and precious few swimming pools. Imposing a 25% reduction of residential water usage on Alpaugh residents would have a significant adverse effect on the quality of life for those residents, without any measurable water conservation benefit. The same could be said, I think, for many or most of the small rural communities in the Valley.

There may be a little more involved here than just “amenity”. Less water use means more bare soil and consequently more airborne particulates; that effect is indeed already occurring and well documented. That in turn will mean an increase in cases of Valley Fever (coccidioidomycosis), a serious and occasionally deadly disease transmitted via airborne soil particles.

Last year we implemented water usage restrictions as required by the then newly passed legislation. Our water usage did then decline significantly, though not by the requested 20%. That generated considerable resentment among the residents, who felt (with some justification) they were being unfairly penalized. They can see, on a daily basis, huge quantities of water being used to flood fields of crops such as alfalfa. Per capita water usage in Alpaugh is probably considerably less than appears on the surface, because the 2010 census figure of 1026 probably underestimates the true population. The census figure would mean the average Alpaugh household includes 3 individuals. Daily observation makes that appear improbable. The Alpaugh school, for example, has more than 300 pupils enrolled.

The theoretical average daily water consumption per capita is about 175 gallons. The true number is probably no more than half that. It is difficult to see how to achieve a 25% reduction in that figure, without at least some negative effect on the public health of the community.

There is also the question of enforcement. If we enact drastic restrictions, we will encounter resistance in the community. We have neither the staff nor the budget to mount enforcement patrols. We will, I am sure, achieve a better result by enlisting residents' cooperation, with a program they can accept, rather than by trying to go beyond that point in an enforcement mode. We are planning to distribute "water conservation kits" to our customers, and to embark on a program of public education toward water conservation. We will see what can be achieved in that way. It will surely be counterproductive to try to go beyond that point – especially since everyone knows that domestic water usage in our small rural community has no practical influence on the water resource.

John E. Burchard
General Manager
Alpaugh Community Services District
(559) 303-9082