My California Water Is an Undiluted Bargain

I pay $.002—two-tenths of a cent—per gallon. Hike the price and raise my incentive to conserve.

By RICHARD B. MCKENZIE
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The next time you read how the four-year drought has brought on California's current water crisis, consider how very low water prices speeded up the draining of reservoirs and aquifers.

I live in a nice neighborhood for faculty adjacent to the University of California, Irvine, which is in the epicenter of rain-deprived Southern California. In a drought declared to be “historic,” my neighbors and I pay $1.55 per hundred cubic feet of water, a little more than 748 gallons. In other words, $.002—two-tenths of a cent—per gallon.

Yes, the price of my water has increased since last summer—it is up 7 cents from $1.48 per hundred cubic feet. My neighbors and I may be “privileged” in that other California residents pay three and four times what we do—but that’s still less than a penny a gallon.
While the obvious effect of extremely low prices is to encourage people to use more water, the less obvious effect is to discourage people from incurring even modest costs to curb water use. For example, dual-flush mechanisms (which use half the water for liquid-waste flushes than solid-waste) can be installed in existing toilets and cost $20 to $40 apiece—a median cost of $90 for three mechanisms for our home, which can be recouped over time with lower water bills.

The water saving for my wife and me is potentially 6,205 gallons a year, assuming five “half-flushes” (which cut water use in half) per person a day. However, at $0.002 a gallon of water saved, the half-flushes would lower our water bill by $12.41 a year. It would take more than seven years to recover mechanisms’ cost. If the devices are installed by plumbers, it would take more than double that time. In addition, the mechanisms often work poorly, requiring multiple half-flushes.

Our three toilets use 3.5 gallons per flush; new, water-saving toilets use 1.28 gallons per flush. Three high-quality (but not top-of-the-line) water-saving toilets cost $2,254 installed. My wife and I would thereafter save 8,103 gallons of water a year, but only $16.21 on our annual water bill. It would take more than 138 years to recover the cost of the new toilets, not including interest costs.

By contrast, if our tap water were raised to the price of water sold by the gallon at the local Costco—six one-gallon bottles for $3.89 a pack—the price of our water would be 65 cents a gallon. The cost of the three toilets could be recovered through lower water bills in a little more than five months.

Granted, this recalculation has been done with a dramatic and likely, politically unacceptable, 325-fold price increase. But the larger point remains: If the price of water were raised to just a nickel a gallon, the price of the water-saving toilets for households with older toilets (3.5 gallons per flush) could be paid down by lower water bills in less than six years. That time frame could induce many homeowners to adopt the new technology.

Southern Californians could also save water many other ways, including replacing sprinkler systems with more water-stingy drip systems, and by replacing water-guzzling washing machines with high-efficiency, water-saving ones. Municipalities and local communities could do more to detect and repair leaks in their distribution systems, estimated by state water authorities to be 228 billion gallons a year. But such conservation measures don’t make economic sense in many areas of the state at current water prices.

Water-price increases over the past four years of drought could have been, effectively, “rainmakers.” But water politics, which shun price increases, have compounded the impact of the drought.

As it is, Gov. Jerry Brown has become the state’s water czar, with considerable power to allocate water to communities and industries. He has thus activated politically savvy interest groups—such as the farming, landscaping, ski, cemetery, construction and tourist industries—all pleading for special allocation concessions.

Water pricing is an unheralded part of the drought solution, used grudgingly and sparingly to date. The price-increase delays have, regrettably, given rise to inefficient water use and cronyism.
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