Southern California’s real water problem – pricing

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Most “water crisis” stories explore the mismatch between limited supplies and increasing demands and how current scarcity will result in shortage.

Scarcity is not the problem, as it can induce changes in supply and demand. We all understand how those changes happen with gasoline. Consumers respond to higher prices by driving less, carpooling, buying smaller cars, and so on. Producers, likewise, look for new energy sources. At some point, supply and demand balance and gasoline is available – even if it’s expensive.

A crisis, or shortage, results when scarcity is ignored and people do not change their behavior. Price controls during the 1970s oil crisis kept people from understanding that gasoline was scarce. Consumers lined up for “cheap” gas that wasn’t there; oil companies – unsurprisingly – did not look for oil for which they’d be paid pennies on the dollar.

Some people disliked price signals; they wanted others to “just use less” to save their neighbors and the planet. They wanted oil companies to get in touch with their social responsibilities, to stop price gouging and start pumping oil into an economy that dearly needed cheaper fuel to lower inflation and get America back to work.

Their optimism was not rewarded. The lines grew, stations ran dry, and people were angry.

Price controls eventually ended, but the world did not. Americans learned to live with $0.57 gasoline ($2.50 per gallon in 2011 dollars) almost as fast as they learned to live without gas lines.

This little excursion into the history of “that other precious fluid” holds some lessons for water management:

First, prices are a good way to signal scarcity. They allow people to change their habits according to their needs, constraints and resources.

Second, shortages are far more disruptive than higher prices.

Third, it doesn’t make sense to invest in increased supplies unless you’re going to get your money back.

Fourth, few people complain about access to a precious resource when the allocation process is transparent and open to all.
Let’s apply these lessons to Southern California’s water “crisis.”

First, most consumers have no reason to use less water when a drought or dispute over supplies increases water scarcity. That’s because their water bill is based on the cost of water service – the cost of the pipes, plants and people who work for the water utility. Volumetric charges don’t go up with water scarcity; they go up when the general manager buys a new car.

Second, water shortages harm everyone, from water miser to water waster, because they lead to emergency watering restrictions, water cops in your neighborhoods, expensive investments on water-saving appliances, and uncertainty for businesses that need reliable water service.

Third, shortages put pressure on politicians to do something. Lacking options (it’s not good policy to lock up people with swimming pools), they order water managers to find “drought-proof” – and neighbor-proof – supplies, at any cost. These decisions are further distorted by the fact that politicians get the benefits of fixing the problem (“shortage averted!”) without bearing the costs that fall on customers (higher water bills) and the environment (depleted ground and surface waters).

Fourth, higher prices are not unfair if they are too low to notice. A Starbucks Latte costs $4, but you can buy one hcf of water (100 cubic feet, or 748 gallons) for roughly the same price. You could buy 6,000 lattes from Starbucks if you paid the same price for coffee as you now pay for water. That 25 percent price increase doesn’t seem so threatening now, does it?

Best of all, water utilities are run on a break-even financial basis. Although the accounting is too complicated to present here, it’s fairly well agreed that higher water prices will increase revenues at the same time as it reduces costs. The resulting “profits” can be refunded to customers, used to improve water quality or invested in greater reliability. The upshot is that higher prices can actually lead to savings and/or better service.

The bottom line is that higher water prices can relegate “water crisis” headlines into the archive, with “gas lines.” People facing higher prices change their behavior and investment priorities to reduce their water consumption. Lower demand will prevent shortages, end crisis-induced wasted spending on “gonna fix it forever” supplies, take the pressure off an overburdened environment, and improve our quality of life.