

If Water Is So Valuable, Should It Be Cheap?  
Some Lessons in Water Pricing

John Garen

Department Chair and Gatton Endowed Professor of Economics, University of Kentucky  
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Water is in the news these days because of the dry conditions here and in many parts of the country and, as a result, we are faced with those pesky water-use restrictions. So it seems like a good time to talk about water resources and water pricing.

Most of the time we residential users don't pay a lot of attention to water. It always just seems to be there and it doesn't cost much. My water bill last month was about \$25. (No, I don't do much watering and yes, my lawn is becoming a light shade of brown.) Yet we are told that water is incredibly valuable . . . and it is. After all, at some level, water is necessary to sustain life. That seems like an incredible bargain . . . I acquire something that's life sustaining for only \$25 per month! The reason it's such a bargain is that water is cheap; in the temperate part of the world water is normally quite plentiful and it's pretty inexpensive to process to make it suitable for human consumption.

If you get right down to it, though, most of what we use water for is not necessary to sustain life. Washing the car, running the dishwasher, bathing the dog, long showers, and, of course, watering the lawn are decidedly not life sustaining uses. There have been a number of studies of track typical residential water use. The findings vary somewhat but generally indicate that single family homes average about 100 gallons per day for indoor use and perhaps another 100 gallons per day for outdoor use. The two uses that are essential for life are drinking/cooking and sanitation (i.e., flushing the toilet). They average around 2 gallons per day and 20 gallons per day, respectively. This adds up to around 10% of total daily water use. Thus, 9 out of 10 gallons of water that we use in the household have absolutely nothing to do with sustaining life. This is not an unexpected outcome; with water so inexpensive we really don't have much incentive to cut down on the marginal uses.

This perspective is pretty informative, I believe, in thinking about what to do in the event of extraordinarily dry weather conditions. In these conditions, the available supply of water is reduced and the demand may increase, meaning that there may not be enough water to go around. The typical economist's proscription for dealing with this is for the price to rise. In a market economy, a price reflects the scarcity of a good. Higher prices indicate greater scarcity and gives financial incentives for consumers to conserve on use. In the event of higher priced water, we no longer will be quite so cavalier about marginal uses of water and take steps to moderate our use. Also, though my discussion has focused on household use of water, industrial and commercial uses of water are quite substantial. One would expect these firms to respond to the price of water since their

profitability depends on it. Thus, when water is plentiful it makes sense for it to be cheap . . . and it also makes sense for its price to rise when it become more scarce.

The common approach to dealing with dry weather is to impose some type of water use restrictions on individuals. Often, these are limitations on outdoor use and to certain days of the week and times of the day, though other restrictions may be imposed. These types of restrictions are somewhat paradoxical . . . and can lead to nonsensical outcomes. For example, some uses of water are discouraged while others are not. You can waste as much water as you want to inside and at night. Also, if I especially like a green lawn and lush scrubs, I may want to water outside but let the cars and the dishes get dirty . . . but I don't have that option. With pricing, I have the financial incentive to conserve and I decide how to do it based on what's best for me. This is a tremendous and highly-underrated advantage; there is no need for the "water police" to be breathing down my neck to see that I consume water in the "correct" way. In a society that values individual freedom, we ought to like that advantage.

Higher prices can be implemented without impinging on the "necessity" (and some non-necessity) uses of water. For example, in the event of dry conditions, the so-called lifeline pricing can be used. This is where each household can buy a base amount of water at the usual rate and only pay higher rates for water use beyond that. Thus, there is no financial penalty for basic water uses but there is for the marginal uses. And it's the marginal uses that would need to be curtailed.

Some might complain that wealthy individuals will continue to buy nearly as much water as before and that the conservation will come from mostly lower-income households. However, I would hazard a guess that much of the conservation would be from commercial and industrial users. Furthermore, I think it's important for all households to confront the true scarcity of a good as reflected by its price. And keep in mind that the lifeline pricing described above does not penalize basic water use, but only marginal uses . . . which is likely to be watering the lawn for many people. While I am all for a sensible social safety net for the disadvantaged folks in our society, I don't think it should include protection from having a brown lawn.

Flexible pricing is an important aspect of our market-based economy in the U.S. that generally has served us well. Let's not be afraid to use it for water resources.

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