

If Water Conservation is the Goal, Just Triple the Price

by Andrew Brod

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My car is dirty. The sporadic rains of the last week or so haven't washed away all of the road grime and bird poop. Under the current water-use restrictions in Greensboro, I can't wash my car in my driveway, but I can go to a commercial car wash.

Isn't that a little strange? Either way, I'll be using a bunch of water. The city exempts businesses like car washes not because they're so conservative with water, but because failing to exempt them would harm them financially.

And yet, we keep hearing that we need to conserve even more water. Water consumption is down in Greensboro as compared to a year ago, but the severity of the Drought of 2002 is amazing. The Piedmont region in North Carolina is one of only two areas in the entire country categorized by the federal government as suffering through an "exceptional" drought. The other is in the desert Southwest, near all those Western wildfires.

The City of Greensboro has acted quickly given the tools at its disposal. We are currently at the 2nd level of the city's Stage II water-use restrictions, and Stage III is around the corner if things don't improve. The current restrictions prohibit many activities in addition to driveway car washing: no watering of lawns with sprinkler systems (though golf courses can still do some of it), no washing of building exteriors (unless done by a commercial enterprise), no "intentional waste" of water.

Some of the restrictions are certainly reasonable, such as prohibiting restaurants from serving water unless patrons ask for it. But how do we infer "intentional" water waste? Why is it okay for me to pay a company to wash the exterior of my home, but not for me to do it myself? And isn't asking industrial and commercial enterprises to reduce water use voluntarily, as the current restrictions do, a bit like wishful thinking? It's not that I mistrust the civic-mindedness of local businesses, but if water conservation is so important, then I'd rather place my trust in a policy with real teeth.

Maybe it's time to use prices to induce water conservation. Shouldn't I have to pay more to get my car washed if we're at risk of what the city calls a "Water Shortage Danger"? And conversely, if it's *really* important to me to wash the exterior of my home, shouldn't I be able to do it myself as long as I'm willing to pay the full cost of using water?

Nothing is more effective at inducing conservation than higher prices. If water were sold in a free market, as tomatoes and blue jeans are, a shortage would naturally drive the price up. But water is supplied by local governments, which must act without the guidance that a real market provides.

How successful higher prices are in discouraging consumption depends on how essential that product is to people. The reason governments love cigarette taxes (governments outside of North Carolina, anyway) is that they don't reduce consumption by much.

That's how addiction works, and governments love it. If a tax reduced cigarette consumption by a lot, the small amount of tax revenue really wouldn't be worth the effort. This week, New York City banked on this fact of cigarette demand when it raised its tax so high that premium brands now cost over \$7 per pack in the city.

But isn't water a necessity? Aren't we, in a way, addicted to water? Of course we are, but only for certain uses. Water is essential for such uses as drinking and bathing. But few of us would say that watering lawns and washing cars are essential. They may be important to some people, but important isn't the same as essential.

The key to rational water pricing is to maintain low prices for essential uses like drinking and bathing, and raise them *sharply* for discretionary uses like watering lawns. The City of Greensboro has a block water-rate structure, which uses the volume of consumption to distinguish between the two types of water use. The first jump in the price of water is supposed to kick in about where essential uses give way to discretionary uses.

Unfortunately for the cause of water conservation in Greensboro, the jump isn't big. For city residents, the price for the first nine "units" of water used per quarter (a unit is equal to 748 gallons) is \$1.05 per unit. Nine units per quarter is close to what Allan Williams, the city's Director of Water Resources, identifies as the level of essential water consumption. For residential consumption above nine units per quarter but less than 30 units, the price rises to only \$1.45 per unit. The typical residential user consumes about 24 units per quarter, though that varies over the course of a year.

We would encourage more water conservation by maintaining the price on the first nine units, thereby safeguarding the needs of lower-income folks, but raising the higher price substantially. I'd propose at least tripling it. (I'd propose something similar for sprinkler-only accounts.) By regional standards, water bills would still be low in Greensboro, but water bills would finally reflect the incredible scarcity we're facing.

Our water rates used to be even more out of whack in the past. Rates have risen about 45% since 1996, and the city has eliminated the volume discounts it formerly granted to big industrial users. Yet there has been little citizen outcry about this, and the reason is that water just doesn't cost much. Even now, I pay nearly as much for a month of cable TV as I do for three months of water, and it probably isn't much different for you. But if my monthly water bill began to look more like my cable bill, I'd start paying attention to my leaking toilet and I'd be careful with how I use water in my yard.

The other advantage to conserving water via higher prices instead of by government regulation is that individuals would be able to decide which uses are important and which are not. Allan Williams notes that his department has to make value judgments about competing water uses. Do we really want our government officials to do that for us? Not only does this put pressure on city employees, but their decisions are bound to be wrong from the standpoint of individuals.

Rational water pricing would allow the person who values a clean car to use her money to get it washed, but let her lawn wither. It would allow the person who values a green lawn to use his money to keep it well watered, but let his car look grungy. Some might object that only rich people would have clean cars *and* green lawns. But rich people already have more discretionary products than the rest of us. Why should water be different, as long as we protect low-income folks and essential water use?

It's fair to say that nobody likes to hear economists talk about prices in this way. A few years ago, I wrote a column that chided the *News & Record* for nagging us to conserve gasoline. If we really care about cutting gasoline consumption, I said, we need to stop the nagging and just raise the gas tax. Then we could make our own decisions about how much gas to buy. A few readers didn't like that idea, which they made clear in letters to the editor that dissed my skills as an economist.

But I was right. Per-capita energy consumption in this country fell most dramatically in the 1970s and early 1980s, when energy prices were rising fastest. Since then, gasoline consumption has been increasing in large part because gasoline prices (corrected for inflation) are lower now than in the 1970s. I doubt our roads would be so populated with gas-guzzling SUVs if gas prices had kept rising.

Well, back to my car. I decided not to wash it. It would be unseemly for me to drive around in a gleaming car right now, wouldn't it? Maybe you'll make the same decision. But I must admit that I'm a little cynical when it comes to matters like this, and I trust economic incentives more than I do the goodness of my fellow humans. Increased water rates are probably not in the offing in Greensboro, though a Water Shortage Danger is, so you'll all have the opportunity to prove me wrong.

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