**[Bottled Water Sales: The Shocking Reality](http://scienceblogs.com/significantfigures/index.php/2013/04/25/bottled-water-sales-the-shocking-reality/)**

Posted by [Peter Gleick](http://scienceblogs.com/significantfigures/index.php/author/pgleick/) on April 25, 2013

The numbers are in for 2012, and they are shocking. The Beverage Marketing Corporation, which tracks sales and consumption of beverages, [is reporting](http://www.bevnet.com/news/2013/u-s-bottled-water-sales-totaled-11-8-billion-in-2012) that sales of bottled water grew nearly 7 percent between 2011 and 2012, with consumption reaching a staggering 30.8 gallons per person. And since I (and some of you) consume almost zero bottled water every year, there are people out there drinking far more than the average.

Thirty-six years ago, this industry didn’t exist. Americans drank fewer than two gallons of bottled water per year, and almost all of that was in the form of water from big office coolers. Figure 1 shows the dramatic exponential growth in bottled water sales over this period. There was a slight downturn in 2008 and 2009, attributed in part to a growing public campaign against bottled water and in part to the severe recession, but sales have resumed their upward climb as companies cut the price of bottles and launched an even more aggressive media and advertising blitz.

Bottled water sales per person in the United States, from 1976 to 2012. Data are from the Beverage Marketing Corporation. Graph by Peter Gleick.

Despite having one of the best municipal tap water systems in the world, American consumers are flocking to commercial bottled water, which costs thousands of times more per gallon. Why? Four reasons:

* First, we have been bombarded with advertisements that claim that our tap water is unsafe, or that bottled water is safer, healthier, and more hip, often with celebrity endorsements. (Thanks a lot, Jennifer.)
* Second, public drinking water fountains have become increasingly hard to find. And the ones that exist are not being adequately maintained by our communities.
* Third, people are increasingly fearful of our tap water, hearing stories about contamination, new chemicals that our treatment systems aren’t designed to remove, or occasional failures of infrastructure that isn’t being adequately maintained or improved.
* Fourth, some people don’t like the taste of their tap water, or think they don’t.

Some people, including the bottled water industry, argue that drinking bottled water is better than drinking soft drinks. I agree. **But that’s not what’s happening.** The vast increase in bottled water sales have largely come at the expense of tap water, not soft drinks. And even if we pushed (as we should) to replace carbonated soft drinks with water, it should be tap water, not expensive bottled water.

This industry has very successfully turned a public resource into a private commodity. Sales of bottled water now are close to $12 billion a year, and in fact, total expenditures are far larger if you include the cost to consumers. (The sale figures don’t include retail mark-up or total consumer expenditures, I believe.)

But the true costs are even higher. 60 to 70% of all the plastic bottles sold – billions and billions of them – are never recycled, but end up in our garbage.  The Pacific Institute has calculated that the equivalent of 17 million barrels of oil are used to make the plastic in these bottles each year ([here is a link to a .pdf of the peer-reviewed scientific paper](http://iopscience.iop.org/1748-9326/4/1/014009/pdf/erl9_1_014009.pdf)), not including the additional energy required to drive the bottles around, power the refrigerators that cool them, or deal with the wastes. Some local groundwater depletion also occurs around big bottled water plants, raising concern in local communities in Maine, Michigan, California, Florida, and elsewhere.

We need action on this, including:

**Efforts to upgrade and improve our tap water systems**. Overall the U.S. has a great system; but it could and should be even better, with new technology to remove new contaminants, improvements to old pipe and distribution systems, better monitoring, and special assistance in rural areas dependent on vulnerable groundwater wells.

**Education to consumers** about the quality of our tap water, and the true environmental and economic costs of bottled water.

**Better comprehensive independent monitoring and enforcement (and strengthening) of bottled water standards**, which are not the same as tap water standards, and not as strong in several areas.

Better labeling of bottled water, to provide information on quality, the water source, and the elimination of misleading names and descriptions.

**More aggressive and comprehensive plastic recycling**: states with stronger recycling laws collect and recycle more plastic. And all bottlers should be required to use some fraction of recycled plastic content.

**Improvements in access to drinking water fountains**. The Pacific Institute has a beta-version of an Android app (free) that maps water fountains ([www.wetap.org](http://www.wetap.org/)) using an open-access database, but this is just a first step to what is needed – a comprehensive dataset of all public water fountains, the ability of any member of the public to add information on fountains (working/broken? clean/dirty?), and pressure to build new fountains where they don’t exist.

**And finally, take individual actions**: start carrying around a reusable, refillable bottle, if you can’t go from point A to point B without water. Support improvements in your tap water system. Demand better labeling and transparent information from bottled water companies. You’ll save money, reduce your environmental footprint, and help drive sales of bottled water back down.

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