



**W**e've all seen the advertisements for bottled water – images of snow-capped mountains with pristine waterfalls and streams next to an unspoiled forest. They use words like “pure,” “crystal clear,” “sparkling,” and “natural spring” to describe their product. But is bottled water purer or safer to drink than tap water?

There are currently 171 bottled water brands that are members of the International Bottled Water Association (IBWA) and you can imagine the varieties – distilled, deionized, mineral enhanced, and fluoridated, just to name a few. With so many options for consumers, it's no surprise that consumption of bottled water in the United States is on the rise. According to the Beverage Marketing Corporation (BMC), 9.7 billion gallons of water were bottled and sold in the U.S. in 2012. That's almost a 67 percent increase over the past 10 years – with 5.8 billion gallons of water bottled and sold in 2002. The BMC also reported that in 2012, Americans drank nearly 31 gallons of bottled water per capita. In 2002, the number was 20 gallons per capita. So why are Americans drinking so much bottled water?\*

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#### **Reason #1: Many think bottled water is safer to drink**

Tap water, from a public water supply (PWS), is regulated by the U.S. Environmental Protection Agency (EPA) under the authority of the Safe Drinking Water Act. The EPA develops regulations and sets standards to ensure water is safe to drink. Bottled water is not regulated by the EPA. It is regulated by the U.S. Food and Drug Administration (FDA) as a packaged food under the Federal Food, Drug, and Cosmetic Act. The bottled water regulations, established by the FDA, were based on EPA regulations. The levels of chemical substances and/or contaminants allowed in bottled water are most generally the same as the maximum contaminant levels set for tap water. There is, however, a difference in water quality reporting to consumers. PWSs are required to notify their customers if there is a problem with their drinking water. Depending on the risk to public health, the notices must be sent within 24 hours, 30 days, or one year of when the PWS learns of the situation or violation. Some people think that this is not soon enough. If bottled water does not

\*Source: Beverage Marketing Corporation

meet the physical, chemical, radiological, and/or microbiological standards established in the regulations, the bottles must include a statement on the label, such as “Excessively Turbid,” or “Contains Excessive Bacteria,” or “Contains Excessive Trichlormethanes.” If E. coli is present in a sample of bottled water, then it is deemed “adulterated” by the FDA. (Adulterated is not specifically defined by the FDA.) With this information presented to the consumer right on the label, they are informed of water quality issues immediately. But how informative are these statements? A public notice provided by a PWS must include ten elements that inform the consumer about the violation/situation, the specific contaminant level(s), any potential adverse health effects from drinking the water, and more.

Another item to consider, where safety is concerned, is that most bottled water is bottled in plastic. Many have become concerned about whether potentially hazardous substances are leaching from the plastic into the water. At this point, there is very little scientific evidence to validate these concerns.

### Reason #2: Others think bottled water tastes better

One of the most common complaints received by PWSs is that a customer thinks that their water tastes like chlorine. All drinking water comes from a variety of sources – lakes, rivers, or underground aquifers. Each source and treatment process gives water its unique taste. The same applies to bottled water. Each bottler utilizes different sources of water, treatment processes (most prefer ozone disinfection), and additives (minerals) to enhance different flavors. When it comes to taste, each consumer has their own personal preference and the bottled water market has an appealing option for almost every one of them.

### Reason #3: Bottled water is convenient

This is the main reason I drink bottled water on occasion. It’s convenient when you’re on the go. It is rather easy to grab a bottle of water and toss it in your lunch sack on your way to work or purchase a bottle from a vending machine when you’re at the gym. Sure, there are all kinds of re-usable water bottles and canteens available for people to fill with tap water at home. But we don’t always have access to water from a public water supply.

\* Press Release: *Bottled Water Shows Strength Yet Again, New Report From BMC Shows.* [Beveragemarketing.com](http://Beveragemarketing.com). Beverage Marketing

In the July 1995 issue of *The Kansas Lifeline* magazine, it was reported in an article titled “Bottled Water Flunks the Test,” that in 1994, the Kansas Department of Health and Environment (KDHE) conducted a study of bottled water from retail stores and manufacturers across the state. Of the 80 samples collected, 80 percent were from in-state bottlers, 16 percent from out of state, and 4 percent were unknown because of incomplete labeling. The following is a list of nine contaminants that were discovered at levels in violation of federal limits:

- Bis (2-ethylhexyl) phthalate – 12 samples (15% of total)
- 1,2-dichloroethane – 1 sample
- Bis (2-ethylhexyl) adipate – 1 sample
- Phenol – 7 samples (8.8% of total)
- Mercury – 1 sample
- Thallium – 6 samples (7.5% of total)
- Chromium – 1 Sample
- Iron – 1 sample
- Manganese – 1 sample

*Note: KDHE’s report did not include the brand names of the bottled water that was sampled, nor did it include the sample values or indicate by how much federal standards were exceeded.*

**According to the  
Statistic Brain, the average  
single bottle of water costs  
\$1.45. For a 20-ounce  
bottle, that’s \$9.28  
per gallon.**

Whatever the reason, if you prefer to drink bottled water, here are a couple more things for you to consider before you twist off another plastic cap. Bottled water can be expensive. According to the *Statistic Brain*, the average single bottle of water costs \$1.45. For a 20-ounce bottle, that’s \$9.28 per gallon. According to the American Water Works Association, the average cost for tap water is only \$0.004 per gallon! Also, drinking bottled water creates a lot of waste. According to the Container Recycling Institute, eight out of ten plastic water bottles end up in landfills. The remaining hundreds of millions of bottles end up as litter and a small percentage are recycled.

While the debate of bottled water vs. tap water continues on, consumption of bottled water was at an all time high in 2012, and shows no sign of slowing down.\*

*Monica Wurtz began work with KRWA in October 2013. She previously worked at the Kansas Department of Health and Environment and also worked at US EPA Region 7 for four years. Monica is considered a national expert on various drinking water regulations.*

