



Is America's \$8 Billion Bottled Water Industry a Fraud

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Despite the Hype, Bottled Water is Neither Cleaner nor Greener than Tap Water**

by Brian Howard

"You drink tap water? Are you crazy?" asks a 21-year-old radio producer from the Chicago area. "I only drink bottled water." In a trendy nightclub in New York City, the bartender tells guests they can only be served bottled water, which costs \$5 for each tiny half-pint container. One outraged clubber is stopped by the restroom attendant as she tries to refill the bottle from the tap. "You can't do that," says the attendant. "New York's tap water isn't safe."

Whether a consumer is shopping in a supermarket or a health food store, working out in a fitness center, eating in a restaurant or grabbing some quick refreshment on the go, he or she will likely be tempted to buy bottled water. The product comes in an ever-growing variety of sizes and shapes, including one bottle that looks like a drop of water with a golden cap. Some fine hotels now offer the services of "water sommeliers" to advise diners on which water to drink with different courses.

A widening spectrum of bottled water types are crowding the market, including spring, mineral, purified, distilled, carbonated, oxygenated, caffeinated and vitamin-enriched, as well as flavors, such as lemon or strawberry, and specific brands aimed at children. Bottled water bars have sprung up in the hipper districts, from Paris to Los Angeles.

The message is clear: Bottled water is "good" water, as opposed to that nasty, unsafe stuff that comes out of the tap. But in most cases tap water adheres to stricter purity standards than bottled water, whose source < far from a mountain spring can be wells underneath industrial facilities. Indeed, 40 percent of bottled water began life as, well, tap water.

A 2001 World Wildlife Fund (WWF) study confirmed the widespread belief that consumers associate bottled water with social status and healthy living. Their perceptions trump their objectivity, because even some people who

claim to have switched to bottled water "for the taste" can't tell the difference: When Good Morning America conducted a taste test of its studio audience, New York City tap water was chosen as the heavy favorite over the oxygenated water O2, Poland Spring and Evian. Many of the "facts" that bottled water drinkers swear by are erroneous. Rachele Kuzma, a Rutgers student, says she drinks bottled water at school because "it's healthier" and "doesn't have fluoride," although much of it does have fluoride.

Bottled water is so ubiquitous that people can hardly ask for water anywhere without being handed a bottle. But what is the cost to society and the environment?

Largely Self-Regulated

The bottled water industry has exploded in recent years, and enjoys annual sales of more than \$35 billion worldwide. In 2002, almost six billion gallons of bottled water were sold in the U.S., representing an increase of nearly 11 percent over 2001. Americans paid \$7.7 billion for bottled water in 2002, according to the consulting and research firm Beverage Marketing Corporation. Bottled water is the fastest-growing segment of the beverage industry, and the product is expected to pass both coffee and milk to become the second-most-consumed beverage (behind soft drinks) by 2004. According to the Natural Resources Defense Council (NRDC), "More than half of all Americans drink bottled water; about a third of the public consumes it regularly." While most people would argue that bottled water is healthier than convenient alternatives like sugared sodas or artificially flavored drinks, are the third of bottled water consumers who claim they are motivated by promises of purity (according to a 2000 survey) getting what they pay for?

While the Environmental Protection Agency (EPA) regulates the quality of public water supplies, the agency has no authority over bottled water. Bottled water that crosses state lines is considered a food product and is overseen by the Food and Drug Administration (FDA), which does mandate that it be bottled in sanitary conditions using food-grade equipment. According to the influential International Bottled Water Association (IBWA), "By law, the FDA Standard of Quality for bottled water must be as stringent as the EPA's standards for public drinking water."

However, the FDA is allowed to interpret the EPA's regulations and apply them selectively to bottled water. As Senior Attorney Erik Olson of the NRDC explains, "Although the FDA has adopted some of the EPA's regulatory standards, it has decided not to adopt others and has not even ruled on some points after several years of inaction." In a 1999 report, the NRDC concludes that bottled water quality is probably not inferior to average tap water, but Olson (the report's principal author) says that gaps in the weak

regulatory framework may allow careless or unscrupulous bottlers to market substandard products. He says that may be of particular concern to those with compromised immune systems.

The IBWA urges consumers to trust bottled water in part because the FDA requires water sources to be "inspected, sampled, analyzed and approved." However, the NRDC argues that the FDA provides no specific requirements-such as proximity to industrial facilities, underground storage tanks or dumps-for bottled water sources. That's looser monitoring than occurs at the EPA, which requires more specific assessments of tap water sources. Olson says one brand of "spring water," which had a graphic of mountains and a lake on the label, was actually taken from a well in Massachusetts in the parking lot of an industrial facility. The well, which is no longer used for bottled water, was near hazardous waste and had experienced contamination by industrial chemicals.

According to Olson, the FDA has no official procedure for rejecting bottled water sources once they become contaminated. He also says a 1990 government audit revealed that 25 percent of water bottlers had no record of source approval. Further, in contrast to the EPA, which employs hundreds of staffers to protect the nation's tap water systems, the FDA doesn't have even one full-time regulator in charge of bottled water.

Scott Hooper of the Kansas Rural Water Association says that although municipal system managers have to pay a certified lab to test samples weekly, monthly and quarterly for a long list of contaminants, water bottlers can use any lab they choose to perform tests as infrequently as once a year. Unlike utilities, which must publish their lab results in a public record, bottlers don't have to notify anyone of their findings, including consumers who inquire. The FDA has the authority to ask for a company's data, although test results can be destroyed after two years.

Olson adds, "Unlike tap water violations, which are directly enforceable, if a company exceeds bottled water standards, it is not necessarily a violation-they can just say so on the label, and may be insulated from enforcement." Further, while EPA rules specify that no confirmed E. coli or fecal coliform (bacteria that indicate possible contamination by fecal matter) contamination is allowed in tap water, the FDA merely set a minimum level for E. coli and fecal coliform presence in bottled water. Tap water from a surface source must be tested for cryptosporidium, giardia and viruses, unlike bottled water, and must also be disinfected, unlike bottled water. Hooper also notes that food products such as "carbonated water," "soda water" and "seltzer water"-in addition to most flavored waters-are held to even looser standards than "true" bottled water.

The EPA concludes, "Some bottled water is treated more than tap water, while

some is treated less or not at all." Henry Kim, consumer safety officer for the FDA, asserts, "We want bottled water to have a comparable quality to that of tap water"-which, of course, runs counter to the widely held public belief that bottled water is better. The situation is similar in the European Union and in Canada, where there are more regulations on tap than bottled water. That New York restroom attendant would be surprised to learn that her city's tap water was tested some 560,000 times in 2002.

Environmentalists also point out that if a brand of bottled water is wholly packaged and sold within the same state, it is technically not regulated by the FDA, and is therefore only legally subject to state standards, which tend to vary widely in scope and vigor. Co-op America reports that 43 states have one or fewer staff members dedicated to bottled water regulation. On the other hand, California enforces strict regulations on bottled water contaminants, and Fort Collins, Colorado tests bottled water sold in town and posts the results online. The NRDC estimates that 60 to 70 percent of bottled water brands sold in the U.S. are single-state operations. Stephen Kay, vice president of communications of the IBWA, says he doubts the percentage is that high. Kay is adamant that "no bottled water escapes regulation," and he points out that all members of the IBWA (which are responsible for 80 percent of U.S. bottled water sales) must also adhere to the organization's mandatory Model Code. This code does close some of the FDA's regulatory gaps, including setting a zero tolerance for coliform contamination, and it requires members to follow certain standards and undergo an annual, unannounced plant inspection. However, Olson stresses that, except in a few states, this Model Code is not legally binding or enforceable. Members of the much smaller National Spring Water Association follow their own guidelines, and must get their water from free-flowing springs.

One result of such Byzantine bottled water standards has been the widespread use of disinfection to reduce possible contaminants. Although the FDA does not require it, disinfection is mandatory in several states, including New York, California and Texas. However, chemicals commonly used to disinfect water, including chlorine and ozone gas, may react unpredictably, forming potentially carcinogenic byproducts. Opponents also argue that disinfection destroys naturally beneficial bacteria, creating a blank slate. Further, Mark Johnson of bottler Trinity Springs-which taps a spring in Idaho so pure it doesn't need any treatment-concludes, "If you don't disinfect, you must protect the source and increase environmental awareness so the source stays protected."

What's Really in that Bottle?

Even with widespread disinfection, consumer groups have raised numerous warnings about a host of different microorganisms and chemicals that have

been found in bottled water. In a four-year scientific study, the NRDC tested more than 1,000 bottles of 103 brands of bottled water. The group concluded, "Although most bottled water tested was of good quality, some brands' quality was spotty." A third of the tested brands were found to contain contaminants such as arsenic and carcinogenic compounds in at least some samples at levels exceeding state or industry standards.

An earlier NRDC-commissioned study tested for hundreds of different chemicals in 38 brands of California bottled water. Two samples had arsenic contamination, six had chemical byproducts of chlorination, and six had measurable levels of the toxic chemical toluene. Several samples violated California's bottled water standards. In a study published in the Archives of Family Medicine, researchers at Case Western Reserve University and Ohio State University compared 57 samples of bottled water to Cleveland's tap water. While 39 of the bottled water samples were purer than the tap water, 15 of the bottles had significantly higher bacteria levels. The scientists concluded that although all of the water they tested was safe to drink, "use of bottled water on the assumption of purity can be misguided."

Another area of potential concern is the fact that no agency calls for testing of bottled water after it leaves its initial packaging plant, leaving some to wonder what happens during months of storage and transport. To begin to examine this question, the Kansas Department of Health and Environment tested 80 samples of bottled water from retail stores and manufacturers. All 80 of the samples had detectable levels of chlorine, fluoride and sodium. Seventy-eight of the 80 contained some nitrate (which can cause methemoglobinemia, or blue-baby syndrome, in higher doses), 12 had nitrite, 53 had chloroform, 33 contained bromodichloro-methane, 25 had arsenic and 15 tested positive for lead.

Forty-six of the samples contained traces of some form of the carcinogen (and hormone disrupter) phthalate, while 12 of those exceeded federal safety levels for that chemical. According to Olson, phthalates may leach out of some plastic bottles into water. "Phthalates are not legally regulated in bottled water because of intense industry pressure," says Olson. Although Co-op America concludes that there is little evidence of a link between phthalate exposure from bottled water and any health problems, the group suggests using glass over plastic bottles as a precaution. Similarly, if your office cooler is made of polycarbonate, it may be releasing small amounts of the potential hormone disrupter bisphenol A into the water. Idaho's Pure Health Solutions, a water purification company, also conducted its own study that concluded certain bacteria grow significantly in bottled water over a 12-day period. Bacteria will normally grow in tap water within a few days if it is kept bottled up at room temperature. Most municipal water managers leave a residual amount of chlorine in tap water after treatment specifically to inhibit the growth of bacteria as the water runs

through pipes and sits in tanks.

The IBWA argues that the presence of benign bacteria in bottled water has no bearing on public health, since the treatment processes used by manufacturers ensure the death of any potentially harmful organisms. The group's website claims that there have been no confirmed cases of illness in the U.S. as a result of bottled water. The IBWA does mention an instance in 1994 in the Northern Mariana Islands, in which bottled well water was linked to a disease outbreak. The NRDC argues that no U.S. government agency actively searches for incidents of illness from bottled water.

On the Internet, one can find testimonials and news reports about people who claim to have gotten sick from tainted bottled water. One man writes that he and his fiancée became ill after drinking bottled water in the Dominican Republic. The Allegheny County Health Department in Pennsylvania reports discovering high levels of coliform in bottled water samples that were taken "after a man reported that he became sick from drinking the water."

Misleading Labels

Another complaint commonly levied against the bottled water industry is that many of the myriad product labels are misleading. Not long ago, New York-based artist Nancy Drew began collecting water bottles for a project. She concluded, "In a culture so inundated with images solely designed for promotion and profit, water is the most absurd element to see being used in this context." Drew's subsequent art views water labels' ubiquitous depictions of pristine landscapes as a stark contrast to the "gluttonous consumption and sense of status that they represent."

The IBWA states, "The labeling requirements ensure that the source and purity of the bottled water are identified and that, if the label is false or misleading, the supplier is subject to civil or criminal sanctions." Even so, the FDA technically requires that bottled water labels disclose only three variables: the class of water (such as spring or mineral), the manufacturer, and the volume. That brand of Massachusetts "spring water" exposed by NRDC was so-named because the source occasionally bubbled up to the surface in the industrial parking lot.

As ABC News put it, "Ad campaigns touting spring-fed or glacier-born H₂O are winning over a population increasingly skeptical of taps and willing to shell out big bucks for what they consider a purer, tastier and safer drink." Water bottlers use product names such as More Precious Than Gold, Ice Mountain, Desert Quench, Pure American, Utopia and Crystal Springs. The Environmental Law Foundation has sued eight bottlers on the basis that they used words like "pure" to market water containing bacteria, arsenic and

chlorine breakdown products.

Co-op America advises consumers "to be wary of words like 'pure,' 'pristine,' 'glacial,' 'premium,' 'natural' or 'healthy.' They're basically meaningless words added to labels to emphasize the alleged purity of bottled water over tap water." The group points out that, in one case, bottled water labeled as "Alaska Premium Glacier Drinking Water: Pure Glacier Water from the Last Unpolluted Frontier" was actually drawn from Public Water System #111241 in Juneau. The FDA now requires this bottler to add "from a municipal source" on the label. According to Co-op America, "as much as 40 percent of bottled water is actually bottled tap water, sometimes with additional treatment, sometimes not." So-called purified water can be drawn from any source as long as it is subsequently treated, which leaves some to wonder how that differs from good old tap water.

The number one (Aquafina) and two (Dasani) top-selling brands of bottled water in the U.S. both fall in the category of purified water. Dasani is sold by Coca-Cola, while Aquafina is a Pepsi product. As U.S. News & World Report explains, "Aquafina is municipal water from spots like Wichita, Kansas." The newsmagazine continues, "Coke's Dasani (with minerals added) is taken from the taps of Queens, New York, Jacksonville, Florida, and elsewhere." Everest bottled water originates from southern Texas, while Yosemite brand is drawn from the Los Angeles suburbs. In June, a lawsuit was filed against Poland Spring, the nation's largest bottled spring water company. Poland Spring is a brand of Nestlé Waters North America, which used to be called Perrier Group of America. Nestlé Waters is owned by the Switzerland-based Nestlé S.A., the world's largest food company. Nestlé's 14 other brands of U.S. bottled water include Arrowhead, Deer Park, Aberfoyle, Zephyrhills, Ozarka and Ice Mountain.

The plaintiffs charged that Nestlé duped consumers by advertising that Poland Spring water comes from "some of the most pristine and protected sources deep in the woods of Maine." The lawsuit alleges that ever since the original Poland Spring was shut down in 1967, the company has used man-made wells, at least one of which is in a parking lot along a busy road. "Poland Spring is exactly what we say it is-natural spring water," responded a Nestlé spokesperson.

Mistrusting the Tap

Despite all the hype, the NRDC concludes, "While much tap water is indeed risky, having compared available data, we conclude that there is no assurance that bottled water is any safer than tap water." Scientists at the University of Geneva arrived at the same conclusion, and add that, in 50 percent of the cases they studied, the only difference between tap and bottled water was that the latter contained added minerals and salts, "which

do not actually mean the water is healthier." In 1997, the United Nations Food and Agriculture Organization concluded that bottled water does not have greater nutritional value than tap water.

So why do so many of us trust and prefer bottled water to the liquid that is already piped directly into our homes? For the price of one bottle of Evian, a person can use 1,000 gallons of tap water in the home. Americans spend around \$10,700 on bottled water every minute, reports Co-op America, and many consumers think nothing of paying three times as much per gallon of bottled H₂O as they do for gasoline.

Kay says the IBWA does not intend to promote bottled water as a replacement for tap water, except maybe during emergencies. "Since bottled water is considered a food product by law, it doesn't make sense to single it out as needing more regulations than other foods," says Kay. He also stresses that IBWA guidelines strictly prevent members from trying to capitalize on fears over tap water, or from directly advertising that their products are more pure than municipal water.

Bottled water's competition is soft drinks, not tap water, says Kay. Karen from Ames, Iowa posted on the 2000days web diary: "In the summer I buy bottled water more often so I'll have something to drink that's not loaded with syrup and stuff."

Some critics have also found it ironic that many people who purchase bottled water end up refilling the containers from a tap. Clearly, some consumers may be more interested in buying the product for its packaging than for the water itself-or they impulsively purchased a bottle where there was no immediate access to a tap.

The Green Response

More and more environmentalists are beginning to question the purpose of lugging those heavy, inefficient, polluting bottles all over the Earth. The parent organization of the World Wildlife Fund, the Switzerland-based World Wide Fund for Nature, argues strongly that the product is a waste of money and is very environmentally unfriendly. Co-op America concludes: "By far the cheapest-and often the safest-option is to drink water from a tap. It's also the most environmentally friendly option." Friends of the Earth says, "We might as well drink water from the tap and save all this waste."

The WWF argues that the distribution of bottled water requires substantially more fuel than delivering tap water, especially since over 22 million tons of the bottled liquid is transferred each year from country to country. Instead of relying on a mostly preexisting infrastructure of underground

pipes and plumbing, delivering bottled water-often from places as far-flung as France, Iceland or Maine-burns fossil fuels and results in the release of thousands of tons of harmful emissions. Since some bottled water is also shipped or stored cold, electricity is expended for refrigeration. Energy is likewise used in bottled water processing. In filtration, an estimated two gallons of water is wasted for every gallon purified. When most people think of bottled water, they probably envision the single-serve plastic bottle, which has exploded in popularity and is now available almost anywhere food products are sold. The WWF estimates that around 1.5 million tons of plastic are used globally each year in water bottles, leaving a sizable manufacturing footprint. Most water bottles are made of the oil-derived polyethylene terephthalate, which is known as PET. While PET is less toxic than many plastics, the Berkeley Ecology Center found that manufacturing PET generates more than 100 times the toxic emissions-in the form of nickel, ethylbenzene, ethylene oxide and benzene-compared to making the same amount of glass. The Climate Action Network concludes, "Making plastic bottles requires almost the same energy input as making glass bottles, despite transport savings that stem from plastic's light weight."

Andrew Swanander, owner of Mountain Town Spring Water, says, "I'm embarrassed and appalled to see my bottled water products discarded on the side of the road." In fact, a considerable number of used water bottles end up as litter, where they can take up to 1,000 years to biodegrade. A 2002 study by Scenic Hudson reported that 18 percent by volume of recovered litter from the Hudson River (and 14 percent by weight) was comprised of beverage containers.

Pat Franklin, the executive director of the Container Recycling Institute (CRI), says nine out of 10 plastic water bottles end up as either garbage or litter-at a rate of 30 million per day. According to the Climate Action Network, when some plastic bottles are incinerated along with other trash, as is the practice in many municipalities, toxic chlorine (and potentially dioxin) is released into the air while heavy metals deposit in the ash. If plastics are buried in landfills, not only do they take up valuable space, but potentially toxic additives such as phthalates may leak into the groundwater. "It's ironic that many people drink bottled water because they are afraid of tap water, but then the bottles they discard can result in more polluted water," says Franklin. "It's a crazy cycle."

Franklin also acknowledges that although her group is a strong advocate of recycling, the very concept may encourage people to consume more plastics. Replacing used water bottles with new containers made from virgin resources consumes energy and pollutes the air, land and water. CRI estimates that supplying thirsty Americans with water bottles for one year consumes more than 1.5 million barrels of oil, which is enough to generate electricity for more than 250,000 homes for a year, or enough to fuel 100,000 cars for a

year.

Big Footprint

Despite such a sizable environmental footprint, the push to recycle plastic water bottles has not been as successful as many consumers might like to think as they faithfully toss their used containers into those blue bins. As *Utne* magazine recently reported, "Despite the ubiquitous arrow symbol, only five percent of plastic waste is currently recycled in America and much of that must be fortified with huge amounts of virgin plastic." One limitation is that recycling plastic causes it to lose strength and flexibility, meaning the process can only be done a few times with any given sample.

Another problem is that different types of plastics are very difficult to sort, even though they can't be recycled together. Common plastic additives such as phthalates or metal salts can also thwart recycling efforts as can too high a ratio of colored bottles (such as Dasani's blue containers) to clear bottles. Because of the challenges, many recycling centers refuse to accept plastics. In fact, a fair amount of America's plastic recycling is done in Asia, where laxer environmental laws govern polluting factories and fuel is spent in international transport.

According to a report recently released by the California Department of Conservation (CDOC), more than one billion water bottles are ending up in the state's trash each year, representing enough plastic to make 74 million square feet of carpet or 16 million sweaters. Darryl Young, the director of CDOC, says only 16 percent of PET water bottles sold in California are being recycled, compared to much higher rates for aluminum and glass. "It's good people are drinking water, but we need to do more outreach to promote recycling," says Young. Franklin says one potential deterrent to recycling may be that water bottles are often used away from home, meaning they aren't likely to make it into curbside bins. Young advises people to ask for recycling bins in retail and public spaces.

Industry analysts point out that demand exceeds supply in the market for recycled PET plastic, which is used in a range of goods from flowerpots to plastic lumber. Franklin says deposit systems, or so-called bottle bills, would go a long way to improving the collection of used water bottles, especially since only half the country has curbside recycling available. But only a few states have bottle bills, largely because of strong opposition from the container, beverage and retail industries (and their front group, Keep America Beautiful). While Kay stresses that the IBWA urges consumers to recycle, he says his organization opposes bottle bills because "food retailers shouldn't have to devote any money-making floor space to storing and sorting recyclables, especially as that may lead to unsanitary

conditions."

The WWF says alternatives to bottled water such as boiling and filtering are cheaper and more sustainable in areas that have contaminated tap sources. Co-op America and CRI advise consumers to fill their own bottles to take with them on the go. Glass doesn't leach chemicals, and sturdy plastics can be repeatedly washed, so consumers don't have to worry about breeding bacteria. For a lessened environmental impact, spring and other specialty waters can be purchased in bulk. But as BBC News concluded, "The conservationists are fighting an uphill battle. The bottled water market is booming...and shows no signs of drying up."

Battling the Bottlers

Numerous environmental and social activists have recently begun to put up a fight against the expanding bottled water industry, which they claim threatens local wells, streams, wetlands and ways of life. Bottling companies may pump up to 500 gallons per minute, or even more, out of each well, and many wells run 24 hours a day, 365 days a year. Such operations have drawn intense opposition in Florida, New Hampshire, Pennsylvania, Texas, Michigan and Wisconsin. Many residents of these states depend heavily on groundwater for residential, agricultural and fishery use. In Wisconsin, for example, three out of four homes and 97 percent of municipalities obtain their water from the ground.

"Resistance against water bottlers is a classic NIMBY (not-in-my-backyard) issue," says Kay. The IBWA claims bottlers wouldn't pump aquifers to depletion because that wouldn't make good business sense. But civil engineer and hydrologist Tom Ballestero of the University of New Hampshire cautions that surrounding wells and the environment can be negatively impacted before an aquifer is severely depleted. "The groundwater they are pumping and exporting was going somewhere where it had an environmental benefit," says Ballestero. Geologist David Bainbridge of Alliant International University also points out that there are scant few penalties against users who draw down water tables or deplete aquifers. Due to the long amount of time it takes to naturally replenish aquifers, most scientists consider groundwater a nonrenewable resource.

Much of the opposition to water bottlers has been directed at Nestlé Waters North America, which taps around 75 different U.S. spring sites. A spokesperson for the corporation, Jane Lazgin, says most communities welcome the jobs and revenue brought by bottling operations. Even so, Nestlé lost several bids to set up bottling plants in the Midwest due to intense opposition. Eventually, for its Ice Mountain brand, Nestlé built a \$100 million plant capable of bottling 260 million gallons of water a year from an aquifer in Michigan's rural Mecosta County, which is about 60 miles north

of Grand Rapids. Nestlé paid around \$150 for permits and received substantial tax breaks.

Local activists, mobilized by the newly formed Michigan Citizens for Water Conservation, protested the plant on the grounds that the facility would take too heavy a toll on the surrounding environment and quality of life. Although Nestlé claims it conducted "exhaustive studies for nearly two years to ensure that the plant does not deplete water sources or harm the ecosystem," the activists pointed out that the state has no authority to limit the amount of water that is actually removed. Three Native American tribes sued the state on the basis that rivers, and ultimately, the Great Lakes, would be affected. Michigan Citizens for Water Conservation and a few local residents also filed a lawsuit, claiming that the Mecosta operations violate state and federal water rights. The controversy became a hot topic during the 2002 gubernatorial election. As Grist reported, "Both major party candidates publicly and repeatedly expressed their resolve to modernize state water policy to block other multinational corporations from privatizing, bottling and selling hundreds of millions of gallons of Michigan's groundwater annually across state lines." A ruling on the case is expected soon, and is believed to have far-reaching ramifications.

In Florida, Nestlé angered many people, including the group Save Our Springs, when it took over Crystal Spring, which is near Tampa. The company fenced out the public, which had enjoyed the water for generations. After five years of bottling operations, the spring level has dropped. Some officials are worried, since the spring feeds the source of Tampa's water. Nestlé blames the change on dry spells and local development.

Local residents have also fought Nestlé in rural northeast Texas, where they complain that a well across the street from the company's bottling site went dry five days after Nestlé began operations. Nestlé's Lazgin claims that well dried up because it was old and shallow, and that it was not on the same aquifer as the bottling plant. Critics counter that aquifer geology is a fairly subjective science. The Texas Supreme Court ruled in favor of Nestlé under the state's "rule of capture." Save Our Springs President Terri Wolfe told The Northwestern, "The poor people whose wells run dry because of [bottlers] can't afford that water."

What's the Quencher?

A host of environmental groups are joining resource managers in the call for Americans to cut back on bottled water and instead look to tap systems to provide our daily needs. As the NRDC points out, incidents of chemical or microbial contamination in tap water are actually relatively rare. In a recent review of the nation's public drinking water infrastructure, researchers at the Harvard School of Public Health concluded, "Reasonably

reliable water is currently available to nearly all 270 million U.S. residents."

Writing in *The Kansas Lifeline*, Scott Hooper expresses frustration on the part of municipal water managers, who are increasingly shackled with negative reputations despite their actual accomplishments. Hooper advises managers sarcastically, "What are you waiting for? Turn a few valves, install a bottling plant and begin to make the big bucks. You could sell your water for half of what the other bottler down the road is charging and still make a bundle. With no meters or mains to maintain, no monthly billing, lower lab bills, why, you could afford a top-dollar advertising campaign telling folks how much better your water is than the stuff that used to come out of the tap."

It's true that tap water does face numerous threats, including possible contamination from the potentially harmful byproducts of chlorination, the specter of pollution and a lack of adequate funding. Stresses from global warming, urban sprawl and population increase also must be factored in, as well as the looming threat of terrorism. The WWF argues that governments should focus their limited energies on repairing current tap water infrastructures and on protecting watersheds from harmful farm, industry and urban pollutants. Many public water supply advocates feel that tax dollars should be paying to deal with tap water's challenges. We certainly need to think twice before handing off the public water trust to private companies that put it in attractive bottles at a high price.