

Bottled Water - What Can We Do?



When we walk into a grocery store, we are inundated with sights that are specifically designed to appeal to our senses. We are moved from product to product in ways that invite us (and convince us) that we need that thing, that item, that product. The packaging is colorful, attractive and with a few words they entice us to believe that it is healthy or exciting or sexy or will make us beautiful. As consumers, we generally don't read any of the fine print or notice the calories and ingredients or question its manufacturing process. We just buy. Is it a good price? Does it meet my needs? And those needs are usually more than a straightforward requirement for survival. They fall into a luxury category where we could live without it, but we want to believe that we 'need' it.

The bottle industry is no different. They are catering to us, the consumers, with a product that they want us to 'need'. And we are buying it. We need this water, it is better for us, it's 'cool' to drink it. Americans now drink more bottled water than milk or beer. Public events are stocked with bottled water, family picnics include it, and caterers find it easier to provide the bottles than fill water jugs. Big water bottle businesses have paid millions of dollars to tell us to buy their product. They have tapped into our fear of municipal water sources, our 'need' for a better tasting water, our desire for a stylish way of being, and convenience.

Unfortunately, we have developed a fundamental fear of our municipal water source and the bottled water industry has expanded this view in subtle ways. Their products are purported to be 'pure', recovered from 'mountain springs', and is 'water that has never touched the ground'. This view implies that our tap water is not potable, not good enough. Is it flowing from remote artesian wells? Does it accompany beautiful pictures and famous actors purporting its desirousness? We mistakenly have an idea that our tap water is ridden with pathogens and dangerous disease and we mistrust our government to provide a quality product. And, what they don't want us to know is that one-quarter of all bottled water is actually sourced from tap water.

Another ploy by advertisers recently has been that bottled water is good for you. It is better than a fruit drink laced with sugar, or a carbonated drink that add empty calories to our daily intake. This tactic has been especially effective with the emphasis on fighting childhood obesity. And, convenience is the master word for Americans. We want it easy. We want it now. We buy it, we drink it, and then we throw it away. No thought of what repercussions there might be with this purchase.

No doubt, there are many controversies about this issue. We'll try to cover some of these points.

- Water is a basic human right and necessary for all life. When it becomes commodified and more difficult for some people to gain access because of cost or scarcity, it creates serious political instability.

- Clean drinking water is not as readily available as it seems. It is a limited resource and not as plentiful in some regions.

Water has become profitable and marketed to fill a demand and creates a hardship for those who really do need a reliable source of water.

- Bottled water companies are not providing a community service, they are in it for the profit.

We no longer see water as a basic human right, but as a marketing product with a profit margin and dividends to stockholders. We no longer drink from public fountains and are wary of the water from our faucets.

Each purchase of bottled water does not merely satisfy our thirst, there are many ramifications and hidden costs that affects our lives. The environmental damage is high and the risks to our health are real.

- Tap water is rigorously tested and monitored under EPA supervision. It is disinfected and tested for bacteria, pathogens, E. coli and Fecal Coliform, Cryptosporidium and Giardia among other things. Bottled water does not have any such regulation.

- When people drink bottled water they think they are getting a health product. One problem is that the plastic bottles are made from polyethylene terephthalate (PET). It is the most common plastic used for food packaging because of its resistance to heat, solvents and acids. However, it is known to disrupt the endocrine system which is vital in growth and development. Research is showing that it can leach into the water and can cause possible damaging effects, and the amounts can increase the longer water is kept in the PET containers especially if exposed to sunlight and prolonged heat.

- The environmental impact continues with the actual manufacturing of plastic bottles. Para-xylene is a clear liquid derived from mining crude oil and a primary ingredient in the production of PET. It is in the benzene family and benzene causes cancer.

People living near the manufacturing plant are exposed to pollutants that contain benzene and have a proven higher incidence of cancer in these areas.

- Another ingredient for the manufacture of plastic bottles is Bisphenol A (BPA) and can be found in sports bottles, baby bottles and water coolers. These hard reusable bottles can leach tiny amounts of BPA, a chemical that mimics estrogen. It has been found to relate to obesity, breast cancer, prostate cancer, diabetes, brain disorders, liver disease, ovarian disease, disease of the uterus, and low sperm count in men.

The environment, our planet's health, is the biggest recipient of damage caused by the marketing of bottled water.

- Oil, a finite resource, is used to produce the plastic bottles. The production requires a large amount of water, in addition to the water that is extracted to put in the bottle for resale.

- Manufacturing of plastic bottles uses 45 to 50 million barrels of oil and produces up to 3 tons of CO2 a year.

- Most plastic bottles are thrown into the garbage can with little regard for recycling. They become litter on the side of roads, float down our rivers and end up in the ocean as tiny pieces of plastic that sea life mistakenly think are food or as debris on the shores of a distant country. 85 million plastic bottles are thrown away each day in the United States.

- Oil based plastics take thousands of years to degrade.

- Recently, the industry has turned a new approach to plastic bottles. They are making them lighter which reduces the cost of production, the energy required for shipping and the mass of plastics in landfills. With a flimsier plastic these bottles don't necessarily decrease the amount of bottles purchased but, we the consumer, feel less guilty about it.

The environmental damage continues with the extraction of materials like oil and water to make the bottles. The energy in the production plants and for the transportation of the product all carry a heavy carbon footprint.

- It is estimated that the total energy required for every bottle's production, transport and disposal is on average equal to filling a quarter of that bottle with oil. This energy cost is extravagantly larger than the cost to treat, monitor and deliver tap water.

- Water costs twice or more what gasoline does, and can be up to 1,000 times the cost of tap water. These costs are not unique to bottled water. They hold true for the production of beer, soda and milk. But these beverages are not replaceable with a clean and safe product that streams from our household pipes.

The biggest controversy around bottled water seems to be the groundwater depletion. Water levels are dropping, or even disappearing due to over pumping. We can't totally blame the bottled water industry, but our modern, industrial requirements for water are taking its toll and this worries scientists. With global climate change our snow levels have decreased resulting in lower than normal levels replenishing our water sources.

- Nestle pumps 114 billion gallons of groundwater that would feed into Lake Michigan every year, and Coke and Pepsi made an agreement with Detroit to bottle and ship Great Lakes water. Many people rely on this water for their drinking source and then it is shipped to places where people can easily drink out of their own tap.

- In some places this extraction can cause a large impact, but in others not so much. In 2004, a plant in New Hampshire was permitted to pump 300,000 gallons of water from the local aquifer. After a 10 day trial, parts of a local wetland were completely dry. In Arizona, water was pumped from groundwater in the Tonto National Forest. The pumping altered the flows of Seven Springs Wash and the Spur Cross Ranch Conservation area, leading lowered surface waters to cause the death of native fish, frogs, hawks, trees and grass.

- The bottled water industry purports that they promote big business and imply that it is good for the community. They bring jobs. But at what environmental cost?

- During a severe drought in North Carolina, Pepsi was still pumping and bottling water, while their lakes and streams dried up. They refused to temporarily halt their production.

- Groundwater is the second largest reserve of freshwater on earth. It makes up 40% of the freshwater used in the United States. These aquifers need to be replenished by rainwater and other water sources. It is a slow process and in many places, groundwater is being removed faster than it can be replenished.

The environmental and social price of bottled water is high. There are solutions and compromises that would protect and equitably share our resource. One idea would be that drinking fountains be returned to our city streets and accessible in our public buildings. Or carrying a container that can be reused often with a supply of tap water for wherever we go. Municipal water systems need to be updated and our watersheds protected to increase the public's perception of its source quality. Production plants need stricter laws and regulations to offset its environmental impact and health consequences. These are just a few.

We all have a right to clean water. It is a resource that shouldn't be packaged and sold.

"The most important controversy in bottled water is whether or not the industry should be able to commodify a basic human right. All human beings should be allowed easy access to clean drinking water." Marguerite Kay Huber

Resources: Bottled Water: The Risks to Our Health, Our Environment, and Our Wallets by Marguerite Kaye Huber, School of Public and Environmental Affairs, Honors Thesis, Fall 2010

www.mnn.com/food/healthy-eating/

www.foodandwaterwatch.org/water/waterprivatization

www.onlineeducation.net/bottled_water