

BOTTLED WATER FACTSHEET

The advent of plastics has allowed new industries to emerge – among them bottled water. For more than a decade this industry has been at the center of debate.



RESOURCE INTENSIVE

Fossil fuels are imbedded in the life cycle of bottled water. Plastic bottles are made from petroleum and energy is used to fuel the manufacture and transport of those bottles.

- In 2007 100 billion liters of bottled water were sold worldwide. On average roughly 4 mega joules (MJ) of energy are used to manufacture a single 1 liter PET plastic bottle. Given that a barrel of oil contains about 6000 MJ of energy, the manufacture of plastic water bottles in 2007 used the energy equivalent of approximately 50 million barrels of oil.
- After the bottle is manufactured and filled it is shipped to consumers. The amount of energy used in transportation depends upon a number of factors and can use anywhere from 1.4 -5.6 MJ of energy per bottle.ⁱ
- Because water is used during the bottle manufacturing process, it is estimated that at least 3 liters of water are used to yield one liter of bottled water.ⁱⁱ



WASTE GENERATION

Although technically recyclable, nationwide, only 10 percent of water bottles are actually recycled. In other words 9 out of 10 water bottles wind up in the landfill or littering the environment.ⁱⁱⁱ



HEALTH AND SAFETY

Bottled water is often viewed as a healthier choice than tap water. In the United States at least, this argument overall is incorrect.

- Bottled water and tap water are regulated by different agencies. The Food and Drug Administration (FDA) regulates bottled water and the Environmental Protection Agency (EPA) regulates municipal tap water. According to a report by the Government Accountability Office, bottled water is not as strictly regulated as tap water.^{iv}
- Municipal water authorities are required by law to provide annual reports on the source of their water and the quality – including any contaminants. Many also include information on treatment methods. The information for Monroe County can found at: http://www.mcwa.com/LinkClick.aspx?fileticket=_g_unN41tVc%3d&tabid=103. For information on other water authorities go to: <http://cfpub.epa.gov/safewater/ccr/index.cfm?OpenView>. No such law currently exists for bottled water and therefore few provide any of that information.^v
- Approximately 45% of bottled water comes from municipal water sources.^{vi}





SOCIAL JUSTICE

The bottled water industry has transformed what was once a common good into a commodity to be sold for profit. Yet access to clean drinking water is a basic human right.

- Bottled water that comes from springs and aquifers are often the primary or only water source for some communities. To meet the growing demand, businesses are finding themselves in more frequent conflict with local communities as they compete for the same water supply.^{vii}
- As bottled water has become more common, less attention has been paid to public water infrastructure. Over the last 40 years, federal funding for public water infrastructure has gone from 70% to less than 5% of the total costs.^{viii} Those that cannot afford bottled water will be most affected by the results of aging infrastructure.



COST

A single one liter bottle of water purchased at the store can cost \$1.50 or more – the equivalent of \$5.68 per gallon. In Monroe county, residential water costs \$2.57 per 1000 gallons of water – the equivalent of .0026 cents per gallon.^{ix} A single liter bottle of water at \$1.50, costs 2184 times more than the same amount of tap water.



WHAT TO DO

Bottled water serves an important function during disasters and other emergency situations. It may also be a good option for travelers to foreign (often developing countries), as their municipal water quality standards are not typically as strict as those in the US. In these instances try to purchase larger volume containers of bottled water – rather than multiple 12 oz bottles, buy a 5 gallon container and use a refillable bottle. It is much more cost effective and reduces the amount of plastic used.

If concerned about water quality, find out what is in your water by reviewing the water quality report of your municipal water authority. If you don't like what is in there, buy a filter for your tap that will remove the items of concern. Different filters treat for different things. To find the right filter for your needs check out: <http://www.nsf.org/Certified/dwtu/>. The cost of the filter will quickly pay for itself.

Then buy a refillable bottle. If convenience is the reason for purchasing bottled water, check out Brita's new product: <http://www.brita.com/products/filtering-bottle/brita-bottle/>.

In response to these issues, New York State Executive Order No. 18 was issued by Governor David A. Paterson in May 2009. Executive Order No. 18 prohibits expenditures on bottled water using state funds.



“Taxpayers have spent billions of dollars to ensure that we have clean drinking water supplies. If we are going to make such significant investments, we should reap the benefits and use that water.”

-New York Governor David A. Paterson



Making *Sustainable* Tracks

- ⁱ Gleick, P.H. and Cooley, H.S. “Energy implications of bottled water.” *Environmental Research Letters* 4 (2009). Web. 29 August 2011. <http://iopscience.iop.org/1748-9326/4/1/014009/pdf/erl9_1_014009.pdf>
- ⁱⁱ “Bottled Water and Energy: A Fact Sheet.” *pacinst.org*. Pacific Institute. 2008. Web. 29 August 2011. <http://www.pacinst.org/topics/water_and_sustainability/bottled_water/bottled_water_and_energy.html>
- ⁱⁱⁱ “Too Many Bottles—It’s a Waste.” *dec.ny.gov*. New York State Department of Environmental Resources. 2011. Web. 29 August 2011. <<http://www.dec.ny.gov/chemical/51377.html>>
- ^{iv} United States. Government Accountability Office. *Bottled Water: FDA Safety and Consumer Protections Are Often Less Stringent Than Comparable EPA Protections for Tap Water*. Government Accountability Office [2009]. Web. 29 August 2011. <<http://www.gao.gov/new.items/d09610.pdf>>
- ^v “Most Bottled Water Brands Don’t Disclose Information About Source, Purity and Contaminants.” *ewg.org*. Environmental Working Group. 2009. Web. 29 August 2011. <<http://www.ewg.org/health/report/BottledWater/Bottled-Water-Scorecard/NewsRelease>>
- ^{vi} Boyles, Salynn. “Questions and Answers on Bottled Water and How It Compares to Tap Water.” *webmd.com*. WebMD. 2008. Web. 29 August 2011. <<http://www.webmd.com/food-recipes/news/20081107/bottled-water-faq-on-safety-and-purity>>
- ^{vii} Corporate Accountability International. *Getting States Off the Bottle: How taxpayer dollars are wasted on bottled water and its effect on public water systems.* 2010 Web 22 September 2011. <<http://www.stopcorporateabuse.org/sites/default/files/Getting-States-Off-the-Bottle-2nd-ed.pdf>>
- ^{viii} “Water Rates.” *mcwa.com*. Monroe County Water Authority. 2011. Web. 29 August 2011. <<http://www.mcwa.com/MyWater/WaterRates.aspx>>
- ^{ix} “Five reasons to ban bottled water.” *canadians.org*. The Council of Canadians. 2011. Web. 29 August 2011. <http://www.canadians.org/water/issues/Unbottle_It/factsheet.html>

