

## Sample Student Research Paper

T Flanders

Instructor Name

ENG 092

10 April 2010

### Bottled Water

Bottled water has grown into the second largest commercial beverage in the nation and it is gaining on the leader; carbonated soft drinks (Trosclair). People are making the switch to bottled water because they feel it's a healthier alternative to other beverages, as well as being a convenient source of water. Municipal tap water has taken a back seat when it comes to fulfilling people's daily water intake and many critics are in opposition of the bottled water industry due to this turnover. Although the bottled water Industry has been under scrutiny for a variety of issues, bottled water does prove to be a beneficial resource in certain situations such as: natural disasters and in developing countries where there is a lack of clean water. Despite these few benefits, bottled water continues to create more problems than it proves to be beneficial. Financial, health and environmental concerns are being raised due to the negative impacts bottled water is causing in all three of these areas.

Between 1978 and 2006 the consumption of bottled water has gone up 2,000 percent (IDS Water). There are now more than 700 name brands to choose from (IDS Water) and people seem to be willing to pay a high price for their bottled water of choice. To some, the price of bottled water may seem fairly reasonable, with prices ranging anywhere between \$1.00 to \$3.00 per bottle, but according to the U.S. Natural resources Defence Council, the cost of bottled water is between 240 and 10,000 times more expensive than tap water (Ten concerns about).

Consumption of bottled water has gained popularity over the last decade. In 2007, two-hundred billion bottles of water were sold internationally (Thompson). With such a high volume in sales it is safe to assume that people believe they are getting the best possible water on the market, but surprisingly, two of the world's top selling bottled water brands are actually municipal tap water. Pepsi's, Aquafina and Coca Cola's, Dasani are both produced from purified water that comes from public reservoirs (CNN Health). These large corporations are repackaging water that taxpayers have already paid for and they are selling it back at an extremely high price. Pepsi and Coca-Cola have engaged in long term contracts with schools across Canada and the U.S. to sell their bottled water, and now high school activists are raising questions to why their school board members have locked them into these contracts when they have access to drinking fountains for free (Environmental Magazine). Richard Girard, a corporate researcher for the Polaris institute says, "...Movement is gaining momentum because the general public is starting to figure out that bottled water is a scam," (Environmental Magazine).

The cost of bottled water is marketed at a price that people can afford, but annually, this luxury item can have a large price tag. According to the Polaris Institute, over the past three years, the Federal Government has spent over seven million dollars of public money on bottled water. This situation demonstrates how the convenience of bottled water can come at a high price and it also shows how people have become naive towards the fact that they are spending excessive amounts of money on water.

People are becoming more health conscious these days and many believe that bottled water is a healthier alternative to tap water, but Health Canada has stated that there is no evidence that bottled water is healthier and if anything, tap water may very well be safer (Petty-Trudeau). In both the U.S. and Canada, bottled water is regulated as a food. This means that it does not have to be tested as frequently for bacteria and chemical contaminants as city water does. Studies have shown that some micro-organisms tend to grow more frequently in bottled water than they do in tap water. Furthermore, bottled water has proven to be more difficult to manage because it is stored for longer periods of time at high temperatures (Bottled Drinking Water). There has also been growing concern about the possible health risks associated with the plastic bottle itself. Many plastic water bottles are made using the chemical Polyethylene

Terephthalate or PET. A recent study done by Dr. William Shotyk, the Canadian director of the Institute of Environmental Geochemistry at the University of Heidelberg, found that PET bottles leach a dangerous toxin called Antimony into the water and the study suggests that the levels of Antimony rise the longer water stays in the bottle (Petty-Trudeau).

When people make their decision to switch from tap water to bottled water, they are probably unaware that they are giving up a key source of fluoride that contributes to maintaining healthy teeth and gums. Fluoride is added to the public water supply in order to reduce tooth decay, whereas the majority of bottled waters do not contain optimal levels of this element (Bottled Water and Fluoride). When bottled water is processed with distillation or reverse osmosis, it lacks fluoride ions which increase the risk of tooth decay due to the lack of fluoride (Wikipedia). The International Council of Bottled Water Association insists that there is no correlation between bottled water and tooth decay (CBC News), but Jack Cottrell, president of the Canadian Dental Association says “it’s not the water that’s causing the decay, it’s the lack of fluoride” (Smith)

During the production and distribution process of bottled water, several reproductions occur which are causing devastating damage to the environment. According to the Pacific Institute, the energy required to produce the plastic water bottles for the American market alone in 2006 was equivalent to 17 million barrels of oil (Petty-Trudeau). Throughout the production process, limited supplies of fossil fuels are being used in order to create this product of convenience. Manufacturing plants are situated all over the world and the transportation of the product is a daily routine. Planes, trucks and boats are all used to transport bottled water and throughout the process, millions of pounds of carbon dioxide are being released, contributing to the destruction of the earth’s atmosphere. It is estimated that more than 5 trillion gallons of bottled water is shipped internationally each year and according to the President for the Council for Canadians, the amount of fuel used to deliver the bottled water was equivalent to 38,000 eighteen wheel trucks delivering weekly (Morningstar).

Environmentalists are also very concerned with how people are disposing of empty water bottles. The David Suzuki Foundation estimates that, “... more than eighty-five percent of empty bottles are thrown into the trash,” (Petty-Trudeau). Plastic water bottles are swallowing up land fill space, increasing air pollution and they are destroying the ozone layer (United States). When

plastic bottles end up in landfills they are either buried or incinerated. It can take up to 1000 years for plastic bottles to biodegrade and during the process they may release toxic additives into the ground water (Petty-Trudeau). Through the release of these toxins, the future water supply may very well end up becoming contaminated. As for the bottles that are incinerated, toxic chemicals are released into the air that pose health concerns as well as creating green house gases that attack the ozone layer (United States).

People need to become aware of the negative impacts that bottled water is causing. In North America, there is access to clean drinking water almost everywhere and people are taking that for granted. As bottled water plays an essential part for survival during natural disasters and in developing countries, we on the other hand, use bottled water because of its convenience. Financial, health and environmental concerns will continue to be raised against bottled water due to the negative impacts that are resulting from this product. If people do not start to recognize the issues associated with bottled water and begin to take action, the consequences will continue to manifest over time, causing devastating effects on the environment and humanity as a whole.

## Works Cited

- “Bottled Drinking Water.” *World Health Organization Reference Site*. October 2000. 01 April 2010  
<<http://www.who.int/medacentre/factsheets/fs256/en>>.
- “Bottled Water and Fluoride” Online Posting. N.D. 03 April 2010  
<<http://www.colgate/us/oc/Information/OralHealthBasics/Checkups>>.
- Canadian Press. “Government Spending \$7 million on Bottled Water.” CTV.Com 29 April 2009. 03 April 2010. <<http://www.insidethebottle.org/govt-spending-7million-water-report-ctv>>.
- CBC News Services. “Bottled Water: Quenching a Planet’s Thirst.” CBC.Ca 20 August 2008. 02 April 2010 <<http://www.cbc.ca/news/background/consumers/bottled-water.html>>.
- CNN Health. “Aquafina labels to spell out source-Tap water.” CNN Health.Com 27 July 2007. 04 April 2010. <<http://www.cnn.com/2007/Health/07/27/pepsico.aquafina.reut/>>.
- Environmental Magazine. “Bottled Water Backlash.” Emagazine.Com May 2008. 01 April 2010  
<<http://www.emagazine.com/view/?4186>>.
- “Fact Sheet: Bottled Water and Energy.” *Pacific Institute Reference Site*. December 2007. 30 March 2010 <[www.pacinst.org](http://www.pacinst.org)>.
- Fishman, Charles. “Message in a Bottle.” *Fast Company.Com*. 19 December 2007. 04 April 2010  
<<http://www.fastcompany.com/node/59971/print>> .
- IDS Water: The Information Resource for the Water Industry. “Study: Bottled Water Boom is Hurting the World’s Environment.” Ids.Com 01 June 2007. 02 April 2010  
<[http://www.indswater.com/water/us/bottled\\_water/1681/pressrelease\\_content.html](http://www.indswater.com/water/us/bottled_water/1681/pressrelease_content.html)>.
- Morningstar, Cory. “Single Use Bottled Water-Why recycling is not the Answer.” *Council of Canadians Reference Site*. N.D. 01 April 2010  
<http://www.canadians.org/water/documents/RecyclingNottheAnswer.pdf>.
- Petty, Sean and Trudeau, Justin “The Case Against Bottled Water.” *Health Zone Reference Site*. 11 August 2008. 01 April 2010 <<http://www.healthzone.ca/health/articlePrint/475146>>.
- “Ten Concerns about Bottled Water.” *Kairos Reference Site*. N.D. 03 April 2010  
<<http://www.karoscanada.org/en/ecojustice/waterfacts/bottledwaterconcerns>> .

Smith, Michael. "Bottled water Cited as Contributing to Cavity Comeback." *Med Page Today Reference Site*. 19 September 2005. 03 April 2010  
<<http://www.medpagetoday.com/PrimaryCare/DentalHealth/1756>>.

Thompson, Andrea. "The Energy Footprint of Bottled Water." *The Live Science Reference Site*. 18 March 2009. 05 April 2010  
<<http://www.livescience.com/environment/090318-bottled-water-energy.html>>.

Trosclair, Carroll. "The Bottled Water Industry." *Suite 101 Reference Site*. 30 July 2007. 07 April 2010  
<[http://corperate-marketing-branding.suite101.com/article.cfm/bottled\\_water\\_is\\_booming](http://corperate-marketing-branding.suite101.com/article.cfm/bottled_water_is_booming)>  
"Wikipedia." *Bottled Water*. 01 April 2010 <[http://en.wikipedia.org/wiki/Bottled\\_Water](http://en.wikipedia.org/wiki/Bottled_Water)>.

United States. State of California. Department of Conservation. *Report: Surge In Bottled Water Popularity Threatens Environment*. 09 May 2003. 07 April 2010