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Bio 101H

Global Issues: Final Paper

30 Nov. 2014

Blue Gold: The Global Cost of Water Privatization

Major shifts in the availability and purity of water have already begun to affect the health of the Earth's water cycle and water-dependent ecosystems. Through carbon emissions and other byproducts of industrial processes and unregulated business practices, large quantities of harmful pollutants are being released into the atmosphere and leached into our soil and limited groundwater reservoirs. This is resulting in the potable water supply of the Earth a growing ecological concern - with a greater need for strategic and sustainable management practices.

The World Health Organization estimates that by 2025 more than one half of the world's population will not have access to safe drinking water (WHO). As our populations increase and water-dependent industries (such as fracking) expand, the 1% of water on Earth that *is* safe for consumption will become increasingly sought after. The production of water bottles, the environmentally damaging bulk transport of water from locations of origin, and the effect of unsustainable water management practices will only become more pressing concerns to global health. Whether due to privatization or pollution, access to this necessary resource - which the World Bank now refers to as "Blue Gold" - may well become a luxury during our lifetime.

As governments and corporations have not been historically successful in limiting pollution or in orchestrating balanced distribution of essential resources to those most in need, it is necessary that as a global population we become informed advocates of sustainable water

management practices. This is often the most successful method for ensuring continued access to drinkable water – a singularly precious resource.

In any necessary good there is profit to be had and the human need for water is no exception. Increasingly, global corporations including Nestlé and Coca-Cola, as well as more powerful agencies such as the World Bank, have already begun the slow march towards the global privatization of water resources. To understand the true cost of water being treated as a good to be traded in the market - rather than a public resource which all have access to - we will examine the outcomes of current water privatization practices.

Looking in any grocery store or recycling bin it becomes clear that bottled water is big business. In fact it is one of the fastest growing industries in the world. In 2008 - in the U.S. alone - companies dealing in water made a profit of \$77.6 billion dollars (Brei and Böhm 233). We can safely assume that through marketing and consumer demand these numbers have only increased. Interestingly, it is not in developing countries with limited access to safe drinking water that bottled water is most in demand, but in developed nations who's water supplies are likely to be as good as that of the water purchased. Ironically, a quick google search will show that bottled water quality tests consistently reveal that, regarding bacterial contamination and chemical content, the quality of bottled water is often below that of local state-mandated tap water standards.

This unnecessary purchase of water can become a more serious issue, as author Richard Dolash discusses in his article “The Problem With Bottled Water”. He notes that a danger in supporting private water ownership - though the purchase of bottled water - is that less money may ultimately be invested in maintaining the operation of the public water utilities, a necessity for those who cannot afford to buy water (37). This would result in a shift of power in water

management control as more money becomes diverted away from supporting public utilities and instead into for-profit businesses with the likelihood of less democratic oversight.

Some water bottling companies, aware that costumers may be sympathetic to the growing lack of access to drinkable water in impoverished countries, have actually begun using this as a marketing strategy. Volvic is a water brand that claims that in buying their bottled water some proceeds go to water-focused charities, implying that your purchase helps poor African communities gain access to water (Brei and Böhm 241). An example of a newly popular form of environmental marketing referred to as “green-washing”, this sales pitch suggests the consumer actually *contributes* to global health with their purchase (Brei and Böhm 247). Whatever the emotional outcome, it does not diminish the waste produced by the bottle’s production or the shift of funding from public to private water ownership.

Pollution created by water bottling operations is also detrimental to global health. The process of packaging and transporting water is tremendously resource-intensive. Some research indicates that current production methods require three liters of water to produce one liter of bottled water (Sheeran and Zhou 14). The fossil fuel required for not only the production of the plastic bottles, but also global transport to distribution centers – and ultimately our stores and cafeterias – is estimated to be more that 17 million barrels of oil a year (Dolash 36). The U.S. alone produces almost 29 billion disposable water bottles annually. It’s reported that only 15% of water bottles are recycled globally, meaning that 85% of water bottles end up - at best - in landfills. Many are simply incinerated, releasing more toxic chemicals into the air (Dolash 36). When we consider that those with access to safe tap water consume the lion’s share of bottled water, this mostly unnecessary environmental cost is staggering.

Beyond the environmental consequences of water bottling and distribution, the legal precedents of turning public water rights over to for-profit agencies has been historically damaging to local communities and governments. While water privatization in Brazil has its own rich history, dangers of treating water like a business commodity have been clearly shown in Canada. In their article on the politics of water management, researchers Keith Hipel, Obeidi Amer, Fang Liping and Mark Kilgaur at the University of Toronto examine the multi-faceted aspects of water privatization. In 1995 McCurdy Enterprises proposed a large-scale water export project at Gilbourne Lake, a water basin located in a wilderness area on the coast of Newfoundland. The company stated it would pump a maximum of 80 million gallons of a week from the lake and ship this water to foreign markets in China and the Middle East (57). The organization appealed to local agencies by stating this operation would benefit the local economy, which was suffering from an economic recession due to the loss of its traditional fishing industry. The proposal was set to move forward until it met with protests from environmental stewardship organizations including First Nations representatives and The Department of Environment and Labor of Newfoundland and Labrador. A major concern was that large-scale water removal and transport would have far-reaching and unknown effects on both aquatic and terrestrial ecosystems, especially since the sheer amount of water removed would exceed the rate at which the basin could be naturally replenished (57). However temporary the economic benefits, the basin would ultimately be drained and the local economy, again, without a sustainable industry.

There was also a healthy concern that the precedent of turning water into globally-traded commodity could “open up the floodgates” and interfere with the rights of local governments to control even their own access to water resources. This fear was well informed. During this same

time period Snowcap Water Ltd., a Canadian company that had paired with the investment group Sun Belt, sued the Federal Government of Canada when they were not allowed to go forward with their own large-scale water bottling and export project. The lawsuit claimed their right to this water through chapter 11 of the NAFTA agreement, which the Canadian government had signed. Sun Belt argued that water could be considered a commodity rather than a public property and that the NAFTA agreement stated that governments had no right to block investors from profiting from commodities (62). While these cases may no longer make the news, they indicate the sheer political power of these multi-national for-profit agencies.

Despite these dramatic examples of clashing environmental and business interests, there are valid arguments for the privatization of water management. A strong one is that public utilities, because of lack of competition, are not motivated to be as efficient (and therefore profitable) as commercial firms. Those who support the idea of private ownership suggest that if water were treated like a commodity, profit would be a powerful incentive to supply it as efficiently as possible, benefiting both the producer and consumer. The fact that the global supply of drinkable water is shrinking even as populations expand would suggest that efficient water management is important and perhaps could benefit from competitive management strategies. A final decision on privatization would need to weigh the transition of water as a free resource available to all citizens to a privately owned yet necessary resource beyond state-level democratic control.

This discussion of abstract global events may make it appear that, aside from the bottled water in our stores, issues of water privatization do not affect us locally. This is untrue. After being rejected by several other communities in California and Oregon, Nestlé Corporation, the world's largest food and beverage manufacturer, has been working diligently to set up a large-

scale water bottling plant less than 100 miles from Portland. Using the Nestle proposal as a model we can examine how all the dangers of water privatization – from ecological harm to loss of public control of water rights – can affect us directly as Oregonians.

Located in the Columbia Gorge, the town of Cascade Locks, the proposed site of the Nestle operation, is economically struggling. Much like the small town in Newfoundland its traditional industry has evaporated and the creation of jobs could mean economic stability. Nestlé's primary argument for its operation in Oregon is that it would provide a total of 53 jobs to residents of Cascade Locks. In 2011 authors Kristen Sheeran and Feng Zhou examined this Nestlé proposal in depth. They found that in return for these 53 primarily construction and maintenance jobs, Nestle would gain private ownership of Oregon water rights and the ability to pump nearly 225 gallons of water – per minute – from Oregon's watershed and groundwater supplies (12). This amount may be hard to grasp, but would result in nearly 200 million gallons of water a year being tapped from Oregon, bottled in plastic, and exported for profit abroad.

The removal of this water would affect both biotic and abiotic aspects of Oregon's habitats. A major concern of bulk water removal would be the strain on Oregon's already shrinking groundwater supply. The most recent report by the U.S. Geological Survey Groundwater Resource Program measured changes in groundwater levels from 1984-2009. The report found that groundwater levels had declined in 85% of all wells, with levels decreasing by 25 feet in 30% of wells in the region. Groundwater changes were most dramatic in areas with developed industry and agriculture, with some areas reaching a 51 foot decline (Snyder and Haynes 1). The Nestlé plant would draw a portion of its annual 200 million from these already declining wells. This increased use would drain water from terrestrial and aquatic habitats that rely upon its regular flow to thrive. The bulk removal of water, and the carbon emissions released

in the process, would ultimately affect the local water cycle of the Columbia Gorge. As this groundwater is not solely contained below the town of Cascade Locks, one might also wonder at the jurisdiction of the local governments to sell it.

The majority of the water bottled by the company would come from freshwater streams, some of which feed Oregon hatcheries currently supporting endangered fish species. In response from protests to this reallocation from hatchery to bottle, Nestlé has proposed shipping in water – also taken from local wells – to supply the hatchery (Sheeran and Zhou 11). Nestlé argues that this is a workable solution and that the company has researched this process and finds that the fish are unaffected. The validity of this research is somewhat questionable as the study was overseen and the findings reviewed by Nestlé itself. In a public hearing with the Oregon Department of Fish and Wildlife (a surprising supporter of the Nestlé plant) many protested the inaccuracy of the findings. A key critique of the Nestlé study was that although a majority of the fish in the hatchery, such as the endangered steelhead and salmon, are anadromous and live in both fresh and saltwater during their life cycle, the test *only* looked at freshwater rainbow trout. These trout may be better suited to the warmer temperature and the increased sediment levels found in well water (Miller 2).

Water management studies in the U.K. have concluded that any valid effort to maintain the health of a local population, specifically that of fish, must be “approached by applying the standards of the most sensitive” (Bowles and Henderson 486). This would suggest that if Nestlé is to determine the success of their water-replacement strategy they might test their hypothesis on the actual fish residing in the hatcheries. An additional danger would be the introduction of foreign bacteria, which a standard maintenance report from the Oxbow fish hatchery lists as a concern for bulk water exchanges (Oxbow 10).

While we have been primarily discussing directly water-related aspects of the Nestlé privatization effort - which is only one of many such instances world wide – the economic health of the Columbia Gorge could also be adversely affected by the bottling plant. Peak production would require 200 semi's a day to transport water and supplies up interstate I-84 (Sheeran and Zhou 15). In addition to releasing CO₂ into the atmosphere this heavy traffic would be detrimental to the tourist economy reliant on the scenic view of the Columbia Gorge. Dave Palais, a representative for Nestlé, has publicly stated that the company will *not* reimburse the state for the additional road wear this convoy of semi's would cause. These increased road maintenance costs would therefore fall to Oregon taxpayers (Sheeran and Zhou 15). In this way water privatization would not only draw water from Oregon's natural habitats, but also divert local tax dollars from other public services. When one considers that we would be paying through our taxes for the pleasure of buying our own water, possibly under the name of "Arrowhead", the arrangement becomes clearly unbalanced.

While local organizations like Bark and Columbia Riverkeeper are active in monitoring the activities of the Nestlé, and that of our elected officials and wildlife agencies, they mainly rely on volunteer effort. Continued public engagement is necessary if we are to maintain the health of our watersheds and legal rights to our local resources. Global water shortages clearly indicate a need for efficient water management practices, but in the hands of for-profit corporations current water bottling and distribution methods are causing serious ecological harm. Contacting state representative and remaining informed of how our resources are managed are some powerful tools for successful environmental stewardship. How strongly we advocate for accessible water and environmental accountability will determine the health of this precious resource - and ours as a species as well.

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