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November 9, 2015

Earth 111

Prof. Guertin

Waterbytes Podcast: Government and Businesses Impacts on Water Sources

Hello and welcome to another Waterbytes podcast brought to you by the Pennsylvania State University. My name is George Fraser, and today I will be discussing how businesses and governmental agencies and programs that have sworn to protect water sources and lessen environmental impacts, might be doing more damage to this vulnerable resource than expected. In May of 2015, I was tasked to write a script for a TEDX speech that focused on how humanity is hell-bent on destroying the Earth, and that we must stop using it as a trash-can in order to heal the wounds we have dealt. Today, I will dive further into this branching topic, and focus on what we can do as humans, and what Governments and businesses must do to prevent harm to the Earth's fresh water supply for the future.

Previously I mentioned that our Earth has become a trash can for humanity's ever growing waste dilemma. This usage of the Earth as a trash can has driven climate change to an unprecedented rate, and will continue to drive global warming and increase pollution until it is controlled. But you might be asking how this is affecting our fresh water supplies around the world? After all, that is what Waterbytes is all about! Climate change is affecting every aspect of our environment, including rivers and other fresh water sources. In a study done by the National

Science Foundation, they found that climate change has caused many river water levels to drop significantly around the world, including in several rivers in densely populated areas, populated by humans and wildlife alike, such as the Nile River and Mississippi River (Staff). The staff of Livescience also discusses how the water runoff will be reduced to water-reliant businesses and agricultural farms (Staff). This could seriously impact how these businesses and farms operate, and could impact company employment and drive food prices through the roof in these affected areas.

Moving on to a smaller portion of the world, the Western United States, and more particularly California, have continued to suffer from a widespread and severe drought for the past year, and without an end in sight. This historic and dangerous drought has taken its toll on the nearby Colorado River, which has seen reservoirs' water capacity reduced by up to 51% of usual levels (Waterman). This lack of water has caused the governments of the affected areas to hamper down and ration water usage, and even has caused some farms and businesses to shut down operations (Waterman). Even more drastic is that this drought has been showing signs of stress on the lands of California and its neighboring states that have been affected by this drought. Governments and businesses have begun pumping water stored deep below the surface in these drought-affected areas, this water is also known as groundwater (Buis), As a result of this action taken by corporations and the government, the land has begun to sink and is in danger of creating landslides and sinkholes that could endanger the inhabitants of this Californian valley that is literally crumbling underneath their feet (Buis). It is obvious that many of the people who call California their home and those who use its land as a tool for success are impacted greatly by this horrific drought. However, some businesses have ignored the precautions and restrictions placed in the efforts of preserving water, most notably Nestle, the corporation who is most well-

known for bottling water, teas and manufacturing many other goods. Nestle has been bottling water without limitation in California, and not heeding the limits of water usage imposed by the Californian government, which has declared this drought a state of emergency (RT Staff). To show the corruption and corporate greed behind this, Nestle has found a loophole in the rations imposed by the government, that doesn't extend to the Native American reservation that they've begun bottling water on (RT Staff). This reservation has, on average, a total of 3-4 inches of rainfall every year, while the bottling plant uses up to 200 million gallons of groundwater every year, which would be enough water to supply over 400 Californian homes with water (RT Staff). To make matters worse, this massive loss of ground water has caused a nearby stream on this reservation to dry up, raising concerns on the future of this ecosystem by the locals (RT Staff).

The effects of water pollution aren't just limited to companies looking to make a quick buck and capitalize on a severe drought however, many other agencies, including the Environmental Protection Agency, also known as the EPA, run by the U.S. Government, are guilty in negatively affecting the environment, though most of the time it is by accident. However, in August 2015, a major toxic spill occurred in the Animus River, which is believed to have caused several heavy metals, such as lead, iron, zinc and copper, to pollute this huge river and suffocate the many ecosystems of the river (Castillo). The local residents who live nearby the river directly blame the EPA on this incident, and they claim that no warnings or precautions were given to these locals after the spill had occurred; and, in fact, many people believe that the EPA tried to cover up this massive spill (Castillo). Similarly, in January 2015, a major oil spill occurred in the Yellowstone River, not far from the famous Yellowstone National Park, and polluted river with crude oil for the second time in nearly 4 years (Koch). Here, the EPA also

never warned the locals along the river about the spill as their frozen river became polluted once again (Koch).

As you've probably been aware by listening to this podcast, and probably in other Waterbytes podcasts, water is a finite resource that should never been treated as something to be wasted, and that we must take actions to conserve the liquid of life. However, while we must all take part in this act of conservation, we also must realize that the forces that attempt to salvage our planet from future ruin are just as likely to do harm to it, either accidental, or just in the interest of capital gain.

I hope that these Waterbytes Podcasts makes a statement towards all of our listeners today, and in the future. The statement is that even the ones whose intentions are good, can flounder to bad in an instant. However, that is the core of being an environmentally cautious person, in which you have to realize your own mistakes in the past, and help prevent them for our future. For example, suppose that you were walking along a creek, and you tossed a plastic bag into the running water without thinking, you would never even think about what repercussions that could do to the ecosystem that you have just jogged past. Instead, I would hope that you would make a more responsible decision, and properly recycle it. This is what many have forgotten, including businesses and governmental forces, those simple changes can fix major problems in time. You can cause more environment-benefit and impact than a new EPA regulation can just by being cautious and teaching other to be cautious as well.

Decades ago, a company known as General Electric disposed of toxic PCBs in the Hudson River, polluting the river and rendering parts of it toxic (Mann). A cleanup program was initially opposed, but once begun, found new support by locals, and the Governments alike

(Mann). Even the polluter, General Electric, began supporting the program to clean up their mess, and championed the results (Mann). Like the people, Governments and businesses of the Hudson River, they discovered a positive impact of being environmentally cautious.

It is without further ado that I must close this podcast on an optimistic point and that I hope that everyone who listens to this podcast takes a message worth spreading to others in order to preserve our most precious resource, water. I wish you all good luck in this global challenge that we must face and fight for together. This has been yet another Waterbytes podcast, brought to you by the Pennsylvania State University. For more information about this project, please visit the Waterbytes website at www.sites.psu.edu/waterbytes.

Supplemental References:

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