Society Should Reduce Contributions To Water Pollution And Misuse

I found that the total overall carbon footprint I had was 29, 845 pounds of CO2, with home energy accounting for the largest segment of my footprint at 15, 503 pounds, and the second largest being transportation, with 13, 775 pounds of CO2, the smallest segment being my waste at 567 pounds of CO2. If I were to convert that total to metric tons, it would come to 13. 54. In comparison, the average American uses 16. 4 MT. This was surprising to me, as I consider myself someone who would use above-average amounts of utilities and water. In comparison, France, a country in the EU, uses 4. 6 MT, a stark contrast to our average use per capita. A third world country such as China, uses 7. 5 MT per capita.

As for how I can lower my carbon footprint, the EPA calculator suggested that if I turned down the heating thermostat by 4 ?, turning down my cooling thermostat by 2?, replace five incandescent light bulbs with Energy Star lights, use cold water to wash my clothes, and reduce the number of miles I drive daily by 7, I could save 1, 228 pounds of CO2 — a helpful step towards reducing my overall carbon footprint. Interestingly, the calculator did not include water use in their calculations. I would consider myself who uses a lot of water in their daily life, and I would like to see if the previous results would be affected by the sudden introduction of water in the equation.

Water plays a large role in one's carbon footprint, and given this, the EPA’s water-sense calculator showed that if I installed water-sense-labeled fixtures, such as a toilet, I would save 220 pounds of CO2 annually. Moreover, the EPA site suggested that I should install appliances with an Energy Star rating. Appliances such as a refrigerator that are Energy-Star approved would reduce the amount of CO2 I use yearly by 522 pounds. One of the most shocking discoveries I made was how much I could reduce my footprint by installing energy star windows in my household, at a staggering 11, 968 lbs of CO2! While the steps I mentioned above are what I could do to lower my carbon footprint within my home, one's carbon footprint encompasses one’s daily life outside of one’s home. For example, I could ride my bike instead of driving my car for short errands, and walk or bike to my workplace. I also could take public transportation whenever possible, transportation such as a bus, a high-speed rail, or even the shared network of bikes, known as B-cycles. These actions that I could take to lower my carbon footprint will not only help the environment, but could help foster a collective conscience among those around me. If even the employees at the learning community that I attend applied these carbon-saving measures (such as replacing all appliances with Energy Star models, washing clothes with cold water, and reducing the number of miles driven in a week by 14 miles each),

the EPA Carbon Footprint Calculator suggests they would save 23, 451 Pounds of CO2 each year!

Wisconsin has a strong tradition of encouraging recycling, with 94 percent of Wisconsin families doing their part to recycle. For proper recycling, there are many laws in place governed by the Wisconsin Department Of Natural Resources. These laws and regulations are in place to ensure the safe and designated disposal of waste in communities across the state. For example, some items forbidden by the state from being disposed of within Wisconsin landfills and incinerators are: aluminum containers, glass containers, corrugated cardboard, grass clippings, used oil filters, and various appliances and electronics. Wisconsin law states that certain items such as tires, used oil filters, lead acid batteries, light bulbs, and electronic appliances must be recycled in specially designated facilities. These facilities are located throughout the state. One can determine these facilities by calling one's local DNR office, or looking at a list from a public waste facility. With these rigorous waste management efforts, over 1. 7 million tons of waste is saved from landfills and incinerators in Wisconsin. These efforts have also maintained a average landfill size much lower than the national average of five since 1990.

One very interesting fact was that the average Wisconsin citizen generates 4. 7 pounds of trash and 1. 9 pounds of recycling pounds each day. Within a yearly perspective, Wisconsin citizens generate 4. 6 million tons of trash and recyclables each year. That much waste is sufficient enough to saturate a city street with waste that is 4 ft deep and spans 575 miles. What one could do to lower this number would be to repurpose various recyclable materials into items that could enrich and benefit them in their daily lives, for example, one could use a large left over plastic container to hold compost scraps. With over 50 percent of Wisconsin households composting yard waste, this would be a suitable suggestion. The use of electronics is rudimentary to our daily lives in developed countries; in fact, we may feel as if these technologies are ruling us, especially since manufacturers intentionally develop these products with a short lifespan, feeding our hunger for the next best thing. This, in turn creates, a situation of mass waste in developing countries.

It is often very expensive for developed countries to recycle this waste by themselves due to stringent recycling regulations that are enforced regularly. As a result, wealthy countries ship the waste to many developing countries, such as China, where the dismantling of these electronics is much cheaper. This comes at a cost of extremely poor working conditions for small children and poor populations, who are often exposed to the harmful internal materials, often with zero protection. Many of the residual pieces that cannot be scrapped are burned in open air, which leeches cancer-causing chemicals to poison the air they breathe. It also wreaks havoc on the surrounding ecosystem by introducing harmful levels of toxic chemicals into the soils and poisoning surrounding bodies of water. This expunges any possibility of basic human

necessities, such as growing crops, drinking water, and washing food, from being met.

It is approximated that five to seven million tons of electronic waste are disposed in countries throughout the developing world. These numbers are rising at a rate of three to five percent each year! With this alarming amount of waste being exported from wealthy countries, something needed to be done. In the late 1980s, a convention called the Basel Convention was organized by numerous countries. The purpose of this convention was to reduce the circulation of hazardous e-waste from developed countries to developing countries such as China and India. This attempt at combatting what is known as “the toxic trade” is a noble one in a world filled with careless disposal of electronics. With the direction of the Soviet Union, which hoped to produce high quality cotton to enter the world market, a water diversion project began to supply formerly arid plains in Kazakhstan, Uzbekistan, and Turkmenistan with water from the rivers that fed the Aral Sea. These plains had extensive cotton fields that would be replenished with water from the two rivers, Syr Darya and Amu Darya. Due to over-irrigation of the plains, the sea had effectively split into sections, causing these sections to be starved of their water supply, and creating drought conditions that decimated the fishing industry, which destroyed the communities’ livelihood. For example, the sea has shrunk to 50% of its original size in 1985.

Water is considered to be a fundamental human right by the United Nations, and with many private companies gaining access to large bodies of water for their economic profit, a fundamental right is turning into an opportunity for large companies to line their pockets, at the cost of those who need it most. Formerly, governments had control over the distribution of water to many communities, often with a single pipe. But now, many governments are ceding their stake in distribution to many large private companies, thus providing the companies the ability to inflate their prices to irresponsible levels. Water, being an inelastic good, is something that humans cannot go without, which the raises the question of whether companies should be able legally to inflate the price of water to unethical proportions. Water misuse encompasses a broad spectrum of issues related to overuse, and misuse of a vital source of life. With 71% of the earth being covered with water one would assume that water misuse is a remote threat. But when you take into account that only 0. 024% of that is potable, it becomes much more clear-cut why this issue should be at our full attention. A major source of misuse is overirrigation in the agriculture industry.

The industry uses 70% of the world's freshwater water supply, by pumping it from aquifers for crops such as grains. As a result, the US water table has declined by as much as 30 meters. With misuse often comes suffering, and a heartbreaking fact is that fully one in six people on earth do not have proper access to fresh potable water. This statistic is reinforced by the fact that the lack of water access is the largest contributor to deaths worldwide. A human necessity becomes an issue of rich or poor, where women and children often face the brunt of the crisis as women are in charge of retrieving water, and when there is a lack of water potable water to

retrieve, it becomes an issue of life or death. After all, crops cannot grow without water and livestock cannot subsist. For many developing countries, such as those in sub-saharan Africa, many wars and conflicts have arisen due to a lack of accessibility to fresh potable water. While it may seem that the poor will be the ones affected by the lack of access to water the most, in future years, with a misuse of water and draining water supply, people of all socioeconomic status will be affected. To reverse the issue of water misuse, I could take steps to conserve water in my daily routine. Steps I could could include, replacing my water fixtures with energy saving models that would lower the GPM, do maintenance checks on plumbing fixtures to make sure there is no leaks, use a smaller load cycle on my washing machine, use a low flush toilet. Furthermore, if everybody turned off their faucets during the soaping phase of washing their hands, the amount of water that would be saved would be exponential. I could do my part by following this guideline and encouraging others to do so as well.

Overall, there are various methods I will take part in to reduce my water consumption, by doing this, I could be an agent of change in a world where the misuse and lack of water is ubiquitous. Water pollution is a widespread issue that is found all over the world. The problems that arise from it include the introduction of diseases and toxic effects that affect both humans, wildlife, and marine life; as well as the destruction of whole ecosystems. Water pollution is due to a multitude of factors that includes: the dumping of toxic waste into bodies of water, chemical waste, discarded plastic, and oil spills. For example, each year the world generates an excess of 400 billion tons of industrial, sewage, and industrial waste. For many countries, chemicals are flowing into bodies of water daily, due to many large companies dumping their untreated waste into surrounding bodies of water. Chemicals such as phosphorus are introduced, and deplete the oxygen levels in the water.

One of the most devastating sources of pollution is something that we use everyday: plastic. Plastic’s long decomposing phase of 450 years causes these items to linger in the ocean introducing harmful chemicals such as BPA. The plastic also kills many marine animals and birds that digest them thinking it is food. In fact, there is a garbage patch in the pacific ocean that is 1. 6 million square kilometers! Oil spills are another extremely harmful and deadly source of pollution. The oil coats many animals fur and feathers, which compromises its ability to retain warmth. Fragile underwater ecosystems are especially affected as the oil permeates the small particles of sand and coral Water pollution is a major problem for the world's many bodies of water and the people who live around them. It is estimated that water pollution kills 15, 000 people each day around the world. With water pollution all around us come consequences such as the destruction of whole ecosystems, the tainting of bodies of water that sustain societies, and the introduction of diseases. Furthermore, the human consequences that arise from polluted waters are devastating to the general well-being of a society, in that the toxic runoff, chemicals, and garbage spread the threat of disease into all aspects of one’s daily life. For example, countries such as India and China experience extremely high levels of pollution in

their rivers, with China’s Yangtze and India’s Ganges Rivers earning the designation of the world's most polluted large rivers.

A recent study has shown that in certain portions of the Ganges river, the level of pollution is 3000 percent higher than what is considered safe for one to bathe in! A very alarming fact is that 80% of China’s water is unsuitable for drinking and bathing. This all encompassing destruction of a natural resource is exacerbated by many large companies in China and India that carelessly dump untreated wastewater that is rife with virulent chemicals into surrounding bodies of water. This carelessness is a bane on not only human but marine and wildlife as well. Despite this, there has been efforts to help clean and reduce the levels of water pollution. In many wealthy countries laws and acts have been enacted to prevent water pollution. In the US, The Clean Water Act, enacted in 1972, regulates the discharge of pollutants into lakes, rivers, streams, wetlands, and coastal areas. As a result, in accordance with the Clean Water Act, major industrial and agricultural industries are required by law obtain permits and to dispose of wastewater, runoff, chemicals in a safe manner through filtration or through other safe methods. Efforts are also put into cleaning groundwater pollution. The pollution is cleaned by using process called bioremediation. The process involves microbes that are pumped into a contaminated area, the microbes then feed off the toxic organic compound contaminants, and transform them into non-toxic contaminants.

Furthermore, one could help reduce their own contributions to water pollution by not disposing fat and grease down the sink, and instead collecting it and throwing it in the trash, using eco friendly laundry detergent, as well as phosphate free household cleaners.