

Baby Steps to a Cleaner Environment

Ever heard of the Eastern Garbage Patch? It is a very large patch of garbage floating in the North Pacific Ocean, think of it as being between California and Hawaii. Some estimates put this floating garbage mass at twice the size of the state of Texas. It is also estimated that approximately 80% of the contents are plastic, modern convenience we seem to take for granted is forming off of our shores and will someday come home to roost. The plastic is no biodegradable and promises to be around for generations to come. Not only is it not going away, but it is already impacting our food chain as some researchers have identified links between the chemicals leached from these plastic and human health problems like obesity, infertility, and other modern medical problems. So how do I make a difference on this massive problem? I believe that I can impact this problem with some simple personal behavior modifications. I can help reduce the impact on the environment, help my personal financial situation, and improve my legacy for the next generation.

If 80% of the Eastern Garbage Patch is made up of plastic waste, then I can help reduce this impact by reducing my consumption of plastic goods, especially concentrating on those disposable plastic goods that are considered to be so convenient. Two items that I particularly focus on are reduction in my use of plastic bags and plastic beverage containers. I have encouraged and convinced my family to use recycled and reusable fiber grocery bags for our weekly shopping trips. I estimate that this simple adjustment means an average of 8 shopping bags per week saved, leading to an annual estimate of 416 bags from just my family. The other element to my reduction plan is the plastic water bottle. Not using plastic water bottles reduces CO2 emissions and also reduces our dependence on oil, and the use of materials. It is estimated that in the United States we consume 25.5 billion bottles of water (*Waste Management World, The Pacific Institute; 2008*). I calculate that in my family we averaged a total of 8 to 10 bottles of water per day. That is somewhere between 2920 and 3650 plastic bottles per year in my family alone. In order to reduce this mass consumption we have adopted another simple life modification to lessen our impact on the environment, we have agreed too and implemented the use of stainless steel water containers for our portable water needs. These two simple modifications not only reduce the plastic waste, but have an impact on the manufacturing

contaminants as well. If we have less plastic used and there for less production we can help reduce the estimated 2.5 million tons of carbon dioxide created in the production of water bottles (*Waste Management World, The Pacific Institute; 2008*).

Now let's talk about that last modification we made, this use of stainless steel water containers not only has the effect of reducing my contributions to the Eastern Garbage Patch but also allows me and my family to reduce expenses and positively impacting our own bottom line. In Palo Alto the cost of tap water is about \$3.95 per Hundred Cubic Foot that about 748 gallons of water (*Palo Alto Utility Rate Schedule; 7/1/2008*). Based on my observation at the supermarket the cost of a plastic gallon of water is about \$1. Now if you do some simple math we find that the cost of one gallon of tap water is about 2 cents (1.89 cents per gallon). This means a savings of 98 cents per gallon when compared to purchasing bottled water. If we calculate my families consumption of 8 to 10 bottles of water which is about 1 gallon per day we see that our annual savings is about \$357. Add this financial benefit to the environmental impact and this starts to become a win-win situation, and those are the type of outcomes that make you feel good.

Speaking of feeling good, these simple steps will be the legacy I am leaving for my future generations. I would like to think that someday, we as a society, will take the issue of environmental contamination as a serious threat to mankind and that my family's legacy will be one of proactive protection of our environment. Speaking out to the people about environmental issues such as using metal can water bottles and fiber grocery bags, will help our world and ecosystem around us become a safer, healthier, and a better place for ourselves and families to live in.

I believe that through very simple changes in our behavior, that do not require much sacrifice, can help achieve our goal in helping the environment, storing water in reusable containers and the reuse of fiber grocery bags, reducing expenses, and improving my own legacy contribute in lowering the production of plastics.