

GREEN TECH THE SERIES COLUMN FOR APRIL 27, 2016

HEADLINE: WE ARE NOT GAINING ON WATER CONSERVATION!

The number of reports I receive monthly is in the dozens, most are selling some green or repackaged green product or service. One organization's reports I occasionally read is the World Economic Forum. Based in Switzerland, they are backed by some of the largest companies in the world. Because they are funded by huge corporations, I have sometimes questioned their statements. This time, however, their January report nails the issue. They state "environmental risks such as the failure of climate-change mitigation and adaptation..... most likely with the water crisis." The report does not recommend solutions, rather acknowledges the world is in trouble when it comes to potable water.

This issue has been growing for a long time. Many environmentalists have spoken up for years and now, when this organization speaks, maybe it's time to listen. They are not speaking of doom and gloom, rather they are saying that we have the technology and it's time for action. California is but one example. They have been through four years of drought conditions and, realizing that they must change, they've embraced the technology needed to reduce usage and the impact on their businesses and consumers.

While the developed world around us, for the most part, has got the message, there are dozens of countries with serious economic repercussions. Saudi Arabia will not grow wheat this year; they don't have enough water for irrigation. 80% of India's surface water is contaminated; they are facing a huge issue providing water to their population. Northern China is dropping their water table by three feet a year due to over consumption; they know they have a problem they must face before 2025 and that's just nine years away. Below the border, eight US states no longer allow cross state border sales of water. Add in the Flint, Michigan disaster, although they are not alone with aged infrastructure issues. Here we sit with 20% of the world's fresh water and, behind the US, are the most wasteful country on the planet.

While the rest of the developed world is acting, we are not giving this issue enough attention; not only in the fact that current data is limited, but because it's not being deemed as an issue. The cost of municipal water in Canada, on average, based upon a 5 year old study, is 31 cents a liter. In Sweden, it is 69 cents a liter; England is at \$1.28 and, if you live in Germany, you pay \$2.16 a liter. The age old story here, if it's costly, people will make the effort to reduce consumption.

While researching this column, some interesting facts came to light. On average around 1% of potable water is used for drinking. The rest is used for our life style, including gardens and washing cars. For the price of a can of pop, most municipalities deliver 1000 gallons of treated water to their residences, can you imagine if the two were priced equally! Every glass of water served at a restaurant, on average, needs two more glasses to wash and rinse that glass. We own a B&B/Spa and, before pouring, we now ask if our breakfast guests would like a glass of water.

The Great Lakes basin, where nearly all of the major Ontario cities get their water is currently listed as “strained,” with respect to continued supply. In 1991, the average Canadian used 342 liters of potable water daily; that has improved to 251 liters by 2011, but an average citizen in England uses 129 liters a day and the Danes manage with 117 liters a day. It seems that municipal water metering is having its effect in Canada. Again, based on a five year old study, 43% of potable water is provided by municipalities. Those on volume based water pricing used 73% less than those on a flat rate water supply. From the period of 1994-1999, 25% of Ontario municipalities experienced a water shortage, that’s the latest statistics; I expect this percentage is higher now.

Are we going to get the importance of this? We have the technology, but advanced conservation is not needed as yet in Ontario; rather a common sense approach to water use in our homes can make a huge change. Taps and toilets that leak as little as a couple of teaspoons an hour can add up to nearly 24,000 liters of wasted water a year. Your clothes washer is well documented as a large consumer of water; most today offer preset water levels, a major improvement. Dishwashers are often given a bad rap, however, if filled with dishes the average 9-12 gallons usage is more efficient than filling a double sink. We started keeping a pitcher or two of water in the fridge for our guests, now we enjoy it ourselves and it saves running the water to get a cool drink. If you live in a municipality where you detect or don’t like the taste of chlorinated water, an uncovered jug of water will usually allow the chlorine molecules to dissipate from the water.

While inside the home is often cited as the area for most conservation, in fact, the water we use for gardening, on average, accounts for 50% of water usage. Water sprinklers used during the day are simply a waste as evaporation eats up over a third of it in the heat. Every time I see someone hosing down their driveway I cringe. If you must, add rainwater barrels to your eavestrough and a small sump pump will give you ample pressure for this.

A trick that I have used in the past is that recycled water from our fish tank, loaded with nitrogen and phosphorus as it is, can be used to water house plants. Everyone knows about low flush toilets, water saver shower heads and aerators on your taps; they are all a good idea. Consider turning off the tap while you brush your teeth, shave and wash your hair; rinsing your veggies in a pan and reusing the water to water plants; mulching your outdoor plants; using rain barrels and google for more ideas. Here's a place to start:

<http://wateruseitwisely.com/100-ways-to-conserve/?view=list>.

We need to look beyond the obvious and make the step up for even more water conservation.

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