

A Greener Way to Hydrate

By Rod Groff

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Surviving summer in Phoenix requires near-constant access to beverages and increasingly consumers are choosing non-carbonated drinks, especially bottled water.

According to the Beverage Marketing Corporation, U.S. sales of bottled water have spiked from 3.8 billion units sold in 1997 to 279 billion units in 2006. The polyethylene terephthalate (PET) single-use plastic bottles that are most common are frequently littered and have a lower recycling rate at 23% than any of the most common packaging materials according to a February report by the Consumer Recycling Institute (CRI).

Plastic water bottles that end up in the trash take up landfill space and do not biodegrade. The Recycling Institute also estimates that about “18 million barrels of crude-oil equivalent were consumed in 2006 to replace the 2 million tons of PET bottles that were wasted instead of recycled.”

One reason for the low recycling rate of water bottles is that people are consuming this water source while at work, in the car, or otherwise away from home and convenient recycling options.

Eleven states have bottle bills that provide monetary incentives to keep beverage containers out of the waste stream, but these laws were passed in the 1970s, before the surge in demand for portable water. Oregon, the first state to pass the deposit law on beverage containers in 1971, is poised to update their bottle bill to include deposits on plastic water bottles.

Arizona citizens looking to reduce the environmental impacts of staying hydrated can make sure that their water bottles are being recycled, either at their homes or work places.

But don't stop there. Another option, perhaps



only slightly less convenient, is to begin toting refillable, reusable bottles as you go about your daily work, travel, and recreation. “Single-use” plastic bottles made of polyethylene terephthalate (#1 PET) are not recommended for repeat use because of the risk of bacterial contamination from infrequent and insufficient washing and not allowing sufficient time to dry. Some people also believe these “softer” plastics are more likely to leach phthalates, particularly when exposed to heat, as when left in a hot car in a parking lot.

An article in *Sierra Magazine* also warned that the clear, hard polycarbonate bottles (PET #7) popular with hikers could leach a known endocrine disruptive chemical, bisphenol-A (BPA). The research behind that warning was published in the journal *Current Biology* by Dr. Patricia Hunt, a geneticist at Case Western University. While plastic bottles made of polypropylene (#5 PP, #2 HDPE, and #4 LDPE) are not known to leach anything consumers also may want to consider switching from plastic to a variety of durable, light-weight and widemouth stainless steel beverage containers.

While some Americans are reluctant to drink tap water, environmentally concerned citizens should consider that the delivery of city tap water is much more energy efficient and sustainable and the quality of the water is more highly regulated, than water purchased in single-use plastic bottles.

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