

# Pushing away from single use plastic water bottles

by Marcos Anguiano

Plastic water bottles have been around since the 1940s helping humans transport fresh, clean water. During Roman times, aqueducts were built to provide water to cities, and animal skins were used to transport water from place to place. Clay and woven materials were molded into water carrying devices so the skin would have support and also to be easier to transport. Since then portable water has always been in high demand.

When plastic water bottles were introduced to the public, consumers and manufactures quickly accepted the idea because they were light weight, had low production costs, and were a better choice than glass bottles. Besides wine and beer, almost the entire food industry made the transition over to plastic because it was cheaper to make in large quantities.

Bottled water is advertised as a product that holds pristine water from mountain springs intended for everyone who cannot reach those springs. It is easy to go to the store and stock up with water bottles because they are so inexpensive, but something that is not so transparent is the environmental footprint that was made to get the water bottle there.

Long before we pick up a bottle from the grocery shelf, the plastic needs to be manufactured from petroleum hydrocarbons, the bottles and caps molded from the plastic, and then the bottles filled with “pristine” mountain water before packaging them and transporting them off all over the world. The irony is that it takes three times more water to produce a plastic bottle than it does to fill it!

And while it’s a great idea to produce portable water, what to do with all those plastic bottles? Consider that Americans use 50 billion plastic water bottles annually, but only 1 in 5 bottles are actually recycled. That leaves a LOT of bottles going to the landfill or perhaps ending up as marine debris in the Great Pacific Garbage Patch or on our beaches as sand-like plastic grains.

The National Park Service has taken action and has banned the sale of single use water bottles in their souvenir stores and visitor centers since 2011. The 19 Na-

tional Parks that made this commitment have gradually seen a change in visitor and vendor behaviors. Affordable reusable water bottles are available for sale in their visitor centers and souvenir shops, and water filling stations are available on site that actually provide local spring water in some cases. Now is the time to educate visitors on ways to reduce their carbon footprint in order to help preserve the parks for future generations.

We’ve taken that first step here at the Kenai National Wildlife Refuge. Re-usable water bottles are provided to kids at the Critter Camp and Get Out & Get Dirty Camp to help instill the ethic that reducing consumption is important. Our campers also have to navigate the water bottles as obstacles on the balance beam during our Animal Olympics.

Going a step further to help reduce the waste of disposable bottles, the Refuge has installed a refill station in our new Visitor Center and one in the old Headquarters for both visitors and staff to use. Please use them! Alaska Geographic sells aluminum water bottles through our Visitor Center.

Refuge staff also recycle plastic #1 and #2, along with glass and aluminum cans, at the Central Peninsula Landfill. Plastic #1, also known as polyethylene terephthalate (PET), is typically used to make single use water bottles, but also containers for soft drinks, juice, mouthwash, sports drinks, ketchup, salad dressing, jelly and jam. Plastic #2, also known as high density polyethylene (HDPE), is often used for bottles to hold milk, water, juice, cleaning supplies and shampoo, and to make recyclable grocery bags.

The Kenai Refuge is helping keep plastic out of where it does not belong through education, refill stations, and recycling. Reduce, Reuse and Recycle!

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