

Proven Ineffectiveness of Plastic Bottle Bans

Many cities have taken proactive measures to ban the sale of single-use plastic water bottles, typically in hopes of increasing sustainability and/or mitigating excess waste. However, there have been demonstrated cases of counter productivity in these efforts. These can be illustrated in the following areas:

- **University of Vermont**

In 2013, the University of Vermont banned single-use plastic water bottles from campus, as part of a student-driven initiative to reduce the amount of plastic going to waste. However, a 2015 study at the university found that banning single-serving water bottles actually caused the total number of bottles on campus to increase. In an attempt to cut down overall on single-use bottles in the waste stream, the university's ban unintentionally caused consumers to buy alternatives to water also packaged in single-serving plastic bottles.

Not only did the number of single-serving plastic bottles increase on campus, but consumers chose to consume more sugary drinks such as soda and juices as opposed to using the water filling stations provided. By taking away the healthiest single-serving beverage, they found that their environmental goals were not achieved and instead conflicted with their intentions in terms of nutrition and health on campus.

- **Concord, Massachusetts**

The sale of single-serving plastic water bottles was banned in Concord, Massachusetts in 2012. However, local officials announced on August 17, 2016 that the ban had produced no measurable reduction in plastic waste or litter. In fact, the town is currently coping with extreme drought and record-breaking August temperatures by purchasing the bottles by the truckload.

According to Assistant Public Health Director Stanley Sosnicki, the town's board of health (who enforced the ban) does not measure its effectiveness. Additionally, he explained that the reduction of plastic that this may have done in town is a fraction of what it would be statewide. Instead of refraining to buy single-serving water bottles altogether, people often resort to purchasing them in neighboring towns. This in turn reduces the overall positive intention of the ban.

- **The National Park Service**

In Dec 2011, the National Park Service issued a memorandum that allowed national parks to ban the sale of bottled water. Since then, as many as 19 parks have eliminated the sale of disposable water bottles.

In February 2016, the International Bottled Water Association (IBWA) required NPS to report all "data" to justify decisions by parks to ban bottled water sales. They described NPS' policy as contrary to good health practices and inconsistent, because parks are still permitted to sell other consumer goods, including sodas, sports drinks, teas, beer and wine in plastic, glass, cans and cardboard containers.

NPS issued the requested report to Congress on March 28, 2016, identifying 22 parks w/ current bottle bans. While their data did demonstrate that most of these parks experienced hefty reductions

in both total waste stream & recycling load after going bottle-free, these results were tempered by the record in Zion National Park. This park cut its total waste stream by only 3%, and its recycling load by just 6%. The park estimates that 60% of its recycling and 3% of its waste stream still consists of plastic bottles even after its sales ban went into effect in 2013.

According to Public Employees for Environmental Responsibility Executive Director Jeff Ruch, the National Park Service seems unlikely to meet the 50% system-wide waste reduction goal it set to achieve by 2016, its centennial year.

While discussions regarding this matter are still ongoing, evidence overall demonstrates that implementing a ban would not have the initially intended result. PETRA continues to monitor for any additional updates, and is looking into potential opportunities to collaborate with the IBWA, based on sharing similar stances on the ban's lack of effectiveness.

PETRA takes an active role in response to city's proposed bans by reaching out with proven statistics and research to illustrate why it should be reconsidered. Proven cases of ineffectiveness (such as in the University of Vermont) are referenced in these letters, to further strengthen our argument and to increase awareness about the safety of plastic bottles.