Should Bottled Water Be Banned? - Top 4 Pros and Cons

Americans consumed 13.7 billion gallons of bottled water in 2017 - more than any other beverage by volume - boosting an industry worth $18.5 billion. [8] 67.3% of bottled water sold in the United States is in single-serve plastic bottles. [42] 70% of those plastic water bottles are not recycled. [1] Globally, about 20,000 plastic bottles are bought every second, the majority of which contain drinking water. [49]

In 2013, Concord, MA, became the first US city to ban single-serve plastic water bottles, citing environmental and waste concerns. [44] Since then, many cities, colleges, entertainment venues, and national parks have followed suit, including San Francisco, the University of Vermont, the Detroit Zoo, and the Grand Canyon National Park. [17][26]

Plastic water bottles on a beach.
Source: Billy Bambrough, "Europe's Plastic Water Bottle Producers Are Joining the War on Waste," verdict.co.uk, May 15, 2018

Proponents of the ban on bottled water say that it would reduce waste and protect the environment by preventing the manufacture, purchase, use, and discarding of up to 68 billion plastic water bottles a year. They also say that banning bottled water is good for our health because of reduced exposure to potentially contaminated sources of water and to the toxic chemicals emitted from the bottles themselves and the plastic bottle manufacturing plants. A ban would save consumers and local governments money, and protect local communities from the threat of depleted or contaminated municipal tap water supplies.

Opponents of the ban on bottled water say that it would remove a healthy beverage choice for consumers, leading to increased consumption of unhealthy sugary drinks. They also say that the ban is misguided as a waste-saving measure as other beverages are sold in containers that are more harmful than plastic water bottles. A ban would remove a practical option for water storage and dissemination during times when municipal tap water supplies are contaminated, as well as removing a beverage choice that the majority of American consumers want, negatively harming small business profits.

Pro 1

Banning bottled water would reduce waste and protect the environment.
About 70% of plastic water bottles bought in the United States are not recycled, [1] which means the majority end up in landfills or in the oceans, harming the ecosystem and poisoning animals.

Plastic water bottles were the third most commonly collected trash during the Ocean Conservancy's International Coastal Cleanup behind cigarette butts and plastic food wrappers. [3] It is estimated that by 2050 there will be more plastic waste by weight in the oceans than fish. [4]

Almost all plastic water bottles are made of polyethylene terephthalate (PET), the raw materials for which are derived from crude oil and natural gas. [5] The Pacific Institute found that it took about 17 million barrels of oil to produce enough plastic for the bottles of water consumed by Americans in 2006. [6] Since 2006, American consumption of bottled water has increased 65% from 8.3 billion gallons in 2006 to 13.7 billion gallons in 2017, increasing the need for more plastic water bottles and thus more oil and gas. [7][8]

A nationwide ban on bottled water would lead to an estimated 68 billion fewer plastic water bottles being manufactured, purchased, used, and discarded. [2]

Between 2012 and 2016, a ban on plastic water bottles in 23 US National Parks prevented (per year) up to 2 million plastic water bottles being purchased and up to 111,743 pounds of PET being produced. [17]

Con 1

Banning bottled water removes a healthy choice and leads to increased consumption of unhealthy sugary drinks.
Increased consumption of zero-calorie bottled water in place of high-calorie juices and sodas has cut trillions of calories from American diets. [25] Michael C. Bellas, Chairman and CEO of the Beverage Marketing Corporation, says "Imagine a person cutting 161 hot dogs, 126 chocolate doughnuts or 87 cheeseburgers from their diet last year. That's the kind of difference we're talking about when we quantify the number of calories saved due to this widespread shift to bottled water." [25]

In Aug. 2017, the National Park Service discontinued its policy that encouraged national parks to ban sales of plastic water bottles stating that, "The ban removed the healthiest beverage choice... while still allowing sales of bottled sweetened drinks." [28]

The International Bottled Water Association notes that, "research shows that if bottled water isn't available, 63 percent of people will choose soda or another sugared drink – not tap water." [27]

In Spring 2013, the University of Vermont banned the sale of single use plastic water bottles on campus. [26] The ban resulted in increased sales of higher calorie beverages in place of zero-calorie water; sales of low-calorie (10-50 calorie) beverages increased 12%, juices increased 11%, and sugar-sweetened beverages increased 10%. [26]

Pro 2

Banning bottled water is good for your health. Bottled water is regulated by the Food and Drug Administration and requires weekly testing; tap water is more stringently regulated by the Environmental Protection Agency through multiple daily tests. [9]

A study by Orb Media and the State University of New York found bottled water samples contained nearly twice as many pieces of micro-plastic per liter (10.4) than the tap water samples (4.45) with 93% of bottles showing some sign of micro-plastic contamination. [10][11]

A study published in Environmental Science & Technology found that the chemical antimony (Sb) can leach from plastic PET bottles into the water within. [13] After six months storage at room temperature antimony (Sb) concentrations increased on average 90% in 48 brands of water from 11 countries. [13] Exposure to antimony (Sb) can cause nausea, vomiting, diarrhea, higher blood cholesterol, and low blood sugar. [12]

Banning bottled water would reduce the number of plastic bottles manufactured – a process that emits harmful chemicals. Studies indicate that communities living close to PET factories suffer from increased levels of chronic illness and birth defects. [21] In Corpus Christi, TX, where the US' largest PET factory is located, birth defects are 84% higher than the state average. [21]

Con 2

Other types of beverages have plastic containers that are more harmful than plastic water bottles, and bans don't necessarily reduce waste.
Plastic water bottles contain much less polyethylene terephthalate (PET) plastic than soft drink bottles that require a thicker plastic container due to the drinks' carbonation – 9.89 grams of PET v. 23.9 grams for a 16.9oz bottle. [8] A study by Quantis found that between 2007 and 2015, bottled water providers have reduced the amount of material used in 8oz-2.5 gallon plastic water bottles by 42.8% - PET plastic is the most common material used in these bottles. [40]

A study by Quantis, commissioned by Nestlé Waters, found that the packaging and distribution of "sports drinks, enhanced waters and soda produce nearly 50% more carbon dioxide emissions per serving than bottled water." [41]

Plastic water bottles make up 3.3% of all drink packaging in US landfills, which is less than both plastic carbonated soft drink containers (13.3%) and aluminum cans (7.9%). [8]

A study on the University of Vermont's ban on selling single-use plastic water bottles found that total shipments of plastic bottles actually increased 20% as consumers increased their consumption of less healthy bottled beverages rather than switching to using reusable bottles and drinking from water fountains. [26]

Pro 3

Banning bottled water would save money, and public water fountains are convenient and plentiful.
Bottled water is expensive. It can cost between 400 to 2,000 times more than tap water, four times more than a gallon of milk, and three times more than a gallon of gasoline. [1][15]

Mathematicians at Penn State University estimate that spending $20 on a reusable water bottle can save the average American up to $1,236 a year; for a family of four that amounts to nearly $5,000. [16]

Eliminating plastic water bottle waste would also save local governments money. According to Food & Water Watch, US cities can spend over $100 million a year to dispose of such waste. [1] California, Oregon, and Washington spend an estimated $500 million a year removing waste from the Pacific coastline, including waste from plastic water bottles. [36]

In San Francisco, where single-use plastic water bottles are banned, 31 water fountains are currently in use in public areas with 20 more in the pipeline. [17] New York City, which has not yet banned single-use water bottles has 51 water fountains, with another 500 planned by 2025. [45]

Con 3

Bottled water is a practical emergency water supply.
Bottled water is essential to public health – if tap water is not drinkable, then bottled water is a necessary replacement.

Ready.gov, the Department of Homeland Security's preparedness website on how to prepare for natural and man-made disasters, recommends everyone "buy commercially bottled water and store it in the sealed original container in cool, dark place." [46]

In Apr. 2014, officials in Flint, MI, changed the city's water supply from Lake Huron to the Flint River. [29] Flint River water is highly corrosive – it eroded water pipes delivering tap water to residents' homes resulting in iron and lead leaching into the water, poisoning those who drank and bathed in it. [29] Between Jan. 2016 and Apr. 2018, the state distributed free 16oz bottles of water to residents for use instead of tap water – it was estimated that a family of three used 151 of these water bottles a day. [30][31]

Between Dec. 2016 and Mar. 2018, residents of St. Joseph, LA, relied on state-issued bottled water as a replacement for tap water after high levels of lead were found in their system. [32][33]

Pro 4

Banning bottled water would protect local water supplies.
Almost 64% of bottled water comes from municipal supplies. [1] Bottling water can drain water sources that local communities rely on. According to Dr. Matthew Davis of the University of New Hampshire, "during droughts, bottling plants could dry up wells and wetlands or deplete the streamflows in the immediate area." [34]

Nestlé, Coca-Cola, and PepsiCo continued to bottle and export water from public lands and municipal supplies in California during times of drought, even when a 25% reduction in water use was imposed on cities and municipalities in the state. [18][19]

In Michigan, the state allowed Nestlé to pump and bottle clean water from the state's reserves while local residents in Flint fought for access to clean water. [24]

In Pakistan, groundwater levels were depleted in a village neighboring a Nestlé bottled water production plant, resulting in the local water supply turning to sludge. [35]

Con 4

Banning bottled water restricts consumers' access to a product they want, and negatively affects small businesses.
A survey by Harris Poll for the International Bottled Water Association found that 93% of Americans think "bottled water should be available wherever drinks are sold," with 31% saying that they only, or mostly only, drink bottled water. [39]

Research by Kantor Panel Worldwide found that "40% of all water servings come in the form of bottled water." [47]

As one blogger said "everyone tells me that I'm wasting away money and harming the environment, but if it weren't for bottled water I honestly wouldn't drink any water at all... My personal choice is just not tap. I don't like it." [48]

Daniel Kenn, owner of Sudbury Coffee Works in Sudbury, MA, where a plastic water bottle ban was enacted, said, "people want water, it's probably the biggest money maker in that cooler... almost every other town still allows plastic water bottle sales, which will put Sudbury Coffee Works at a competitive disadvantage when the ban takes effect." [37]

-