

SINGLE - USE PLASTIC



Did You Know?

In 2021, the U.S. had a recycling rate of just 5% for post-consumer plastic waste? Almost every piece of plastic that has ever been created is still here with us on Earth. The dolls and action figures we played with as kids are buried in landfills. The plastic baggies we use to carry sandwiches and store food end up in our oceans. Scientists believe it takes over five hundred years for plastics to break down in our natural environment, and even then, they don't decompose. The plastic only breaks down into dangerous smaller pieces called micro-plastics, which already have been found in human food and blood, the fish we eat, and the air we breathe.

Americans produce 36 million tons of plastic waste every year. Of this 36 million tons, 27 million tons end up in landfills. Of this 27 million tons, 14.5 million tons is plastic packaging and containers. You may think that putting your plastic waste in your recycling bin means that it's getting recycled, but unfortunately, overall, the amount of plastics from municipal waste that gets recycled is relatively small – 3 million tons (8.7%) in 2018. The total amount of plastics combusted (burned) was 5.6 million (16.3%) tons. The remainder ends up in landfills, or along our roadways, in our streams, rivers and oceans.

World-wide, at least 14 million tons of plastic end up in the ocean every year, and plastic makes up 80% of all marine debris found from surface waters to deep-sea sediments. Marine species ingest or are entangled by plastic debris, which causes severe injuries and death.

Aquatic Trash

The main sources of plastic debris found in the ocean are land-based, coming from stormwater runoff, sewer overflows, littering, inadequate waste disposal and management, industrial activities, construction, and illegal dumping.



Garbage can easily become aquatic trash if it is not properly disposed of or securely contained. When garbage is littered on the ground rather than placed in a recycle, compost, or trash bin, rain and wind often carries it into storm drains, streams, canals, and rivers. Additionally, trash can blow out of overfilled trash bins or off of trash collection vehicles.



Once in the environment, trash can travel long distances via wind, stormwater conveyances, streams, and rivers. Mismanaged trash that escapes into waterways can create a wide range of problems. Aquatic trash affects water quality, endangers plants and animals, and pollutes the outdoor spaces that we depend on for tourism and recreation.

You may have heard of the Great Pacific Garbage Patch. This garbage patch of plastic waste and abandoned fishing gear floating in the ocean is 5 times the size of Texas and one of five garbage patches floating throughout our oceans in the world.

Environmental Impacts

When exposed to trash pollution, wildlife face physical hazards from ingestion and entanglement. Animals that become entangled in debris risk suffocating or drowning. Many species mistake plastic debris for food or inadvertently ingest plastic debris while feeding or swimming. Once ingested, this debris can damage their digestive tract and interfere with an animal's ability to feed, leading to starvation or other negative health effects. Scientists have found that at least 558 species, including turtles, seabirds, and marine mammals are reported to have ingested or become entangled in plastic waste.



Trash pollution can also damage habitats. For example, trash can smother aquatic plants and corals, interfering with their growth. Debris can also serve as transport for non-native species into an ecosystem.

Aquatic trash can also have negative impacts on recreation, tourism, and the economy. Once trash escapes into the environment, cleaning it up is expensive, and this economic burden often falls on local governments and their residents. A 2009 study by Keep America Beautiful found that the U.S. spends about \$11.5 billion per year to clean up litter.

What can we do?

Although we may be diligently putting our plastic, glass, and clean paper into the recycling bin, the most important thing that we can do is to try to reduce our purchase of single use plastic and reduce the amount of waste that we create. Here are just a few examples to get you thinking about how you might choose an alternative to single-use plastic the next time you're shopping for an item:

- At the grocery store, buy unpackaged produce in bulk, and place in your own reusable bags. Do we really need to buy apples, avocados, bananas, carrots, etc. in already packaged plastic bags or containers?
- Where possible, choose a plastic-free option for your consumer products. There are numerous items and alternatives on the market now:

- Purchase bar soap instead of liquid soaps and body washes that come in plastic bottles;
- Choose laundry strips instead of liquid laundry detergent that comes in plastic bottles. These laundry strips (there are many choices available now) usually come in cardboard packaging, for a completely plastic-free product.
- Shampoos and conditioners are now available in bars (similar to soap) eliminating another source of plastic bottles.
- Look for non-plastic alternatives, when possible, (often bamboo) for toothbrushes, sponges, etc.
- Reduce your use of disposable water bottles and coffee cups as much as possible.
- Use glass or silicone containers for food storage.
- Consider bee's wax wraps (cotton infused with bee's wax) as an alternative to plastic wrap for bread, cheese, sandwiches, etc. The wraps are washable and re-usable.

For questions or further information contact Pat McDonald @ pmcdonald182@gmail.com.

<https://www.epa.gov/facts-and-figures-about-materials-waste-and-recycling/plastics-material-specific-data>

<https://www.epa.gov/trash-free-waters>

<https://www.forbes.com/sites/meimeifox/2022/07/29/12-ways-to-reduce-your-reliance-on-single-use-plastics/>