

ENVIRONMENTAL IMPACTS OF SINGLE USE BAGS

Loss of Resources

- It requires 2.2 billion pounds of fossil fuel and 3.9 billion gallons of fresh water to produce the 100 billion plastic bags the US consumes each year.
- The manufacturing of plastic bags produces a billion pounds of solid waste and 2.7 million tons of carbon dioxide (CO₂) per year.
- Manufacturing and shipping paper bags requires even more energy and water, and creates more pollution, than plastic bags. In addition, producing the paper bags used in the U.S. each year requires 14 million trees.
- Only 5 to 7 percent of plastic bags are recycled, in part, due to the fact that it costs more to recycle a bag than to produce a new one.
- Plastic shopping bags are made from polyethylene, a thermoplastic made from oil. Accordingly, reducing the use of plastic bags will decrease our dependence on fossil fuels.

Threats to Wildlife

- Plastic bags can have a devastating effect on wildlife; birds can become entangled in the bags and different species of sea life can die from ingesting plastic bags which they mistake for food.
- Plastic pollution negatively impacts 267 species of marine life. Fish and wildlife mortalities are caused by strangulation, restricted mobility, and disrupted ingestion.

Damage to the Natural Environment

- Data released by the United States Environmental Protection Agency shows that between 500 billion and 1 trillion plastic bags are consumed worldwide each year.
- It is estimated that plastic bags account for over 10% of the debris that washes up on our nation's coastlines.
- Most plastic bags do not biodegrade; over time, the bags break down into smaller, more toxic petro-polymers which eventually contaminate soils and waterways.
- Globally, there is now more plastic in our oceans than plankton, with 46,000 pieces of plastic in every square mile of ocean.
- Millions of tons of garbage have formed plastic masses in our oceans. Plastic is believed to constitute 90 per cent of all of this garbage.
- The largest mass is the North Pacific "Garbage Patch", which has over 100 million tons of floating garbage.
- The Pacific gyre, which was first discovered in 1997, is now over 500 miles wide.
It takes only weeks for the ocean currents to pull plastic from a bay or beach and into the plastic mass gyre, where it will remain for hundreds of years.

Localized Flooding

- Rain carries littered plastic bags into storm drains, blocking them and causing infrastructure damage and localized flooding. For example, plastic bag pollution in Bangladesh clogged storm drains and was the



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primary cause of severe floods that submerged 2/3 of the country in 1998. Here in Suffolk County, plastic bag pollution can have an effect on existing storm water runoff problems and flooding in coastal communities.

Environmental Impacts of Reusable Bags

- The US consumes over 100 billion single-use bags every year. That means nearly one bag per person every day. One reusable bag can replace 500+ single-use bags.
- Many reusable bags are made from recycled materials or natural plant fibers.
- Producing reusable plastic bags is the equivalent in terms of emissions and energy use to producing between 5 and 12 single-use plastic bags. After 2 or 3 trips to the grocery store, shoppers are already saving resources and reducing plastic consumption with reusable bags.
- While plastic bags are difficult to recycle and do not break down naturally in the environment, reusable fabric bags made of materials including cotton, hemp, and burlap are recyclable and biodegradable.

Resources:

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

NOAA: https://marinedebris.noaa.gov/sites/default/files/publications-files/2015_TurningTideonTrash_HiRes_Final.pdf

CCE: <https://www.citizenscampaign.org/campaigns/plastic-bags.asp>

5 Gyres: <https://www.5gyres.org/>

Ocean Conservancy: <https://oceanconservancy.org/trash-free-seas/international-coastal-cleanup/>

Plastic Pollution Coalition: <http://www.plasticpollutioncoalition.org/>



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