



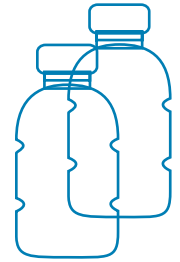
AQUARIUM OF THE BAY

Conservation Critical Issue:

MARINE DEBRIS & PLASTIC POLLUTION

WHAT IS MARINE DEBRIS AND PLASTIC POLLUTION?

Marine debris is trash in the ocean and waterways leading to the sea. The majority of marine debris consists of plastic material, and 60-80% is washed or blown to the ocean from land.



WHY AND WHERE IS MARINE DEBRIS AND PLASTIC POLLUTION A PROBLEM?

The same features that have made plastic a go-to material are primary reasons for its presence in the environment today. Plastic is cheap to produce, lightweight, and durable, and it can be found in most of our daily products. It is easily carried by water and wind through the watershed to the ocean. Though it can be found anywhere, plastic tends to collect near urban centers, on distant islands, in enclosed bays and seas, and in ocean gyres.

Plastic takes a long time to fully decay, but when exposed to the elements it breaks down into small pieces, which disrupt the marine ecosystem and enter the food web. Marine debris and plastic pollution also poisons, suffocates, or entangles countless animals, affecting over 200 different species of marine wildlife. Recent scientific studies have estimated that over 250,000 tons of plastic pieces of varying size are floating on the surface of the Pacific Ocean¹; and that worldwide, 8 million tons of plastic enter the oceans each year.²



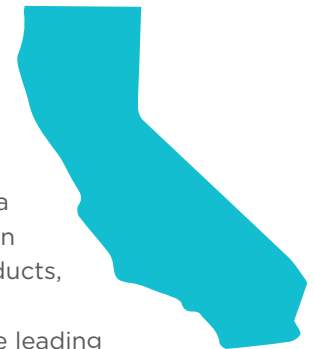
The 250K tons figure is made up of more pieces of plastic than stars in the Milky Way galaxy; and the 8 million tons EACH YEAR works out to 5 bags filled with plastic for every foot of coastline in the world.

Ocean gyres naturally occur as a result of large ocean currents, earth's wind patterns, and the rotation of the planet. There are gyres in the North Pacific, North Atlantic, South Atlantic, and Indian Oceans. All are proving to be plastic pollution accumulation zones- gradually accumulating our trash as it drifts throughout the ocean.



WHY IS THIS ISSUE CRITICAL TO THE SAN FRANCISCO BAY WATERSHED?

Trash travels with water through storm drains, creeks, streams, and rivers. Around 40% of California drains to San Francisco Bay, making our watershed the largest on the West Coast, and making our local debris a statewide issue. California plays a major role in the global use and distribution of plastic products, and of jobs are provided by the local plastics industry. However, California is also one of the leading U.S. states with multiple initiatives and legislation aimed at reducing plastic pollution.



TAKE ACTION: WHAT WE'RE DOING

As a certified San Francisco Green Business, Aquarium of the Bay takes on many ongoing operational efforts to reduce waste. Examples include recycling, composting, a green purchasing policy, periodic e-waste recycling, and shifting towards greener retail products.

We have never used plastic bags at our gift store, and discontinued single-use plastic beverage bottles in our gift store in 2011.

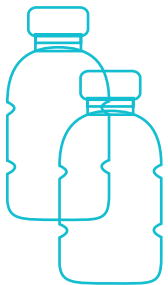
We also require events held at the Aquarium to follow sustainability guidelines that eliminate or minimize single-use plastic.

Aquarium of the Bay serves as a county coordinator for the annual California Coastal Cleanup Day, itself part of an annual international volunteer effort coordinated by Ocean Conservancy. In addition to cleanups, we support local and statewide campaigns and policies to reduce the use of common everyday plastic items such as plastic bags and takeout containers, and educate visitors about the danger of marine debris and plastic pollution through free programming at the Aquarium as well as the EcoCenter at Heron's Head Park and the Sea Lion Center.

TAKE ACTION: HOW YOU CAN HELP

Just as plastic was once an innovative material for certain products, people around the world are now coming up with innovative solutions to the problems now caused by plastic pollution. Simple actions you can take include:

- **Remember to reduce, reuse, and recycle-** in that order. Reduce your use first and foremost. Remembering your reusable bags and coffee mug will help the watershed AND save you money—you'll avoid bag fees and most coffee places give a discount for drinks in reusable containers.
- **Support legislation and initiatives that aim to reduce plastic pollution-** such as plastic bag and takeout container ordinances, and Extended Producer Responsibility programs.
- **Choose sustainable seafood according to Seafood Watch recommendations-** seafood from these fisheries are better managed, often resulting in less lost or abandoned fishing gear and less entanglement of marine animals.
- **Look for products made from recycled materials and packaged in little to no plastic-** check out a number of 'green gifts' at Aquarium of the Bay's retail store.
- **Support organizations working on reducing marine debris and plastic pollution-** like Aquarium of the Bay and the Sea Lion Center.
- **Become a part of the conversation-** talk to your friends and family about your creative solutions, or share with us on social media:
 - o Like us on Facebook: <https://www.facebook.com/AquariumOfTheBay>
 - o Follow us on Twitter: @AquariumOfTheBay



¹ Eriksen, M. et. al 2014. Plastic Pollution in the World's Oceans: More than 5 Trillion Plastic Pieces Weighing over 250,000 Tons Afloat at Sea. PLoS One 9(12). Available: <http://journals.plos.org/plosone/article?id=10.1371/journal.pone.0111913>

² Jambeck, J.R. et. al 2015. Plastic waste inputs from land into the ocean. Science 347(6223).

Last updated 2015



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