



Drinking water for offshore workers is mostly provided in **single-use plastic bottles**.

Each bottle has a detachable cap. The cap is small and easily falls through floor grating on platforms.



Bottles are often forgotten, easily roll across a deck, and, when empty, are very light and can be moved by the wind.



OVERVIEW

The Bureau of Safety and Environmental Enforcement protects the environment across 3.2 billion acres of the U.S. Outer Continental Shelf.

The BSEE Marine Debris Program focuses on reducing the offshore industry's contribution to marine debris, including plastic material. BSEE inspections have found that storage space for plastic water bottles on offshore facilities is minimal. Plastic beverage bottles and plastic beverage bottle caps have consistently ranked in the top five marine debris items found in the ocean each year.¹

BACKGROUND

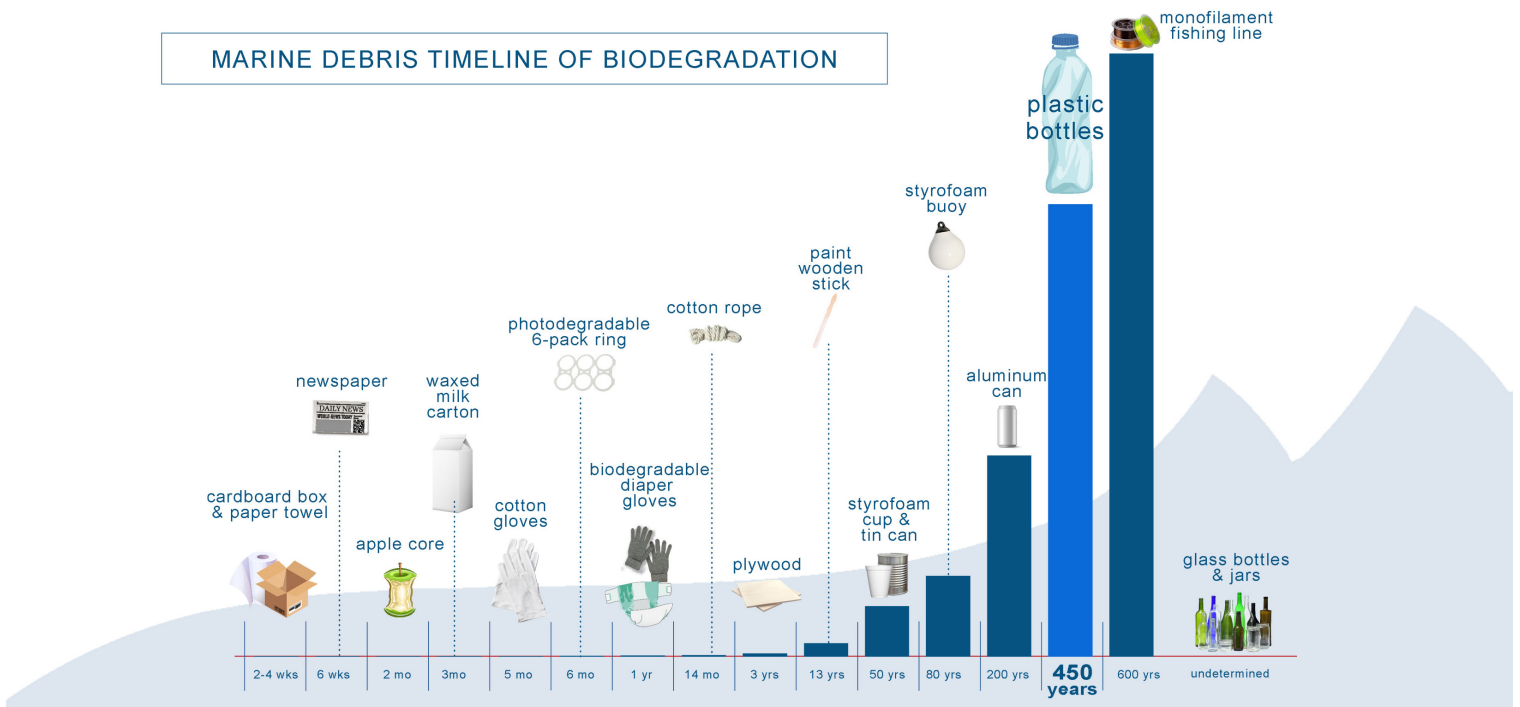
In 2023, the Department of the Interior finalized sustainable procurement plans to phase out single-use plastics on public lands within the next decade. These plans support Secretary's Order 3407 to reduce DOI's procurement, sale and distribution of single-use plastic products. Secretary's Order is just one example of the implementation of Executive Order 14057, which calls for federal agencies to take actions to reduce and phase out procurement of single-use plastic products to the maximum extent practicable.

Secretary's Order 3407 defines single-use plastic products as "plastic items intended to be disposed of immediately after use, including plastic and polystyrene food and beverage containers, bottles, straws, cups, cutlery, and disposable plastic bags."

Clean drinking water is essential for offshore work and single-use disposable water bottles provide a convenient and effective means to supply that need. However, the quantities of these bottles used by offshore industry is staggering. These plastic bottles are easily forgotten or discarded. They can roll across the deck of a ship or platform, and when empty, can be blown by the wind making it inevitable that they are lost to the sea. Often, these plastic bottles wash up onto beaches and can be ingested by marine life.

¹ National Oceanic and Atmospheric Administration, Marine Debris Program. <https://marinedebris.noaa.gov/what-marine-debris/plastic>

MARINE DEBRIS TIMELINE OF BIODEGRADATION



www.dep.state.fl.us/northwest/Ecosys/section/restoration. Information sourced from US Environmental Protection Agency. Gulf of Mexico Program

IMPACTS OF MARINE PLASTICS

Single-use plastic has become a significant problem around the world. About one half of all plastic produced is used only once, with only a small percent recycled. Humans have already discarded 75% of all the plastic ever made, which means about 5 billion tons of plastic are already in garbage dumps or littering our lands, waterways, and oceans. In the United States today, less than one out of every five bottles of water are properly recycled, while the rest end up discarded as litter or in landfills.

Plastic waste is a priority environmental problem. Less than 10 percent of the plastic that has ever been produced has been recycled, and recycling rates are not increasing. Plastics, including unnecessary and easily substituted single-use plastic products, are devastating ecosystems and environments around the world. Plastics are some of the most durable man-made materials on the planet, taking at least 450 years to decompose. This poses a unique problem to the marine environment; since plastics do not “mineralize,” or break down into their elemental parts, they retain their basic structure as plastic and continue to break into progressively smaller pieces, known as “microplastics,” eventually becoming the size of marine plankton.

Marine plastics have the ability to attract and concentrate chemicals on their surface. That means that these plastic pieces accumulate high concentrations of toxins present in the ocean such as polychlorinated biphenyls (PCBs) and the pesticide DDT. When fish and other organisms consume plastics with highly concentrated contaminants,

those pollutants may cause illness or death to the marine organisms or accumulate in animal tissue and enter the marine food chain.²

Scientists are working to understand how microplastics and the contaminants they carry or release impact the organisms that consume them. As plastic items are broken down into microplastics, the new surface area created binds to more pollutants. And once bound to plastic particles, pollutants can be more easily taken up by fish and other organisms that people eat.²

Single-use plastics, such as plastic water bottles, that end up as marine debris negatively impact ecosystems. If many sectors of the economy look for opportunities to prevent and reduce marine debris, it will benefit the economic activities relying on those services for revenue generation, sustainable livelihoods and the well-being of communities and citizens.³

For additional information please visit the Marine Debris Program BSEE webpage or contact environmentalstewardship@bsee.gov.

² <https://www.scseagrant.org/how-microplastics-are-shredding-ocean-health/>

³ United Nations Environment Programme (2017). *Marine Litter: Socio-economic Study*. <https://wedocs.unep.org/handle/20.500.11822/26014>