



This is the first installment in "The War on Plastic," an ongoing series that details the plastic pollution problem in New Jersey and efforts to curb it that could change the way you eat, drink and shop. [Read more from the "The War on Plastic" series here.](#)

Try to think of something in your life that doesn't involve plastics.

Chances are, you won't be able to. Plastic is everywhere, from food containers to your smart phone to the plumbing in your home.

A pliable, inexpensive product, it has made modern life easier across the globe. But that convenience comes at a price.

Plastic litter inundates New Jersey from the Delaware River on its western border, to the Atlantic Ocean on its eastern shore. Rivers and bays carry millions of pulverized pieces so small they enter the food and water supply — and even your body.

It litters beaches, kills wildlife and [threatens human health](#).

"We have become a throwaway culture," said Serpil Guran, a Rutgers professor and expert in waste management. "We have become used to using something once and then discarding it. And now we are paying for it."

New Jersey has taken [the first steps toward](#) enacting the strongest ban on plastics in the nation — a move that would address a global problem with very local consequences.

[Under the proposed bill](#), grocery store bags, straws and foam cups, carryout containers, food trays and egg cartons — all made of plastic — could be a thing of the past in New Jersey.

But as ambitious as the measure is, it still tackles only a portion of New Jersey's plastic problem. Plastic bottles, lids, cigarette butts, candy wrappers, foam packaging and dozens of other everyday plastics still make up the bulk of what's found on beaches and river fronts.

The [measure](#), which would also put a 10-cent fee on paper bags, still needs to pass a number of legislative hurdles and its sponsors don't expect a vote until next year. But it has gotten the attention of the entire plastics industry, which has turned out in force to oppose the bill at two recent legislative hearings.

Lobbyists and business executives argue that the bill would hurt mom-and-pop businesses like small grocery stores and restaurants, which would have to find more expensive alternatives.

And they say it is not a plastic problem, but a littering problem. And it could be solved with better recycling.

"New Jersey would be the first state in the nation to do something this drastic," said Matt Seaholm, executive director of the American Progressive Bag Alliance, which has fought against bans in California, New York and other places across the country. "That's why we're saying this is not the right approach."

But supporters of the ban say the days are numbered for single-use plastics — products designed to be used once and discarded.

Momentum has been growing nationally and locally.

California and Hawaii have instituted statewide plastic bag bans in recent years. New York City's ban on plastic foam food trays and packing peanuts, often referred to as Styrofoam, goes into effect on Jan. 1. And more than a dozen New Jersey towns have passed ordinances regulating plastic sales, many within the past year.

In August, Gov. Phil Murphy [vetoed a bill](#) that would have placed a 5-cent fee on plastic grocery store bags, saying New Jersey needs a "more robust and comprehensive method" to reduce plastics pollution.

That move signaled to lawmakers, environmentalists and the plastics industry that he would support a bill by one of his political allies, state Sen. Bob Smith, D-Middlesex, to enact the [most comprehensive plastic ban](#) ever taken by a state.

Smith said it will force New Jerseyans to change a lifestyle that has for decades relied on inexpensive conveniences like the 4.5 billion grocery store bags given out every year in the Garden State.

"Do you want to go to a beach that's a garbage can?" Smith said at a recent hearing. "Or do you want to go to a beach that's clean?"



An osprey with a plastic bag wrapped around it at a nest in Bayville. Photographer Beverly Morris said the osprey and its mate tried for more than an hour to pull the bag off before succeeding.

(Photo: Courtesy of Beverly Morris)

Plastic everywhere

SCIENTISTS ARE DISCOVERING MICROPLASTICS
IN THE FOOD WE EAT AND THE WATER WE DRINK

Since 2015, the advocacy group NY/NJ Baykeeper has been fishing for plastics throughout the region's urban waterways from Sandy Hook to the Tappan Zee Bridge on the Hudson River.

They're not hard to find. Most of the plastic ever made still exists.

Plastics [take decades or centuries to decompose](#). The plastic that finds its way into New Jersey's waters just breaks down into smaller and smaller pieces until they're invisible to the naked eye.

"Put your feet in the sand and odds are you're touching a piece of plastic," said Mike Castellano, as he led a group of volunteers with Surfrider Foundation as they picked up trash on a Sea Bright beach in August. "It's really the little pieces that we find most of all. They're everywhere."

A [report published by Baykeeper in 2016](#) estimated that there were almost 166 million pieces of plastic floating in the NY-NJ Harbor Estuary, ranging from bits of foam food boxes to microscopic beads from beauty products that can't be filtered in wastewater or drinking water plants.

More than 85 percent were microplastics — particles smaller than a grain of sand. More and more scientists are [discovering microplastics in the food we eat](#) and the [water we drink](#).

The Baykeeper report was the first of its kind in New Jersey. But it came as no surprise to those who live along its waterways.



the Passaic Valley Sewerage Commission skimmer boat as they sweep garbage from the surface of the Passaic River

(Photo: Marko Georgiev/NorthJersey.com)

Plastics have accounted for 74 percent of the trash picked up during New Jersey's largest beach cleanups by Clean Ocean Action since 2010 with a record 84 percent last year.

Anytime the wind is blowing out to sea, New Jersey fishermen expect to haul in what they derisively call "bag fish."

"It's not uncommon for us to find a hundred bags in a 300-foot net," said Brick Wenzel, an Ocean County commercial fisherman. "It's a problem for us, not the least of which is slipping on them while we're working on deck."

New Jersey wildlife is often hit hard. Nearly every osprey nest surveyed by scientists and volunteers along the Shore this year had multiple pieces of plastic in it. And four birds from different nests were found dead in recent months after being tangled in plastic fishing line, according to the [Conserve Wildlife Foundation of New Jersey](#).

Rivers are inundated with plastic, even in some of their most pristine stretches.

- On the upper Passaic River, a team of [Rutgers scientists found](#) plastic concentrations of more than 3 million particles per square kilometer in communities like Fairfield, Chatham and Livingston — far from the tidal surges that flush the lower, more polluted parts of the river. They also found 300 compounds from flavoring agents to pharmaceuticals attached to the microplastics in both the Passaic and Raritan rivers — a potential health threat if ingested.
- On the Hudson River, more than 2,000 volunteers with [Riverkeeper picked up 38 tons of plastic trash](#) from Manhattan to Poughkeepsie in one day this year. The most prevalent were cigarette butts made of cellulose acetate — a form of plastic, followed by foam pieces and bottles.
- On the banks of the lower Passaic River in towns like Clifton, Nutley and Belleville, single-use plastic packaging, bottles and food containers were the most prevalent trash found in a soon-to-be-released report by a team from Montclair State University.
- On the upper reaches of the Raritan River, an advocacy group recently found high concentrations of degraded pieces of bags, wraps and other microplastics downriver of some sewage treatment discharge pipes in parts of Somerset and Hunterdon counties.
- On the banks of streams and rivers that meander through the South Jersey Pinelands reserve, illegal dumping of cars and debris has long been a problem. But plastic litter is becoming more prevalent along its waterways, according to the Pinelands Preservation Alliance.

On a recent morning, a three-person crew boarded the Baykeeper's small boat looking for microscopic pieces of plastic in Raritan Bay.

The crew threw into the water a net so fine it could capture a grain of sand. After 15 minutes and a short distance from their dock in Keyport, they pulled out speckles of unidentified blue and red plastic fragments.

"These pieces may have been in the bay for years, decades," said Meredith Comi, Baykeeper's restoration director. "They never go away. They only become smaller."