

**Testimony of Judith Enck, President, Beyond Plastics
and Former EPA Regional Administrator**

**before the New York State Joint Committee on Environmental Conservation
In Support of the Packaging Reduction and Recycling Infrastructure Act**

([S4246A](#)/Senator Harckham, [A5322A](#)/Assemblymember Glick)

October 24, 2023

Thank you for the opportunity to offer testimony today. My name is Judith Enck, and I am the founder and president of Beyond Plastics, a nationwide project with a mission to end plastic pollution everywhere. I am on the faculty at Bennington College, and I previously served as Administrator for Region 2 at the U.S. Environmental Protection Agency, appointed by President Barack Obama.

Plastic production and waste is a major problem for the health of humans and wildlife, for climate change, and especially for environmental justice communities.

- **Single-use plastic packaging:** The production, use, transportation of plastics is a major public health and environmental justice problem. The United Nations Environment Programme (UNEP) estimates that half of all plastics produced are single-use.¹ This packaging is difficult – if not impossible – to recycle; instead, it is sent to landfills, burned in incinerators, or is littered on our streets, parks, and beaches. “In the absence of bold new policies,” writes the Organization for Economic Cooperation and Development (OECD), global plastic production is slated to **triple:** from 463 million tonnes in 2019 to 1.2 billion tonnes by 2060.² New packaging reduction laws – like this Glick-Harckham bill – are needed to make sure that we **reduce** the generation of plastic, and not allow it to triple.

Individual consumer action to reduce plastic use is not enough. We need new laws that lead to systemic change.

¹ “Our planet is choking on plastic.” [UN Environment Programme website](#), accessed Oct. 17, 2023.

² Executive Summary, “Global Plastics Outlook: Policy Scenarios to 2060.” Organization for Economic Cooperation and Development (OECD), 2022.

- **We can't recycle our way out of the plastic pollution problem.** The overall recycling rate for plastics in the United States is a meager 5-6%,³ despite decades of voluntary industry pledges and programs, and taxpayer-funded curbside collection systems that almost exclusively target only PET and HDPE containers. Unlike glass, steel, and aluminum, plastic is simply not designed to be recycled. Different resin types cannot be recycled together, and the many chemical additives used in plastic packaging make using recycling plastic for food-grade uses prohibitive. *Dramatically reducing the amount of plastics we use is the single most important way to solve the plastics pollution crisis.*
- **Oceans:** We are turning our oceans into a watery landfill. Worldwide, an estimated 33 billion pounds of plastic waste enters the ocean each year, harming wildlife and threatening fisheries that humans depend on for food.⁴ By 2025 – in just two years – there will be 1 ton of plastic in the ocean for every 3 tons of fish, and by 2050 that ratio will be one to one: 1 ton of plastic for every 1 ton of fish.⁵
- **Microplastics** are showing up everywhere: from the Mariana Trench⁶ – the deepest part of the ocean—to fresh Antarctic snow,⁷ high-altitude clouds,⁸ and the human body. Microplastics have been found in the human heart, lungs, blood, breast milk, and placenta. Microplastics carry tiny toxic loads that researchers suspect impact us at the cellular level and contribute to disease.⁹
- **Plastics are speeding climate change.** The production and disposal of plastics results in significant greenhouse gas emissions: from fracking the natural gas used as a feedstock (main ingredient) of virgin plastics and from releases during product manufacturing. They continue to be created when plastic that is “leaked” into the environment breaks up into smaller and smaller pieces by physical forces and sunlight. In 2020, the U.S. plastics industry released as much greenhouse gasses as 116 coal-fired power plants, as documented in the October 2021 Beyond Plastics

³ “Circular Claims Fall Flat Again: 2022 Update.” Greenpeace, 2022.

⁴ “[Plastics is a Growing Threat to Our Future.](#)” Fact sheet on Oceana website, accessed Oct. 16, 2023.

⁵ “[The New Plastics Economy: Rethinking the future of plastics.](#)” World Economic Forum, 2016.

⁶ “[Plastic in Mariana Trench.](#)” National Oceanic and Atmospheric Administration’s Science on a Sphere webpage, accessed Oct. 16, 2023

⁷ “[First evidence of microplastics in Antarctic snow.](#)” Aves, A. et al. The Cryosphere, 16, 2127–2145, 2022.

⁸ “[Airborne hydrophilic microplastics in cloud water at high altitudes and their role in cloud formation.](#)” Wang, Yize, et al. *Environmental Chemistry Letters*, August 14, 2023.

⁹ “[The Minderoo-Monaco Commission on Plastics and Human Health.](#)” Landrigan, Philip J. et al., *Annals of Global Health*, Mar. 21, 2023.

report “The New Coal: Plastics and Climate Change.” Nationwide, these emissions are on track to surpass those from coal by 2030.¹⁰

Here in New York, greenhouse gas emissions from the waste sector represent about 12% of statewide emissions, according to New York’s 2022 Climate Action Council Scoping Plan (CAC Scoping Plan), mandated by New York’s landmark climate legislation, the Climate Leadership and Community Protection Act. The CAC Scoping Plan recommends the complete elimination of single-use plastics and the enactment of legislation that holds companies responsible for managing the packaging waste created by their products.¹¹

- **The chemical additives used in plastics** can leach (leak) out of packaging, potentially contaminating our food and drink and exposing us to harmful toxic chemicals. When plastic packaging waste is burned in incinerators or processed via so-called “chemical recycling,” these chemical additives turn up in toxic air emissions, and in hazardous waste ash and sludge. The most effective way to address this problem is to use less plastics. This is a particular concern in environmental justice communities, where many of these facilities are purposefully located.

Passing [A5322-A](#) by Assemblymember Glick and [S4246-A](#) by Senator Harckham, the Packaging Reduction and Recycling Infrastructure Act, would bring New York closer to meeting New York’s climate change goals and will have many other critical benefits:

1. Save tax dollars by making business pay to manage its product packaging waste:

Forty-two percent of plastic manufactured is used for consumer packaging – much of it single-use – and very little of this is recyclable. New York City taxpayers alone budgeted \$432 million dollars in 2020 for exporting NYC waste to the Finger Lakes, a polluting garbage incinerator in Newark NJ, and other states.¹² This bill provides relief to taxpayers across the state from the financial burden of managing packaging waste through curbside recycling programs, garbage collection and disposal, and litter clean-ups – all of which are very expensive.

The Glick-Harckham bill transfers the financial responsibility for managing discarded packaging from local taxpayers to the producers who manufacture the disposable packaging. It does this by requiring companies to pay fees that are used to reimburse municipalities and consumers for the cost of recycling *and* disposing of packaging

¹⁰ “[The New Coal: Plastics and Climate Change.](#)” Beyond Plastics, Oct. 2021.

¹¹ “[New York State Climate Action Council Scoping Plan.](#)” New York State Climate Action Council, 2022.

¹² “[More Funds for Growing Waste Export Budget And Organics Processing Capacity.](#)” New York City Independent Budget Office, March 2020.

material, by providing new funding for projects that reduce packaging waste and improve recycling, and by funding state agencies for managing the program and enforcing the law. Companies that design reuse and refill systems to deliver their goods will pay no fees for the packaging used in these systems under the Act.

2. **Protect public health by restricting toxic substances in packaging.** More than 10,500 chemical additives are used to manufacture plastic packaging. Most of these additives have never been studied, and many that *have* been studied are known to disrupt human endocrine systems or cause cancer. These toxic and endocrine-disrupting substances can leach out of packaging into the food and beverages we consume, and into our bodies: contributing to diabetes, heart disease, endocrine-related cancers, obesity, and infertility—just to name a few.¹³

The Glick-Harckham bill prohibits the most toxic substances and materials from being used in packaging, including polyvinyl chloride (PVC), PFAS (“forever chemicals”), formaldehyde, bisphenols, toluene, and heavy metals including lead, cadmium, and mercury.

It also creates a Task Force to review and add toxic chemicals to the list of prohibited substances every three years. This feature of the bill is designed to protect public health: it will compel the packaging industry to adopt safer formulations for their packaging.

3. **Establish environmental standards for packaging.** Thanks to state and federal laws, we have had fuel efficiency standards for cars and trucks, and energy efficiency standards for buildings and appliances. This bill would finally set environmental standards for packaging by establishing binding reduction and recycling rates, and requirements for recyclability and recycled content:

- a. **50% reduction of packaging materials within 12 years.** Plastic may not be substituted for other materials. This goal is achieved incrementally:
 - 10% within 3 years
 - 20% within 5 years
 - 30% within 8 years
 - 40% within 10 years
 - 50% within 12 years

¹³ "[The Minderoo-Monaco Commission on Plastics and Human Health.](#)" Landrigan, Philip J. et al., *Annals of Global Health*, Mar. 21, 2023.

b. **75% recycling rate of the remaining packaging waste by 2050**, also achieved incrementally, with separate criteria for non-plastic and plastic packaging:

- **Non-plastic packaging:**
 - 35% recycling by 2028 (minimum 5% reused)
 - 50% recycling by 2035 (minimum 10% reused)
 - 75% recycling by 2050 (minimum 20% reused)
- **Plastic packaging:**
 - 25% recycling by 2028
 - 50% recycling by 2035
 - 75% recycling by 2050

c. **All packaging materials must be truly reusable or recyclable**. The bill accomplishes this by requiring packaging to meet these criteria:

- i. Can be sorted by recyclers in New York State
- ii. Has a consistent regional market
- iii. Does not contain certain pigments, toxic substances, or materials that are disruptive for the recycling process, including polystyrene
- iv. Meets post-consumer recycled content requirements

These standards are not recommendations or suggestions; they are appropriately set by the legislature in statute, and are binding. The bill empowers the Department of Conservation, the Attorney General, and a newly-created Recycling Inspector General to impose penalties on producers for failure to comply with these requirements.

4. Promote real recycling, not the false solution of chemical recycling. This bill does not allow packaging waste managed by so-called “chemical recycling,” “advanced recycling,” or “molecular recycling” facilities to count toward recycling performance targets because these facilities pose financial and environmental threats and predominantly turn plastic waste into fuels to be burned.

Chemical recycling is any process that attempts to turn plastic into a fuel or fuel substitute; or the general use of plastic in energy production; and/or the following processes: gasification, pyrolysis, solvolysis, hydrolysis, methanolysis, enzymatic breakdown, combustion; or any other chemical conversion process used to transform plastic or plastic-derived materials into plastic monomers, chemicals, waxes, lubricants, chemical feedstocks, crude oil, diesel, gasoline, or home heating oil.

Plastic manufacturing involves toxic substances including PFAS, phthalates, mercury, and arsenic. An NRDC report found that “Chemical recycling facilities generate hazardous waste including...carcinogens and/or neurotoxicants. Much of this waste is benzene...that can be harmful to reproduction and the developing fetus.”¹⁴

- 5. Respect environmental justice communities.** In 2020, 35.7 million tons of plastic was manufactured in the United States, and production is slated to increase by 40% by 2030.¹⁵ Most of this plastic is made in low-income communities of color in Louisiana, Texas, and Appalachia. Environmental justice communities are often saddled with landfills and incinerators as well.

This bill requires education, outreach, and support programs to be focused on environmental justice communities so they are not overlooked, and it requires that representatives of an environmental justice community be appointed to both the Advisory Council and the Toxic Packaging Task Force.

The bill also provides funding opportunities for businesses and institutions – including those in environmental justice communities – to implement reuse and refill systems. For example, a school might apply for funding to purchase dishware, utensils, and dishwashing equipment to replace disposable service ware commonly used for school lunches. Every public park, train station and bus station can be funded to install water fountains.

- 6. Lead to reduced greenhouse gas emissions.** As I mentioned previously, the U.S. plastics industry released as much greenhouse gasses as 116 coal-fired power plants in 2020. The Organization for Economic Cooperation and Development (OECD) has predicted that with “business as usual” growth patterns, global plastics production will nearly triple by 2060.¹⁶ It is clear that such a dramatic increase will cause plastics-related greenhouse gas emissions to increase similarly. But it doesn’t have to be this way. By requiring a 50% reduction in packaging, with a focus on reducing plastic packaging, the Harckham-Glick bill will enable New York State to set an important example of how to stop this dangerous trend in its tracks.

Thank you for your time and attention to the important issue of plastic pollution. I urge you to swiftly pass the Packaging Reduction and Recycling Infrastructure Act during the upcoming legislative session in January 2023. Time is not on our side.

¹⁴ [“Recycling Lies: ‘Chemical Recycling’ of Plastic is Just Greenwashing Incineration.”](#) Singla, Veena. Natural Resources Defense Council, Feb. 2022.

¹⁵ [“Solving Plastic Pollution Through Accountability.”](#) World Wildlife Fund, May 5, 2019.

¹⁶ [Executive Summary](#), “Global Plastics Outlook: Policy Scenarios to 2060.” Organization for Economic Cooperation and Development (OECD), 2022.