

An underwater photograph showing a large, tangled mass of plastic debris, including white and clear plastic bags and fragments, floating in clear blue water. Several small, striped fish are swimming around the debris. The scene is brightly lit, suggesting sunlight filtering down from the surface.

March 2024

Report Highlights:

Existing U.S. Federal Authorities to Address Plastic Pollution

A Synopsis for Decision Makers



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Plastic pollution is a global crisis with severe environmental and health implications

The plastic pollution problem is escalating globally, and plastic waste is set to almost triple by 2060¹



A garbage truck's worth of plastic waste enters the ocean every minute.

The exponential growth in plastic production since the early 20th century has resulted in staggering annual global usage, reaching 460 million metric tons by 2019.² This trajectory is especially alarming, with a garbage truck's worth of plastic waste entering the ocean every minute.³ Leaking into the environment, infiltrating our streets and waterways, and reaching the deepest parts of our ocean, plastic is now found in the air we breathe, the food we consume, and even in our bloodstreams. Abundant and evolving scientific evidence highlights the detrimental effects of plastics on human health, encompassing developmental neurotoxicity, endocrine disruption, and carcinogenesis, with particularly extensive risk and impacts on children, pregnancies, and marginalized communities. Notably, the United States is a major contributor of plastic waste globally.⁴

Developing a common understanding of existing federal law and tools to address the plastic pollution crisis in the United States

A joint effort by the experts at the Environmental Law Institute and the Monterey Bay Aquarium, *Existing U.S. Federal Authorities to Reduce Plastic Pollution: A Synopsis for Decision Makers* is a comprehensive analysis of the existing federal authorities the federal government may leverage to address plastic pollution. In 2021, a Congressionally mandated study by the National Academies of Sciences, Engineering, and Medicine (National Academies), *Reckoning with the U.S. Role in Global Ocean Plastic Waste*, called for the United States to develop a comprehensive research and policy strategy to reduce the sizable U.S.

contribution to plastic pollution and its impacts. Building on those recommendations, this report identifies the federal legal authorities currently available to decision makers to respond to this crisis across the life cycle of plastics and demonstrate global leadership.

Federal agencies, including the Environmental Protection Agency (EPA) and the Food and Drug Administration (FDA), possess substantial authority to protect human health and the environment from the impacts of plastics and related pollution. And many other agencies and decision makers play important roles, including crucial administration-wide functions like coordinating, mobilizing, conducting research and monitoring, and engaging with affected communities and other stakeholders. The report recognizes where the United States is already acting and identifies near-term opportunities for effective federal action. It also acknowledges the potential need for additional legislative support over the long term.

A summary table of authorities by pollution intervention areas follows on pages 7–9. The table includes federal authorities supporting information and data collection, research and development, and education and outreach that can inform policies across all interventions. The full report can be found at eli.org and MontereyBayAquarium.org.

Understanding U.S. legal authorities within the context of essential interventions to stop plastic pollution

The National Academies Report confirmed the United States' outsized role in global plastic pollution, and laid out a suite of interventions across all stages of the plastic life cycle that would reduce plastic pollution and achieve environmental and social benefits (System Wide Actions to Reduce Plastic Pollution, page 6).

The United States has responded by setting a national goal to eliminate the release of plastic into the environment by 2040 while safeguarding human health and the environment. In light of the current scientific understanding of risks and harm posed by plastic and related chemical pollution, there is significant motivation and opportunity for the federal

government to deploy its authorities to meet that important goal. As the largest generator of plastic solid waste by mass and per capita, the United States has a responsibility as a leader in the global community to take decisive action to reduce its contribution to plastic production and waste generation.⁵

Utilizing U.S. legal authorities to address plastic pollution comprehensively

The authors organized this report to illustrate which legal tools and authorities lie in each intervention and to underscore the importance and opportunity to utilize existing federal powers to address the entire life cycle of plastic. While the report acknowledges publicly announced steps being taken by federal agencies to shape a domestic strategy on plastic pollution, it does not capture all potentially applicable administrative or legislative proposals that are pending or part of internal agency discussions.



The United States has set a national goal to eliminate the release of plastic into the environment by 2040.

The report makes clear that the White House, federal agencies, and several independent commissions have at their fingertips a powerful toolkit to intervene across all stages of the plastic lifecycle to reduce pollution and its impacts on human health and the environment. These include updating industry-specific effluent limitations and emission standards, banning or restricting certain plastics and additives, and recognizing microplastic particle pollution as a type of ambient air pollutant and consumer exposure hazard. While addressing the complexity of plastic pollution will necessarily require new and more comprehensive legislative and executive authorizations,⁶ the urgency of this global crisis demands immediate action.⁷

System Wide Actions to Reduce Plastic Pollution

SOURCES OF PLASTIC POLLUTION & HEALTH EXPOSURE

INTERVENTIONS



PRODUCTION

Reduce plastic production and pollution from production



MATERIALS AND PRODUCT DESIGN

Innovate material and product design



WASTE GENERATION

Decrease waste generation



WASTE MANAGEMENT

Improve waste management



PLASTIC WASTE IN THE ENVIRONMENT

Capture waste



PLASTIC WASTE IN THE OCEAN

Minimize at-sea disposal



ALL STAGES

**Information/
data collection
Research/development
Outreach/education**

Plastic waste interventions and corresponding federal legal authorities along the plastic pollution pathway, from plastic production to recapture of plastics in the ocean



Reduce plastic production and pollution from production:

Decreasing plastic production and mitigating pollution at the source.

Legal pathways include:

- Limit emissions of microplastics as particulate matter under the Clean Air Act;
- Use Toxic Substances Control Act to strengthen review and controls on polymers and chemicals;
- Limit emissions and chemical discharges from plastic production facilities; and
- Use National Environmental Policy Act (NEPA) and environmental justice policies to evaluate plastic production facility impacts in environmental permitting and siting decisions.



Innovate material and product design:

Promoting circular economy⁸ principles.

Legal pathways include:

- Enforce product standards for plastic manufacturers under the Consumer Product Safety Improvement Act and the Food, Drug, and Cosmetic Act;
- Encourage voluntary commitments and collaborations for innovative materials and products; and
- Enforce standards for labeling and marketing under the Federal Trade Commission Act.



Decrease waste generation:

Implementing policies and incentives to minimize plastic waste.

Legal pathways include:

- Use Toxic Substances Control Act to ban products based on their use of certain additives, plasticizers, or other chemicals;

(Decrease waste generation cont.)

- Use federal purchasing power to prioritize sustainable plastic alternative products and services;
- Regulate and reduce the loss of preproduction plastic pellets under the Clean Water Act;
- Examine how deposit return systems and extended producer responsibility requirements fare in states to support state initiatives and inform the development of federal equivalents under the Pollution Prevention Act; and
- Support affordable and convenient reuse and refill systems.



Improve waste management:

Improving collection, treatment, and disposal strategies.

Legal pathways include:

- Control plastic waste import and export under the Resource Conservation and Recovery Act;
- Set pollution control limits on point sources such as stormwater drainage systems or municipal wastewater treatment plants under the Clean Water Act; and
- Improve nonpoint source pollution prevention programs for ocean and river discharges under the Coastal Zone Management Act.



Capture plastic waste from the environment:

Embracing novel strategies for cleaning up waterways and ocean habitats.

Legal pathways include:

- Remove plastic waste from beaches, rivers, inland waterways, and localized hotspots under the Clean Water Act; and
- Remove plastic waste from ocean wildlife and habitats under the Endangered Species Act, Marine Mammal Protection Act, Magnuson-Stevens Fishery Conservation and Management Act, and Marine Debris Research, Prevention, and Reduction Act.



Minimize at-sea disposal:

This intervention seeks to minimize ocean disposal.

Legal pathways include:

- Increase enforcement for at-sea dumping and disposal under the Marine Debris Research, Prevent, and Reduction Act, the Marine Plastic Pollution Research and Control Act of 1987, the Marine Protection Research and Sanctuaries Act of 1972, and the Outer Continental Shelf Lands Act; and
- Reduce the amount of fishing gear that is discarded or abandoned in the ocean.



Support information and data collection; research and development; education and outreach:

Understanding whether strategies pursued in above interventions are effective and how plastic pollution may be changing.

Legal pathways include:

- Clear research priorities set by the White House in executive orders or actions;
- Research on health risks and exposures to inform regulatory action; and
- Deploy the Emergency Planning and Community Right-to-Know Act, Consumer Product Safety Improvement Act, and Marine Debris Research, Prevention, and Reduction Act to collect information and data, conduct research, and engage in outreach. This must include pollutant emissions monitoring, data collection on plastic production as well as waste releases.

Opportunity for U.S. leadership at home and in global decisions to end plastic pollution

Domestic actions to wield existing authorities and collaboration among agencies spurred by executive leadership, public engagement, and legislative support are necessary and hold significant promise for the United States to more fully address the human and environmental health crises posed by plastic pollution. Yet it is not the full picture.

Plastic pollution and its detrimental impacts extend globally. Negotiations for a United Nations treaty—a collective effort among nations worldwide to tackle the issues associated with plastic pollution through an international legally binding instrument by 2024 (Global Plastics Treaty)—underscore the imperative for a comprehensive U.S. strategy. The United States has an important leadership role to play in the negotiations and in taking action to meet the overarching goal of the agreement, especially given its significant contribution to global pollution.

The United States’ stated goal, both domestically and in the Global Plastics Treaty negotiations, is to “eliminate the release of plastic into the environment by 2040” and “protect human health and the environment.” The federal government has taken several steps to inform its domestic strategy to achieve these aims.⁹ Adoption of different international instruments hinges on executive or congressional action, but this does not preclude the United States from aligning its laws and policies with international agreements and customs. It often aligns with international treaties and norms, with or without formal adoption. In this vein, the United States has stated a commitment to negotiating an ambitious, innovative, and inclusive Global Plastics Treaty that will facilitate rapid and meaningful progress. As shown in this report, the United States has significant existing legal authorities to support and begin to implement a strong international agreement, one that follows the best available science, adheres to the nation’s longstanding commitment to pollution prevention and reduction, and meets the urgency of this moment in the plastic pollution crisis.



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- 1 Organisation for Economic Co-operation and Development (OECD), *Global Plastics Outlook: Policy Scenarios to 2060*. (Organisation for Economic Co-operation and Development, 2022), page 4, DOI: <https://doi.org/10.1787/aa1edf33-en>.
- 2 OECD, *Global Plastics Outlook: Economic Drivers, Environmental Impacts and Policy Options* (OECD Publishing, 2022), page 14, DOI: <https://doi.org/10.1787/de747aef-en> [hereinafter OECD Global Plastics Outlook].
- 3 An estimated 8MMT. Nat'l Acads. Scis., Eng'g, & Med., *Reckoning with the U.S. Role in Global Ocean Plastic Waste 1* (The National Academies Press, 2022), page 1, DOI: <https://doi.org/10.17226/26132> [hereinafter NASEM Report].
- 4 OECD Global Plastics Outlook, page 40.
- 5 NASEM Report, page 70.
- 6 Efforts to enact legislation to directly address plastic pollution include iterations of the Break Free From Plastic Pollution Act, Protecting Communities From Plastics Act, REDUCE Act, and Plastic Pellet Free Waters Act.
- 7 This report examines laws that could be used to regulate within the life cycle of plastics; a discussion of the on-the-ground implications of these laws is beyond the scope of this report.
- 8 According to the European Parliament, circular economy is defined as “a model of production and consumption, which involves sharing, leasing, reusing, repairing, refurbishing and recycling existing materials and products as long as possible”.
- 9 Monica Medina, *Setting a North Star to Combat Plastic Pollution*, U.S. Dep't of State (Dec. 7, 2022), https://www.state.gov/dipnote-u-s-department-of-state-official-blog/combat_plastic_pollution/; U.S. National Statement for Intergovernmental Negotiating Committee (INC)-1 on Plastic Pollution, U.S. Dep't of State (Nov. 28, 2022), <https://www.state.gov/u-s-national-statement-for-intergovernmental-negotiating-committee-inc-1-on-plastic-pollution/>; see also U.S. *Actions to Address Plastic Pollution*, U.S. Dep't of State (Feb. 28, 2024), <https://www.state.gov/u-s-actions-to-address-plastic-pollution/> (providing an overview of key federal programs that address plastic pollution).



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