TOXINS AND WASTE REDUCTION

Protecting families, workers, and our communities from harmful toxins and reducing waste, such as plastics, electronics, and textiles, that clog landfills and incinerators is critical, especially in the face of potential rollbacks by the federal government.

New Jersey needs to take steps to strengthen laws and rules that evaluate potential risks and ensure safer processes from facilities that use hazardous materials, eliminate lead poisoning in children, and close the cycle of waste with plastics, textiles, and electronics.

Stop Plastic Pollution and Address Microplastics

New Jersey took a huge leap forward tackling single-use plastic waste in 2020 with the passing of the nation's strongest and most comprehensive Plastic Pollution Reduction Law. The law phases out the use of carryout plastic and paper bags, polystyrene foam, and straws. However, other single-use plastics—including plastic bottles, utensils, and packaging—continue to be a threat to the state's public health and economic and environmental futures.

Plastic production fuels the climate crisis with increased greenhouse gas emissions and damages local communities where plastic is made with toxic air and water pollution. Plastic is also a threat to human health. Food and drinks in single-use plastic wrappers and containers expose the population to chemicals linked to many of the known public health crises of our time, including infertility, obesity, ADD/ADHD, and many forms of cancer. And now, researchers are starting to get concerned about the health impacts of inhaling airborne microplastics.

Microplastics

Microplastics are formed when larger pieces of plastic break down into smaller pieces through weathering, wear and tear, and industrial production. Plastic waste can take 20 to 500 years to decompose, but it never fully disappears.

Across the globe, 350 million tons of plastic are produced annually, and this volume is increasing each year, according to PlasticOceans.org. By 2050, global plastic production is projected to triple, and it will account for 20 percent of all fossil fuel consumption. As much as two-thirds of plastic produced then becomes waste.

According to the United States Environmental Protection Agency, the plastic recycling rate in the United States in 2018 was an anemic 8.7 percent. Furthermore, according to data from the

American Chemistry Council cited by the EPA, in 2018 plastics generation was 35.7 million tons in the United States—12.2 percent of municipal solid waste generation. This plastic is then burned or landfilled.

Plastic products typically enter local waterways by means of littering, stormwater runoff, and improper waste management. Once in a local waterway, plastic does not biodegrade. Instead, water currents and sunlight act like paper shredders, transforming larger plastics into microplastic (i.e., plastic about the size of a grain of rice or smaller). To make matters worse, many wastewater treatment plants are unable to capture tiny floating plastics and discharge them into waterways. These microplastics then serve as sponges, absorbing contaminants already present in the water, such as pesticides and heavy metals. Thus, when plankton, fish, or birds mistake microplastic for food, the contaminants adhered to the plastic bioaccumulate and travel up the food web. Microplastics have been found in fish and shellfish tissue, indicating that microplastics are entering aquatic and human food chains.

The solution to plastic pollution is simple: stop it at its source by reducing the amount of unnecessary plastic that is produced, and require producers to shoulder the responsibility for the full lifecycle of their products. Additional bold policy changes are

needed to support the movement away from single-use plastics. All of these changes must be rooted in extended producer responsibility, whereby the originator of these items takes responsibility for zero waste.

PRIMARY CONCERNS

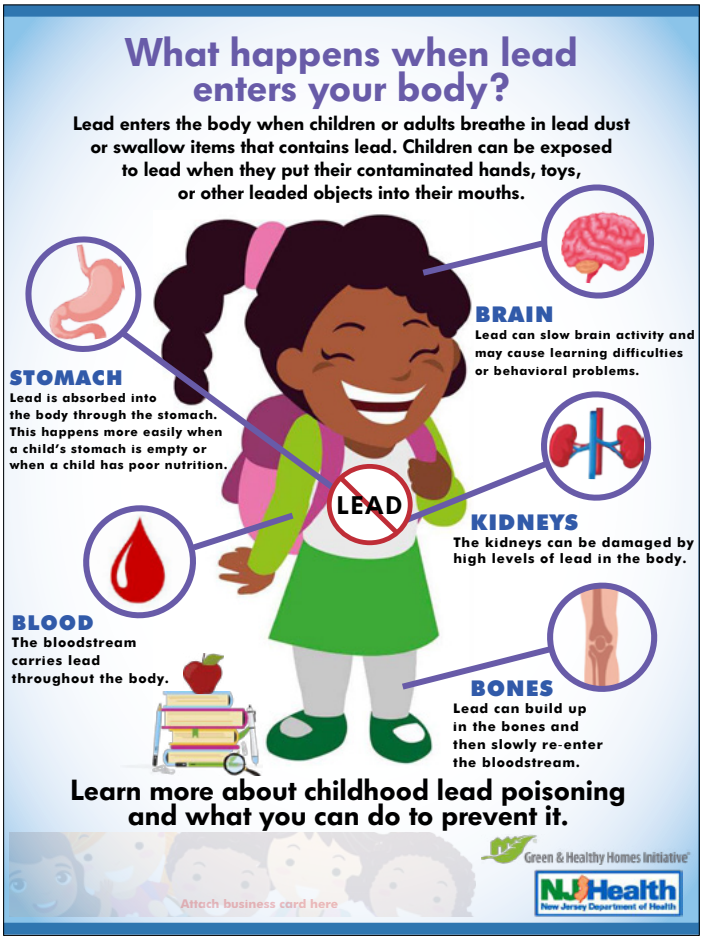
- Plastics manufacturing facilities, along with landfills and incinerators, are disproportionately located in overburdened and vulnerable Black, Brown, and Indigenous communities, exposing those communities to air pollutants from plastics manufacturing and disposal processes.
- From their generation to their degradation into waste, plastics have created a health crisis for humans, wildlife, and marine life. Once in waterways, plastics never degrade; they break down into microplastics.
- Plastics are produced by fossil fuels. The entire life cycle of plastic production fuels the climate crisis with the resulting greenhouse gas emissions.
- Plastics recycling infrastructure and markets are weak. Municipalities have been struggling with rising solid waste and recycling costs.
- Zero-waste systems create over 200 times as many jobs as landfills and incinerators, yielding both the most environmental benefits and the most jobs of any waste management approach.
- Manufacturers are not responsible for the full life cycle of their products. Ultimately, consumers and municipalities pay the price for proper disposal.
- Balloons and their attachments (plastic ribbons, valves, tie-off disks, and clips) present a threat of entanglement and ingestion to birds and marine wildlife, as well as horses, cows, and other animals.

POLICY RECOMMENDATIONS

- Continue to advance the successful implementation of the Plastic Pollution Reduction Act by doing the following:
  - ✓ Ensure robust education and enforcement.
  - ✓ Review the findings of the Plastic Advisory Council, formed as part of the law for monitoring the implementation and evaluation of its effectiveness in reducing single-use plastics and plastic waste in the state. Move forward with recommendations or adjustments to achieve the goals of the law.
- Pass legislation directing the New Jersey Department of Environmental Protection to conduct a needs assessment regarding the recycling of packaging products, and establish the Statewide Recycling Needs Assessment Advisory Council. (See Assembly Bill No. 4902 / Senate Bill No. 1034 of the 2024–2025 legislative session.)
- Pass legislation aimed at prohibiting the intentional outdoor release and tethering of balloons and other floating devices.
- Amplify the importance of shifting to reusable and refillable nonplastic alternatives.
- Enact Extended Producer Responsibility legislation that would require producers of packaging and paper products to develop and implement product stewardship plans that provide for better end-of-life management of their products.

Create Lead-Free Healthy Homes

It is a horrible truth: lead poisoning at an early age can rob children of their potential in life. According to the New Jersey Department of Health's 2022 Annual Report, in New Jersey's large municipalities the average percentage of children 6 to 26 months of age with an elevated blood lead level was 1.4 percent. In Trenton, the elevated blood lead level was 6.5 percent. No child should begin life burdened by lead.



Source: Lead-Free NJ

Most children with lead poisoning are exposed in their homes from lead paint that becomes dust when it is dislodged from windows, doors, walls, and other interior and exterior surfaces. Lead dust spreads to floors, toys, counters, and window ledges, eventually making it to the mouths, lungs, and brains of vulnerable children. Lead is a dangerous neurotoxin that affects a child's learning, memory, and even behavior, as it damages the part of the brain that controls impulse. It may also be found in drinking water and soil where children play.

Lead-poisoned children are six times more likely to be involved in the criminal justice system and seven times more likely to drop out of school. According to studies by researchers at Princeton University and Brown University, lead exposure explains 37 to 76 percent of racial disparities in educational test scores.

New Jersey is a leader among states in many aspects of its response to lead hazards. New Jersey requires universal screening of all children at both ages one and two, and its threshold for public intervention is consistent with the Center for Disease Control and Prevention. State resources are available to nearly every county in the state for the removal of lead hazards, and locally based nonprofits receive state funds to assess and make homes lead-safe before a child can be poisoned. New Jersey and other public entities blended resources to develop a national model for replacing old lead service lines.

PRIMARY CONCERNS

- Lead exposure impacts a child's learning, memory, and behavior.
- New Jersey needs more robust funding for a holistic approach to eliminating lead in homes and neighborhoods.
- Additional protections are needed for renters and pregnant women.

POLICY RECOMMENDATIONS

- **Housing:**
  - ✓ Deliver integrated lead (i.e., in paint, water, and soil), health, safety, and weatherization improvements per home within an expanded statewide Whole House program.
  - ✓ Continue to advance the implementation of New Jersey's law requiring periodic lead paint inspections of certain rental housing units.
  - ✓ Spend down all federal American Rescue Plan Act funds dedicated to the New Jersey Department of Community Affairs' Lead Paint Remediation and Abatement Program by the December 2020 deadline. Secure sustained funding for this program once the federal money expires.
  - ✓ Support legislation that would require the disclosure of lead drinking water hazards to tenants of residential units, and prohibit landlords from obstructing the replacement of lead service lines. (See Assembly Bill No. 2929 of the 2024–2025 legislative session.)
  - ✓ Require that Section 8 rent-subsidized units and affordable housing be inspected for lead hazards prior to occupancy.
  - ✓ Require that home sellers provide a lead risk assessment to buyers, like what is now required for radon.
  - ✓ Streamline application processes for housing improvements by allowing New Jersey Department of Community Affairs applicants to be approved based on their home addresses within a state-approved geographic designation.
- **Health:**
  - ✓ Train community health workers who work with families in the principles of healthy homes.
  - ✓ Require health workers to conduct a healthy homes assessment in client homes and to make referrals to lead services as needed.
  - ✓ Support efforts that increase and standardize reimbursements for childhood blood lead level testing.
  - ✓ Increase local and county health department resources for responses to elevated blood lead levels.
  - ✓ Require health care professionals to perform lead screening on pregnant persons under certain circumstances. (See Assembly Bill No. 4848 / Senate Bill No. 3616 of the 2024–2025 legislative session.)
  - ✓ Invigorate the lead poisoning education campaign so that the public knows to demand lead-safe housing, paint, water, and soil.
  - ✓ Improve the *New Jersey Annual Lead Surveillance Report* by adding geocoded maps of lead surveillance data by census tracts, and make it easily accessible for political leaders, school officials, and the public.

Stop the Growing Stream of E-Waste

Technologies are becoming ever important in our lives, causing an upsurge in electronics sales. Concurrently, the lifespans of these technologies are decreasing, with consumers often buying new devices after just a few years. This causes a rapid and devastating cycle of consumption. In 2019 alone, nearly seven million tons of e-waste was generated in the United States, according to Earth911, and only 15 percent of e-waste was recycled.

The materials used in electronic devices are complex and often valuable, including gold, silver, platinum, and cobalt. However, these precious materials are combined with lead, mercury, dangerous chemicals, and other materials that are toxic to human health and the environment.

While New Jersey enacted the Electronic Waste Management Act in 2011 to put in place recycling standards, it only considers "covered electronics," leaving out many other devices. There is currently no strong national standard that covers the e-waste recycling process, resulting in 25 states with varying recycling processes and regulations. Therefore, no state individually has the market power to incentivize large manufacturers to design more durable products and change practices.

When e-waste is not recycled, it is often sent to commercial incinerators or landfills. Both commercial incinerators and landfills are located disproportionately near low-income and minority communities in the United States, feeding into vicious cycles of pollution burdens and poor public health outcomes. When e-waste is burned, it releases plastics, gases, and metals into the air, contributing to air pollution and climate change.

The precious materials used in electronics can be recovered through recycling, either formally or informally. While formal e-waste recycling has increased in New Jersey in the past few years, informal recycling is much cheaper for producers, so e-waste is still shipped to developing countries, often in Asia, where regulations are less stringent. All told, about 23 percent of developed countries' e-waste is sent to foreign nations.

At these locations, both adults and children work to recover these valuable materials, often without protective equipment or knowledge of the true dangers of the substances they are handling, thereby causing major health issues that can include decreased lung functions, adverse pregnancy outcomes, and behavioral changes. However, many make their living off of the e-waste recycling business.

While recycling standards have improved in New Jersey, the root issue of built-in obsolescence has been untouched. Built-in obsolescence is the practice of technology manufacturers purposely decreasing the lifespan of their products in order to increase product sales over time, thereby ensuring greater profits for their business. These trends are at the heart of the current e-waste issue, and they are not solved through e-waste recycling.

PRIMARY CONCERNS

- Recycling is currently seen as the leading solution of e-waste, but it does not solve the root issues of built-in obsolescence and overconsumption in developed nations.
- Valuable raw materials found in e-waste are often not recovered, causing the producers of new products to drain more of the needed materials for their devices.
- A patchwork of laws across the United States means that no state has enough market share to force companies to design more durable products.
- When e-waste is not recycled, it is often dumped in landfills, where toxins often leech into the local environment, or burned in incinerators, contributing to air pollution.
- Landfills and incinerators in the United States are disproportionately near minority and low-income communities, exacerbating health inequalities.
- Developing nations are being shipped e-waste for informal recycling, greatly harming the health of people and the environment.

POLICY RECOMMENDATIONS

- Incentivize the New Jersey Department of State Business Assistance program to support small and medium electronics repair businesses.
- Support federal or state initiatives, including by the following:
  - ✓ Enacting a right-to-repair law to give consumers an avenue to repair rather than toss their electronic devices
  - ✓ Directing agencies charged with consumer protection to investigate built-in obsolescence as a manufacturing strategy, with public reporting
- Collaborate with other states in the region to create a standard for e-waste recycling focused on extended producer responsibility.
  - ✓ Ensure that companies that produce products are responsible for disposal and/or material reuse.
- Promote leasing programs for electronic devices.

Close the Loop on Textile Waste

Textile waste consists of all-fiber-based products, such as clothing, linens, shoes, etc. Waste is generated at all levels. This includes waste from spinning, weaving, knitting, dyeing, finishing, and consumer use. In clothing alone, Vox reports that 60 percent of garments are made with synthetic materials. These are largely oil-based materials (e.g., polyester, acrylic, nylon), which make them by-products of the fossil fuel industry. This contributes to two large problems: microplastics in waterways and climate change. According to the US Environmental Protection Agency, the recycling rate for all textiles in 2018 was nearly 15 percent, or 2.5 million tons. Landfills received 11.3 million tons of municipal solid waste textiles and 3.2 million tons of textiles were combusted with energy recovery (i.e., incinerated). In a world with finite resources on top of the global threat of climate change, these statistics are quite alarming. Like other waste streams in New Jersey, textile waste is disproportionately incinerated in low-income, minority communities.

Fast Fashion

The Council for Textile Recycling indicates that the average consumer disposes of 70 pounds of textiles per person per year. This can be widely attributed to a cultural shift that is often called "fast fashion." Consumers are expected to follow trends in style that change every week. This has led consumers to increase their purchasing of products while at the same time prioritizing cheaper goods. Items such as garments and home decor are now short-term investments that are expected to become "unfashionable" quickly.

All told, moving toward the establishment of a circular economy (where products have long lifecycles) can help mitigate current waste and disposal trends that negatively impact the planet.

PRIMARY CONCERNS

- The volume of textiles that Americans send to landfills and incinerators as waste is growing, according to the United States Environmental Protection Agency.
- There is a shortage of curbside textile recovery programs.
- The laundering and wear of consumer textiles is the largest contributor of microplastics in our waterways.
- The manufacturing process of synthetic textiles consumes high levels of energy and utilizes oil-based chemicals, all while generating high levels of pollution.
- Preliminary studies show that synthetic fibers likely contribute to poor health in humans.

POLICY RECOMMENDATIONS

- Introduce legislation that incentivizes markets for the recovery of textile waste and mandates extended producer responsibility for the proper reuse or disposal of products at the end of use.
- Request that the New Jersey Department of Environmental Protection create educational resources both on the harms of microplastics and on how to prevent their shedding from textiles.
- Promote circular-economy markets in order to reduce textile waste at all levels of manufacturing and consumer use. This would not only help close the loop for this waste stream, but also create a new economic sector.

What is a Circular Economy?

Rather than the familiar "take, make, use, and dispose" cycle of our current economy, a circular economy is restorative and regenerative in that it takes the waste and disposal aspects out of products, thereby establishing a closed loop for what we consume (e.g., it is shared, repaired, reused, or recycled).

Ensure Workplace Health and Safety

In 1983, the New Jersey Legislature found that, when enacting the Worker and Community Right to Know Act, "the proliferation of hazardous substances in the environment poses a growing threat to…public health, safety, and welfare…and that individuals have an inherent right to know the full range of risks they may face so that they can make reasoned decisions and take informed action concerning their employment and their living conditions." It further declared "that it is in the public interest to establish a comprehensive program for the disclosure of information about hazardous substances in the workplace and community."

This precedent-setting law has protected our health and environment. It has saved countless lives because of its requirements for thousands of New Jersey facilities—from chemical plants to hospitals—to report to the public any chemicals that are used on-site, to label chemical containers, to train employees, and to make hazardous substance fact sheets available. The grassroots campaign for the law—and the impact of the 1984 chemical disaster in Bhopal, India—also led to passage of the state's Toxic Catastrophe Prevention Act in 1986, which required high-hazard chemical facilities to develop comprehensive accident prevention plans.

There are approximately 90 facilities in New Jersey using hazardous materials that are regulated under federal and state law. Almost all of these chemicals are necessary for industry operations, but that does not negate their risks if workers and the public are exposed as a result of an unintended disaster.

PRIMARY CONCERNS

- Potential rollbacks of federal worker health and safety protections place New Jersey workers at risk.
- The state's Toxic Catastrophe Prevention Act was last updated in 2003 and needs to be updated based on new data and threats.
- The transportation of highly hazardous chemicals by rail poses a risk, and rail safety standards lack protections for disasters originating in facilities.
- For both facilities and rail, first responders and the public more broadly should be given more information so that they can be better prepared in the event of a disaster.

POLICY RECOMMENDATIONS

- Strengthen the Toxic Catastrophe Prevention Act.
  - ✓ Formally adopt the Safer Communities by Chemical Accident Prevention rule, which finalizes revisions to the US Environmental Protection Agency's Risk Management Program, to further protect vulnerable communities from chemical accidents, especially those living near facilities in industrial sectors with high accident rates.
  - ✓ Cover industrial warehouses (and potentially other types of facilities) that store large quantities of "hazardous" substances, not just "extraordinarily hazardous."
  - ✓ Improve the rules of the Toxic Catastrophe Prevention Act for the better evaluation of potential risks and the implementation of practicable, inherently safer processes and designs.
  - ✓ Increase public transparency around chemical safety information submitted by facilities to the New Jersey Department of Environmental Protection.
- Support rail safety legislation that requires two-person crews, wayside detectors, the sharing of bridge inspection reports with the state, and limits on the length of trains carrying hazardous materials. (See Assembly Bill No. 4460 / Senate Bill No. 3389 of the 2024–2025 legislative session.)
- Expand the "right to know" for first responders and the public.
  - ✓ Create and expand information-sharing systems for first responders so that they include details about chemicals stored and being transported in their jurisdiction. This way first responders can have the ability to properly respond in the event of a disaster.
  - ✓ Secure funding for additional training for first responders on how to appropriately deal with various chemical disasters.
  - ✓ Increase public transparency, without compromising security, so that the public can take appropriate steps to protect themselves and their communities from chemical disasters.

Eliminate Lead Exposure to Wildlife

Spent lead ammunition and tackle are dangerous when ingested by wildlife and carry long-term environmental impacts. The United States Fish and Wildlife Service prohibited lead shot in the hunting of waterfowl and coots in 1991. Lead has been used to manufacture ammunition and fishing tackle for centuries, though its use is being phased out in many states. Lead ammunition and tackle can be ingested directly by wildlife or dissolved into the soil. Once in the soil, lead can be biologically incorporated into plants and invertebrates, which are then ingested by wildlife. In some parts of the United States, the use of lead shot for hunting waterfowl in North America has been banned. Some states have even more stringent guidelines restricting such uses of lead. These restrictions on the use of lead were successful in reducing lead exposure to waterfowl species, resulting in less lead in animal tissue. In New Jersey, it is illegal to hunt ducks, geese, brant, rails, snipe, or moorhens while possessing shot other than approved nontoxic shot. However, the continued use of lead tackle and lead ammunition in other hunting and fishing pursuits maintains some risk for wildlife. Mortality rates linked to lead toxicity in wildlife remain high in some localized areas despite some legislative action to phase out the use of lead. Scavengers such as condors, vultures, and eagles can be exposed to lead by consuming carcasses of animals harvested with lead ammunition.

There has been an extensive effort in the development, testing, and regulation of alternatives to lead-based ammunition in recent years. Manufacturers have developed nontoxic ammunition that can be used safely in all gauges of modern shotguns, as well as nontoxic rifle bullets. Dozens of substitutes for lead fishing tackle have entered the marketplace in recent years. Nontoxic substitutes for tackle and ammunition include bismuth, steel, tin, and tungsten.

PRIMARY CONCERNS

- According to the Center for Biological Diversity, as many as 20 million birds and other animals die each year from lead poisoning.
- Although there are numerous sources of lead in the environment, research reveals that spent lead ammunition and lost fishing tackle are the most frequent causes of lead exposure and poisoning in wildlife.
- Lead can cause damage to the nervous system, paralysis, and even death in wildlife, and particularly birds. At lower levels, lead causes damage to tissues and organs, the immune system, the reproductive system, and the neurological system.

POLICY RECOMMENDATIONS

- Restrict the use of lead in ammunition and tackle. New Jersey should ban the use of small lead sinkers in all parks and wildlife areas.
- Create nonlead zones in parks and wildlife areas.
- Promote alternatives to lead in fishing and hunting materials.