

COMMENTS SUBMITTED TO U.S. ENVIRONMENTAL PROTECTION AGENCY

EPA's Draft National Strategy to Prevent Plastic Pollution

Docket EPA-HQ-OLEM-2023-0228 (Submitted via Regulations.gov)

July 31, 2023

The undersigned organizations submit the following recommendations on how the *Draft National Strategy to Prevent Plastic Pollution* should be modified and strengthened in order to achieve the Environmental Protection Agency's (EPA) stated goal of preventing plastic pollution. In its *Draft Strategy*, the EPA describes how it "endeavors to provide an innovative, equitable approach to reduce and recover plastic and other waste, as well as prevent plastic pollution from harming human health and the environment, particularly for communities already overburdened by pollution." While these are laudable goals, the proposed objectives and actions largely miss the mark and need to be strengthened and expanded in order for the Agency to achieve its goals.

For the EPA's *National Strategy* to succeed, it must have a greater focus on plastic reduction and toxics elimination, while avoiding false solutions and regrettable substitution. The *Strategy* also needs to include additional protections for fenceline and frontline communities to reduce the harm that plastic production is causing for so many environmental justice communities. It must also commit to more required actions and rely less on voluntary programs. Plastics are a significant contributor to all three planks of the triple planetary crisis that the world is facing: climate change, biodiversity loss, and toxic pollution. It is important that the EPA's *Strategy to Prevent Plastic Pollution* reflect this reality and provide a clear vision paired with strong and meaningful strategies that will truly lead to the end of plastic pollution.

The current set of proposed objectives and actions proposed in the EPA's *Draft National Strategy* will not address the plastics crisis and will allow the exponential growth of plastic production and consumption to continue.

The EPA outlines the following three proposed objectives to prevent plastic pollution in its *Draft National Strategy*: (A) Reduce pollution during plastic production; (B) Improve post-use materials management; (C) Prevent trash and micro/nanoplastics from entering waterways and remove escaped trash from the environment. These three proposed objectives are insufficient to address the plastic pollution crisis and need to be expanded to include the following additional objectives:

- 1. The EPA should include plastic reduction as a key objective.** It will simply not be possible for the Agency to effectively address plastic pollution through its *National Strategy to Prevent Plastic Pollution* without reducing plastic production and consumption. While EPA does include some proposed actions focused on this outcome, plastic reduction is so critical that it must be elevated to become a key objective of the *National Strategy*. Such a move would also reflect the clear international consensus that we cannot recycle our way out of the plastic pollution crisis: reducing plastic production and consumption is imperative.

2. The EPA should add an objective aimed at reducing the toxicity of plastic.

Minimizing the toxicity of plastic will reduce the harms experienced by fence-line communities, better protect consumer health, reduce the environmental impacts of plastic that enter waterways and other ecosystems, and reduce the likelihood that toxic chemicals will be further propagated into a circular economy through reuse and recycling. While all fossil-fuel based plastic has a toxic lifecycle, some plastics and chemical additives are more hazardous than others. Therefore, reducing plastic toxicity should be a core objective of the *National Strategy*. Also, EPA should require disclosure of what chemicals are added to and used to make plastic in order to achieve this objective.

3. The EPA should add the prevention and reduction of pollution during plastic management to its objectives.

The EPA currently includes the dual objectives of (A) reducing pollution during plastic production and (B) improving post-use materials management in its *Draft National Strategy*. However, it is important that the EPA modify objective (A) and/or (B) to also include reducing toxic pollution during plastic management. Such an addition is especially important given the plastic industry's current push to expand so-called "chemical recycling" technologies despite the serious concerns around their harmful impacts. The EPA should not accept or promote any plastic management strategy that generates significant amounts of hazardous waste, or results in other toxic impacts on communities or the environment.

FEEDBACK ON EPA QUESTIONS AND PROPOSED ACTIONS

While we have responded to the series of questions the EPA outlined in the *Federal Register*, as requested, some of the questions are overly focused on plastic pollution impacts to waterways and oceans when the plastic pollution crisis is having much broader impacts that demand attention and consideration. In addition, many of the EPA's proposed actions are too narrow and/or minor to effectively reduce plastic pollution and the toxic impacts associated with all stages of the plastic lifecycle. For these reasons, additional recommendations that address these larger issues with the *Draft National Strategy* are included in the next section of this document and the feedback provided below should be considered in that context.

Which actions are the most important and would have the greatest positive impact at the local, regional, national, and global levels? Which actions can best protect human health and environmental quality? Which actions are most important to address environmental justice and climate change?

As articulated above we believe critically important actions with the potential for great impact should emphasize plastics reduction, reduce the toxicity of plastics, and prevent pollution during plastics management. Of what EPA has proposed the following actions are the most important and will have the greatest positive impacts at local, regional, national, and/or global levels:

- *A1. Reduce the production and consumption of single-use, unrecyclable, or frequently littered plastic products.*
 - This proposed action is absolutely key for protecting human health and environment quality, as well as addressing environmental justice and climate change. The sub-actions A1.1, A1.2, A1.3, A1.4, and A1.5 are also important

since they would help move the nation away from certain kinds of problematic plastics. This action will be most impactful if it is a mandatory or phased-in goal instead of a voluntary one.

- It is critical that this proposed action be expanded to include reducing *all forms* of plastic production and consumption, with a special emphasis on reducing the *most toxic* plastics including PVC, polystyrene and polycarbonate as well as single-use and unrecyclable plastics. The list of sub-actions should also be expanded to include banning all intentionally added microplastics. The EPA should also promote the move away from single use products more generally, and towards non-toxic reuse, including in government procurement.
- *B2. Develop or expand capacity to maximize the reuse of materials.*
 - This proposed action is key for protecting human health and environmental quality, as well as addressing environmental justice and climate change. The sub-actions B2.1 and B2.2 are a good starting point, but need to be significantly expanded to include other actions such as creating mandatory nontoxic sustainable material reuse targets, government procurement rules, interoperability standards to discourage the dispatch of many proprietary reuse systems, and grant programs that promote reuse systems.
 - It is also important that *non-toxic* reuse is maximized since reusable materials can also contain harmful chemicals. Without such considerations, the nation will be faced with the familiar issue of regrettable substitution. For example, reusable containers should be made of durable, non-toxic materials such as glass or stainless steel. They should not be made out of polycarbonate, polyvinylchloride (PVC) or polystyrene since these plastics have a particularly toxic lifecycle and/or are known to leach harmful substances into food and drink. GreenScreen Certified, a certification that embeds consideration of the safety of alternatives, is developing a certification for safer reusable foodware, which will be a useful tool to identify products that don't contain harmful chemicals. A new EPA grant program focusing on promoting the expansion of *non-toxic* reuse is one key action that should be included in this section.
 - The line that currently reads “Innovative systems should be expanded or developed to ensure that existing plastic products are reused as long as possible,” should be deleted from the final strategy document given the need to transition to safer materials and the history of the initial generation of plastic bag bans that actually made plastic pollution worse by incentivizing the distribution of thicker plastic bags under the guise that they were “reusable.” More generally, the EPA should ensure that it is promoting and providing incentives for organized systems of reuse and refill rather than just promoting a shift towards theoretically reusable products which may or may not be actually reused.
- *A2.5: Map existing and proposed plastic production facilities, as well as evaluate their environmental justice and public health impacts on neighboring communities.*
 - This proposed action could be somewhat helpful for protecting human health and environment quality, as well as addressing environmental justice; however, mapping and evaluation alone will achieve little on their own. The EPA should include actions that would have more teeth to prevent continued environmental injustice and incorporate approaches centered around reducing cumulative

impacts. For example, the EPA should follow in the footsteps of the state of New Jersey which recently finalized cumulative impacts regulations that allow and in some cases require permit denials for new facilities that cannot avoid disproportionate impacts on overburdened communities. Incorporating meaningful alternatives analyses into existing permitting and environmental review processes is also a promising element of cumulative impacts assessment, as will soon be required in the state of Massachusetts. From an efficiency perspective, EPA should build on and learn from mapping that has already been conducted and include budgeting for periodic updates.

- *B4.4: Perform an environmental justice assessment for non-hazardous solid waste management facilities, including recycling facilities, incinerators, landfills, and chemical recycling facilities, and for other emerging or novel processes.*
 - Similar to the comments noted for proposed action *A2.5* above, this proposed action could be somewhat helpful for protecting human health and environment quality, as well as addressing environmental justice; however, assessment alone will achieve little on its own. The EPA should include actions that would have more teeth to prevent continued environmental injustice and incorporate approaches centered on reducing cumulative impacts. That said, given the relative dearth of data and great concerns around toxic impacts surrounding “chemical recycling” facilities and other emerging technologies, additional data gathering, disclosure and assessment for these facilities and technologies is needed and would be beneficial.
- *B6.1. Explore possible ratification of the Basel Convention and encourage environmentally sound management of scrap and recyclables traded with other countries.*
 - This sub-objective is key for protecting human health, environment quality and environmental justice at the global level. The U.S. should not be able to export its plastic waste to another country without prior notice and consent from the recipient country, as has been already agreed by 190 other nations under the Basel Convention. This action will also force the U.S. to truly address the plastics crisis since it will not continue to be able to dump its plastic waste in developing nations.
- *C5. Increase and coordinate research on micro/nanoplastics in waterways and oceans.*
 - More research is clearly needed on the presence of micro/nanoplastics in waterways and oceans and such action will be important for protecting human health and environment quality. This proposed action is too narrow, however, since more research and monitoring are needed on the presence of micro/nanoplastics in many other matrices including drinking water, air, wildlife and the human body (blood, breastmilk, organs, etc.). Additional research on the potential health and environmental impacts of micro/nanoplastics is also needed, as well as the release of microplastics from plastics recycling.
 - Moreover, while research is important, the *National Strategy* also should include much more ambitious and concrete actions to address the growing threat of micro/nanoplastics. For example, the EPA should incorporate additional strategies that would actually address the issue of micro/nanoplastic pollution including: (1) banning intentionally added microplastics from cosmetics, cleaning products,

pesticides, waxes, polishes, fluids used in oil and gas production, paints and coatings as has been proposed in the European Union; (2) develop national drinking water standards for microplastics; (3) creating design standards to reduce the release of microplastics from products; (4) setting effluent limitations on microplastics and incorporating them into stormwater permits.

What are potential unintended consequences of the proposed actions that could impact communities considered overburdened or vulnerable, such as shifts in production or management methods?

- *Focusing on plastic management over plastic reduction will lead to serious additional impacts to frontline and environmental justice communities.*
 - Simply put, the current set of proposed objectives and actions proposed in the EPA's *Draft National Strategy* will not address the plastics crisis and will allow the exponential growth of plastic production and consumption to continue. This trend will inevitably increase the harmful exposure that frontline, frontline and environmental justice communities are already experiencing from petrochemical and plastic manufacturing plants. The EPA needs to adopt and implement an ambitious *National Strategy to Prevent Plastic Pollution* with a strong focus on reducing plastic production and consumption in order to prevent serious additional impacts to vulnerable and overburdened communities.
- *Promoting additional plastic recycling and/or composting without eliminating toxic additives will have significant unintended impacts for all communities, including those that are overburdened and vulnerable.*
 - Recycled materials can only be as clean as the materials creating them, and many toxic additives are present in plastic products. If we ban a toxic chemical from a product category today, it will continue to circulate in recycled content for years to come. In addition, recycling processes can create new additional toxic concerns: the use of PVC labels can create benzene in recycled PET plastic, for example. The EPA's own scientific research has found that products made from recycled materials contained greater numbers of fragrances, flame retardants, solvents, biocides, and dyes, demonstrating the issues of contamination of recycled content. EPA scientists have also noted that the "circular nature of the recycling economy may have the potential to introduce additional chemicals into products." If the *Draft National Strategy* promotes plastic recycling, it is imperative that it also contain proposed actions and objectives to eliminate toxic additives from plastic products and ban materials that can create additional toxins in the recycling process.
 - There are many serious issues associated with plastics that are marketed as "compostable" or "biodegradable" that suggest that EPA should not be promoting any form of such plastics. For example, the United Nations Environment Programme recently published a report showing that biodegradable plastics may be just as harmful to marine life as conventional plastic, may persist in the environment for many years, and may also have similar toxicity to conventional plastics. However, if the agency does allow some forms of so-called "compostable" or "biodegradable" plastics to remain on the market, it is critical

that such products do not contain toxic chemicals and are not made from toxic materials themselves.

- *Many of the EPA's statements on "chemical recycling" are problematic and could have unintended consequences for frontline communities.*
 - The EPA was correct in reaffirming that "plastics-to-fuel" processes are not recycling in its *Draft National Strategy* document. Many of the agency's other statements around so-called "chemical recycling" technologies, however, are deeply problematic. The Agency should not be encouraging the use of these toxic technologies as they produce large volumes of hazardous waste, require significant energy inputs, have a track record of economic and technical failure, and would only increase impacts to overburdened communities. Moreover, as one recent report from the Minderoo Foundation found that "given the overall plastic-to-plastic yield is just 20%, referring to these projects collectively as "recycling" is a misnomer."
 - The following statement in the *Draft Strategy* is especially concerning: "EPA is aware of concerns about the potential health and environmental risks posed by impurities that may be present in pyrolysis oils generated from plastic waste. Accordingly, EPA intends to require companies submitting new pyrolysis oil chemicals to the Agency for review under TSCA to conduct testing for impurities that could be present in the new chemical substance prior to approval, and ongoing testing to ensure there is no variability in the plastic waste stream that is used to generate the pyrolysis oil." The toxicity concerns related to pyrolysis oils created from plastic waste extend far beyond just "impurities." The Agency's actions regarding plastic waste-derived mixtures must fully protect fence-line communities and other vulnerable populations, require testing for all potential hazards, and account for climate and other environmental impacts. The importance of such measures is underscored by the EPA's shocking recent approval of a plastic waste-derived mixture that the agency estimated carries a 1-in-4 cancer risk. EPA should not approve these substances under TSCA through the fast track biofuels program.
- *An over-reliance and/or improper implementation of life-cycle analyses (LCAs) to assess the life cycle impacts of plastic could have unintended consequences for overburdened communities.*
 - EPA's proposed action A2.1 includes an objective to "perform life cycle assessments to better understand the health, environmental, social, and economic impacts of plastic products and their alternatives." While we appreciate the need to consider the entire lifecycle of plastics and their impacts, LCAs are highly flawed tools and we discourage their use. LCAs are highly sensitive to data inputs and underlying assumptions and can be easily manipulated by industry actors to produce questionable results. In addition, LCAs typically exclude considerations around toxicity including hazardous waste, toxic air emissions, and toxic impacts to consumers and wildlife. For these reasons, any EPA effort to incorporate LCAs into decision making needs to be done in a very careful, transparent, inclusive and comprehensive manner that includes potential health impacts and recognizes the unique concerns of overburdened communities.

What key metrics and indicators should EPA use to measure progress in reducing plastic and other waste in waterways and oceans?

- We urge the EPA to consider the need for metrics and indicators that measure progress in reducing plastic pollution more broadly than just waste in waterways in oceans. With this expansion in mind, we recommend the following metrics and indicators:
 - U.S. plastic production and consumption of all forms of plastic
 - U.S. production and consumption of single use plastic
 - Toxic emissions from petrochemical plants
 - Cumulative impacts of petrochemical plants
 - Production and consumption of the most toxic plastics
 - Production and consumption of the most toxic plastic additives
 - Levels of micro/nanoplastics found in air, streams, lakes, oceans, and rainwater
 - Levels of micro/nanoplastics found in the blood and bodies of wildlife
 - Levels of micro/nanoplastics found in human blood, breastmilk, placentas, and organs
 - Toxicity of plastic found in air, waterways, oceans, wildlife and humans

What criteria should processes meet to be considered “recycling activities” (e.g., “plastics-to-plastics outputs are ‘recycling’ if these processes reduce the life cycle environmental impacts in comparison to traditional mechanical recycling”)? How should health and environmental impacts be considered in these criteria?

- It is essential that health and environmental impacts be included in criteria determining what processes should be considered “recycling activities.”
 - Hazardous waste generation and toxic emissions are key criteria to consider, especially given that a Natural Resource Defense Council review of eight “chemical recycling” plants in the U.S. found that these facilities can produce significant quantities of hazardous waste and exacerbate environmental injustices.
 - Process yield is also a key consideration, as noted in a recent Department of Energy review and the Minderoo Foundation finding that “given the overall plastic-to-plastic yield [for “chemical recycling” technologies] is just 20%, referring to these projects collectively as “recycling” is a misnomer.”
 - Under no circumstances should plastic to fuel be considered recycling, as the EPA has affirmed in the *Draft Strategy* document. In addition, the Agency should not consider processes which convert waste plastics into chemicals which are then used to make fuels as recycling.
 - The EPA should not allow mass balance to be used in accounting systems for recycled content.
 - Ultimately, “chemical recycling” technologies should not be considered to be recycling given that a US Department of Energy analysis of closed-loop recycling technologies for common plastics found that “mechanical recycling offers energy use and GHG emissions an order of magnitude lower than the other recycling technologies for all plastics, as well as low E-factors [waste generation], land use, toxicity, and water use.”

ADDITIONAL ACTIONS AND RECOMMENDATIONS

As discussed above, the EPA's *Strategy* document needs to be significantly revised and strengthened in order to truly address the plastic pollution crisis. As such, there are many additional actions that should be included in the *National Plastic Pollution Strategy*, some of which complement and implement the revised objectives noted earlier. We have provided a non-comprehensive list of additional actions here in response to the following questions that the EPA posed in the *Federal Register*.

Are there other actions that should be included in the Strategy? Should specific types of plastic products be targeted for reduction or reuse in this strategy?

Do you have any additional information or recommendations for EPA regarding these or other proposed actions in the draft strategy?

- **Reduce toxic and problematic plastics:** The EPA should include actions that ban, phase out or reduce the use of plastics with the most toxic life cycle, including PVC, polystyrene, and polycarbonate. This could be achieved through regulation of key monomers such as vinyl chloride, styrene, and bisphenol A (BPA). All plastics that are forms of PFAS, including fluoropolymers and side-chain fluorinated polymers, should also be banned, as well as all forms of fluorinated plastic.
- **Reduce toxic and problematic plastic additives:** The EPA should include actions that ban, phase out or reduce the use of the most toxic additives to plastic including ortho-phthalates, bisphenols, halogenated flame retardants, perchlorate, benzophenone and related chemicals, UV-328 and related chemicals, heavy metals (including antimony), nonylphenols, chlorinated paraffins, antimicrobials, and PFAS chemicals. Other problematic additives and processing aids should also be phased out, including those that are used in so-called "oxo-degradable" plastics, non-detectable pigments such as carbon black, and problematic label chemistries that can create new toxic issues when recycled.
- **End the polymer exemption under TSCA and test plastics for safety:** Most polymers are exempt from the EPA's health and safety reviews under Toxics Substances Control Act (TSCA) regulations. Given the massive increase in plastic production and universal exposure, such an exemption is not justified and needs to be eliminated. Both new and existing plastics should be tested for safety and not allowed on the market if they pose health or environmental concerns.
- **Reduce single use plastics:** While all forms of plastic need to be reduced to address the plastic crisis, single use plastic is particularly harmful and wasteful and should be among the EPA's first targets in plastic reduction. The EPA should create bold mandates and targets for reducing single use plastic and take measures to ensure that the replacements are non-toxic. Such actions should include, but not be limited to, government procurement measures. A significant amount of plastic packaging is simply unnecessary and could be easily eliminated.
- **Mandate and incentivize non-toxic reuse:** One key strategy to reduce single use plastic is the promotion of non-toxic reuse and the EPA should significantly expand the actions proposed in the current draft related to reuse. In particular, the EPA should establish mandatory reuse targets for different sectors, revise government procurement rules to encourage reuse, promote interoperability standards, and create grant programs that

promote reuse systems. In all of these efforts, the Agency should incentivize or mandate the adoption of non-toxic reuse to avoid well known issues associated with regrettable substitution. Any targets and funding that the EPA has for recycling should be separate from reuse targets and funding to ensure that reuse gets the focus it requires.

- **Require chemical transparency for plastics:** Neither government regulators nor consumers know what chemicals are contained in the plastic products and packaging we are buying and exposed to everyday. The EPA should include actions requiring full chemical transparency on a sector-wise basis as well as a product-by-product basis. The Agency should also explore and promote the use of digital product passports; this tool, which will soon be mandated in the European Union in certain product sectors, has the power to create transparency across the entire supply chain, track chemicals of concern, empower informed decision making, and ensure compliance with regulations.
- **Stronger action on microplastics:** The EPA should include additional actions in the strategy document that extend beyond supporting research such as (1) ban the addition of intentionally added microplastics in products such as cleaning products, waxes, polishes, pesticides, agricultural products, detergents, and paints; (2) add microplastics to the federal Toxic Release Inventory; (3) require drinking water systems to test for microplastics through the Unregulated Contaminant Monitoring Rule; (4) develop enforceable federal drinking water standards for microplastics; (5) conduct or advocate for regular biomonitoring of human blood, breastmilk, organs and tissues for microplastics.
- **Incorporate plastic reduction into climate action plans:** The EPA has been a leader in working to address climate change and should incorporate actions associated with reducing plastic production and consumption into the Agency's climate action plans and programs. The EPA will not be able to achieve its climate goals if plastic production and use continues to grow at its current rate.
- **Cumulative impacts assessment and implementation:** The EPA should follow in the footsteps of the state of New Jersey which recently finalized cumulative impacts regulations that allow and in some cases require permit denials for new facilities that cannot avoid disproportionate impacts on overburdened communities. Incorporating meaningful alternatives analyses into existing permitting and environmental review processes is also a promising element of cumulative impacts assessment, as will soon be required in the state of Massachusetts.
- **No promotion of "chemical recycling" technologies:** The *National Strategy* should not promote or recommend any special treatment for any so-called "chemical recycling" technologies including pyrolysis, gasification, solvolysis, and thermal depolymerization. In particular, the EPA should not allow any exemption of pyrolysis and gasification from Section 129 of the Clean Air Act, and must resist any efforts to modify the definition of waste under the Resource Conservation and Recovery Act to exempt plastic waste. Under no circumstances should the EPA be fast-tracking the approval of plastic waste-based fuels under a program designed to support the expansion of biofuels.

CONCLUSION

The plastics crisis is a major contributor to the triple planetary crisis of climate change, biodiversity loss and toxic pollution. Virtually all plastic is made from fossil fuels, and the oil and gas industry has signaled that they plan to shift their business towards producing more

plastic as the world moves away from burning fossil fuels. Macroplastic pollution has been implicated in the decline and/or injury of many species. Micro/nanoplastics are now ubiquitous contaminants found in air, water, ice and snow worldwide and have been detected in human blood, breastmilk, placentas, lungs, and other organs. Mounting evidence suggests that micro/nanoplastics may be negatively impacting human health and the environment.

The Environmental Protection Agency should use this unprecedented opportunity to develop a *National Strategy to Prevent Plastic Pollution* to lay out a bold plan which will end this environmental and public health crisis. The undersigned organizations urge the EPA to overhaul the draft *Strategy* to place a greater emphasis on plastic reduction, toxics reduction, the development of non-toxic solutions, transparency, and the protection of impacted communities. Actions focused on improving plastic management should be secondary to plastic reduction and should avoid the promotion of false solutions such as “chemical recycling” toxic technologies.

Signed,

Safer States

Alaska Community Action on Toxics

Alliance of Nurses for Healthy Environments

Breast Cancer Prevention Partners

Center for Environmental Health

Clean Production Action

Clean Water Action

Clean+Healthy

Consumer Reports

Earthjustice

Ecology Center

Global Alliance for Incinerator Alternatives

Learning Disabilities Association of America

Natural Resources Defense Council

National Wildlife Federation

Oregon Environmental Council

Responsible Purchasing Network

Story of Stuff Project

Vermont Conservation Voters

Vermont Natural Resources Council

Women's Voices for the Earth