

The Rapids

US EPA's Trash Free Waters Monthly Update

October 2023

epa.gov/trash-free-waters

Introduction

Hello all,

The past month has seen multiple efforts aimed towards reducing plastic pollution in the United States. At the federal level, Senator Jeff Merkley (OR) and 11 other senators have [introduced a bill](#) that would restore Obama-era guidance to reduce single-use plastics in National Parks. Earlier this year, U.S. Representative Mike Quigley (IL) introduced [a companion bill](#) also calling to end the sale of single-use plastic bottles in parks. Senator Sheldon Whitehouse (RI) and Congressman Lloyd Doggett (TX) recently reintroduced [legislation](#) that would incentivize plastic recycling by imposing a fee on the sale of virgin plastic resin used to make single-use plastics. At the state level, California recently passed [Assembly Bill 1628](#), which will require all new washing machines sold or purchased in the state to have filters to reduce microfiber pollution from washing machine effluent.

A new report, [“Towards Ending Plastic Pollution by 2040,”](#) was published this month. The report, commissioned by the Nordic Council of Ministers, lays out a set of 15 global policy interventions that aim to cut volumes of mismanaged plastic waste by 90 percent by 2040 (relative to 2019 levels) and also reduce virgin plastic use by 30 percent. In addition, the report discusses the urgency of reducing plastic pollution and its impacts on biodiversity and health.

Another report I want to share is Planet Tracker’s [“Plastics Executive Compensation: A Report Card for Plastic-Related Companies.”](#) Planet Tracker analyzed 39 large plastic-related companies – from plastic producers to packaging producers, consumer goods companies, and food retailers – and examined how executive compensation is linked to meeting sustainability goals.

Please share any upcoming events with me at nandi.romell@epa.gov so that the Trash Free Waters Team can advertise these opportunities.

Romell Nandi
US EPA
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EPA Announcements

[Biden-Harris Administration Invests More Than \\$100 Million in Recycling Infrastructure Projects](#)

As part of the new Solid Waste Infrastructure for Recycling (SWIFR) funding opportunity, EPA announced over \$73 million in grants for 25 communities across the United States. In addition, EPA has put aside \$32 million for states and territories to improve solid waste management. This unprecedented recycling investment is funded under President Biden’s Bipartisan Infrastructure Law. “Solid Waste Infrastructure for Recycling Grants for Communities” range from \$500,000 to \$4 million per grant. “Solid Waste Infrastructure for Recycling Grants for States and Territories” range from \$360,000 to \$750,000 per grant. Funding will support projects such as purchasing new fleets of recycling collection vehicles or developing or updating solid waste management plans.

One of the SWIFR grants went to the city of Hilo, Hawai'i, a partner city on a Trash Free Waters project working to implement city-scale reusable food ware systems in four U.S. cities. Over \$1.5 million was awarded for "[Reuse Infrastructure for a City-Scale Reusable Food Ware and Refillable Bottle System in Hilo, Hawai'i.](#)" The project will lead to 1 million uses of reusable food ware instead of disposable food ware and will reduce disposable food ware by 500 tons each year.

Funding Opportunities

[Professional Association of Diving Instructors \(PADI\) AWARE Mission Hub Community Grants: Funding Criteria](#)

The PADI AWARE Foundation is awarding grants for ocean protection initiatives and projects that fall under one of five program areas: Marine Debris, Vulnerable Species Protection, Coral Reefs, Climate Change, and Marine Protected Areas. Eligible applicants include nonprofit organizations with operating budgets of less than \$1 million and PADI Dive Centers. Awards may be up to \$10,000 per project. **The application window opens on October 2, 2023, and closes on October 20, 2023.**

[NOAA Marine Debris Removal under the Bipartisan Infrastructure Law](#)

NOAA announced this Fiscal Year 2024 Notice of Funding Opportunity for the development of large-scale marine debris removal projects. These removal projects should focus on large marine debris, including abandoned and derelict vessels, derelict fishing gear, and other debris that is generally unable to be collected by hand. **Applicants may submit letters of intent until October 27, 2023.**

[EPA Seeks Applicants for 2023 Environmental Education Grants](#)

EPA is providing up to \$3.6 million in funding for locally-focused environmental education grants. These grants will focus on projects that help increase environmental literacy or environmentally conscious behaviors in local communities, especially in underserved communities. Each of the ten EPA regions published a solicitation notice, and applicants must apply to the region where their proposed project is located. Grant awards will range from \$50,000 to \$100,000, and 30-40 grants will be awarded nationwide. **The deadline for submissions is November 8, 2023**

[NOAA Marine Debris Interception Technologies under the Bipartisan Infrastructure Law](#)

NOAA announced this Fiscal Year 2024 Notice of Funding Opportunity for the installation, monitoring, and maintenance of proven marine debris interception technologies that will capture marine debris at or close to known marine debris sources or pathways. These proven technologies may include litter traps, shoreline removal technologies, booms, skimmers, conveyors, floating collection devices, and other technologies that do not require additional research and development. **Applicants may submit letters of intent until November 15, 2023.**

[NOAA Sea Grant Marine Debris Community Action Coalitions Opportunity](#)

The Marine Debris Community Action Coalitions Opportunity includes \$3 million in funding to support new coalitions and partnerships that address the prevention and removal of marine debris. This competition is open to anyone in the United States, territories, and Tribal Nations, though applicants must submit proposals in partnership with the relevant Sea Grant Program. **Letters of intent are due December 14, 2023.**

[NOAA Coastal Habitat Restoration and Resilience Grants for Tribes and Underserved Communities](#)

The Bipartisan Infrastructure Law and Inflation Reduction Act provides \$45 million in funding available for improving climate resilience and advancing coastal habitat restoration for Tribes and underserved communities. A portion of this funding, \$20 million, is designated specifically for Tribes. Grantee awards will range from \$75,000 to \$3,000,000. **The application deadline is December 19, 2023.**

[USDA Solid Waste Management Grants](#)

The U.S. Department of Agriculture's Solid Waste Management (SWM) Grant Program has been established to assist communities through free technical assistance and/or training provided by the grant recipients. Public bodies, nonprofits, federally recognized Tribes, and academic institutions within rural areas and towns with a

population of 10,000 or less are eligible to receive SWM grant funds to reduce or eliminate pollution of water resources in rural areas and improve planning and management of solid waste sites in rural areas. Funds may be used to evaluate current landfill conditions to determine threats to water resources, provide technical assistance and/or training to enhance operator skills in the operation and maintenance of active landfills, and help communities reduce the solid waste stream. **The application window closes on December 31, 2023**

[NOAA Sea Grant Marine Debris Challenge Competition](#)

The Marine Debris Challenge Competition provides \$16 million in Bipartisan Infrastructure Law funding to support innovative and transformational research-to-application projects that address the prevention and removal of marine debris. This competition is open to anyone in the United States, territories, and Tribal Nations, though applicants must submit proposals in partnership with the relevant Sea Grant Program. **Letters of intent are due January 31, 2024.**

Other opportunities...

[EPA calls for nominations for 2024 Green Chemistry Challenge Awards](#)

The EPA Green Chemistry Challenge Awards promote the environmental and economic benefits of developing and using novel green chemistry. These prestigious annual awards recognize chemical technologies that incorporate green chemistry into chemical design, manufacture, and use. In 2024, the Awards will also recognize green chemical technologies focusing on circularity and climate change. **Entries are due by December 8, 2023.**

Upcoming Events

[Sustainability Seminar Series: How Technology Enables a Circular Economy for Reusables at Scale](#)

October 3 (5 PM-6 PM ET), virtual

This presentation, hosted by the Stevens Institute of Technology, will discuss the role of technology in the transition to a circular economy. This webinar will feature a presentation by Derek Mak, the founder and CEO of 99 Bridges, which is a tech company focusing on solutions for a transition to a circular economy.

[Endocrine Disruptors in Plastics: State Policy Options](#)

October 3 (7 PM-8 PM ET), virtual

Beyond Plastics is hosting a conversation between New York State Senator Pete Harckham; Pete Myers, Ph.D., of Environmental Health Network; and Megan Wolff, Ph.D., MPH, of Beyond Plastics. The discussion will focus on “endocrine disrupting chemicals,” a term coined by Dr. Myers, and how policy can be used to reduce exposure to these chemicals in plastics. Senator Harckham recently introduced legislation for the state of New York that would reduce plastic packaging, strengthen recycling infrastructure, and ban many toxic plastic additives.

[Sustainable Plastics Live - October 2023](#)

October 3 (10 AM ET), virtual

The Sustainable Plastics Livestream for October will focus on issues related to both chemical and mechanical plastics recycling.

[2023 Sustainability and Circular Economy Summit](#)

October 5-6, Washington, DC

The Sustainability and Circular Economy Summit, hosted by the U.S. Chamber of Commerce, is a convening of corporate sustainability leaders, government and policy officials, nonprofits, academics, and innovators to share sustainability strategies and policies.

[Plastics in Politics Livestream](#)

October 10 (2 PM ET), virtual

This month’s Plastics in Politics Livestream from Plastics News will look at two new industry campaigns, one to defend recycling against public skepticism, and a second to push back against what companies see as regulatory overreach by President Joe Biden’s administration. Other topics include a tax on single-use virgin plastics

returning to Congress and the implications of a push to remove recyclable labels from new all-plastic toothpaste tubes. Plastics News will also talk about priorities with the new head of the American Chemistry Council's plastics division.

2023 North Carolina Marine Debris Symposium

October 11-13, Beaufort, NC

Coastal Carolina Riverwatch hosts this annual symposium that brings together marine debris and plastic pollution prevention stakeholders to discuss recent research, infrastructure, best management practices, policy development, removal projects, and advocacy that prevents plastic pollution.

2023 Plastics Caps and Closures Conference

October 11, virtual

This conference, presented by Plastics News and Sustainable Plastics, will focus on sustainability in the caps and closures market. The conference will feature presentations by key brand owners, manufacturers, and analysts in the caps and closures industry.

North American Association for Environmental Education Conference and Research Symposium

October 17-20, virtual

Workshops & Meetings: October 9-20, virtual

The North American Association for Environmental Education is hosting a virtual conference and research symposium focused on education's role in creating healthier communities and addressing environmental and social issues. The theme of this year's conference is *Together We Thrive* and will feature a schedule of workshops, research panels, roundtable discussions, and more.

Webinar: Investing in Local Leadership to Advocate for Equitable Climate Resilience

October 18 (1 PM-2:15 PM ET), virtual

One session in a six-part series, this webinar will dive into examples of community-based organizations that are developing leaders to support local water equity and climate resilience. The webinar will also highlight River Network's Fostering Community Leadership tool.

Policy Matters: The UN Global Plastics Treaty

October 19 (5 PM-6 PM ET), virtual

This is a Plastic Pollution Coalition webinar covering aspects of the UN Global Plastics Treaty that is currently being negotiated.

2023 Living Shorelines Tech Transfer Workshop

October 24-25, Galveston, TX

Hosted by Restore America's Estuaries and Galveston Bay Foundation, this workshop provides an opportunity to learn about living shorelines and network with professionals, experts, and stakeholders in the coastal and estuarine habitat restoration field. The workshop features a schedule filled with speakers, field trips, and networking events.

National Zero Waste Conference

October 25-26, virtual

The 2023 National Zero Waste Conference is an educational and networking event organized by Zero Waste USA and its partners. Many of the conference activities and speakers will focus on topics related to zero waste and circular economy.

Save the dates for future months...

Keep Florida Beautiful 2023 Annual Conference

November 1-3, St. Augustine, FL

The Keep Florida Beautiful Conference, focusing on sustainability in Florida, offers networking opportunities, speakers from organizations including Florida Wildlife Corridor and Ocean Conservancy, roundtable discussions, and trainings.

2023 Chesapeake Watershed Forum

November 3-5, Shepherdstown, WV

The Alliance for the Chesapeake Bay's 18th Annual Chesapeake Watershed Forum, a watershed-wide event reaching over 400 restoration and protection practitioners to inspire and empower local action towards clean water. The theme for this year's conference is "Private investment in sustainable partnerships to achieve clean water goals," and the conference will highlight successful and equitable examples of these partnerships. Attendees can expect to learn about successful tools and techniques from on-the-ground examples as well as how to build capacities of local organizations, foster partnerships, and incorporate new initiatives and emerging practices into their work.

Webinar: Microplastics

November 7 (1 PM-3:15 PM ET), virtual

The Interstate Technology and Regulatory Council (ITRC) is offering a webinar on microplastics to provide supporting and background information for their 2023 Microplastics Guidance Document. This training is intended for state regulators, environmental consultants, and community and Tribal stakeholders. This webinar will discuss microplastics sources and distribution, human health risks associated with microplastics, prevention and mitigation strategies for reducing microplastics in the environment, and more. Attendees are encouraged to view the ITRC Microplastics Guidance Document before the webinar.

In case you missed it...

Podcast: How is the circular economy gaining momentum in US policy?

This short episode from the Ellen MacArthur Foundation's The Circular Economy Show Podcast, features a discussion with Costa Samaras from the White House Office of Science and Technology Policy on how policy is helping establish the circular economy in the United States.

Policy Matters: Solutions for a Plastic Pollution Free U.S.

In this Plastic Pollution Coalition webinar from September 19, 2023, Jonathan Black from the White House Council on Environmental Quality, Jane Patton from the Center for International Environmental Law, and Joan Mooney from U.S. Department of the Interior spoke with moderator Christy Leavitt about policy solutions for addressing plastic pollution in the United States.

Material Reuse Forum: Creating Policies that Support Reuse

The Northeast Recycling Council hosted a virtual seminar on September 20, 2023. This seminar focused on policies that support reuse and featured presentations by Lauren Zimmermann and Eben Polk of the Portland Bureau of Planning and Sustainability and Stephanie Philips of the San Antonio Office of Historic Preservation.

The Microplastics Breakdown

MICROPLASTICS POLICY

Editorial: Does California Need Another Plastic Bag Ban: It seems so

Editorial Board, *Los Angeles Times*, September 5, 2023

This editorial evaluated the impacts of California's Senate Bill 270, put in place nine years ago, which banned grocers from using plastic bags. The ban was described as allowing grocery stores to hand out thicker recyclable plastic carryout bags that were durable enough to be used 125 times; the sales and use of paper bags was also allowed. According to the article, implementation was put on hold for two years during which time plastic bag manufacturers attempted to repeal it. After the failure of this effort and the eventual implementation, the law was suspended because of the COVID-19 pandemic. The authors described some loopholes they identified, e.g., the reusable and "recyclable" heavier plastic bags that the law allowed grocers to provide were not as recyclable or reusable as had been thought; too many retail outlets were omitted from the ban, including farmers market stands, restaurants, and other stores that were

still free to distribute the thin single-use plastic bags. The editorial board asserted that the only option to significantly reduce the use of plastic bags is for the state to adopt another bag ban that is tougher, goes further and clearly communicates to the public and retailers that disposable plastic bags are unacceptable. **Read the full article here:** <https://www.latimes.com/opinion/story/2023-09-05/editorial-california-another-plastic-bag-ban>

MICROPLASTICS FATE AND TRANSPORT

Rising Seas and Roadway Debris: Microplastic and Low-Density Tire Wear Particles in Street-Associated Tidal Floodwater

Bonnie M. Ertel, John E. Weinstein, Austin D. Gray

This study aimed to quantify MP abundance in tidal floodwater in three locations around Charleston, South Carolina, and investigate the fate of these MPs. The authors described “tidal flooding” as the type of flooding can occur on sunny days with no rainfall. Tidal flooding, they asserted, is increasingly common in low-lying coastal regions as sea levels rise. According to them, this kind of flooding can transport pollutants like microplastics (MPs) and tire wear particles (TWPs) into coastal waters. Samples were taken during 12 tidal floods, and the adjacent tidal creeks were sampled before and after five floods. MP abundance in tidal creek surface water following flooding was found not to have changed post-flooding. This finding suggested to the researchers that MPs were not immediately transferred to coastal waterways but instead were deposited in adjacent marsh sediment. They asserted that the identification of transport routes of MPs in coastal environments is critical to understanding and preventing this type of pollution in the face of a changing climate. **Read the full abstract here:** <https://www.sciencedirect.com/science/article/abs/pii/S0025326X23009360?dgcid=author>

New URI study finds extensive microplastics in Narragansett Bay

Rhony, August 30, 2023

This article, published in *Scientific Reports*, summarized a study conducted by two researchers from the University of Rhode Island Graduate School of Oceanography focused on the abundance of microplastics on the floor of Narragansett Bay. As reported, the researchers estimated that the top 5 centimeters of the floor of the bay contains more than 1,000 microplastic particles, with more than 16 trillion microplastic particles trapped in the top layer of the sediment. Their results also indicated that microplastic particles were particularly abundant in the upper parts of the Bay near Providence. This article asserted the study represented the first such study of the Bay and provides a baseline look at level of microplastics in the Bay. The researchers described the level of plastics being stored in the Bay as “dramatic and startling;” with both being surprised by the quantity of particles. The bay was described as essentially serving as a filter for plastic pollution. It was also observed that coastal habitats are more easily accessible than the open ocean, which makes clean-up more feasible. The microplastics were thought to have originated largely from single-use plastics. The article included recommendations for individual behavior change, while also highlighting the need for larger scale solutions such as statewide legislation.

Read the full article here: <https://www.uri.edu/news/2023/08/new-uri-study-finds-extensive-microplastics-in-narragansett-bay/>

HUMAN EXPOSURE TO MICROPLASTICS

The Adsorption of PAHs on Microplastics and Desorption in the Simulated Human Digestive System

Guoqing Hou, Xiaoli Zhao, Tianhui Zhao, Xiaowei Wu, Shengyan Pu, Zhi Tang, Fengchang Wu

As described in this article, the study was based on the hypothesis that microplastics have a strong binding ability with pollutants and could serve as the carrier of pollutants into the human body, potentially affecting human health. Specifically, the adsorption of Polycyclic aromatic hydrocarbons (PAHs) on different kinds of microplastics (MPs) and desorption behavior in a simulated human digestive system was examined. PAHs were selected as model pollutants, polyethylene (PE) and polymethyl methacrylate (PMMA) were the MPs that were used. The researchers found that PAHs with higher molecular weight were more easily adsorbed on MPs. The adsorption efficiency of PAHs on PE was found to be higher than PMMA. The desorption experiments were conducted in simulated gastrointestinal fluid and the results indicated that the activity of enzymes directly affected the desorption of PAHs. The researchers found that the desorption efficiency of PAHs from the surfaces of PMMA was significantly higher than PE. Additionally, results also indicated that the enzymes in digestive fluid attenuated the interaction energy between MPs and PAHs, causing substantial desorption of PAHs from the

surfaces of MPs. A risk assessment was conducted and the authors found the carcinogenic risk of PAHs desorption from PMMA was higher than PE. According to the authors, their study results provide a better understanding of the adsorption of PAHs on MPs and the potential health risks of accidental ingestion by humans.

Read the full abstract here: <https://doi.org/10.1016/j.cej.2023.145157>[Get rights and content](#)



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