



# THE FLOW OF... TRASH FREE WATERS

## ISSUE 15

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*This newsletter is intended to provide the latest information to all of our Trash Free Waters (TFW) partners and friends.*

*The Flow...of Trash Free Waters is our opportunity to highlight recent successes, as well as shine a spotlight on news and other related items. It is produced by the U.S. Environmental Protection Agency, with support from IEc. Mention of commercial products, publications, or Web sites in this newsletter does not constitute endorsement or recommendation for use by EPA, and shall not be used for advertising or product endorsement purposes.*

## HOW'S IT FLOWING?

### Save Our Seas 2.0

The passage of [Save Our Seas Act 2.0](#) (SOS 2.0) in December 2020 was a milestone effort in addressing marine litter and ocean plastic pollution. This piece of legislation calls for a number of initiatives, programs, and studies that collectively address and examine the marine litter issue domestically as well as enhancing the United States' engagement internationally.

EPA's Trash Free Waters (TFW) and Sustainable Materials Management Programs are working collaboratively with several other EPA Offices to create a Strategy for Improving Post-Consumer Materials Management and Water Management to reduce the amount of trash entering U.S. waterways and the oceans from land-based sources, as directed by Congress under the Save Our Seas 2.0 Act. EPA sees this strategy as an opportunity to work with stakeholders to

develop specific objectives and actions needed in the United States in support of this goal. The Agency will create an implementation plan to execute and track the objectives and actions under this strategy, once finalized. A public comment period is planned for this winter to garner feedback on the contents of the draft strategy.

The TFW Program has also begun developing a report on microfiber pollution on behalf of the Interagency Marine Debris Coordinating Committee regarding the sources, prevalence and causes of microfiber pollution, as required under SOS 2.0. This Report to Congress will also include recommendations for how to measure and reduce microfiber pollution.

SOS 2.0 also called for a number of new EPA grant programs to support improvements to local



waste management systems and to reduce and remove plastic waste and post-consumer materials from drinking water (and its sources) and wastewater. In addition, the Act creates a new Trash Free Waters Grant to support source reduction projects, enhance state and local materials management ordinances and policies, install trash capture devices, provide education and outreach, and conduct waste reduction monitoring. No funding has been appropriated for this grant program to date.

### Increased International Interest in Addressing Marine Litter

In July, the EPA's 16<sup>th</sup> Administrator, Michael Regan, traveled to Italy to attend the [G20 Environment Ministers' Meeting](#). The Meeting included adoption of the G20 Environment Communique that called for renewed actions to tackle sources of marine plastic litter. The ministers also welcomed a G20 report published by the United Nation's International Resource Panel titled "[Policy Options to Eliminate Additional Marine Plastic Litter by 2050 under the G20 Osaka Blue Ocean Vision](#)" which explores both upstream and downstream policy interventions for reducing marine plastic litter.

Recently, the governments of Ecuador, Germany, Ghana and Vietnam hosted a Ministerial Confer-

ence on Marine Litter and Plastic Pollution which brought together the international community to agree to establish an Intergovernmental Negotiating Committee (INC) process to negotiate a new global, legally binding instrument to address plastic pollution. The formal establishment of an INC could take place during the 5<sup>th</sup> United Nations Environmental Assembly (UNEA) in February 2022, should such a UNEA Resolution be adopted by member states. The U.S. is still forming a position on a potential global plastics treaty but stated at the Ministerial that the U.S. is supportive of a strong mandate to address marine litter and plastic pollution as an outcome of UNEA-5.

## HOW'S IT FLOWING?

### Memorandum of Understanding Between EPA and the Mississippi River Cities and Towns Initiative

EPA recently signed a [Memorandum of Understanding \(MOU\)](#) with the [Mississippi River Cities and Towns Initiative \(MRCTI\)](#) to sustainably manage waste and materials and prevent and reduce plastic pollution in the Mississippi River corridor. The MOU aims to help communities in the River corridor demonstrate the positive impact solid waste and water quality improvements made within the communities can have on the

environment and accelerate the reduction of plastic pollution.

The MRCTI is a non-profit organization that promotes economic and environmental security and stability along the Mississippi River Corridor. Its members are mayors of more than 100 communities along the Mississippi River, from the headwaters in Minnesota to the Gulf of Mexico in Louisiana.

Through this MOU, EPA and MRCTI plan to collaboratively:

- Engage with stakeholders in community-driven solutions for plastic pollution along the River.
- Provide technical assistance to communities on waste management and pollution prevention to support their goals for reducing plastic pollution and managing materials sustainably.
- Share results and outcomes of MRCTI projects.

The announcement of this first of its kind agreement was

shared September 16th by EPA Assistant Administrator Janet McCabe, who joined the MRCTI's 10th Annual Meeting to affirm the Agency's commitment to working collaboratively with local stakeholders to address plastic pollution and enhance sustainable materials management. This effort was spearheaded by EPA Regions 4, 5, 6, and 7 with input from several EPA Headquarters Offices.

## STAKEHOLDER ENGAGEMENT

### Trash Free Mystic

Earlier this year, EPA Region 1 and the Mystic River Watershed Association (MyRWA) hosted three public sessions discussing how to reduce the harmful inflow of trash into the Mystic River. The goal of the Trash Free Mystic initiative was to begin developing several project concepts or shared strategies to address trash in the watershed. Sessions included high-level context on the issue and examples of successful trash abatement case studies and pilot projects from within and outside the watershed. Dozens of municipal staff, community leaders, representatives of nonprofits, and volunteers local to the Mystic River watershed attended the meetings. Project partners agreed upon three promising project ideas coming out of the workshops and will be exploring the feasibility of these potential trash mitigation solutions in the coming months. The projects under consideration are: inlet guards and street sweeping; an adopt-a-stormdrain program, and a thorough assessment of escaped trash in the watershed.

### TFW South Atlantic Strategy Development

EPA Region 4 is currently developing a South Atlantic Strategy (SAS) document which aims to help the South Atlantic Region (North Carolina, South Carolina, and the eastern regions of Georgia and Florida) work together with their respective municipalities, businesses, non-governmental organizations, and concerned citizens to explore more effective ways to reduce the amount of litter and mismanaged waste that enters the regional waterways. This preliminary document contains a summary of the stakeholder engagement conducted during 12 assessment interviews, four statewide workshops, and two regional workshops carried out between April and June 2021. Over 150 local stakeholders participated in the interactive virtual workshops, sharing perspectives on region-wide goals and potential projects. This initiative leverages existing work at the federal, state, and local levels and outlines next steps for the region – identification of local project champions and development of a stakeholder-led steering committee to guide implementation of project concepts as resources become available.

### Stormwater Solid Waste Dialogues

Stakeholders in the municipal solid waste and stormwater sectors participated in a series of discussions this spring to identify challenges and opportunities related to addressing aquatic trash through municipal solid waste and stormwater management. EPA hosted these remote stakeholder engagement dialogues in partnership with the American Chemistry Council, the National Municipal Stormwater Alliance, and KCI Technologies. In the coming months, EPA and project partners intend to provide a public-facing summary and takeaways from the discussions. In addition, EPA will provide a list of existing resources that can be used by municipalities to address barriers identified during dialogues.

## LITTER REMOVAL

### Comprehensive Trash Abatement Program for Two Central Alabama Watersheds

The Comprehensive Trash Abatement Program for Two Central Alabama Watersheds officially kicked off in 2020 as a partnership between Freshwater Land Trust and 12 community partners to develop a system of in-stream [Litter Gitters](#), a trash capture device, to collect trash and build support and interest in facilitating cleaner waterways and awareness about littering. The six Litter Gitters originally installed with funding from the EPA Gulf of Mexico Division quickly inspired area communities and businesses to bring the total number of devices to ten. Through the end of June 2021, those devices have collected over 10,400 pounds (over 4,100 cubic feet) of litter over 19 months. Most of the recovered material is plastic (about 55 percent) and Styrofoam (about 28 percent) in the form of beverage bottles, cups and fast-food containers. The collected debris is separated between trash sent to the landfill and that which can be recycled (about 25 percent has been recycled).

Signage has been erected at each trash capture device location to pair trash removal with education. Numerous cleanups have been conducted around the sites by Black Warrior Riverkeeper and Cahaba Riverkeeper subcontractors and other organizations. High school students in the area have participated in a companion Litter Quitters education program, making videos about a trash-free environment that were entered into a televised competition for prizes for their schools. A film documenting the various project activities is currently being developed and will be shared with other U.S. cities interested in learning how they can adopt a similar approach to trash abatement.

—Myra Crawford,  
Executive Director of the Cahaba Riverkeeper



*Images from litter cleanup events supporting the Comprehensive Trash Abatement Program for Two Central Alabama Watersheds project.*

### Use of ETAP in Trash Capture Device Cleanouts

The Tampa Bay Estuary Program was awarded almost \$500,000 via an EPA Gulf of Mexico Division Trash Free Waters grant last year to expand the use of marine debris technologies and data collection efforts to inform trash management and prevention policies. On May 4<sup>th</sup>, Osprey Initiative, Inc. deployed a [Litter Gitter](#) in Clam Bayou, Florida. The Tampa Bay Estuary will be deploying an additional eleven marine debris collectors in three counties within the Tampa Bay watershed this year. Additional device types scheduled for deployment include the [Sea Bin](#) and [Watergoat](#). Project partners are using [EPA's Escaped Trash Assessment Protocol \(ETAP\)](#) to quantify and characterize the debris analyzed through biweekly cleanouts of the various capture devices. This data will be used to create a litter profile that detects what, when and where litter comes

from to inform effective upstream source reduction campaigns in the watershed. According to Joe Whalen, Tampa Bay Estuary Program's outreach coordinator, "The goal is to capture the litter, then identify its source and build partnerships to address it... It's a pragmatic initiative that puts the data into action." Several local [newspapers](#) and [magazines](#) have highlighted the project's goals for the watershed.

ETAP is also being used to monitor and analyze the litter collected via [an in-stream trash boom in Pensacola, Florida](#). This boom was purchased through another FY19 EPA Gulf of Mexico Division Trash Free Waters grant, awarded to the Escambia County Board of Commissioners and Pensacola and Perdido Bays Estuary Program. Project partners view ETAP as a first step, necessary to developing a

baseline understanding of the potential upstream sources of litter in the community. In the coming years, project partners intend to use ETAP data to inform potential partnerships with upstream businesses and organizations to address litter at the source.

The application period for the EPA Gulf of Mexico Division's Healthy and Resilient Gulf of Mexico 2021 Request for Applications (RFA) closed on August 6. One of the funding opportunities under this RFA is titled "Trash Free Waters – Preventing More, Picking Up Less." This TFW RFA seeks projects in the five Gulf States, or within several upstream cities, focused on preventing trash from reaching our waterways. Grant applicants will be notified this winter if they were selected for an award.



## LITTER REMOVAL

### TFW in the Great Lakes Watershed

The City of Toledo was awarded almost \$415,000 in 2020 as a recipient of the FY2020 EPA Great Lakes Restoration Initiative (GLRI) Trash Free Waters Grant Program. The city is using this funding to purchase and install seven litter trapping nets along shorelines and at the mouths of storm sewer outfalls on rivers that drain to Lake Erie. These litter capture nets are calculated to prevent about 2,500 tons of trash and debris from entering Lake Erie each year and expected to improve approximately 25 acres of waterways and 50 acres of adjacent lands. On June 22, 2021, the City of Toledo held a media event at Shantee Creek where the first of the seven trash capture devices was installed. According to Ed Moore, Toledo Director of Public Utilities, "Every year, roughly 2,500 tons of garbage travel through our waterways and out into Lake Erie... Thanks to a new partnership and federal funding, that number will soon be reduced." Over the next two years, the city will be partnering with organizations including Partners for Clean Streams, the University of Toledo, Keep Toledo-Lucas County Beautiful, Toledo Metropolitan Area Council of Governments, Toledo Public Schools, and more on rollout of the initiative. Several engineering students at the University of Toledo have been trained in the [EPA's Escaped Trash Assessment Protocol \(ETAP\)](#) and will be using the tool to collect and assess litter data captured through the devices. Outreach events will also be held in the watershed to educate citizens about the negative impact trash has on health and the local economy.

Two other 2020 GLRI TFW grant recipients, Buffalo Niagara Waterkeeper and Belle Isle Conservancy, hosted coordinated state-wide cleanup efforts in honor of Earth Day this year. Buffalo Niagara Waterkeeper led a week-long trash removal event called the [Great Lakes CleanUP](#) in collaboration with several local Waterkeeper groups. Belle Isle



Photo Credit: The Toledo Blade/Jetta Fraser

*Don Bates adjusts his trash capture device in the Ottawa River's Shantee Creek in Toledo, Ohio on June 22, 2021.*

Conservancy, a critical member of the Detroit River Coalition, helped host a series of [Earth Week activities](#) including cleanups, a photo contest, and educational seminars. Almost 300 volunteers participated in the Earth Day Spring Cleanup event, resulting in the removal of approximately 3,000 pounds of escaped trash and litter. A Bell Isle Conservancy and Great Lakes Now intern, Brionne Davis, documented the [Earth Day Spring Cleanup](#) via one-on-one interviews with volunteers.

In late September, EPA awarded the city of Erie, Pennsylvania \$309,300 and the University of Wisconsin - Oshkosh \$417,830 to keep litter out of Lake Erie and Lake

Michigan. This funding is being awarded as part of the second Great Lakes Restoration Initiative (GLRI) Trash Free Waters grant opportunity. The city of Erie, Pennsylvania will use two types of collection devices to remove floating and submerged trash in Garrison Run, a heavily polluted tributary to Presque Isle Bay and Lake Erie. The city estimates that the devices will stop up to 4,000 pounds of litter and trash from entering the bay and the lake each year. The second grant recipient, the University of Wisconsin - Oshkosh, plans to use the GLRI TFW funding to purchase a trash skimmer boat to collect litter and debris from several key waterways that drain into Green Bay and Lake Michigan.

## LITTER REMOVAL

### Trash Capture in St. Louis

In 2020, EPA's Trash Free Waters Program and EPA Region 7's Land, Chemical, and Redevelopment Division provided \$35,000 to support the development of the Trash Free St. Louis initiative. The [Environmental Finance Center at Wichita State University \(EFC\)](#) has partnered with [Missouri Confluence Waterkeeper \(MCW\)](#) to initiate this pilot project. Floating booms were installed at three sites in St. Louis, Missouri – Blue 2 Blue Trash Trout, Deer Creek; Osprey Litter Gitter Boom, the River Des Peres; and Blue 2 Blue Beaver, Mackenzie Creek – with the goal of reducing floating debris entering the Mississippi River. MCW, in partnership with [Blue2Blue Conservation \(B2B\)](#) and local volunteers, are cleaning out the booms on a monthly basis. Litter trapped by the booms is then counted and categorized using EPA's Escaped Trash Assessment Protocol (ETAP) before this information is shared with the EFC, who then compiles the data and conducts a quantitative analysis of the types of litter found in the devices.

Volunteers pulled 50 gallons of trash out of the Osprey Litter Gitter Boom deployed in the River Des Peres in a recent cleanout. Seventy-eight plastic bottles, hundreds of cigarette butts, and an array of sports balls, Styrofoam pieces, and other plastic debris was recovered from the waterway during the event. Cleanouts at other trash capture device sites have also found large amounts of miscellaneous plastic, as well as more unique debris items including shopping carts and a discarded mower.

The Trash Free St. Louis project has been featured in a variety of [newspaper](#) publications and [radio](#) and [television](#) programs since its launch in February 2021. A local organization, Great Rivers Greenway, created a [video](#) covering the installation of the Deer Creek Trash Trout and outlining the scope of the project in the watershed.



Photo Credits: Missouri Confluence Water Keeper and Blue2Blue

Top: River Des Peres Litter Gitter cleanout. Bottom: Photos taken from a trash capture device cleanout event along the River Des Peres.

## EDUCATION & OUTREACH

### EPA Region 7 TFW Healthy Environments Challenge

EPA Region 7's Trash Free Waters Healthy Environments Challenge (HEC) was launched this spring in an effort to educate students about the impacts of trash in the environment and what they can do to help prevent it. The HEC is a social media challenge that was created by one of six volunteer teams in the Region 7 Trash Free Waters Program to provide a unique opportunity for youth involvement in the nation's trash problem. Teachers, educators, parents, and organizations can use the Trash-Free Waters Healthy Environments Challenge activities to:

- Develop student understanding of EPA's role in the protection of human health and the environment, the impact of trash and plastic items on water quality, wildlife, and human health, and how community responsibility can prevent waste from entering waterways;
- Foster student-driven ideas to prevent trash and plastic items from impacting the nation's water quality, wildlife, and human health; and
- Challenge others to participate in this social media challenge via friendly competition using the hashtag #HealthyEnvironmentsChallenge.

Region 7's [HEC webpage](#) features resources for parents and educators, a classroom activity sheet including art and trash clean-up ideas, and an explanation for how to get involved in the initiative, including a fun instructional video.

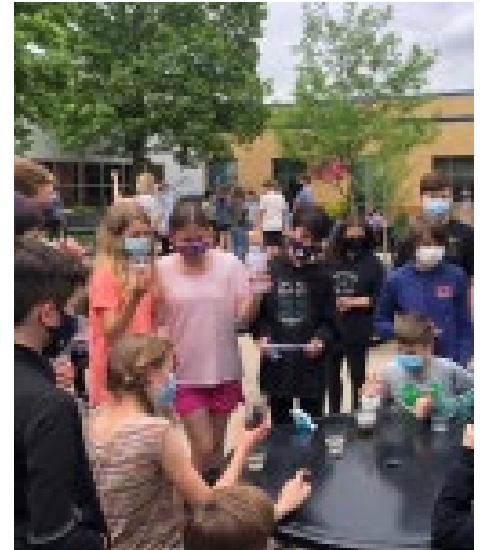
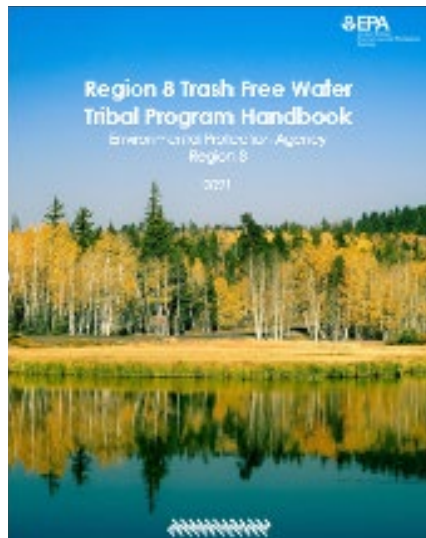


Photo credit: Brian Van Batavia – Principal of Maple Park Middle School (in the North KC School District).

Maple Park Middle School Kansas City, MO – School Art Project made with recycled materials.

### EPA Region 8 Tribal TFW Handbook

The EPA Region 8 Trash Free Waters team, with assistance from EPA Headquarters (HQ), recently began developing a Tribal Trash Free Waters Handbook. The overall goal of the handbook is to share key components of the TFW program and opportunities for Region 8 Tribes to develop and implement TFW projects that align with Tribal water quality goals. This handbook will be a resource for Tribal Environmental Directors, Water Quality (106) coordinators, Solid Waste Coordinators, and other Tribal partners. The handbook includes information on the potential hazards of trash in waterways, how to implement a TFW project, and how to identify funding opportunities. Two Tribal trash-related case studies are highlighted in the handbook, including a project in Region 8 with Sisseton Wahpeton Oyate Tribe. For this project, the Region 8 TFW team worked directly with the Tribe to mitigate trash in a priority recreational waterbody within the reservation. The handbook is expected to be published in Fall 2021 and will be posted on the [EPA TFW website](#). EPA Region 8 plans to host a webinar with Region 8 Tribes in late 2021 or early 2022 to introduce the TFW Tribal handbook. EPA Region 8 will also share lessons learned with TFW coordinators in other EPA Regional Offices and help identify opportunities to adapt this document for use by Tribal partners throughout the United States.



### 2021 Mid-Atlantic Marine Debris Summit

The 2021 Mid-Atlantic Marine Debris Summit, hosted by the Mid-Atlantic Regional Council on the Ocean (MARCO), brought together policymakers, researchers, businesses, non-profits, and the public to discuss science, technology, policies, and initiatives related to marine debris prevention in the Mid-Atlantic region.

EPA's Trash Free Waters ORISE Fellow, Gabby Neusner, gave a presentation on the Trash Free Waters Program during the "Federal and Regional New Initiatives" session on the first day of this three-day summit. Her presentation to an audience of around 110 people provided an overview of the program and highlighted several Trash Free Waters initiatives in the Mid-Atlantic region. To view Gabby's presentation and to hear from other experts in the field of marine debris, [view the recordings of the July summit](#).



## EDUCATION & OUTREACH

### Encouraging Proper Curbside Disposal in D.C.

The Curbside Disposal Education Campaign Pilot took place from July 2020-May 2021 and was rolled out in Washington, D.C. through a partnership between EPA's Trash Free Waters Program and the local district government, including the D.C. Mayor's Office of the Clean City (MOCC), D.C. Department of Public Works (DPW), and D.C. Department of Energy and Environment (DOEE). The primary goal of this initiative was to educate residents about proper waste containment and encourage behavioral changes to reduce unintentional leakage associated with curbside municipal trash collection.

A total of 8,000 DPW-serviced, single-family homes in four target neighborhoods were selected to receive a campaign sticker, which was accompanied by material explaining the purpose of the campaign and how to apply the sticker to their municipal trashcans for a point-of-contact reminder about best practices. Average litter scores were measured by project partners on a

weekly basis for 22 weeks along 1-mile representative routes in each of the four neighborhoods. To assess impact measurement, litter scoring was conducted for the eleven weeks leading up to sticker distribution and the eleven weeks following distribution. Project partners also used these representative routes to collect weekly data on compliance with the four specific recommendations outlined on the stickers and, after distribution, counted the total number of stickers applied to cans.

Our analysis suggests that although the improvements tended to be small to moderate, this educational program had an overall positive impact on the target communities. In particular, there was a statistically significant reduction in the number of overflowing trashcans and number of overflowing and open trashcans combined across all neighborhoods. EPA is compiling a case study narrative which will provide interested parties with important findings and recommendations to inform



*Washington D.C. garbage photographed along the weekly data collection route, featuring the Curbside Disposal Education Campaign sticker and practicing proper disposal behaviors.*

successful adaption and adoption of the Curbside Disposal Education Campaign in other communities. This study, which includes an explanation of the data collection methodology used, the statistical analysis, additional narrative insight, and an example project timeline and cost estimation, is expected to be published this fall.

### Congrats to the AMA Competition Winners from Cal Poly-Pomona!

On August 31st, EPA announced the marketing students from California State Polytechnic University-Pomona (Cal Poly Pomona) as winners of the "2020 American Marketing Association (AMA)- EPA Trash Free Waters Video and Marketing Brief Competition" via [Twitter](#) and [Facebook](#). The winning video is both professional and creative while also providing an inspiring call-to-action. The students' 30-second video targets college-aged students, citing that the ~14.5 million college students in the United States alone can create a major impact on the nation's waters by reducing their daily consumption of single-use plastic products, and therefore, help prevent aquatic trash. The video's slogan calls for students to help "Repair the Future," stating "We are the next generation of doers; the change starts with us." Congratulations to students Anthony

Venegas, Sachita Subramanian, Adam Guarena, and Shikha Bhasin from California Polytechnic for their hard work!

This national competition capitalized on the innovative ideas of university marketing students to help advance the TFW cause. A total of 21 student-made submissions were shared with EPA in March 2020. Each participating university developed and produced a 30-second compelling video around the issue of keeping trash out of the nation's waterways. Video content ranged from educating viewers on how stormwater conveyances can transport improperly disposed of trash and recyclables into our oceans to urging viewers to participate in local waterway cleanups and invest in reusable beverage containers and foodware. Competition entries were complemented by a short marketing brief outlining potential engaging, relevant, and

relatable ways to market the video and overall cause to bring about behavior change. The judging panel was comprised of representatives from AMA, the National Environmental Education Foundation, EPA (the Trash Free Waters Program, the Office of Public Affairs, and the Office of Multimedia), and the CauseWay Agency (a contracting firm).

The winning video points viewers to a TFW webpage titled "What You Can Do About Trash Pollution in Your Waterways." This page was designed to encourage members of the public to reduce the amount of trash they produce, to dispose of trash properly, to participate in various forms of community outreach like beach cleanups, and to be actively engaged in the issue. The video, along with several competition runner-up videos, may be used in future place-based TFW projects.

## NEW RESOURCES & PUBLICATIONS

### Trash Free Waters Project Announcements

#### EPA's Escaped Trash Assessment Protocol (ETAP)

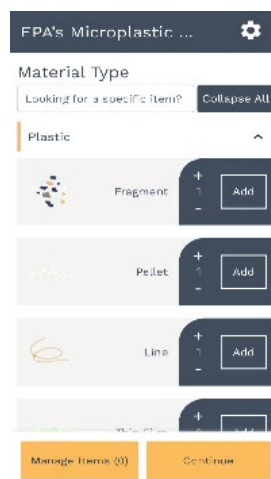
[EPA's Escaped Trash Assessment Protocol \(ETAP\)](#) is a quantitative survey tool that provides practitioners and citizen scientists with a standard, comprehensive and rigorous method for collecting and assessing litter data and quantifying trash loadings. The ETAP tool can help communities characterize and quantify trash pollution and identify tailored management practices to mitigate trash loadings into waterways. This highly adaptable method was designed to answer a broad range of management and monitoring questions. For example, the tool can be used to quantify and compare trash loadings across time, habitat type, land use type, etc. as well as identify trends in the specific material types and categories of trash collected. The ETAP methodology is flexible, allowing for additional features and modifications, such as screening for certain types of items or product brands. The protocol can also be used to assess item age and level of fouling.

The ETAP tool was pilot tested by a number of organizations over the past few years. The Southern California Coastal Water Research Project (SCCWRP) and San Francisco Bay Estuary Institute (SFEI) tested the protocol and later incorporated it into the [California Trash Monitoring Methods and Assessments Playbook](#). This playbook serves as a library of trash monitoring methods comparing levels of precision, accuracy, cross-comparability of results, and ability to answer different management questions. A thorough review of ETAP is included in the analysis.

A mobile version of ETAP called the "Gulf of Mexico Partnership" is now accessible via the [Marine Debris Tracker \(MDT\)](#), available for free on all smartphones. This itemized list on the MDT app was designed for use by Gulf of Mexico stakeholders but is consistent with EPA's Escaped Trash Assessment Protocol. The MDT application allows partners to use the MDT tool wherever they may be collecting data. A [Standard Operating Procedure \(SOP\)](#) and companion materials are available to help users categorize and analyze collected debris following ETAP.

#### EPA's Protocol for Collecting and Analyzing Microplastics Samples

The TFW Program also recently released [EPA's Microplastic Beach Protocol](#), a tool designed to help community scientists collect data on microplastic pollution along both freshwater and marine beaches and shorelines. Using this protocol, volunteers can collect important data that can be used to characterize current levels of microplastics pollution and look for local, regional, and global trends. The protocol was originally developed by the 5Gyres Institute and has since been updated and revised by EPA. Users are able to access a mobile version of EPA's Microplastic Beach Protocol via the Marine Debris Tracker app. This guide provides an introduction to microplastics, an outline of how to collect and analyze samples using the protocol, and instructions for using the Marine Debris Tracker app to log data.



*Marine Debris Tracker app microplastics data entry screen.*

#### Guidelines for Including Trash Provisions in MS4 Permits

[The Trash Stormwater Permit Compendium](#) is the latest in a series of Compendia developed by EPA as technical resources for stormwater permit writers. The primary purpose of the Trash Stormwater Permit Compendium is to provide stormwater permit writers with examples and information they can use to develop effective trash-related provisions for Municipal Separate Storm Sewer System (MS4) permits. The compendium is also a useful tool for stormwater management planners, municipal watershed planners, and others interested in how to incorporate effective trash control measures into their planning documents. The resource includes select excerpted permit language from stormwater permits, best management practices, and case studies.

#### Managing Urban Litter StoryMap

The Urban Waters Learning Network (UWLN) recently published an interactive storymap titled "[Managing Urban Litter](#)." Coordinated by River Network and Groundwork USA and funded by EPA's Office of Water, UWLN is a peer-to-peer network of professionals that strives to connect people and share success stories. This storymap provides examples of successful litter management projects from across the nation, including a mix of strategies such as source prevention, citizen science, community education, partnerships, and research. The resource highlights numerous TFW-funded case studies, including trash removal and prevention in Proctor Creek and the "Stopping Trash Where It Starts" initiative in New York. The tool also points to several TFW resources such as the Escaped Trash Assessment Protocol (ETAP) and the National Great Practices Compendium. The storymap places emphasis on the importance of behavior change in reducing the flow of trash into our waterways.



### New TFW Article Published on Trash in the Mississippi

The Trash Free Waters Program recently released an in-depth article titled "[Plastic Pollution in the Mississippi River – Regional Cooperation for a Transboundary Problem](#)." This article examines the issue of plastic pollution in the Mississippi River Basin and describes how an exciting new regional effort, The Mississippi River Plastic Pollution Initiative, is addressing the problem through citizen science and community outreach and education.

### Chesapeake Plastic Pollution Action Team Research

The goal of The Chesapeake Bay Program's Plastic Pollution Action Team (PPAT) is to reduce the presence and impacts of plastic pollution on the Chesapeake Bay and its watershed. The PPAT, in coordination with EPA Region 3 and Tetra Tech, has developed a series of [tools](#) to help address the Chesapeake's plastic pollution problem. These tools include: 1) a uniform size classification and unit terminology document to enhance consistency among research in the Chesapeake Bay; 2) a preliminary conceptual ecological risk assessment for microplastics on striped bass; and 3) a microplastics science and monitoring strategy for the watershed. The PPAT is laying the necessary groundwork needed to begin addressing the rising concerns of microplastics in the Chesapeake Bay watershed.

### Recommended Reading

The Commission for Environmental Cooperation (CEC) developed a [Reducing Marine Litter Through Local Action](#) toolkit for engaging urban, suburban, and rural communities (located in both inland or coastal areas) in trash prevention and reduction. The accompanying "[Last Stop: The Ocean](#)" Campaign Toolkit and website uses creative illustrations to emphasize the interconnectedness of our waterways, river systems, and shared watersheds. These resources are offered in English, French, and Spanish.

The [Keep America Beautiful 2020 National Litter Study](#) was published in May of this year. This one-of-a-kind report looks at both quantitative and qualitative data composed of four components: Observed Litter, Littering Behavior, Attitudes About Litter, and the Cost of Litter. Data were collected from across the nation: 240 roadway sites, 189 waterway sites, 181 non-roadway sites, and 126 behavioral sites.

The [U.S. Plastics Policy Roadmap to 2025](#), was released this summer through a collaboration between the U.S. Plastics Pact, a consortium led by the Recycling Partnership and World Wildlife Fund (WWF) as part of the Ellen MacArthur Foundation's (EMF's) global Plastics Pact network, and

the Product Stewardship Institute (PSI). This roadmap engages nearly 100 organizations and outlines steps to realize a circular economy for plastics in the United States.

The Sustainable Packaging Coalition announced the release of a [Guide to Extended Producer Responsibility Proposals: Packaging Legislation and Policy Positions](#) in July. This interactive tool breaks down bills and policy positions by key elements and allows users to view recent proposals, compare various bills and policy positions, and develop a better understanding of the current landscape of EPR for packaging in the United States.

### Nurdle Patrol Update

The Nurdle Patrol has performed 9,648 surveys since it began in November 2018. Over 4,500 volunteers have surveyed 4,325 different sites since the program began. More than 1.6 million nurdles from Gulf of Mexico-area beaches, riverbanks, and lake shorelines have been removed to date by Nurdle Patrollers. All collected nurdle data can be browsed via a map on the [Nurdle Patrol website](#). In other news, the Nurdle Patrol phone app is now available for both Android and iOS devices and can be used to conduct surveys while out in the field. In addition, Nurdle Patrol efforts have [expanded](#) upstream into the Mississippi River. Be sure to participate in the [Great Global Nurdle Hunt](#) to encourage nurdle surveying across the world during the month of October.



*Plastic pellets, or nurdles, collected through the Nurdle Patrol citizen science project.*

Photo Credit: Jace Tunnell of the Mission-Aransas National Estuarine Research Reserve at the University of Texas Marine Science Institute.

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### The Rapids

Join the TFW contact list to receive the Flow newsletter and Rapids email blast in your inbox! Our Rapids email is published on the first Monday of each month, providing helpful insight on funding opportunities, upcoming webinars, a summary of recent microplastics research, and more. If you aren't currently receiving this info, [sign up here](#).