

THE FLOW OF... TRASH FREE WATERS

INSIDE THIS ISSUE

How's it Flowing? 1

Highlighting Success 1

Grassroots Conservation Group Works to Protect the Anacostia 2

CSO-Free Rivers 2

Flotsam and Jetsam Launched to Clean Up D.C. Rivers 3

Regional Ocean Planning 4

Partnering with the Urban Waters and National Estuary Programs to Address Trash Prevention and Reduction 4

Trash Free Trinity 6

The Rapids: News Drops 6

How's it Flowing?

Greetings to all readers of The Flow! I'm Surabhi Shah, Chief of the Partnership Programs Branch in EPA's Office of Wetlands, Oceans and Watersheds (OWOW). I'm pleased to introduce the 7th edition of our Trash Free Waters newsletter. Since the last edition, there have been important organizational changes in OWOW. Ordinarily, such changes do not rate a newsletter announcement. However, the recent reorganization has grouped Trash Free Waters with two other major place-based water programs: Urban Waters and the National Estuary Program. Keeping trash out of the water is a priority in communities of all sizes and in our major national estuaries – as well as

the watersheds and coastal regions that feed into them. The combination of these three programs under a 'partnerships' theme opens doors for collaboration across the programs themselves but also among the huge number of stakeholders in the places where we work. In this way, we hope to make Trash Free Waters activities more effective and impactful. Already, we have started planning to connect complementary projects and address cross-cutting issues, both in specific locations and at the national level.

I'm mindful that the roots of the Trash Free Waters program lie in earlier work to reduce trash in coastal areas and the ocean. That remains a vitally important goal, and we will

continue to work in partnership with those programs in other parts of OWOW, and also EPA's international office and outside organizations that address trash prevention globally. But I'm very excited that the creation of OWOW's partnerships group will open doors for collaboration to achieve Trash Free Waters goals in every region of the U.S. As always, we welcome and appreciate your engagement with us in this important work. Don't hesitate to reach out to the TFW team or anyone else who works with OWOW's place-based partnership programs to share your ideas and discuss how EPA's water partnerships can help you achieve your trash free waters goals!

—Surabhi

Highlighting Success

The TFW program promotes actions and projects that are results-driven, measurable, and achievable. A common problem when implementing and executing a TFW project is developing data that support a measurable result. In a given action or project, examples of data that can be quantified are: Reduction in the number of plastic bottles/bags used per unit of time; Amount of money saved; Labor hours saved; Mass or volume of trash prevented from going into a landfill or water body; Number of storm drain overflows; Number of littering citations; Volume or percent of trash recycled or otherwise diverted; Number of participants; and/or Mass or



Approximately 80% of aquatic trash comes from land-based sources.

Photo courtesy of the Trinity River Authority of Texas

volume of trash collected. As you continue to implement and execute TFW-related actions and projects, we encourage you to quantify your data and have a baseline to compare the data to. Actions and projects that are results-driven, measurable, and achievable can then be featured in the TFW National

Great Practices Compendium. There are many great practices out there, and we would love to highlight them!

Contact: Bob Benson
TFW Program Lead
202-566-2954
Benson.Robert@epa.gov

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

We continue to move the needle on reductions of aquatic trash in the regions in which there is work underway. With projects wrapping up, new efforts come online. We are even developing "Second Gen" TFW projects in key areas where the energy levels are high.

The Flow is our opportunity to highlight recent successes, as well as shine a spotlight on news and other related items.

Grassroots Conservation Group Works to Protect the Anacostia

The Anacostia River, the lesser known river of Washington D.C., is symbolic of District living and all the area has to offer. The Anacostia used to be quite thriving and healthy and was historically fringed with emergent, diverse wetlands, and habitats that made homes for animals from birds to bears. Shad and other fish species thrived there. First mapped by Captain John Smith in 1612, the Anacostia River unfortunately became highly degraded in the Twentieth Century due to erosion, wetland loss, and polluted runoff and sewage as nearby industrial practices intensified and

population growth increased. Fast forward to 1990 and the D.C. waterfront area of the Anacostia River was a dumpsite for industrial machinery. There was no waterfront access, 90% of the wetland cover was gone, and the river banks were lined with abandoned buildings. That's where Earth Conservation Corps (ECC) stepped in. A grassroots conservation organization, ECC has dedicated itself to engaging youth and locals on issues of conservation, specifically regarding the Anacostia River. They are focused on making the water cleaner through group clean-ups,

properly managed trash traps, wetland restoration, water quality testing, and community engagement and awareness. Their 2017 project is working to create new space and includes the installation of brand new trash traps. Because run off transports litter to the river and restored wetlands meet, trash traps were installed in the area near the Washington Nationals Park. This was done through a joint effort with D.C.'s Department of Energy and Environment (DOEE) to meet the District's TMDL for the Anacostia River. ECC helps weigh and sort the trash in

the traps and sends their data to DOEE. A graduate of Woodrow Wilson High School named Shawn was recruited for the ECC Youth Program. He worked on water quality testing and the installation of the trash traps and recalls the trash traps were his favorite part. He analogized, "The wetland is like my room and if you see trash in your room, you don't want it there, so you clean it up. That's like the trash trap."

—Ashleigh Armentrout
ORISE Fellow
Armentrout.Ashleigh@epa.gov



CSO-Free Rivers

In early May, Grand Rapids, Michigan hosted the annual River Rally, where EPA ORISE fellow Emma Maschal was able to speak with stakeholders to discuss the best ways to address the issue of aquatic trash. The consensus found at this forum was that there are many different approaches to dealing with trash and each is based on differing community needs. But the most important part of the conversations focused on the compound benefits that communities receive from initiatives to reduce trash pollution.

Projects aimed at preventing aquatic trash help communities see a visible change, while they reap the benefits in other areas of community effort, such as green (or blue) space restoration. Here's the thing about trash pollution – all of our infrastructure systems are linked. Transportation systems and stormwater systems, like impervious surfaces and roads and drain outfalls, are conduits for litter to get into nearby waterways. This means that management of solid waste should complement other infrastructure systems in order to prevent trash pollution in our waterways.

For example, the City of Grand Rapids no longer has any combined sewer overflows (CSOs). They reached their goal of eliminating CSOs in 2015 almost four years ahead of their target date. In the works for over 30 years, this initiative addresses a number of water quality standards through the use of stormwater management. Trash reduction may not have been the primary goal of the project shutting down the CSOs, but the closure of 59 sewer overflow and discharge sites into the Grand River has led to a reduction in trash entering waterways through the sewer system, a prime example of how infrastructure and aquatic trash are directly linked.

Combined sewer systems are sewers that are designed to collect rainwater runoff, domestic sewage, and industrial wastewater in the same pipe. Most of the time, combined sewer systems transport all of their wastewater to a sewage treatment plant, where it is treated and then discharged to a water body. During periods of heavy rainfall or snowmelt, however, the wastewater volume in a combined sewer system can exceed the capacity of the sewer system or treatment plant. For this reason, combined sewer systems are designed to overflow occasionally and discharge excess wastewater directly to nearby streams, rivers, or other water bodies. These overflows, called combined sewer overflows (CSOs), contain not only storm water but also untreated human and industrial waste, toxic materials, and debris. They are a major water pollution concern for the

approximately 772 cities in the U.S. that have combined sewer systems. The work done to close the CSOs in Grand Rapids, Michigan was funded through the Clean Water State Revolving Fund – a partnership between EPA and the states. It is not the end of litter in the river, but it's a step in the right direction for preventing aquatic trash and other pollutants from reaching the Great Lakes.

—Emma Maschal
ORISE Fellow
Maschal.Emma@epa.gov

Flotsam and Jetsam Launched to Clean Up D.C. Rivers

Two new skimmer boats—christened *Flotsam* and *Jetsam* as the result of a social media naming contest—were launched in May 2017 to aid in the cleanup of trash in Washington, DC's Anacostia River. The new boats replaced older models that had been in service for more than a decade, and are bigger and faster. The boats are owned by DC Water, the city's water and sewer authority. Each vessel is 50 feet long, 13 feet wide and cost the City approximately \$484,000. Each is equipped with a metal conveyor belt that glides along the water's surface, capturing floating trash. The skimmers are but one weapon in D.C.'s trash reduction arsenal, which includes a 5-cent plastic bag tax, a ban on foam food containers, trash traps that capture trash before it reaches the river, and cameras to monitor "hot spots" where dumping occurs. In 2018, DC Water will also implement the first stage of an underground tunnel system to reduce sewer overflows to the Anacostia. More information is available at www.dewater.com.

—Alice Mayo, EPA
Mayio.Alice@epa.gov



Regional Ocean Planning

Made up of State, Federal, and Tribal representatives, the Mid-Atlantic Regional Planning Body (RPB) was organized to create an Ocean Action Plan for the Mid-Atlantic Region (Mid-A-OAP). Certified by the National Ocean Council, the Mid-A-OAP was published December 7, 2016. The RPB holds semi-annual public meetings to share status reports on the work outlined within the Mid-A-OAP. Opening the floor for a 30-day public comment period, the RPB's June 20, 2017 meeting provided stakeholders with an opportunity to weigh-in on the draft work plan, so that the RPB will have time to address and adapt to public query before the next public meeting in December.

The RPB's public meetings are meant to provide transparency into the ocean

planning process. A number of working groups within the RPB presented their progress reports. Represented by Buddy LoBue, of EPA's Region 2, the Marine Debris Work Group presented on the research gathered for the development of "a regionally appropriate strategy for marine debris reduction." As outlined by the Mid-A-OAP, the RPB will support and "build on the efforts of EPA's Trash Free Waters Program, NOAA's Marine Debris Program, and other existing programs and partnerships in the region." Raised to the floor for a vote, the Tribal, State, and Federal agencies reached unanimous consensus that balloon litter will be the focus of the first "key issue" strategy implemented by the Marine Debris Working Group within the RPB.



Through all of the RPB member agencies, this effort involves collaboration with Clean Virginia Waterways, a nonprofit organization, to build upon their existing initiatives to prevent balloon litter with a social marketing strategy aimed at changing behavior. Each

member agency supported the sentiment that such an effort can go a long way towards preventing litter and protecting wildlife.

—Emma Maschal
ORISE Fellow

Maschal.Emma@epa.gov

Partnering with the Urban Waters and National Estuary Programs to Address Trash Prevention and Reduction

The TFW program is pleased to announce that we are specifically making a concerted effort to integrate more effectively with other water programs, such as EPA's Urban Waters and National Estuary Programs. All three of these programs were recently placed into the same branch within EPA headquarters' Office of Wetlands, Oceans, and Watersheds, and have recently made \$135,000 available for regional trash prevention/reduction projects coordinated with or implemented through Urban Waters Federal Partnership locations, Urban Waters Small Grant recipients, and/or National Estuary Programs. The following six projects were funded:

1. Mystic River Watershed Trash Prevention (Massachusetts)

The Mystic River watershed is an Urban Waters Federal Partnership area that also falls within the Mass Bays National Estuary Program study area. The Mystic River Watershed Association is implementing its Mystic River Trash Prevention Project to reduce litter inputs to the waterways of the watershed to create cleaner, ecologically healthier, and more attractive waterways and parks. The project will use a combination of research, education and planning to yield long-term and sustainable reductions in the quantity of trash within the waterways.

2. Lower Passaic/Harlem River Watersheds Litter Survey and Trash Reduction Plan (New York/New Jersey)

The Hudson River Foundation/New York-New Jersey Harbor & Estuary Program (HEP) and Montclair State University's Passaic River Institute developed a trash survey protocol that will be implemented this summer. The protocol involves conducting street litter surveys to track trash to specific points of sale, identifying brand items, and recording visual observations of conditions that could influence transport of trash to storm drains. This protocol will be implemented at 35 sites in New Jersey's Lower Passaic watershed. HEP is engaging two community groups to conduct surveys at a number of these sites. The same protocol will be implemented at a similar number of sites in the Harlem River watershed with the participation of local community groups. The field data analysis and results will be described in a final report, which will include recommendations for how to best eliminate or reduce local and/or regional sources of floatable debris.

3. Trash Clean-up and Prevention for the Maple Street Tributary of One Mile Creek (Alabama)

This project will fund the Mobile Bay National Estuary Program for the construction, installation, and maintenance of 5 units of a prototype small-stream litter collector, the “Litter Gitter,” to mitigate delivery of litter from urban surfaces into the Maple Street tributary of One Mile Creek in the lower Three Mile Creek Watershed of Alabama. As part of this project, the Mobile Bay National Estuary Program will build out their “Create a Clean Water Future” campaign. The campaign’s goals are to provide residents with a clear understanding of stormwater, its impact, and the need for improved stormwater management. The campaign encourages good stewardship of the watershed through positive personal and community stormwater management. Objectives of the campaign include awareness of stormwater issues including the importance of clean water to the recreational and commercial uses of local waters, awareness of economic degradation caused by poor stormwater management and its ensuing damage to the environment, and awareness of the lower cost of prevention compared to restoration.

4. Litter Audit for the Middle Blue River (Missouri)

This project funds Bridging the Gap—a sub-contract recipient of funds from the Mid-America Regional Council, which is an Urban Waters Federal Partnership co-lead—to expand their existing litter audit approach beyond businesses to include neighborhoods and parkways along the Blue River and Brush Creek in Missouri. These waters are part of the geography of the Middle Blue River Urban Waters Federal Partnership area. As part of the project, Bridging the Gap would work with Project Blue River Rescue and Kansas City’s Water Services Department to conduct a litter audit during their largest cleanup of the year; Project Blue River Rescue. The Middle Blue River Urban Waters Federal Partnership and its affiliates will work together to ensure that this project also has a social marketing component to help change people’s behavior with respect to trash that the audit finds has primarily residential sources.

5. Santa Monica Bay Clean Bay Certified Restaurant Source Reduction Program (California)

The Santa Monica Bay National Estuary Program (SMBNEP) will undertake this source reduction project to reduce trash in local waterways as well as marine debris through a two-pronged approach. First, its existing Clean Bay Certified (CBC) Restaurant Program will engage participating restaurants to reduce single-use disposable items. Second, SMBNEP will work with one Santa Monica Bay Watershed city to analyze volumetric trash data to simultaneously demonstrate the impact that plastic bag and styrofoam bans have had on the environment, and help target future locations for where SMBNEP’s source reduction program will make the biggest impact.

6. Lower Columbia Trash Hot Spot Identification and Pacific Northwest TFW Coalition Building (Oregon and Washington)

This project consists of two phases. Phase 1 will consist of a comprehensive land- and boat-based survey to assess small- to medium-sized debris along 18 miles of the Columbia Slough and approximately 125 miles of Columbia River shoreline. This preliminary examination and inventory of very-small to micro-scale debris aims to determine the extent of this type of debris, where it accumulates, and how well it can be inventoried and quantified in this environment. This pilot will lay the foundations for future microplastics assessment along the central Oregon coast as well as upstream. Phase 2 of this project involves scoping and development of a Pacific Northwest Regional TFW Coalition to facilitate the transfer of skills and best practices from Phase 1 across all three of EPA Region 10’s National Estuary Program Partnerships as well as with the Region’s Urban Waters Federal Partnership and small grants sites, and their growing network of additional partners. The Region anticipates that specific action items under Phase 2 will take shape organically based on stakeholder input and priorities.

—Romell Nandi, EPA
Nandi.Romell@epa.gov

The Trash Free Waters program is pleased to announce that we are specifically making a concerted effort to integrate more effectively with other water programs, such as EPA’s Urban Waters and National Estuary Programs.



Photo courtesy of the Trinity River Authority of Texas

Trash Free Trinity

The Trinity River supplies water to over 6 million people in the state of Texas. Starting in the Dallas/Fort Worth region and flowing for 708 river miles, the Trinity eventually meets the Gulf of Mexico just northeast of Houston and brings along with it an enormous amount of trash picked up along the way. The Texas coastline is therefore constantly bombarded by trash coming from this and several other rivers into the watershed.

With leadership from EPA Region 6 staff and key stakeholders in the Dallas/Fort Worth area, the *Trash Free*

Trinity online mapping tool was formally launched in February, 2017. This groundbreaking tool was created by a diverse group of stakeholders within the river basin and funded through the generosity of the American Chemistry Council. The initial goal for this 'adopt-a-spot' tool was to foster a litter-free environment in the Trinity River Basin by enabling community leaders to identify, promote, and track trash removal activities in their region. The pilot has worked well and data continues to be collected. With just a few

clicks at www.trashfreetrinity.com, users can now look up specific sites at a specific location or address, determine their adoption status, and immediately connect to a local community coordinator or volunteer, such as a Keep Texas Beautiful affiliate, to begin the process of adopting or fostering a site as their own. They plan to create a data overlay for litter 'hotspots,' so that interested citizens can focus their attentions on the most meaningful sites.

The reception to *Trash Free Trinity* has been very positive.

Leaders across the state have asked to expand the program to every major watershed in Texas. Project champions are now drafting plans and raising revenue to expand the program to other major watersheds in a stepwise process that could be completed in 3-5 years.

—Doug Jacobson, EPA
Jacobson.Doug@epa.gov

The Rapids: News Drops

NEWS / EVENTS

EPA & Trash Free Waters host Microplastics Expert Workshop

On June 28-29, Trash Free Waters hosted the EPA Microplastics Expert Workshop in Crystal City, VA. Microplastics are plastic particles, less than 5mm in any one dimension, that are widely found in fresh and marine surface waters. The purpose of the workshop was to identify and prioritize the scientific information needed to better understand and inform policy on the potential ecological and human health impacts of microplastic exposure in the US. The expert participants adopted a risk assessment approach for the workshop, and focused on three major topics: 1) methods for the separation, quantification and

characterization of microplastics; 2) microplastics sources, distribution and fate in the US; and 3) understanding potential ecological and human health impacts of microplastics in the US. The top information need identified by the workshop participants was the need for high-quality methods for microplastics analysis. The outcomes of the workshop will be summarized in a forthcoming report.

“Green Infrastructure in Parks: A Guide to Collaboration, Funding, and Community Engagement.”

This guide is intended to encourage partnerships between park agencies and stormwater agencies to promote the use of green stormwater infrastructure on public park lands. The guide

provides a stepwise approach to building these partnerships, with sections on how to identify and engage partners, build relationships, engage the community, leverage funding, and identify green infrastructure opportunities. Case studies illustrate successful approaches. The guide was developed in partnership with the National Recreation and Park Association. It can be viewed at <https://www.epa.gov/nps/green-infrastructure-parks>.

EPA'S Urban Waters Team Nominated for People Choice Award

Urban Waters, a Trash Free Waters partner, is up for a People's Choice Award. Surabhi Shah and the Urban Waters Team were nominated for their work to create public-private partnerships to clean up and revitalize urban waterways and surrounding lands, spurring economic development and reversing decades of neglect. Be sure to cast your vote for the People's Choice Awards! No matter the outcome, we are extremely proud of Surabhi & team for their hard work and outstanding efforts. To cast your vote, go to <https://servicetoamericamedals.org/peoples-choice/index.php>

Long Beach Harbor Latest to Earn "Clean and Resilient Marina" Status

Representatives from the Mississippi Department of Marine Resources and Long Beach Harbor gathered on June 13 to raise the new "Clean and Resilient Marina" flag to signify the harbor's successful efforts in over three years of hard work to earn the designation. Long Beach Harbor now looks forward to attracting more visiting boaters to and connecting them to the larger onshore business community. Long Beach Harbor is the fourth marina in Mississippi to earn the designation "Clean and Resilient." The Clean and Resilient Marina Initiative is led by the Gulf of Mexico Alliance (GOMA) Coastal Community Resilience Priority Issue Team in partnership with the Clean Marina Task Force that is composed of state agencies from all five Gulf states. <http://www.gulfofmexicoalliance.org/2017/06/long-beach-harbor-latest-to-earn-clean-and-resilient-marina-status/>

CONTESTS

BLUE Gulf Film Competition

The Harte Research Institute is holding a Gulf of Mexico short film competition. The deadline is October 14, 2017. For more information, please visit: <https://www.harteresearchinstitute.org/harteofthegulf>.

2017 Marine Plastics Innovation Challenge

Think Beyond Plastic and the UN Environment team are hosting a Marine Plastics Innovation Challenge to engage university students and faculties in a solutions-oriented effort to help solve the global marine litter problem. Contestants may enter into four different categories and there will be one winner from each track; design and engineering; communications; monitoring, predication & recovery; and economic impact. The winners will be announced at the Sixth International Marine Debris Conference in San Diego in 2018 and will have the chance to present their ideas. To learn more please visit: <https://www.thinkbeyondplastic.com/marineplasticsinnovationchallenge>.

FUNDING OPPORTUNITIES

The Recycling Partnership RFP

Geared specifically to help counties, municipalities, tribes and solid waste authorities with 4,000 or more households seeking to upgrade to cart-based curbside recycling collection, awardees will receive up to \$7/cart in grant funding, tailored educational materials paired with a communications grant, and best in class technical assistance. The application is one simple form that must be submitted with letters of recommendation. Potential applicants may email questions to Technical Assistance Specialist Justin Gast at jgast@recyclingpartnership.org.

Green Your Campus

Pepsi Co. is teaming up with colleges and universities all across the U.S. to help "green" their campuses. Campus needs are expanding and evolving, and so is Pepsi Co! PepsiCo Recycling now offers expanded college and university programming to support campuses' zero-impact journeys. So far, 103 colleges and universities have partnered with Pepsi Co. since 2010 to help in their sustainability endeavors. Find out more, get your school started, and take action: <https://www.pepsicorecycling.com/Programs/CampusEngagement>

GOMA's 2017 Gulf Star Program

The Gulf of Mexico Alliance 2017 Gulf Star Program's Request for Proposals (RFP) is now open. Applications will be accepted through September 1, 2017. Teams and cross-team initiatives addressed in this request include: Coastal Resilience, Data and Monitoring, Ecosystem Services, Education and Engagement, Water Resources, and Wildlife and Fisheries. <http://www.gulfofmexicoalliance.org/tools-and-resources/gulf-star-overview/>

NFWF Pulling Together Initiative 2017 RFP

Competitive grant funding is to promote the conservation of natural habitats by preventing, managing or eradicating invasive and noxious plant species. Full Proposals are due September 19, 2017. <http://www.nfwf.org/pti/Pages/2017rfp.aspx>

NFWF Bring Back the Native 2017 RFP

Proposals should address projects to restore, protect and enhance native fish species of conservation concern, especially in areas on or adjacent to federal agency lands. The Apalachicola River Basin is identified as an area of concern. Full proposals are due September 7, 2017. <http://www.nfwf.org/bbn/Pages/2017rfp.aspx>

Alabama Department of Environmental Management Section 319 Grants

Projects should be designed to help prevent, control, and/or abate nonpoint source pollution in support of Alabama's Nonpoint Source Management Program. Proposals must be designed to implement significant actions that will make absolute progress in preventing, eliminating, or reducing water quality impairments. The deadline is July 31, 2017. <http://adem.alabama.gov/programs/water/nps/319grant.cnt>

American Honda Foundation

Grant making that supports youth education with a specific focus on the STEM (science, technology, engineering and mathematics) subjects in addition to the environment.

Application deadlines are four times a year: February 1, May 1, August 1, and November 1.

http://www.honda.com/about?id=philanthropy_overview

National Endowment for the Humanities Media Projects: Development Grants

The Media Projects program supports film, television, and radio projects that engage general audiences with humanities ideas in creative and appealing ways. These grants enable media producers to collaborate with scholars to develop humanities content and to prepare programs for production. The deadline is August 9, 2017.

<https://www.neh.gov/grants/public/media-projects-production-grants>

Florida Humanities Council Community Project Grants

Community Project grants provide support for the planning and implementation of public humanities programs and resources that meet the needs and interests of local communities. Projects may include lecture series and panel discussions, reading and discussion groups, film series, oral history projects, exhibitions, and the development of cultural resources that complement public programming. The deadline is August 28, 2017.

<https://floridahumanities.org/grants/apply-now/community-project-grants/>

Clif Bar Family Foundation Small Grants

Funding priorities include: Protect Earth's beauty and bounty; Create a robust, healthy food system; Increase opportunities for outdoor activity; Reduce environmental health hazards; and Build stronger communities. Application deadlines are three times a year: February 1st, June 1st, and October 1st.

<http://clifbarfamilyfoundation.org/Grants-Programs/Small-Grants>

Temper of the Times Foundation Advertising for the Environment

Awards promote the use of standard marketing concepts to increase awareness about environmental issues. The deadline is December 15, 2017.

<http://www.temperfund.org/guidelines.html>

WEBINARS**Trash Free Waters 2017 Webinar Series**

The goal of this series is to promote increased knowledge and understanding of the sources, distribution, and impacts of plastics and microplastics in the environment. The featured presenters are experienced researchers and leaders in this field. The final webinar will be held on August 25 at 1pm EST and will feature Dr. Jason McDevitt discussing potential replacements for plastic products and how we can improve the ways in which we design materials and products to minimize their environmental impacts. The previously recorded webinars can be found on the webpage at: <https://www.epa.gov/trash-free-waters/trash-free-waters-webinar-series>

CONFERENCES**Sixth International Marine Debris Conference**

The sixth International Marine Debris Conference (6IMDC) will be held from March 12-16 2018 in San Diego, CA. This conference, co-hosted by NOAA and the UN Environment, focuses on sharing lessons learned and best management practices to reduce and prevent marine debris and its associated impacts. It also seeks to promote international learning and the cross-sharing of innovative ideas, methods, and results.

The 6IMDC will bring together international marine debris researchers, natural resource managers, policy makers, industry representatives, and the nongovernmental community. The impetus for this international marine debris conference is the pressing need to address and reduce the impacts of marine debris to vital natural resources, human health and safety, and the economy. <https://internationalmarinedebrisconference.org/>

Sydney Harris of EPA Region 10 and Samantha Sommer of Rethink Disposable will be co-hosting a session at 6IMDC entitled "Strategies for Preventing Trash Before It Starts." This session will help citizen scientists and other problem solvers engage in upstream solutions to prevent marine litter. At present, there are many gaps in our knowledge of how trash gets into waterways. Rigorous data that can form the basis for clear policies and practices is necessary to address these gaps. This session will bring together an interdisciplinary mix of professionals from the solid waste and materials management sector, citizen and academic researchers collecting upstream data on waste prevention efficacy and best practices, and experts in social marketing and behavior change to discuss leading strategies in upstream waste prevention so that we can stop marine debris at the source.

Students for Zero Waste Conference 2017

The Post-Landfill Action Network (PLAN) will be holding a Zero Waste Conference for students on November 3rd, 2017. The conference will be held at Temple University in Philadelphia, PA. PLAN cultivates, educates, and inspires the student-led zero waste movement. We inform students about the waste crisis and equip them with the necessary skills and resources to implement solutions to waste in their campus communities. PLAN empowers our generation to be changemakers. Learn more and register now at www.postlandfill.org.

70th Annual Conference of the Gulf and Caribbean Fisheries Institute

The 70th GCFI conference will be held in Merida, Mexico from November 6-10, 2017 and will be hosted by the Hyatt Regency Merida Hotel. The 70th GCFI conference will focus on applying fisheries and marine science to solve problems by bringing multiple users of ocean resources together to make informed and coordinated decisions for sustainable use of these resources. Addressing the issues of connectivity, fisheries management, conservation, and related issues at GCFI will aid in addressing critical marine resource issues within the Wider Caribbean Region. The theme of the Conference is "Towards the Sustainability of Tropical Fisheries Strategies, Models and Tools," with some of the technical sessions focusing on marine debris and its ecological impacts. For more information, please visit their webpage: http://www.clmeproject.org/2017/06/12/gcfi_70_conference/