

The Flow of... Trash Free Waters

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

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HOW IS IT FLOWING? The First EPA TFW National Workshop

On May 3-5, the U.S. Environmental Protection Agency (EPA) hosted the first ever Trash Free Waters (TFW) National Workshop in Washington, DC. This workshop provided the opportunity for our EPA TFW colleagues from across the U.S. to share and build upon ongoing TFW-related work and to encourage action and projects where there is a need. We examined ways to improve TFW Program integration and coordination through regulatory and non-regulatory approaches, discussed common resource challenges, and built a unified vision for the Program's future.

From a Marine Debris Program to TFW

TFW is a re-working of EPA's Marine Debris Program that focused on addressing storm-related marine debris and sources of coastal marine litter. It was about three years ago when EPA recognized the need to tackle the domestic contribution to the global

problem of marine litter with a different approach, including giving the EPA Program a different name. This Program evolution brought flexibility to address aquatic trash in all waters, and emphasized the need for proactive measures (prevention/reduction of land-based sources) rather than reactive measures (cleanups and storm debris removal) only. We recognize that while trash cleanups serve an important purpose, they alone are not a long-lasting, sustainable solution to the aquatic trash problem. TFW takes a holistic approach to the aquatic trash issue by having a land-based trash prevention and reduction focus, because the best way to keep trash out of the ocean is to keep it from entering inland and coastal water bodies in the first place.

EPA colleagues participating in this first ever TFW National Workshop came from both coastal and inland EPA Regions, underscoring that aquatic trash is a national problem.

TFW Across EPA

EPA has a unique capacity, as a regulatory agency with 10 Regional offices, research labs, and programs ranging from ocean and coastal protection to solid waste and stormwater management, to address aquatic trash and marine litter at the source, as it moves through the watershed, and as it settles in the marine environment. TFW focuses on maximizing the Agency's ability to leverage existing EPA programs such as Urban Waters; National Estuary Program; Green Infrastructure; Stormwater Management; Solid Waste Management; Sustainable Materials Management; Ocean Dumping; Vessels, Marinas, and Ports; and Making a Visible Difference in Communities, among others. Many of these existing EPA programs utilize regulatory or funding authorities and opportunities that can help TFW-related efforts reach its goals.

-Laura S. Johnson, TFW National Program Team Lead



EPA TFW colleagues at the first EPA TFW National Workshop in Washington, DC.

Aguas Sin Basura Updates from Panama

In May 2016, staff from EPA's Office of International and Tribal Affairs (OITA) went to Panama to meet with key stakeholder sectors about the new Waters Without Trash or "Aguas Sin Basura" initiative in Panama. This initiative is an EPA partnership with the United Nations Environment Programme and the Peace Corps. During this trip, OITA gained a better understanding of ongoing initiatives while meeting with Panama's Ministry of Environment, the Panama Canal Authority, the Maritime Authority, the Solid Waste Management Authority, and the Municipality of Panama City. OITA also visited with a Peace Corps Volunteer who is based in a community that is active in solid waste management and is coordinating with the Panama Canal Authority and others for monthly collection services.



Jane Nishida, EPA's Deputy Assistant Administrator for the Office of International and Tribal Affairs, provided an update on the U.S. TFW Initiative at the second session of the United Nations Environment Assembly in May.

OITA learned of a substantial amount of work happening at the community, municipal, and regional levels, but recognized that a national solid waste management plan will be necessary to address the significant marine litter problems in Panama. Stakeholders there have struggled with coordination, which is where "Aguas Sin Basura" will add value, bringing people together for

a public participation workshop on marine litter. There is political support from the national government to invest in waste management infrastructure, and we hope the "Aguas Sin Basura" initiative will align ongoing and planned efforts to help the Panamanian government take the next steps toward tackling this complex issue.

*Calling all... **CHAMPIONS!** We've found that a critical component for progress is having an impassioned leader to drive TFW projects from development through implementation.*

The New and Improved TFW Website Goes Live!

EPA's improved TFW website is now available. Please check it out! The website contains information on sources and impacts of trash in our waters; ongoing and past research efforts investigating the impacts of aquatic trash on ecological and human health; trash prevention, control, and reduction practices; aquatic trash mitigation and reduction initiatives and regulatory tools; and guidance for the public.

The TFW website can be found at <https://www.epa.gov/trash-free-waters>. Bookmark our page for regular TFW updates and information.

The screenshot shows the EPA Trash-Free Waters website interface. At the top, there are navigation tabs for 'Learn the Issues', 'Science & Technology', 'Laws & Regulations', and 'About EPA', along with a search bar for 'EPA.gov'. Below the navigation is a main banner for 'Trash-Free Waters' with a sub-header 'Learn How to Unpackage Your Life' and a video player. To the right of the video is a green box for 'EPA's Newsletter: The Flow of... Trash-Free Waters'. Below the banner is a paragraph of text: 'Common trash from consumer goods makes up the majority of what eventually becomes marine debris, polluting our waterways and oceans. Plastics in the aquatic environment are of increasing concern because of their persistence and effect on the environment, wildlife, and human health. EPA's Trash-Free Waters program is reducing the volume of trash entering U.S. waterways.' Below this text are three columns of content: 'Sources and Impacts' with a photo of a person on a beach, 'Research' with a photo of a bird on a beach, and 'Prevention, Control and Reduction' with a photo of a water treatment facility. Each column has a list of links below it.

If someone you know has a great concept for reducing volumes of aquatic trash in large aquatic ecosystems, have them contact a member of the TFW team!

New York City Passes B.Y.O. Bag Bill

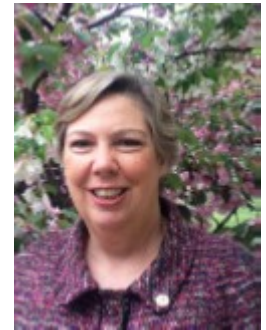
Guest Contributor Jordan Christensen, Citizens Campaign for the Environment

The New York City (NYC) Council passed legislation placing a 5 cent fee on single-use plastic and paper bags in an effort to increase reusable bag use among residents. NYC residents discard 9-10 billion single-use plastic and paper bags each year, many of which litter streets and ultimately become plastic pollution in our oceans. Single-use bags present a significant waste problem for the city, with plastic bags alone accounting for 1,700 tons of residential garbage per week. In order to reduce waste and protect our environment, City Council sponsors worked with a diverse coalition of stakeholders for three years to craft legislation designed to

encourage the public to permanently switch to reusable bags. After evaluating legislation from around the country, NYC moved forward with a 5 cent fee, which will reduce single-use plastic and paper bag use by an estimated 60-90%. The bill closely models the Washington, DC bill, which implemented a 5 cent fee on plastic and paper bags in 2010. In the first month that DC's bill was in effect, the number of plastic bags given out by grocery stores dropped from 22.5 million to 3 million. Overall, DC's legislation has achieved a 60% reduction in single-use plastic and paper bags and 72% reduction in plastic bag litter.

Globally, Ireland became a leader in the B.Y.O. Bag movement by placing a fee on plastic bags in 2002 and experienced a reduction in single-use plastic bags of over 90%.

As of October 1, 2016, there will be no more free, single-use bags at check-out counters in NYC. To ensure residents can conveniently make the switch to reusable bags this fall, stakeholders will be conducting public education, and the city has committed to giving out free reusable bags to any resident that needs one.



"The TFW Initiative is spearheading EPA's efforts to reduce plastic pollution discharges to our waters to zero within the next 10 years. To achieve this goal, we need everyone's help. I encourage all of you to waste less, reuse and recycle, and properly dispose of the waste that cannot be avoided."

-Judith A. Enck, EPA Regional Administrator for New Jersey, New York, Puerto Rico, and the U.S. Virgin Islands.

Tool in Development for Trash Free Trinity River Basin

The 'Adopt-a-Spot' Trinity River Basin Project seeks to improve water quality within the basin by creating an interactive geographic information systems tool for use in the Trinity Basin – from the headwaters to the mouth of the Gulf of Mexico. The Trinity Basin is the largest river basin whose watershed area is entirely within the state of Texas.

This web-based mapping tool will pinpoint litter/aquatic trash "hotspots" and overlay them with hotspots already "adopted" or "fostered" by local environmental stewards.

In turn, this map overlay would aid energized citizens and organizations in identifying which hotspots are available for them to adopt/foster. This can prevent land-based trash/litter from entering nearby water bodies. A stakeholder group has formed a Steering Committee and a Technical Advisory Committee and, after a competitive proposal process, Texas State University's Meadows Center was awarded funding to develop the database. On May 16-17, stakeholders met with the Meadows Center and others to finalize the

scope of the project. It was agreed that the Meadows Center will develop an interactive, web-based mapping tool to connect volunteers with opportunities to maintain the landscapes found to exhibit the highest accumulated volumes of litter and/or instream and riparian debris. Data calls will be made to local governments and Keep America Beautiful affiliates in the weeks ahead. It is anticipated that the tool will be ready for use in late 2016.



Trash Free Trinity Project Logo features the Trinity River Basin. The Trinity River is the third largest river in Texas by average flow volume.

Upcoming Meetings

Urban Waters National Training Workshop
Arlington, VA
July 26-28, 2016

Agricultural Plastics and Recycling Conference
San Diego, CA
August 17-19, 2016

Our Ocean Conference
Washington, DC
September 15-16, 2016

Mississippi-Alabama Bays and Bayous Symposium
Biloxi, Mississippi
November 30 - December 1, 2016

Puerto Rico TFW Continues to Grow!

On April 8, 2016, the Puerto Rico TFW Program successfully scaled and conducted its regional meeting in the western region of Puerto Rico for the first time. More than 150 key stakeholders from government, industry, community, and academic sectors joined efforts to support the TFW Initiative implementation on the Island. Presenters included Marcus Eriksen (5-Gyres Institute), Anahita Williamson (EPA), and the Scuba Dogs Society. Presentations focused on training local organizations to characterize plastic pollution on our beaches.

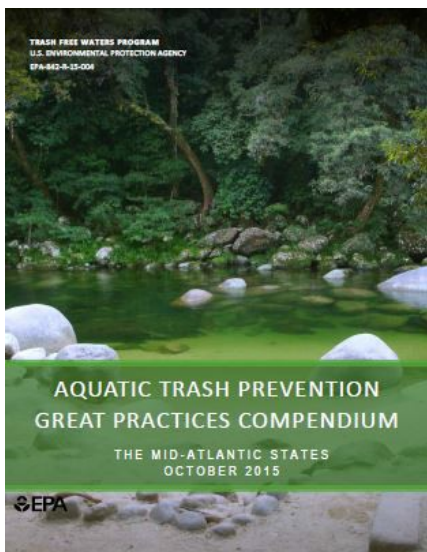
Ongoing projects of the TFW Puerto Rico Strategy are showing marked results. The San Juan Bay National Estuary Program characterized and found that plastics account for 60% of the non-vegetative material captured. A Zero

Waste Guide and fact sheet for food trucks was developed and shared with Municipal Recycling Coordinators for their use and distribution. TFW has been providing support to two additional municipalities, Culebra and Moca, to develop Municipal Ordinances in compliance with Bill 247, which banned

plastic bags as of July 1, 2016. A video was developed with the support of Sea Grant, Cohemis, and Campus Verde local environmental organizations, and can be found on the new PR TFW Facebook page (<https://www.facebook.com/PRTrashFreeWaters>).



Glass bottles in the Condado lagoon, San Juan, Puerto Rico.



Click on document image above to download the Mid-Atlantic Great Practices Compendium

Expansion of Great Practices as a National Compendium

EPA’s first edition of the great practices compendium of the Mid-Atlantic States received such great positive feedback that we decided to expand the compendium to include great practices from across the country! This compendium serves as a key resource for stakeholders and practitioners to make informed decisions about their future trash prevention program investments based on the experiences of others.

A great practice is an activity, technology, program, policy, or initiative that prevents trash from entering the aquatic environment and/or reduces the volume of trash. A great practice demonstrates measurable progress towards its stated goals and shows a clear return on investment from such efforts.

Examples of great practices previously highlighted include aquatic trash capture and

removal devices, waste management infrastructure solutions, education/outreach programs to change behavior, and policies such as total maximum daily loads and plastic bag fees.

If you would like to contribute a great practice to the compendium, please contact our team.

The Rapids: News Drops

NOAA Launches MDMAP Tool for Citizen Science Surveys

U.S. National Oceanic and Atmospheric Administration's (NOAA) Marine Debris Program launched the new "Get Started Toolbox" for the Marine Debris Monitoring and Assessment Project (MDMAP). The MDMAP is a citizen science initiative that engages partner organizations and volunteers across the nation in completing shoreline marine debris surveys. The "Get Started Toolbox" includes a tutorial series that covers the basics of the MDMAP, a collection of protocol documents and user guides, data analysis tools, a searchable photo gallery of marine debris items, answers to frequently asked questions, and even a quiz to test your MDMAP knowledge! You can access it at marinedebris.noaa.gov/research/monitoring-toolbox.

Marine Litter at Capitol Hill Ocean Week (CHOW)

Marine litter was a panel discussion topic at the CHOW conference held June 7-9 in Washington, DC. The panel was hosted by the Ocean Conservancy and featured experts from the business community, non-governmental organizations, and the United Nations Environmental Program. The panelists focused on prevention and source-reduction strategies, particularly for plastic packaging. Several panelists mentioned the good work of EPA's TFW Program.

Marine Litter Emphasized at the UNEA and G7 Meetings

Marine litter was recently given prominent attention at two global environmental meetings: the second session of the United Nations Environment Assembly (UNEA-2) in Kenya and the Group of Seven (G7) Toyama Environment Ministerial Meeting (EMM) in Japan. At the UNEA-2, the Assembly approved a resolution on marine plastics and microplastics, calling on countries around the world to take action on this critical issue. During the EMM, the G7 emphasized using existing global platforms to help countries prevent and reduce marine litter, such as the United Nations Environment Programme's Global Partnership on Marine Litter and through their Regional Seas Programmes.

TFW at the GWRC Workshop and SETAC European Conference

Margaret Murphy, an American Association for the Advancement of Science (AAAS) Fellow at EPA, attended two international workshops/meetings for the TFW Program: the Global Water Research Coalition (GWRC) Workshop on May 22 and the Society for Environmental Toxicology & Chemistry (SETAC) European meeting on May 23-26. The major focus of the GWRC workshop and SETAC meeting was microplastic detection methodology, particularly for smaller microplastics (<300 µm), as well as ecological effects of microplastic exposure.

Washed Ashore: Art to Save the Sea

Smithsonian's National Zoo in Washington, DC is hosting a "Washed Ashore: Art to Save the Sea" exhibition from May 27 to September 5. It is a larger-than-life exhibit of 17 marine wildlife sculptures—from jellyfish to sharks—made entirely of plastic pollution directly recovered from oceans. The exhibit is created by the Washed Ashore Project, a non-profit, community-based organization with a mission of educating and creating awareness about plastic pollution through art.



An installation at the Smithsonian National Zoo in Washington, DC as part of the "Washed Ashore: Art to Save the Sea" exhibit.

GRANT OPPORTUNITIES

NAS Gulf Research Program Capacity Building Grants

Deadline: Letters of intent— July 13th

Full proposals— September 14th

This funding opportunity is intended to strengthen the capacity of community networks and to enhance the impact of their work. Proposed projects should focus on networks that strive to use data, research findings, and scientific approaches to improve the environments and/or health and well-being of communities in coastal regions along the U.S. outer continental shelf that support oil and gas production. For more information or to apply, please go to

<http://www.nationalacademies.org/gulf/grants/capacitygrants/index.htm>.

American Honda Foundation

Deadline: August 1st

This funding opportunity supports youth education, specifically in STEM (science, technology, engineering and mathematics) education and environmental education. This includes education for anyone under 21 years old. For more information or to apply, please go to

<http://www.honda.com/community/applying-for-a-grant>.

NOAA RESTORE Act Science Program Grants

Deadline: September 27th

This funding opportunity is focused on living coastal and marine resources and their habitats. Funding is targeted to support two of the Science Program's priorities: research on understanding living coastal and marine resources; and decision-support tools to assist resource managers with management decisions planned to sustain habitats, living coastal and marine resources, and wildlife. For more information or to apply, please go to

<http://www.grants.gov/web/grants/view-opportunity.html?oppld=284289>.

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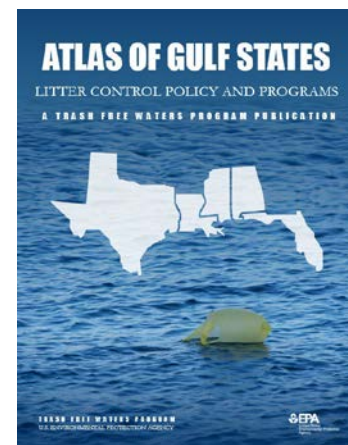
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Soon-to-be-Published Gulf States Litter Control Policies and Programs

In the summer of 2014, EPA developed the Regional TFW Strategy for the Gulf of Mexico. One of the seven projects stakeholders identified was the development of an "Atlas" of state and local litter control policies and programs implemented in each Gulf coast state. This product is nearing completion for publication. The document contains data and information from each of the five Gulf coast states with more than thirty communities (most with

populations over 125,000) and fifteen categories of litter control programs and policies highlighted. Each policy/program entry contains a brief synopsis, contact information, and URLs (if available). It is hoped that this tool will allow for the development of peer-to-peer relations, as government leaders can quickly access colleagues who have blazed a trail in government intervention that reduces or prevents the flow of trash into our aquatic ecosystems.



The "Atlas of Gulf States Litter Control Policies and Programs."