



The Flow of... Trash Free Waters

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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.

How is it Flowing?

The U.S. Environmental Protection Agency's (EPA) National Trash Free Waters (TFW) program strives to develop a set of actions and projects that significantly reduce or even eliminate the volume of trash and litter entering watersheds and ultimately large aquatic ecosystems, and the marine environment. The TFW program supports 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 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!

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Our Ocean Conference III

The third annual Our Ocean Conference was held in Washington, DC on September 15-16. The focus areas of the conference were marine pollution, climate and oceans, sustainable fisheries, and marine protected areas. Participants announced over 136 new initiatives on marine conservation and protection valued at more than \$5.24 billion, as well as new commitments on the protection of almost 1.5 million square miles of the ocean. To date, the three Our Ocean conferences hosted by Secretary John Kerry have generated commitments valued at over **\$9.2 billion** to protect our ocean and

committed to protect 3.8 million square miles of ocean – an area the size of the United States.

The conference embraced the significance of our marine pollution control efforts, specifically in the areas of ocean acidification and marine litter. TFW-related work was highlighted throughout the conference, including a new citizen science program, a new TFW initiative in Peru, and a major information exchange program with China (see articles below). The full list of conference commitments can be found at ourocean2016.org.

Contact: Grace Robiou, 202-566-2975

What is EPA's "Trash Free Waters" National Program?

A strategic approach to support innovative aquatic trash prevention and reduction policies, programs and initiatives by many public, private, and nonprofit stakeholders.

EPA Provides \$365,000 for TFW in New Jersey and New York Waters

EPA Region 2 has awarded \$365,000 for projects that will prevent plastic trash from polluting water bodies in New Jersey and New York. The funding was awarded to seven organizations through a competitive grant process run by the New England Interstate Water Pollution Control Commission, and that is aimed at stimulating comprehensive solutions to the burgeoning problem of plastics in lakes, rivers, harbors and oceans.

“Our oceans and lakes and rivers are being choked with plastic debris,” said EPA Regional Administrator Judith A. Enck. “Estimates are that by 2025 there will be one ton of

plastic for every three tons of fish in the world’s oceans. These projects offer real solutions that focus on reducing plastic waste at the source.”

This \$365,000 in funding is being provided through the EPA’s New York/New Jersey Aquatic Trash Prevention Grant Program, which is designed to fund projects that help meet the goals of the EPA’s TFW program. This grant program is focused on projects that will support the EPA’s TFW’s goal of reducing the volume of plastic trash entering fresh and marine water environments, approaching zero-loading of trash into U.S. waters within 10 years.

The recipients of the New York/New Jersey Aquatic Trash Prevention 2016 Grant Program are: NYC Department of Environmental Protection; North Hudson Sewerage Authority; the Product Stewardship Institute, Inc.; Hudson River Foundation/NY-NJ Harbor & Estuary Program; Cafeteria Culture; Bronx River Alliance; and Clean Water Fund.

Contact: Josh Kogan,
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“Estimates are that by 2025 there will be one ton of plastic for every three tons of fish in the world’s oceans. These projects offer real solutions that focus on reducing plastic waste at the source.”

—Judith A. Enck,
EPA Region 2
Administrator

EPA Studying Microplastics Occurrence in Great Lakes Sport Fish

Microplastics are ubiquitous in freshwater, estuarine and marine ecosystems around the world. Primary microplastics, such as the microbeads used in cosmetic products, are intended for product use, while secondary microplastics form in the environment from the breakdown of larger plastic items such as grocery bags. Recent global reports of microplastics in a variety of fish and shellfish species have raised concerns about their potential human health and ecological impacts.

The Office of Wetlands, Oceans and Watersheds (OWOW) and the water program’s Office of Science and Technology (OST) are working with EPA’s Great Lakes National Program Office (GLNPO) on a project to assess the occurrence of microplastics in the stomachs

of Great Lakes sport fish. The study is being funded and managed by the TFW program.

Microplastics have been found in the Great Lakes in both water and sediment; fish in the Lakes may ingest microplastics directly during feeding, or indirectly by ingesting smaller fish that have themselves ingested microplastics. Fish for the microplastics study were collected in 2015 as part of the joint OST/GLNPO Great Lakes Human Health Fish Fillet Tissue Study conducted under EPA’s 2015 National Coastal Condition Assessment. The fish stomachs were not used for the OST/GLNPO human health fish tissue study, so the fish carcasses were repurposed for the microplastics analysis.

Analysis of the fish stomachs for microplastics will be conducted by a laboratory at

the California Department of Public Health in collaboration with colleagues in EPA Region 9. The analysis will determine the amount of plastics in the fish stomachs down to very small particle sizes, as well as the types of plastics present. The results of this study will improve the current understanding of microplastics distribution in the Great Lakes and their occurrence in fish.

More information can be found at the following links:

www.lakescientist.com/microplastics-pollution-great-lakes-ecosystem-summary-presentations-iaglr-2014/

www.gesamp.org/work-programme/workgroups/working-group-40/wg-40-brochure.

Contact: Margaret Murphy,
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Recent global reports of microplastics in a variety of fish and shellfish species have raised concerns about their potential human health and ecological impacts.

EPA Region 2 and 5 Gyres Partner for Citizen Science Program

With support from EPA Headquarters, EPA Region 2 TFW is partnering with the non-governmental organization (NGO) 5 Gyres in developing a citizen science program designed to collect data on the impact of marine

microplastics (plastics < 5 mm in size in any dimension) on the environment and public health. The project's goal is to leverage greater scientific and public understanding of the critical problem of microplastics in the marine

environment in ways that catalyze innovative, upstream solutions to reduce and prevent the flow of land-based plastics into the ocean in Puerto Rico and the Wider Caribbean. This project was also announced

as a US commitment at the recent Our Ocean Conference hosted by Secretary of State John Kerry in September in Washington, DC.

Contact: Josh Kogan, 212-637-3733

TFW Initiative Launched in Peru

On September 21, EPA Administrator Gina McCarthy launched Peru's TFW initiative in Chinchá, Peru. The initiative kicked off with a panel discussion between Administrator McCarthy, Peruvian Environmental Minister Elsa Galarza, and representatives from Coca-Cola, the Regional Government of Ica, and two NGOs that work on recycling initiatives in underserved communities within Chinchá. The panel discussion provided a broad forum for decision makers to hear from stakeholders about solid waste management issues and the pathways forward toward solutions.

On September 22 and 23, EPA's Office of International and Tribal Affairs (OITA) led Peru's first stakeholder workshop on TFW, which included a large and diverse set of over 75 stakeholders including local students, environmental enforcement officials, the Ministry of Environment in Peru (MINAM), the Regional Environment Office in Ica (GORE), Chinchá municipality officials, teachers, women's group leaders, human rights leaders, solid waste officials, the US Agency for International Development, and the private sector.

Participants worked together on strategic planning exercises designed to identify local strengths and weaknesses with regards to solid waste management. The participants cataloged ongoing regulatory and non-regulatory programs in order to help identify specific projects that they will implement to help Chinchá prevent and reduce land-based sources of marine litter. Stakeholders identified projects in six separate categories including reconstituting a local solid waste advisory council and institutionalizing "informal recyclers" in Chinchá. Each of the seven participating

districts identified a TFW point of contact for follow-up and a local NGO was identified to play the role of a local secretariat.

Participants noted that this was the first time they had been given a platform to work with different stakeholders to address a policy issue. In this way, EPA has left a lasting influence on the people of Chinchá – not only taking the first steps along a pathway to reduce the volumes of trash in the region, but also building collaborative capacities. Next steps include identifying a TFW pilot project for Chinchá.

Contact: Andrew Horan, 202-564-5383



TFW Peruvian stakeholders with the EPA Administrator, Gina McCarthy.

EPA-Peace Corps Memorandum of Understanding Renewed, Will Address Trash Prevention Goals

On August 31, the EPA and Peace Corps strengthened institutional ties by renewing their Memorandum of Understanding (MOU) for another five years. This MOU builds upon the 2010 MOU and provides a framework that addresses the basic relationship, roles, and responsibilities between the two agencies to work together in support of broad environment and public health protection initiatives across the globe.

As part of this partnership, the two agencies have already collaborated on training for Peace Corps Volunteers on public participation, and for Peace Corps Trainees in both Jamaica and Panama on the issue of marine litter and on steps volunteers can take to implement a TFW dialogue in their community.

Contact: *Stephanie Adrian*,
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Peace Corps Director, Carrie Hessler-Radelet (above left) interviews EPA Administrator Gina McCarthy.

2016 Urban Waters National Training Workshop

In 2011, EPA launched the Urban Waters Federal Partnership. The Urban Waters Federal Partnership seeks to reconnect urban communities, particularly those that are overburdened or economically distressed, with their waterways to become stewards for clean urban waters. Currently, 14 federal agencies work together in 19 “Partnership Locations” with the support of 28 NGOs

and in collaboration with local partners on the ground.

On July 26-28, EPA hosted the Urban Waters National Training Workshop on behalf of the Urban Waters Federal Partnership. The workshop focused on efforts to restore urban waterways and revitalize the communities around them with sessions on finding innovative ways to fund their work, citizen

science, green infrastructure, an Environmental Justice Crash Course, mentoring, mobile tours, a tools expo, and a film screening. Workshop materials can be found at: urbanwaters.skeo.com. Over 450 people participated in the workshop, including representatives from community-based organizations, all levels of government, academia and NGOs.

The Headquarters TFW team participated throughout the workshop, interacting with many stakeholders and laying groundwork for integration of TFW elements into Urban Waters partnership programs.

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Bob Benson (TFW),
202-566-2954



Urban Waters National Training Workshop.

Galveston Installs its First Beach Free-Cycle Center

On November 15, the Galveston Marine Debris Task Force (MDTF), made up of local governments and NGOs, as well as other stakeholders held a ribbon-cutting ceremony to celebrate the installation of the first of six recycling stations, called Beach Free-Cycle Centers, on Galveston Island Beaches. The Hilton Worldwide-Travel with a Purpose Grant and the Harris and Elize Kempner Foundation provided funds for the recycling stations. The stations provide a mechanism for the public to recycle plastic bottles, aluminum cans, monofilament fishing line, and beach accessories. Once all six recycling stations are installed, Galveston Park Board of Trustees staff will collect data on collection rates in order to

make comparisons with the baseline information collected throughout 2016.

Recycling stations are part of a broader initiative aimed at reducing the amount of trash left on Galveston Island. The shared vision of the MDTF, the Galveston Park Board of Trustees' Beach Maintenance Advisory Committee, and Artist Boat is to have 100% recycling station coverage on Galveston beaches. Prior to installation of the recycling center, Galveston Park Board of Trustee employees picked up over 725 tons of material off of Galveston Island Beaches this season (not including trash collected at the designated parks). Approximately 600 tons of that material (or 1,000 pounds per day) is considered recyclable plastic.

Stakeholders will continue to make improvements to Galveston Island Beaches: they intend to add educational signage to the recycling stations as well as implement an outdoor education exhibition in 2017 to convey messaging about the negative effects of litter. Stakeholders

also hope to soon address the problem of "Left Behinds," or discarded beach gear, with designated stations and potentially an app for facilitating transitional uses of discarded beach gear.

Contacts: Doug Jacobson, 214-665-6692, and Renee Bellew, 214-665-2793



Galveston Beach recycling station.

Recovery in Baltimore

Stakeholders in metropolitan Baltimore worked together to develop a Baltimore-specific social marketing campaign designed to change the behaviors that lead to littering and other forms of trash pollution. The campaign, championed by Julie Lawson of Trash Free Maryland, is currently in its pilot stage.

Stakeholders designed the campaign after extensive focus group testing. The research showed that a significant number of Baltimore's residents are facing daily struggles and are working to overcome these struggles.

The campaign is thus designed to help residents continue to feel hope and empowerment by making their immediate areas cleaner. The approach is to create a social norm for individuals, particularly those that are a part of community organizations, to pick up litter. Community organizations such as Behavioral Health Systems of Baltimore, REACH, and the Baltimore City Directorate are key partners. These organizations manage behavioral and clinical health programs, such as drug rehabilitation programs, that serve low-income residents.

Stakeholders also will work with churches in targeted communities through the organization, Interfaith Partners of the Chesapeake.

The pilot of the campaign is launching in Baltimore neighborhoods that have extremely high rates of vacant properties and other

risk factors. Currently, the campaign has launched in five neighborhoods, as well as the Port of Baltimore. The campaign will launch citywide in 2017.

Contact: Julie Lawson, 410-861-0412



Conferences

World Ocean Council Sustainable Ocean Summit:

Nov 30–Dec 2, 2016
Netherlands

Caribbean Recycling Summit:

Dec 1–2, 2016
San Juan, Puerto Rico

Restore America's Estuaries Summit:

Dec 10–15, 2016
New Orleans, Louisiana

2016 Rising Seas Summit:

Dec 13–15, 2016
New Orleans, Louisiana

Caribbean Recycling Summit in Puerto Rico

With the support of the EPA, the US Department of Agriculture, and the Puerto Rico Solid Waste Management Authority, the Puerto Rico Recycling Partnership (PRRP) and the Virgin Islands Recycling Partnership (VIRP) are sponsoring the first Caribbean Recycling Summit to be held on December 1-2, 2016 in San Juan, Puerto Rico. The event offers an opportunity to connect the government, non-profit organizations, citizens, environmental groups, and the private sector, with the goal of bringing zero-waste strategies to the Caribbean Basin. The event will provide an exhibiting opportunity for companies, organizations, and agencies to come together, as well as a venue for themed workshops related to challenges, opportunities, and new advances in the recycling industry. To register, please visit: <http://syr.us11.list-manage.com/track/click?u=7dfb09ad16771349bbdb43da4&id=7d224c38e4&e=be8645e74a>.

Contact: Stephanie Adrian, 202-564-6444



Condado Beach, San Juan, Puerto Rico

The Rapids: News Drops

GRANT OPPORTUNITIES

Gulf of Mexico Alliance Coastal Community Small Grants

Deadline: December 9, 2016

Proposals are now being accepted from coastal communities who wish to proactively address their vulnerabilities to coastal hazards previously identified during a community self-assessment, such as the Community Resilience Index. For more information or to apply, please go to www.gulfofmexicoalliance.org/our-priorities/priority-issue-teams/community-resilience-team/community-resilience-small-grants/.

NOAA FY2017 Marine Debris Research Grants

Deadline: December 19, 2016

This opportunity provides funding to support eligible organizations to conduct research directly related to marine debris through field, laboratory, and modeling experiments. Funding supports research that explores the ecological risk associated with marine debris, determines debris exposure levels, and examines the fate and transport of marine debris in nearshore, coastal environments. Typical awards will range from \$150,000 to \$250,000. For more information or to apply, please go to www.grants.gov/web/grants/view-opportunity.html?oppld=289016.

Environmental Justice Small Grants Request for Proposals

Deadline: January 31, 2017

The EPA is accepting proposals for projects that support activities designed to empower and educate vulnerable communities, disproportionately impacted by environmental harms, to understand environmental and public health issues, and to identify ways to address these issues at the local level. Projects are typically awarded \$30,000 each. For more information, please go to www.epa.gov/environmentaljustice/environmental-justice-small-grants-program#tab-2.

National Geographic Conservation Trust Grants

Deadline: Ongoing request for proposals

The Conservation Trust will fund projects that contribute significantly to the preservation and sustainable use of the Earth's biological, cultural, and historical resources. Typical awards will range from \$15,000 to \$20,000. For more information or to apply, please go to www.nationalgeographic.com/explorers/grants-programs/conservation-trust-application/.

2017 Five Star and Urban Waters Restoration Grant Program Request for Proposals

Deadline: January 31, 2017

This opportunity provides funding to support projects that develop community capacity to sustain local natural resources for future generations. Projects should focus on ecological improvements including: wetland, riparian, forest and coastal habitat restoration; wildlife conservation; community tree canopy enhancement; and/or water quality monitoring and stormwater management; along with targeted community outreach, education, and stewardship. Priority will be given to projects in urban, suburban, and/or rural areas that advance water quality goals in environmental justice communities. Awards range from \$20,000 to \$50,000. For more information or to apply, please go to www.nfwf.org/fivestar/Pages/2017rfp.aspx.

STUDENT CONTESTS

2017 Bow Seat Ocean Awareness Student Contest

Deadline: June 19, 2017

Middle and high school students from around the world are invited to create works of art, poetry, prose, or film that speak to this year's theme – Ocean Pollution: Challenges & Solutions. Students need an adult sponsor to submit to the Contest, and the Contest is completely free to enter. Students can earn awards up to \$1,500 in each category, and Bow Seat also grants Sponsor Recognition awards of \$750 for outstanding teachers, parents, and mentors who help a student submit to the Contest. For more information please visit: <http://fromthebowseat.org/contest.php>.

2017 Bow Seat Marine Debris Creative Advocacy Competition

Deadline: June 19, 2017

This competition challenges middle and high school students from the US to implement real-world advocacy projects in their schools and communities, with the goals of educating the public about marine debris, inspiring people to change their behavior, and engaging them in activities that reduce or prevent marine debris. Students need an adult sponsor to participate in the competition, and the competition is free to enter. Students can earn awards up to \$5,000. The deadline to submit is June 19, 2017. For more information, please visit: <http://fromthebowseat.org/advocacy-competition.php>.