



The Flow of... Trash Free Waters

This newsletter is intended to provide the latest information regarding Trash Free Waters (TFW) efforts across the U.S. EPA and our stakeholders continue to make progress reducing aquatic trash in regions where work is underway.

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

INSIDE THIS ISSUE:

CA's New Trash Control Policy - A message from the Regional Administrator	2
Baltimore	3
Galveston	
Research	4
Louisiana - A look back	
Trinity	5
B.Y.O. NYC! - Guest Article	
Breakthrough Initiative	6
Annual NEP Workshop in D.C.	
Puerto Rico	7
ANEP Conference in San Juan	
The Rapids: News Drops Grant announcements	8

HOW IS IT FLOWING?

Important regulatory approaches have been put in place recently that promise to make a significant difference in our collective efforts to prevent and reduce the amount of trash, including plastics, from entering our waters.

On December 28, 2015, the President signed into law the Microbead-Free Waters Act of 2015. Beginning on July 1, 2017, there is a ban on manufacturing rinse-off cosmetics that contain intentionally added plastic microbeads – the tiny beads of plastic, commonly added as abrasives to beauty and health products like exfoliating facial scrubs and toothpaste; beginning on July 1, 2018, there is a ban on the sale of these cosmetics.

In the State of California, U.S. EPA approved the State Water Resources Control Board's new water quality standards for trash in California's waters.

The standards approved on January 13, 2016 are part of the state's new Trash Control Policy, designed to keep trash out of streams, lakes, bays, estuaries, and coastal and ocean waters in California to protect people and the environment. Municipalities and other storm water permit holders must comply by either installing full trash capture systems, or using equivalent devices coupled with programs such as increased street sweeping and educational outreach.

Additionally, on October 31, 2015, the Governor of Puerto Rico signed an Executive Order to ban plastic bags. The legislature then passed a bill that the Governor signed into law (247-2015) on December 29, 2015. The ban will take effect in mid-2016 and will be preceded by a six-month educational campaign.

Articles highlighted in this newsletter feature additional TFW efforts across the U.S., as well as in the Wider Caribbean!



Puerto Rico's Governor Alejandro Garcia Padilla and EPA's Regional Administrator Judith Enck at the plastic bag ban bill signing.

'Aguas Sin Basura' Expands to the Wider Caribbean

At last year's Our Ocean Conference II in Chile, EPA announced the expansion of the Trash Free Waters approach to the Wider Caribbean, with Jamaica and Panama as pilot countries. This is part of a new partnership with United Nations Environmental Programme - Caribbean Environmental Programme (UNEP-CEP) and Peace Corps to combat marine litter in the

region. In November, Stephanie Adrian from EPA's Office of International and Tribal Affairs Office met with Peace Corps Panama, Panama Ministry of Environment, and the Maritime Authority to discuss this initiative. Next steps include identifying stakeholders and the Panamanian government's role in preventing marine

litter. Panama termed their initiative "Aguas Sin Basura," or "Waters Without Trash." EPA has developed a training module for incoming Peace Corps Volunteers in both Jamaica and Panama to introduce volunteers to marine litter sources and impacts and the Trash Free Waters Program this early spring.

How California's New Trash Control Policy Can Help Shrink the Pacific Garbage Patch

by Jared Blumenfeld, EPA Regional Administrator for the Pacific Southwest



Jared Blumenfeld is EPA's Regional Administrator for the Pacific Southwest (EPA Region 9), home to 50 million people in Arizona, California, Hawaii, Nevada, the Pacific Islands, and 148 tribal nations. This column appeared in print on January 13th, 2016 and highlights the Trash Control Policy that EPA approved for the state of California.

I predict 2016 to be the year when real progress will be made to resolve one of the world's most vexing environmental issues — the Great Pacific Garbage Patch. This huge mass of plastic particles polluting the ocean between Los Angeles and Honolulu is fed by litter from our homes, businesses, and fast-food restaurants. All too often it's a throw-away item we use only once. We should have zero tolerance towards allowing this trash to end up

in our waterways. If we stop it from flowing into the ocean, we will starve the Garbage Patch.

The Los Angeles (L.A.) region has been a global leader in the fight against litter and marine debris. In the 1990s, L.A. became the first in the nation to declare a war on the trash that was polluting its waterways. This bold move, based on the federal Clean Water Act, has the L.A. River on track to be free of trash from storm drains this year. To achieve this goal, the City of Los Angeles invested \$73 million to install almost 38,000 devices that capture its trash.

When a plastic straw ends up on the street in L.A., it is either stopped from going down the storm drain by a screen so that a street sweeper can brush it up, or it is diverted into a concrete box to be cleaned out later. The straw never reaches the river or the sea.

This approach is working throughout the basin, where 42 cities have implemented measures to capture the estimated 5.4 million tons of trash each year that used to flow unimpeded into the L.A. River. The cities of Monrovia, Monterey Park, South Pasadena, and Temple City have reduced their trash discharges by 97-99% through the installation of capture devices, public outreach, and street sweeping.

The efforts in Southern California have taught us a lot about how we can solve the marine debris problem, and the rest of California is following suit. This week, I gave EPA's final approval for California's "Trash Control Policy." It now becomes the first measure in the country aimed at eliminating trash from lakes, streams, and shores across a state. Under California's new policy, by 2026 trash is prohibited from polluting our waters, and each large municipality and industrial discharger must implement "trash free" measures and report its compliance. This means that the public can oversee the progress and make sure that policy becomes reality.

Our Golden State disposes of more than 31 million tons of trash a year, which is still too much. Many cities have responded by increasing recycling and street sweeping,

which both play a key role in trash and marine debris reduction. In places where these tools fall short, expect to see more trash capture systems to trap food wrappers, cigarette butts, and plastic bottles before they can pollute our waterways.

Meanwhile, global manufacture of plastics continues to rise, reaching 300 million tons annually, with 8 million tons winding up in the oceans. So it is not just a matter of preventing trash from getting to the water's edge. We also need to reduce the amount of disposable material being generated. There too, California is leading the way with the ambitious goal of reducing the waste we send to landfills 75% by 2020. Not only must waste be diverted from landfills to increase recycling and composting rates, it has to be reduced from the get-go.

California's two waste measures — the diversion goal and trash policy — represent a visionary approach to a blight that for too long has choked our waterways, harmed wildlife and endangered our drinking water supplies. More cities, states, and nations should follow the lead of California and Los Angeles. If they did, our inland, coastal, and marine waters would be far healthier. And the Great Pacific Garbage Patch would finally begin to shrink.

Getting the Message in Baltimore

Stakeholders in metropolitan Baltimore are harnessing the energy and mandate of three different stakeholder groups to develop a unified anti-litter messaging campaign designed to change behaviors that lead to litter and other forms of aquatic trash. This Baltimore project is championed by Julie Lawson at Trash Free Maryland.



*Trash Free Maryland 'trawling' for microplastics in the Baltimore harbor.
Photo Credit: Trash Free Maryland*

This campaign is a priority for: (1) the meaningful implementation plan for the trash Total Maximum Daily Load; (2) the Mayor and the City's Commission on Sustainability, and (3) The Healthy (Baltimore) Harbor Steering Committee.

Rather than develop multiple campaigns that may compete for financial resources and

the public's attention, stakeholders are pursuing a public-private partnership to conduct a single, comprehensive social marketing and public education campaign to prevent trash pollution. Integrated social marketing campaigns based on

community research have proven to be an effective strategy for bringing multiple aspects of an issue together and creating meaningful behavior change. Baltimore's efforts were focus group-tested at the beginning of this year and is expected to launch later in 2016.

*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.

Left Behind in Galveston

An enterprising group of project champions and stakeholders is seeking to stem the tide of "Left Behinds." Led by *Artist Boat*, leaders in this important coastal community, Galveston, identified used beach products as a principal waste stream of concern – most of which still have some useful life left in the product. Dubbed "left behinds," leaders believe that good samaritans leave these articles on the beach

so that they can be used by other beach goers at later points in time. Umbrellas, boogie boards, balls, beach toys, lounge chairs, and other similar items remain on the sand and oftentimes washed into the Gulf of Mexico with the next high tide. Stakeholders will work with city leadership to identify sites at controlled access points where (1) refuse bags may be distributed; (2) left behinds may be stored in secured sites and

(3) recyclable material may be collected.

In a breakthrough strategy, leadership may develop an "app" to alert secondary users to the availability of certain free left behinds at secured access points so as to facilitate greater use of products with embedded market value. Known as "Beach Free-cycle" this app, if developed, could have a broad reaching use in coastal communities across America.

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!

TFW Review of Current State of Knowledge and Ongoing Research

In 2015, TFW coordinated and completed an agency-wide review of the current state of knowledge and ongoing research regarding the potential human health and ecosystem impacts of plastics in the aquatic environment. This strategic exercise helped identify critical information gaps that the agency is best positioned to address through research.

Plastics are a concern in the environment because they can be ubiquitous in aquatic ecosystems, do not fully degrade, may contain or

transport potentially toxic chemicals, and may have potential ecosystem and human health impacts. The review, entitled "*Plastics in the Aquatic Environment - Toward an Identification of Scientific Information Needs for Risk Assessment and Management*," serves as an analytical and planning tool to assist in prioritizing future EPA research direction. It is also an invaluable coordination tool amongst federal agencies and other stakeholders engaged in research to reduce duplication of efforts.



Robert Benson representing our TFW program during the "End Littering" panel at the annual Keep America Beautiful conference on February 1st in Orlando, FL. Stay tuned for updates on our efforts to bring partners together to develop a cutting edge anti-littering national messaging campaign! Photo Credit: Keep America Beautiful.

Post-Production Impressions – Louisiana Projects

TFW took a look back at two of our finished projects from Louisiana. Having baselines and routine evaluations of progress helps us ensure that efforts are showing *measurable* progress towards aquatic trash prevention goals.

Model Port Policy with the Port of New Orleans

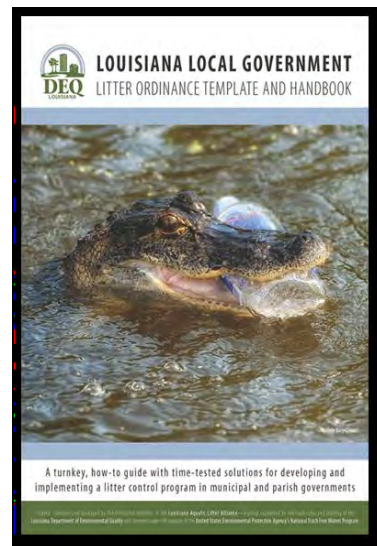
Interest remains high in the Model Port Policy developed by the Port of New Orleans as TFW looks to expand our work in the ports sector. But more than that, the recently implemented trash collection initiative has resulted in the proper disposal of tons of litter that had previously been left on the Port's truckways. The Port's "Keep it Clean" campaign, aimed at reducing waste on Port property and



in its waterways, was recognized by the American Association of Port Authorities with a national Environmental Improvement Award. We are excited to announce that this campaign recently received an additional acknowledgement: The Port won a 2016 Louisiana Department of Environmental Quality Environmental Leadership Program Award for community outreach. The award ceremony is March 10!

Litter Ordinance Template and Handbook

The Louisiana Municipal Association has applauded the *Litter Ordinance Template and Handbook* as a "fantastic resource that provides time-tested solutions for developing and implementing local litter control programs" in its December newsletter. The effort has garnered similar feedback from users across the U.S.



Download your copy of the handbook on the Trash Free Waters website.

Upcoming Meetings

Virginia Marine Debris Summit

Gloucester, VA
March 7-9, 2016

10th Annual Trash Summit - Alice

Ferguson Foundation
Washington, DC
March 22, 2016

NY/NJ TFW Partnership Meeting

New York City, NY
March 24, 2016

Puerto Rico TFW Stakeholder Meeting

Puerto Rico
April 8, 2016

International Joint Commission Workshop Microplastics in the

Great Lakes Windsor, Canada
April 26-27, 2016

Gulf of Mexico Alliance Meeting

Baton Rouge, LA
June 14-17, 2016

Adopting Spots in the Trinity Watershed!

The TFW program is working with stakeholders in Texas's Trinity River Watershed to raise the bar on "Adopt-A-Spots" from the River's headwaters to the Gulf of Mexico. The grand objective is to develop a watershed map, which overlays adoption" and "fostering" opportunities with litter

hotspots throughout the entirety of the Trinity water basin. This tool will be a valuable resource for stakeholders seeking to better direct the litter prevention energies of well over 4,000,000 people. A Steering Committee has been formed and is working hard to shape the project design.

A GIS Technical Advisory Committee has also been formed and is now framing the "data call" to key stakeholders for populating the GIS databases. The Steering Committee is hopeful for a release of the tool in the fourth quarter of 2016.

B.Y.O. New York City!

Guest Contribution by Sara Lupson, NYC Environmental Protection

New York City recently announced a new public awareness campaign aimed at reducing consumer waste, street litter, and marine debris. The campaign will build upon the success of GreenNYC's recent "B.Y.O." (Bring Your Own) campaign, which encouraged New Yorkers to use reusable mugs, bottles, and bags rather than their disposable counterparts.

Data collected as part of the campaign provided a rich understanding of the attitudes and behaviors of New Yorkers when it comes to reusable items. It also showed that the campaign increased New Yorkers' sense of responsibility for reducing waste and intent to carry reusable items.

Guided by the gathered data, the new campaign will do an additional phase of targeted media, and work with businesses to create point-



Photo Credit: GreenNYC

of-use prompts. The City is also studying the sources of street litter and inland sources of marine debris, which will allow the City to work closely with affected communities and focus outreach efforts where they will have the most impact. The public awareness campaign will help New York City comply with its first citywide Municipal Separate Storm Sewer System (MS4) permit, effective

August 1, 2015, and meet its goals of sending zero waste to landfills and reducing waste disposal by 90 percent by 2030. NYC government continues to work closely with the active TFW program in Region 2 and provides technical guidance to other messaging efforts that are part of the TFW campaign.

TFW Seeking Breakthrough Innovations

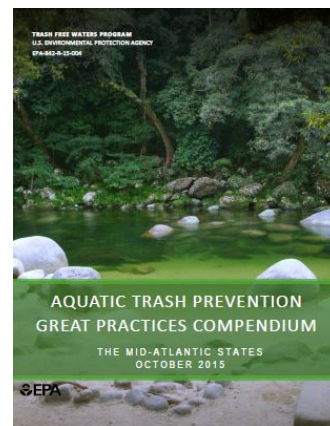
On September 30, 2015, the TFW Program hosted private sector executives in a dialogue with Gina McCarthy and Stan Meiburg. Participants shared ideas on “moon shot” activities that could achieve technological breakthroughs, alter littering behaviors, and foster corporate leadership to reduce the amount of trash entering U.S. waterways. The Administrator challenged the group to follow through on the

collaboration ideas that were put on the table.

Since then, the TFW team has engaged in conversations with dialogue participants and other interested stakeholder groups. Several project ideas have emerged, including: working with XPrize, Ocean Exchange, and other innovation drivers to support possible innovation challenges, exploring partnership opportunities to

support the Wrap Action Recycling Program for plastic film, bringing corporate partners to state and municipal trash prevention projects, and defining a next generation cause marketing campaign to change littering behaviors.

For more information, contact Bob Benson at benson.robert@epa.gov or 202-566-2954.



Trash in Estuaries: TFW-Sponsored Panel at 2016 National Estuary Program Workshop

On February 23-25, EPA hosted the 2016 National Estuary Program (NEP) Workshop in Washington, D.C., at which TFW sponsored a panel discussion that focused on strategies to build capacity to implement trash prevention and clean-up strategies in estuaries and their contributing watersheds. The panelists represented organizations that share “trash free waters” goals and included Jason Rolfe, NOAA Marine Debris Program; Cecile Carson, Senior Director of Affiliate Development, Keep America Beautiful; Surabhi Shah, Director, EPA Urban Waters Program; Javier Laureano, Executive Director, San Juan Bay Estuary Program NEP; and Laura Johnson, EPA

EPA TFW Team Leader, who served as the panel facilitator.

In a “Meet the Press” style format, the panelists gave their perspectives on effective capacity-building strategies to build stakeholder buy-in, find resources, create partnerships, and institutionalize programs with lasting results. A particular benefit of this panel was the opportunity for enhanced connections among the five programs represented, in addition to making connections with individual NEPs. The panel generated a lot of good will, but also affirmed how all the programs interconnect and can support one another, especially when tackling aquatic trash issues in estuaries.

Many NEPs face trash and litter pollution from land-based sources with limited resources to address those impacts effectively. Each NEP consists of diverse local stakeholders who develop and implement a long-term plan based on local priorities to guide their efforts. The NEPs use a collaborative and consensus-building approach by involving community members in the decision-making process. EPA’s National Estuary Program is a non-regulatory program established by Congress that works to improve the waters, habitats and living resources of 28 estuaries across the country.

Aquatic Trash Prevention Great Practices Compendium... goes National!

The original *Compendium* highlights successful aquatic trash prevention efforts that yielded measurable results in the Mid-Atlantic. It was so well received that we would like to highlight successful efforts throughout the U.S.

Do you have a great practice for us to consider? Please email Johnson.laura-s@epa.gov.

TFW Puerto Rico Making Progress

Since the introduction of the TFW Program to stakeholders in Puerto Rico on Sept. 9, 2014, the TFW Team there has made progress in implementing the six projects stakeholders identified in the TFW Puerto Rico Strategy. Here are the six projects and their implementation status: Alternatives for Single Use Plastic Bags:

Alternatives for single use plastic bags: On Dec. 29, the PR Governor signed into law legislation to ban plastic bags and promote the use of reusable bags in businesses.



Photo Credit: San Juan Bay National Estuary Program

The TFW Team has partnered with several municipalities and has been implementing three pilot projects to set the guidelines on implementing local ordinances to comply with this law.

Stormwater management pilot project: The objectives of this project, run by the San Juan Bay National Estuary Program, is to characterize trash entering the storm sewer system and to identify technologies & green infrastructure to prevent litter from reaching nearby waters.

Cigarette butt cleanup & source reduction: An ashtray prototype was designed to be used at locations where people tend to smoke and where people put out cigarettes prior to going to areas where smoking is not allowed; cigarette butt litter cleanups and educational campaigns were conducted in several municipalities.

Development of a database and an "atlas" of existing anti-litter

policies, regulations, programs, locations to recycle, and educational/outreach materials: A collaboration agreement was made with the Solid Waste Management Authority to update their existing outreach materials.

Anti-litter messaging at food trucks & restaurants within a watershed: A 'Zero Waste Guide and Fact Sheet for Food Trucks' was developed and shared with Municipal Recycling Coordinators for their use and distribution.

Reduction of single use plastic bottles & styrofoam at government, private agencies & sponsored events: An agreement was made with the Puerto Rico Manufacturing Association to incorporate into their Annual Environmental Summit practices that reduce single use plastic bottles and Styrofoam.

Great work TFW Puerto Rico! More updates to come.

TFW at Association of National Estuary Programs Conference

Estuarine trash pollution was a major theme at this year's National Estuary Program (NEP) Tech Transfer Conference sponsored by the San Juan Bay NEP in San Juan, Puerto Rico. During her keynote speech, EPA Regional Administrator Judith Enck made a strong commitment to TFW efforts emphasizing the importance of reducing and preventing trash from reducing and preventing

trash from entering our watersheds and ultimately our coastal ecosystems. Joan Matthews (EPA Region 2 Director, Clean Water Division) moderated a panel where Jennifer Coffey (Association of New Jersey Environmental Commissions), and Rick Frederick (Mobile Bay NEP) each presented separately on land-based methods to change littering behavior, and Virginia

Vassalotti (Delaware NEP) presented on litter data collection and management as the cornerstone to reducing trash loading rates. EPA representatives also collectively presented on the scope of the global and regional aquatic plastics pollution issue, along with local community-level projects and national initiatives to reduce land-based aquatic trash.

The Rapids: News Drops

Guide to Reduce Litter in the Foodservice Industry

A guide to help foodservice operators reduce litter was prepared and released in partnership with the National Restaurant Association, Food Service Packaging, and Keep America Beautiful. The document titled "A Guide to Reducing and Managing Litter" can be accessed at:
<http://conserve.restaurant.org/solutions>.

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GRANT OPPORTUNITIES

Healthy Watershed Consortium Grants Program

Deadline: March 14th

The U.S. Endowment for Forestry and Communities released its first Request for Proposals soliciting proposals for the Healthy Watershed consortium Grants Program. This is the new delivery mechanism for grant funding under EPA's Healthy Watershed Program. There are three different categories of proposals with differing funding amounts. For more information or to apply, please go to usendowment.org/partnerships/hwcgrantprogram.html.

EPA Environmental Education (EE) Grants

Deadline: April 8th

Under the Environmental Education Grants Program, EPA seeks grant proposals from eligible applicants to support environmental education projects that promote environmental awareness and stewardship and help provide people with the skills to take responsible actions to protect the environment. Since 1992, EPA has distributed between \$2 and \$3.5 million in grant funding per year, supporting more than 3,600 grants. For more information or to apply, please go to <http://www.epa.gov/education/environmental-education-ee-grants>.

Foam Recycling Coalition Grant Program

Deadline: April 10th

The Foam Recycling Coalition, part of the Foodservice Packaging Institute, seeks grant proposals from eligible applicants to support increased recycling or packaging made from foam polystyrene. Both public and private organizations involved in managing residential curbside recycling programs or material recovery facilities are eligible to apply. Each grant ranges from \$15,000-\$50,000. For more information or to apply, please go to www.fpi.org/recyclefoam.

Grant to Improve Access to Residential Curbside Recycling Systems

Deadline: April 15th

The Recycling Partnership has just released its latest Request for Proposals, which is geared specifically to help counties, municipalities, tribes, and solid waste authorities with 4,000 or more households upgrade to cart-based collection. For more information or to apply, please go to <http://recyclingpartnership.org/>.
