

GOVERNMENT OF THE DISTRICT OF COLUMBIA
Department of Energy and Environment

NOV 13 2019

Representative Jared Huffman
Chairman
Subcommittee on Water, Oceans, and Wildlife
Natural Resources Committee
1324 Longworth House Office Building
Washington, DC 20515

Representative Tom McClintock
Ranking Member
Subcommittee on Water, Oceans, and Wildlife
Natural Resources Committee
1329 Longworth House Office Building
Washington, DC 20515

Subject: Written Testimony for recent U.S. House of Representatives hearing entitled *A Sea of Problems: Impacts of Plastic Pollution on Oceans and Wildlife*

Dear Rep. Huffman and Rep. McClintock:

Thank you for your interest in addressing the impacts of plastic pollution on the world's oceans. Plastic pollution is one of the great environmental challenges of our time and will not be solved without robust participation from federal, state, and local governments. We welcome this opportunity to provide written testimony and stand ready to work with you on further efforts to address this issue.

The District has been a leader in the nation for over a decade on addressing trash, particularly plastic materials, in our local waterways. According to a 2015 article published in the journal, *Science*, researchers estimate over 8 million metric tons of trash enter the oceans annually from land-based sources.¹ In a heavily urbanized area like the District, a large portion of that trash comes from litter being conveyed via storm sewer and combined sewer systems to estuaries like the Potomac and Anacostia Rivers. In response to this problem, the District, in collaboration with U.S. Environmental Protection Agency (EPA) and upstream jurisdictions, established a total maximum daily load (TMDL) for trash in the Anacostia River. As a result, the District is compelled by EPA and our own priorities to reduce trash in the Anacostia River as part of our efforts to make the Anacostia fishable and swimmable once more. We believe addressing trash, including plastic pollution, starts upstream in our streams, rivers, and estuaries. Trash, especially plastic, affects our local waterways as much as it does the oceans.

¹ - Jambeck, J.R., R. Geyer, C. Wilcox, T.R. Siegler, M. Perryman, A. Andrady, R. Narayan, & K.L. Law. 2015. Plastic waste inputs from land into the ocean. *Science* 347: 768-771.

We are very proud of our accomplishments over the past decade and would like to share details of some of our efforts in hopes that this work can, and will be, emulated elsewhere throughout the nation. Three important components have helped us to effectively manage trash in our waterways: regional partnerships, using sound science to inform policy, and taking multi-pronged, innovative approaches.

Regional Partnerships

The issue of trash impacting the Potomac River watershed began over a decade ago thanks to a regional collaboration facilitated primarily by the Alice Ferguson Foundation of Accocek, MD. Since 2005, the Alice Ferguson Foundation has held an annual Potomac Watershed Trash Summit in the DC metropolitan area. This summit brings federal, state, and local government agencies, elected officials, and non-governmental organizations together to discuss efforts to reduce trash in the watershed. This would not be possible without grant funding from the NOAA Marine Debris Program, which has been an invaluable partner in regional efforts to address this issue.



Example of trash conditions in Watts Branch, a tributary to the upper Anacostia River in Washington, DC

Over the years, participants have implemented key efforts discussed at this summit including a regional anti-littering campaign, innovative local policies for reducing trash, and regional collaborations to establish the TMDL for trash for the Anacostia, one of the most urbanized tributaries to the Potomac River. The summit brought together leaders from the District, the state of Maryland, local Maryland counties, EPA, and local advocates to reach common ground on establishing the TMDL. Without this regional partnership it is very unlikely this effort would have been successful. As we will highlight more specifically, several new innovative approaches for trash reduction have been implemented since that time.

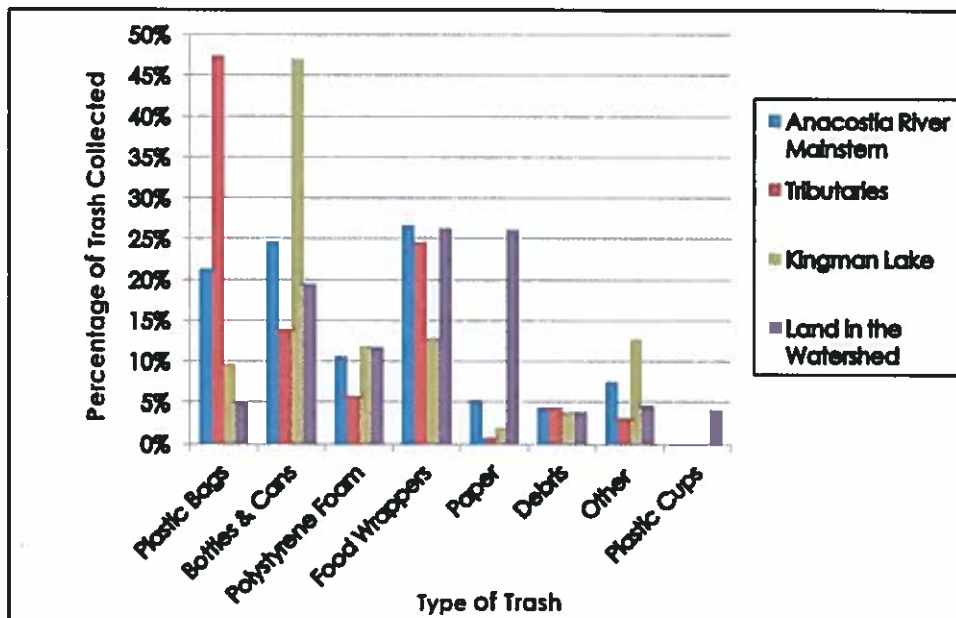
In 2016, the District, Montgomery County, and Prince George's County reaffirmed their commitment to making the Potomac and Anacostia River free of trash by signing the Anacostia River Accord. The Accord was signed by the District's Mayor Muriel Bowser, as well as Montgomery County Executive Isiah Leggett, and Prince George's County Executive Rushern

Baker. In addition, the Anacostia Watershed Restoration Partnership, housed at the Metropolitan Washington Council of Governments, has convened a trash working group to develop consistent methods for tracking and reporting trash reductions across all three jurisdictions. This is further evidence of the importance of regional partnerships at combatting the issue of trash in our waterways.

Using Sound Science to Inform Policy

One of the first things the District did to address the problem of trash in the Anacostia River was conduct a two-year comprehensive study of trash conditions. The District Department of Energy and Environment (DOEE) funded the Anacostia Watershed Society of Bladensburg, MD to conduct surveys of litter along the river and its many tributaries, and monitor trash loads from storm sewer outfalls. The study provided two important pieces of information: (1) data on the most common types of trash in the Anacostia River and its watershed and (2) data on total weight of trash entering the Anacostia River on an annual basis. The first dataset informed District policies targeted to address specific types of trash most common in our waterways such as single-use plastic bags and expanded polystyrene foam products. The graph below shows the most common types of trash found out of 44 different categories sampled along DC shorelines in the Anacostia River, its tributaries, Kingman Lake (a semi-enclosed lake in the Anacostia River), and land in the Anacostia River watershed. The District utilized the second dataset on trash loads to develop the trash TMDL and identify and strategically address hotspots in the watershed which are conveying above average amounts of trash to the river.

Since 2016, DOEE has been working with the Metropolitan Washington Council of Governments to sample trash along rivers and streams throughout the District. We provide this data annually to U.S. EPA Region III. This work builds upon a larger monitoring dataset the Council of Governments has been collecting in the Maryland portion of the Anacostia River



Graph displaying most common types of trash found by count in 2008 in the Anacostia River, its tributaries, Kingman Lake, and land in the Anacostia watershed.

watershed since the early part of this decade, making it one of the most robust datasets for trash for a waterway anywhere in the nation. Having this data is imperative to making future strategic decisions for implementation and informing development of new policies.

Our local partners have also been monitoring for microplastics in local waterways. Water samples collected in the Anacostia River by Anacostia Riverkeeper in 2019 contained microplastic concentrations as high as 696 microplastic particles per liter. To provide some perspective, samples taken in another highly urbanized river, the River Thames in London, England, revealed concentrations as high as 84.1 microplastic particles per liter². A recent report from the Chesapeake Bay Program Scientific and Technical Advisory Committee revealed that microplastics are ubiquitous throughout the Chesapeake Bay and its watershed (which includes the District); however more research needs to be done on the potential ecological effects of microplastics. The report recommends conducting an ecological risk assessment looking at the effects on multiple species of importance to the bay and its watershed. A copy of the report can be found at: https://pub-data.diver.orr.noaa.gov/marine-debris/mid-atlantic/FINAL_STAC%20Report_Microplastics.pdf.

Multi-Pronged, Innovative Approaches

As with most environmental challenges, there is no “silver bullet” for eliminating the harm trash poses to our waterways and wildlife. The District has devised a plan that utilizes innovative policies, trash capture technologies, education, and outreach.

As mentioned previously, our monitoring efforts helped us to determine the most common types of trash found in our waterbodies. The District utilized monitoring data described previously to justify the need to reduce three of the most common types of trash found during sampling: single-use plastic bags, expanded polystyrene foam products (commonly referred to as Styrofoam™), and other food service ware.

In 2009, the District enacted the Anacostia River Clean Up and Protection Act (also known as the Bag Law) to create a five-cent fee on single-use plastic bags. Starting January 1, 2010, consumers in the District pay the fee at the time of purchase in a restaurant, grocery, liquor, or convenience store. DOEE employs an inspection team to ensure businesses are in compliance with the law. Revenue, fines, and other contributions generated by the law goes into the Anacostia River Clean Up and Protection Fund to pay for projects like trash capture devices, stream restoration, stormwater management projects, education, outreach, and administrative costs. In Fiscal Year 2019, the Department found that 77% of businesses inspected were in compliance with the law. More information on the District’s Bag Law, including annual revenue and expenditure reports, are available at <https://doee.dc.gov/bags>.

In 2014, the District enacted the Sustainable DC Omnibus Amendment Act, which includes restrictions on food service ware packaged and intended for consumption without further preparation. Specifically, a ban on food service ware made of Styrofoam™ (foam) took effect

² - For more information, please go to the Anacostia Riverkeeper story map, *Single-Use River: Microplastics in the Anacostia River*, at <https://www.arcgis.com/apps/Cascade/index.html?appid=0ff0d351069a477c915570513f01d082>.

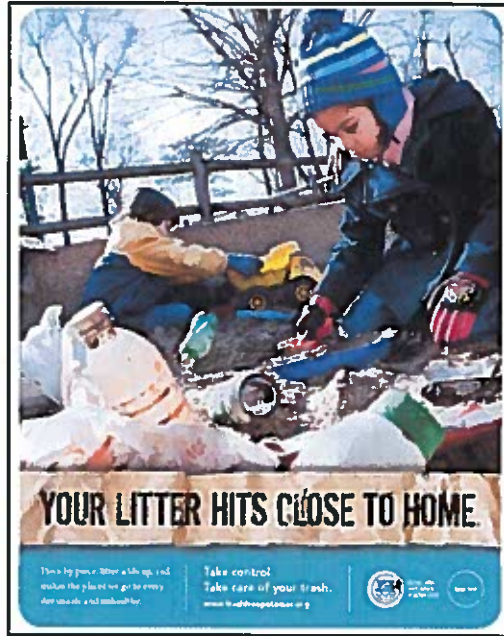
January 1, 2016, and the law requires food service ware to be made of recyclable or compostable materials starting January 1, 2017. Plastic straws were banned as part of the recyclable and compostable requirements in October of 2018. As with the Bag Law, DOEE inspects businesses to make sure they are in full compliance with the law. In fiscal year 2019, DOEE found that 97% of District businesses inspected were no longer using foam, and compliance rates with the new plastic straw and stirrer ban were rapidly increasing. Further information on the District's food service ware requirements is available at <https://doee.dc.gov/foodserviceware>.

The District has also implemented innovative structural controls for capturing trash. Since 2009, the District has installed nine trash traps in the Anacostia River watershed. These traps have varied from proprietary products to custom devices designed by local non-profits. The pictures below display examples of the devices. These devices have primarily been funded by the Anacostia River Clean Up and Protection Fund and other local funding sources through grants to local nonprofits to design, install, and maintain these devices. The nonprofits also collect data on trash collected in the traps to further inform policy and management. Since installation of the first device in 2009, these devices together have helped capture and remove over 60,000 lbs of trash and debris from the Anacostia River and its tributaries.



Photo of a Bandalong™ litter trap designed and installed by Stormwater Systems of Cleveland, GA, along a tributary to the Anacostia River. The District has funded the installation and maintenance of nine structural controls like this one from funding sources such as the Anacostia River Clean Up and Protection Fund generated from the five cent fee on single-use plastic retail bags.

Lastly, the District has led many education and outreach activities over the years to change behavior. In 2010, DOEE funded the Alice Ferguson Foundation (AFF) to conduct a study of littering behavior that guided the development of an anti-littering campaign throughout the District. The campaign's central message, "*Your Litter Hits Close to Home,*" was based on AFF's social marketing research that found people were most impacted by the effects litter has on their personal space, health, and well-being. Below is an example graphic from the anti-littering campaign. Other local governments in the Potomac River watershed have adopted these campaign materials.

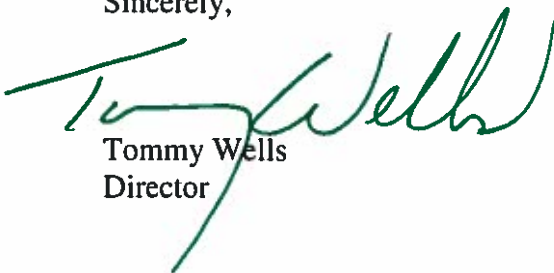


Example poster from the DOEE and Alice Ferguson Foundation Anti-Littering Campaign.

In closing, I want to again thank you and the Subcommittee on Water, Oceans, and Wildlife for your interest in this important subject. As the nation's capital, the District has an important role to play in restoring urban waterways. We have set the stage for reducing trash in our rivers and streams using multi-faceted, innovative approaches, but we are not done. We are truly alarmed by the potential impact of microplastics on our local waterways. Additional research is needed looking at the broader ecological effects of microplastics, including effects on living resources important to recreation and commerce.

I would encourage the subcommittee to peruse reports on our monitoring efforts. If you are interested in receiving copies, or have any other questions regarding our efforts to reduce trash in our waterways, please contact Matt Robinson of the DOEE Watershed Protection Division at matthew.robinson@dc.gov or (202) 442-3204.

Sincerely,



Tommy Wells
Director