

# Anacostia Watershed Trash/Litter Monitoring –The Macro Source–

Microplastics in the Chesapeake  
Bay and its Watershed

A Scientific and Technical Advisory Committee  
(STAC) Workshop

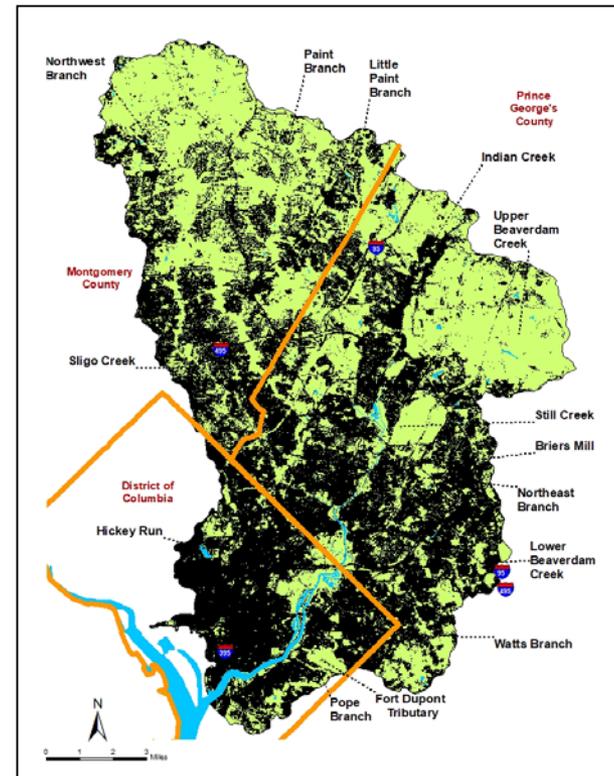
April 24-25, 2019



Metropolitan Washington  
Council of Governments

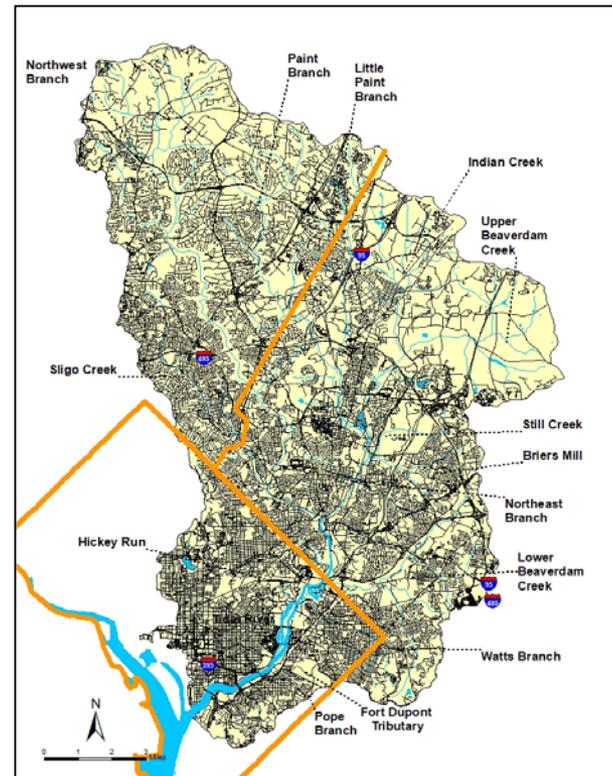
# The Anacostia Watershed

- 176 Square Miles
- Prince George's County (48%)
- Montgomery County (35%)
- District of Columbia (17%)
- Highly urbanized
- Approximately 25% impervious surfaces
- Densely populated – Home to over 800,000 people

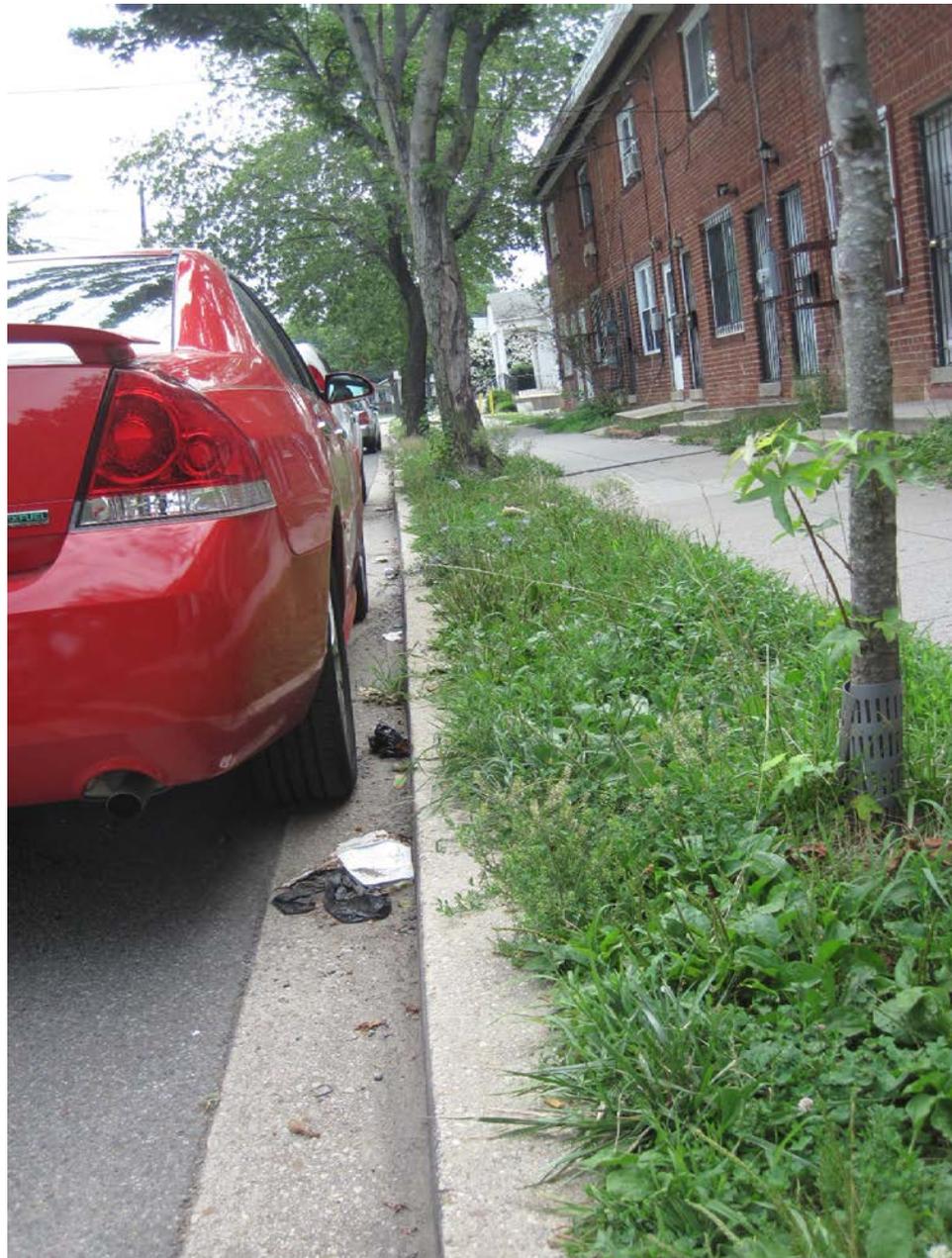


# The Anacostia Watershed

- Over 2,960 miles of centerline road length
- Over 6,000 pipe outfalls discharging to the streams and river
- Stream flow is characterized as flashy



# Typical Curb and Gutter Pan





Typical Curb and Gutter Pan to  
Storm Drain Inlet



# Storm Drain Pipe Outfall to Stream





# What is Trash?

- All improperly discarded waste material, including, but not limited to, convenience food, beverage, and other product packages or containers constructed of steel, aluminum, glass, paper, plastic, and other natural and synthetic materials thrown or deposited on the land or water.
- Minimum size = Approximately one inch diameter; bottle cap size



## TRASH ITEMS/CATEGORIES

**1. Plastic Bags:** Typical “carryout” items include plastic grocery bags and shopping bags. Typical “other” items include garbage bags, newspaper sleeves, sheet stretch wrap, mulch bags and the shreds or parts of torn bags.

**2. Plastic Bottles:** Typical items include plastic containers of any size, used to store liquids. Exceptions include auto products containers such as oil quart, antifreeze, car wax containers, etc. They are recorded in a separate category.

**3. Food Wrappers:** Typical food items that comes packaged such as potato chip bags, candy wrappers, juice pouches, etc. Recent biodegradable “take-out” containers are included.

4. Aluminum Cans: Typical items include aluminum containers of any size, typically used to store liquids.

**5. Polystyrene foam:** (Extruded and expanded polystyrene cups, packaging, etc.): Extruded polystyrene foam (other) are typically thermal insulation sheets and expanded polystyrene foam are typically coffee cups, coolers, or cushioning material in packaging made expanded polystyrene beads.

6. Paper: Typical items include newspaper, napkins, receipts, coated paper cups and plates, etc.

7. Cardboard: Typical items include corrugated thick sheets of paper.

**8. Clothing/Carpeting:** Typical items include shirts, pants, socks, hats, shoes, purses, backpacks, wallets, umbrellas and carpet and pads. Recent “wet-wipe” towelettes are included in this category.

9. Glass Bottles: Typical items include glass containers of any size, typically used to store liquids.

10. Auto: Products Containers- Typical items include bottles, cans, tubes, and other containers that held products used in the care and maintenance of an automobile. Items include oil and antifreeze containers, engine fluid bottles, washer fluid bottles, car wax or polish containers, etc. Vehicle body parts - Anything that was once part of an automobile separated out to large (items greater than 1 square foot) and small (items less than 1 square foot).

11. Automotive/Car batteries: Items include small 6 volt to more typical 12 to 24 volt batteries.

12. Automotive/Car: Items include various sized vehicle tires.

13. Construction Debris: Typical items that were used in the construction or deconstruction of something and include bricks, lumber, concrete, drywall, vinyl tile, siding, or roofing material, and tools.

14. Appliances: Typical items include bicycles, strollers, scooters, lawnmowers, furniture, and appliances such as washing machines, refrigerators, radiators, etc.

15. Wooden Pallets: Typical item include whole or part of wooden pallets.

16. Metal (drums, cans, pipes and foil): Typical items include small and large non-aluminum food or drink containers. It also includes aluminum foil and metal drums, posts and pipes.

17. Shopping Carts: Typical item include various metal and plastic shopping carts.

18. Toiletries/Drug Containers: Typical items include personal care products and their packaging and prescription and over-the-counter drug container and packaging and hypodermic syringes.

19. Sport Equipment/Toys: Typical items include all types and sizes of recreational balls and any toy or discernible part of a toy larger than 1 inch.

20. Miscellaneous: Items that do not fit in any other category or are not identifiable.

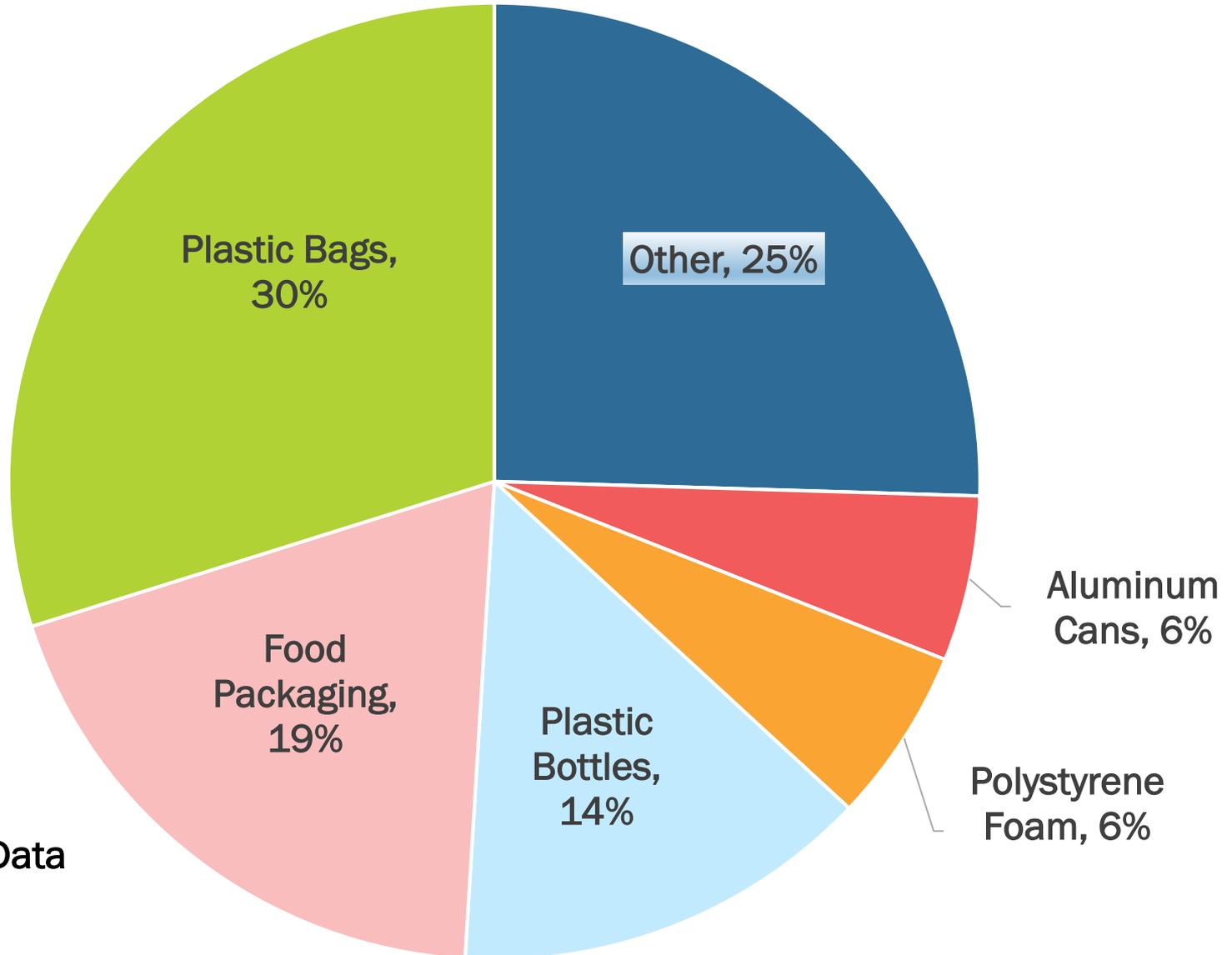


# Stream Trash Rating

Verbal Rating	Number of Items per 100 feet
None – Very Light	0 – 10
Light	10.1 – 25.0
Moderate	25.1 – 50.0
High	≥ 50.1



# Top Trash Items by Count



Provisional Data

# Plastic Bags



# Food Packaging



# Plastic Bottles



# Polystyrene - Foam



# Microfibers





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