



EPA's Facts and Figures: Plastics

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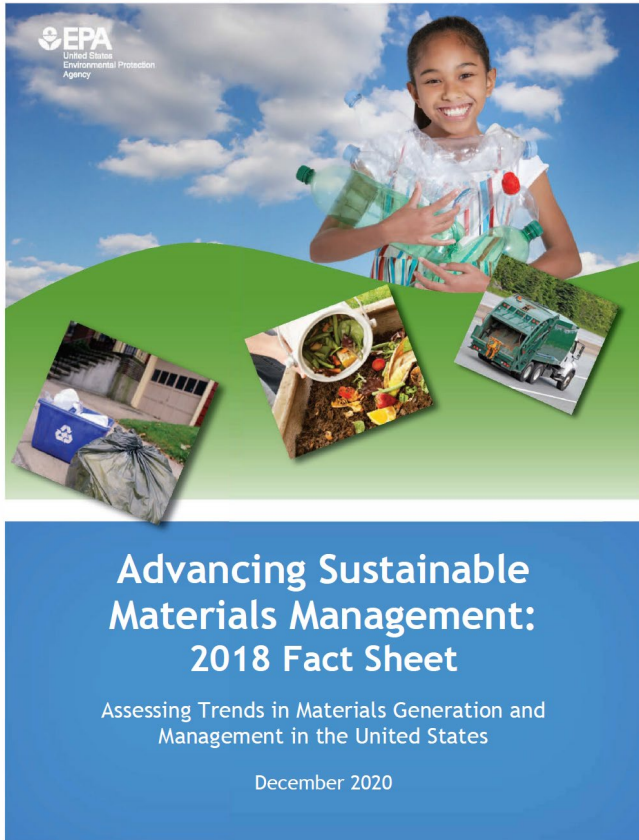
Chief, Sustainable Materials Branch

Office of Resource Conservation and Recovery

NIST Workshop: Data and Harmonization to Improve the Circularity of Plastics

January 24 - 26, 2023

EPA's Facts and Figures: Background

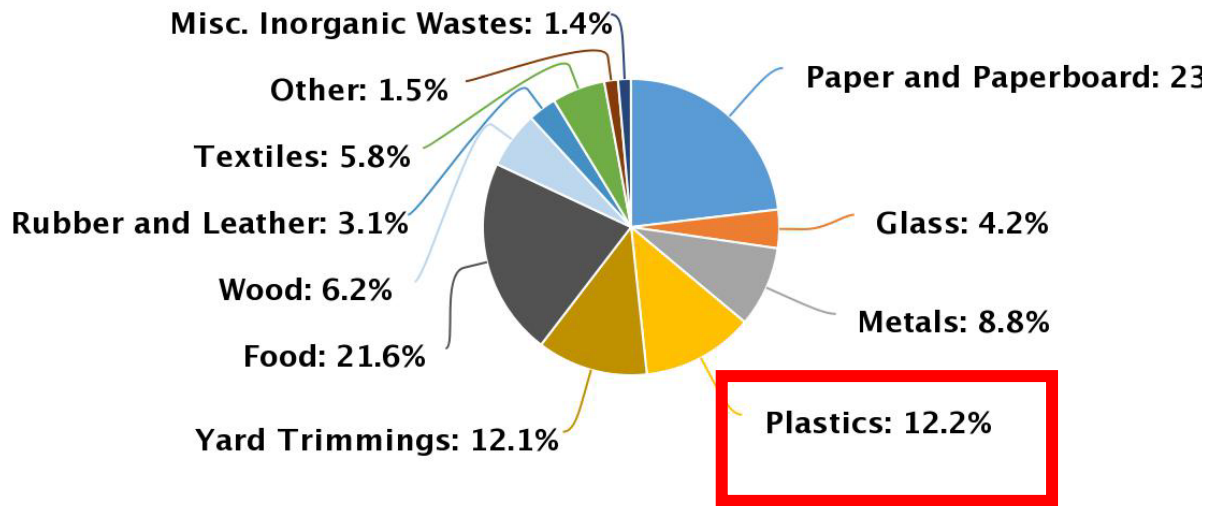


- Annual national waste characterization since the 1980s
 - Estimates national recycling, composting, incineration and landfilling quantities.
 - Uses top-down, mass-balance material flows approach.
 - Uses national economic data along with industry data and sampling studies.
 - Materials covered: municipal solid waste - paper, glass, metals, plastics, textiles, rubber and wood.
 - Newer stand-alone methods for C&D debris and food waste.
- Popular with stakeholders:
 - Most clicks on our website
 - Estimated recycling rate of 32.1% (2018) is the most frequently-cited statistic.

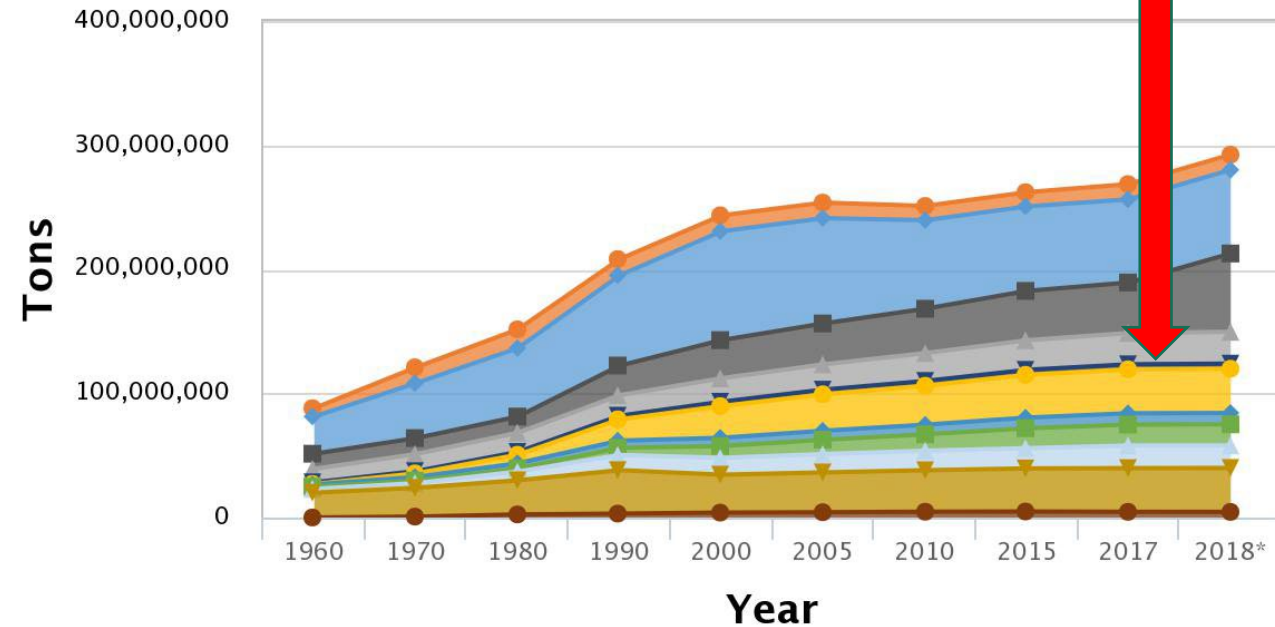
MSW Generation and Plastics

Total MSW Generated by Material, 2018

292.4 million tons



Generation Tonnages, 1960-2018

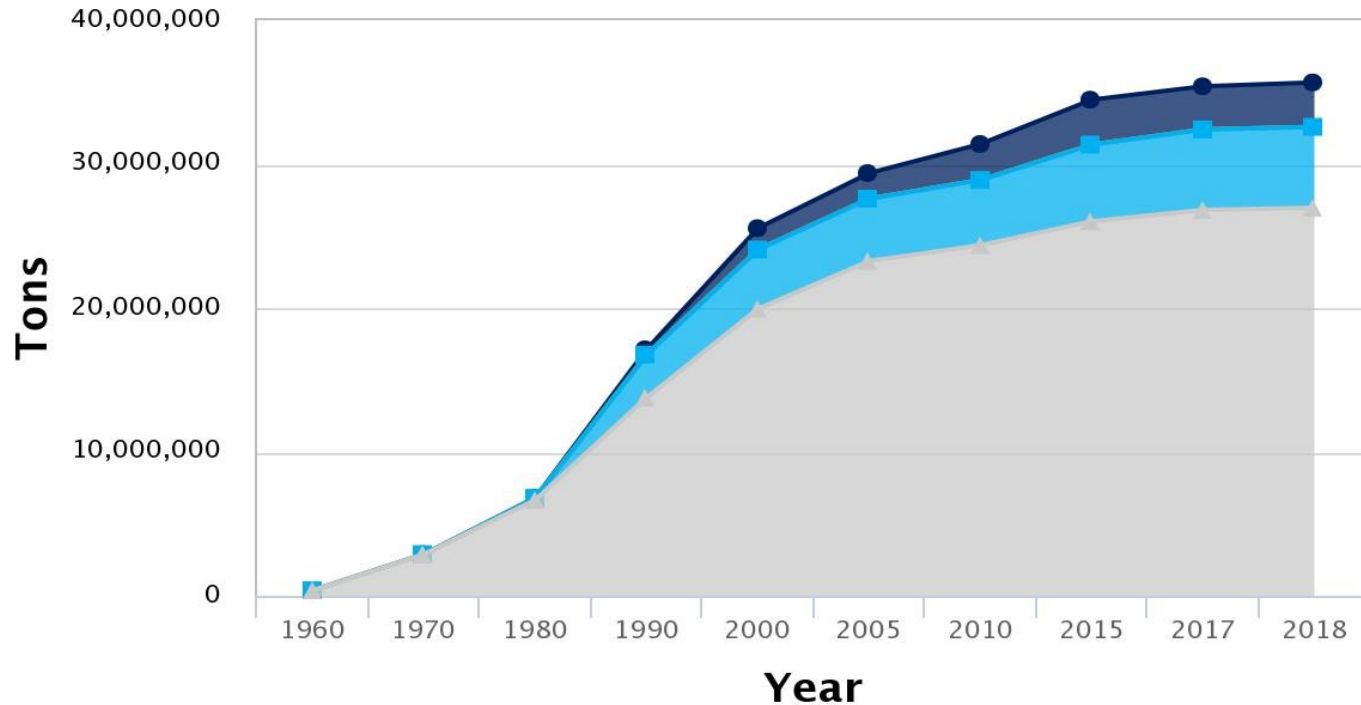


Click on legend items below to customize items displayed in the chart

- Glass
- Paper & Paperboard
- Food
- Metals
- Misc Inorganic Waste
- Plastics
- Rubber & Leather
- Textiles
- Wood
- Yard Trimmings
- Other

Plastic Waste Management

Plastics Waste Management: 1960–2018



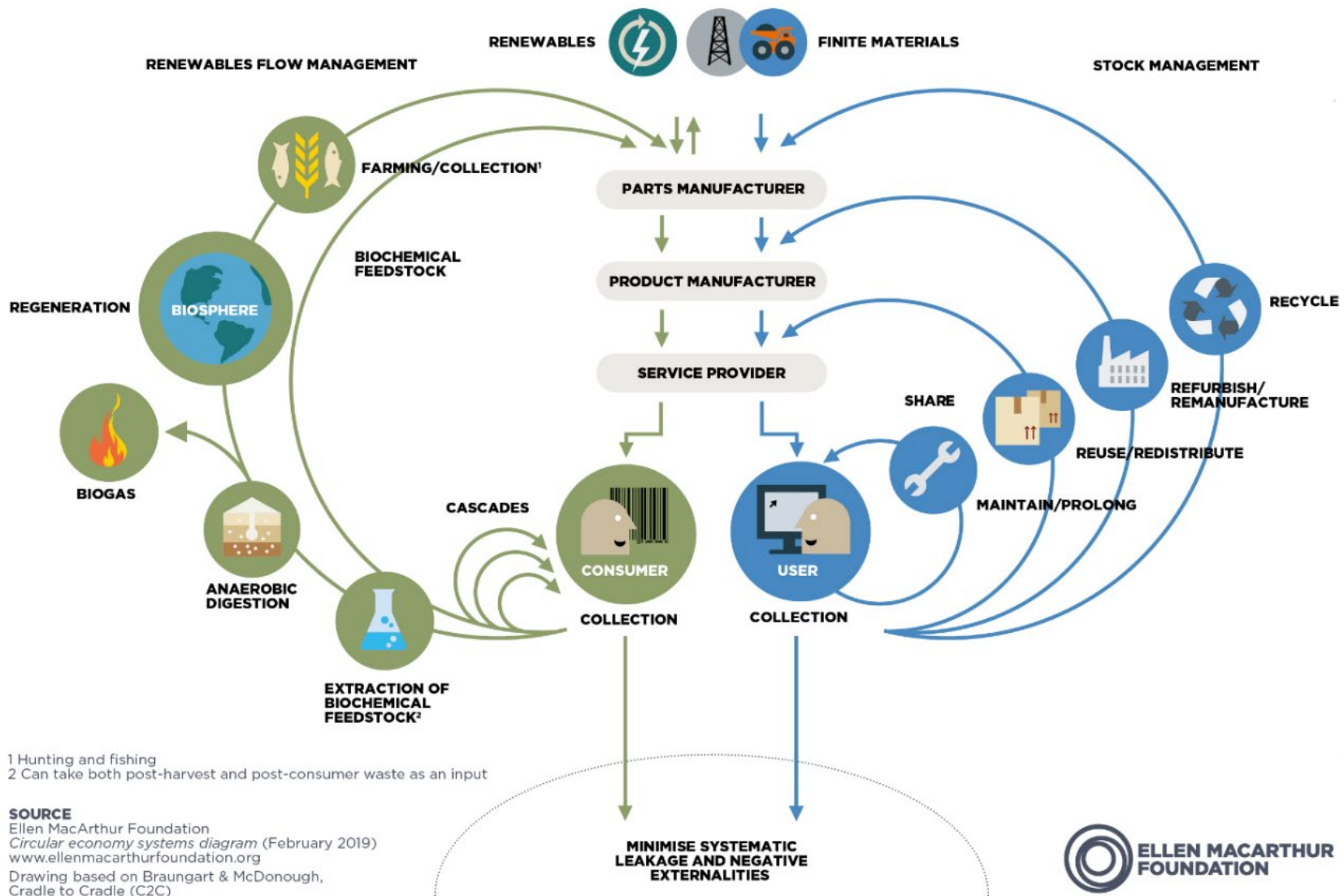
Of the approximately 36 million tons generated in 2018:

- 27 million tons landfilled
- 6 million tons combusted with energy recovery
- 3 million tons recycled

Click on legend items below to customize items displayed in the chart

■ Recycled ■ Composted ■ Combustion with Energy Recovery ■ Landfilled

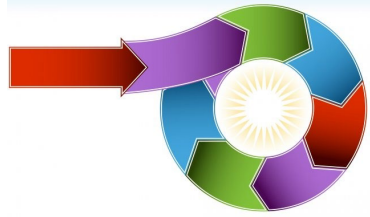
Now Moving to a Circular Economy Approach...



1 Hunting and fishing
2 Can take both post-harvest and post-consumer waste as an input

SOURCE
Ellen MacArthur Foundation
Circular economy systems diagram (February 2019)
www.ellenmacarthurfoundation.org
Drawing based on Braungart & McDonough,
Cradle to Cradle (C2C)





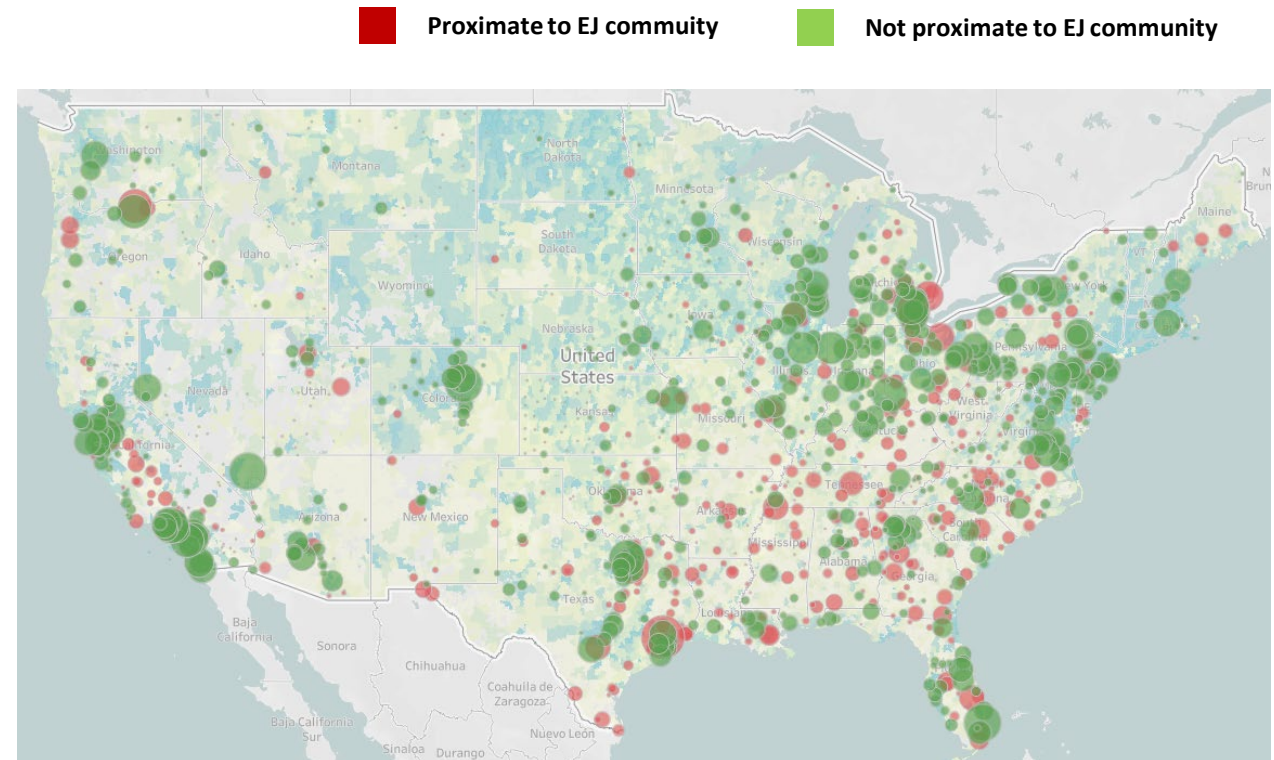
Capitalize on EPA's U.S. EEIO Models

- Update and expand USEEIO modeling to support:
 - Goal measurement and methods.
 - National estimates of waste generation, management, and leakage.
 - Tracking materials and wastes and assess their related impacts throughout the economy
 - Perform projections



Path Forward: Describe Other Environmental and Social Impacts from Waste Management

Location of active landfills in the United States near environmental justice communities, by landfill size



- Cost
- GHG emissions
- Environmental contamination
- Environmental Justice
- Capacity

Circular Economy Strategy Series

 **Bipartisan Infrastructure Law (BIL)**

 Solid Waste Infrastructure for Recycling Grants

 Recycling Education and Outreach Grants

 Battery Collection Best Practices and Labeling Guidelines



- Objectives:**
- A. Improve Markets for Recycling Commodities
 - B. Increase Collection and Improve Materials Management Infrastructure
 - C. Reduce Contamination in the Recycled Materials Stream
 - D. Enhance Policies to Support Recycling
 - E. Standardize Measurement and Increase Data Collection

EPA is establishing a 10-year vision that embraces circularity, sustainable materials management, addresses climate change, and environmental justice.



Grant Programs

SWIFR

Recycling
Education &
Outreach

Grants
for Political
Subdivisions

Applications Due: Feb. 15

Grants for Tribes
and Intertribal
Consortia

Applications Due: April 4

Grants for States
and Territories

Applications Due: Feb. 15

Tribal Webinars:

Series 1: January 25th

Series 2: February 1st, 7th

epa.gov/infrastructure/grants-tribes-and-intertribal-consortia#webinars



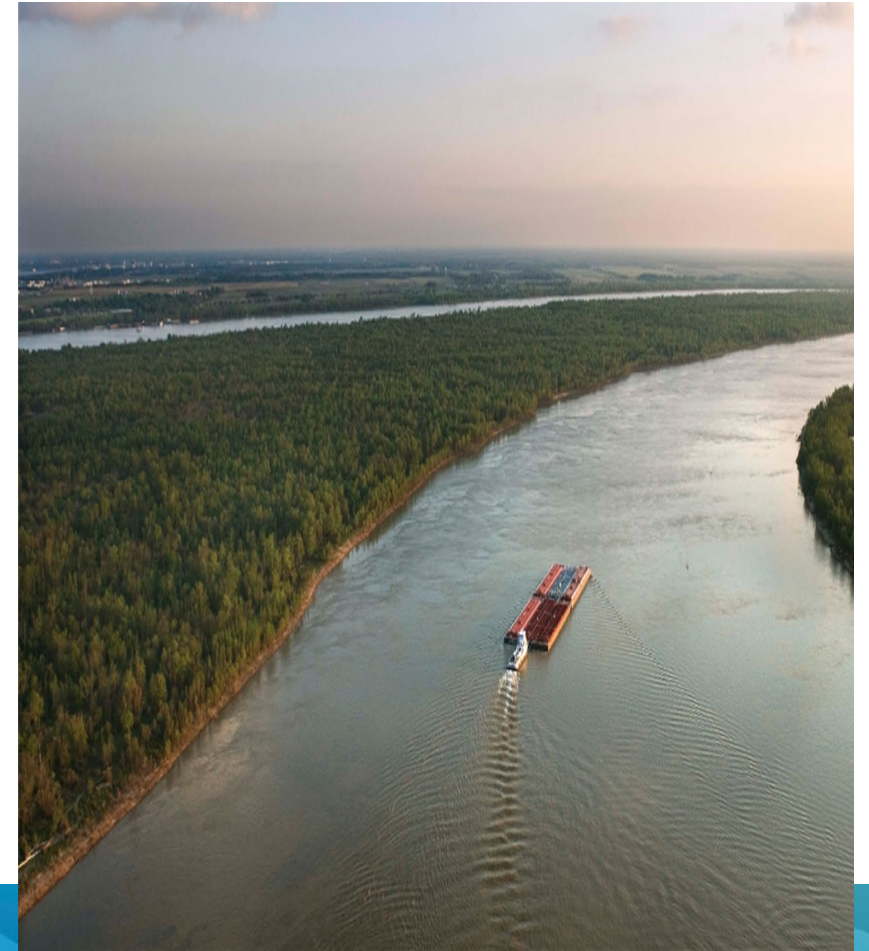
SWIFR States and Territories

- **Eligible Entities:** States and Territories
- **Estimated Funding:** About **\$30,000,0000**
- Projects for **states and territories** may include:
 1. **Develop or update plans** to advance post-consumer materials management
 2. **Develop, strengthen, and/or implement comprehensive data collection** efforts that demonstrate progress towards the National Recycling Goal and Food Loss and Waste Reduction Goal
 3. **Support** the state-led implementation of plans
 - Only for territories: **equipment** and **construction**
- epa.gov/rcra/grants-states-and-territories



Mississippi River Cities and Towns Initiative (MRCTI)

- Through a 5-year MOU, EPA and MRCTI intend to:
 - Engage with stakeholders in community-driven solutions for plastic pollution along the River
 - Provide technical assistance to communities on waste management and pollution prevention to support their goals for reducing plastic pollution and managing materials sustainably.
 - Data and measurement
 - Analyzing impacts in communities





THANK YOU!

For more information:

epa.gov/facts-and-figures-about-materials-waste-and-recycling

epa.gov/RecyclingStrategy

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