

South Atlantic Strategy Stakeholder Meeting

April 11, 2024



EPA

United States
Environmental Protection
Agency



Welcome

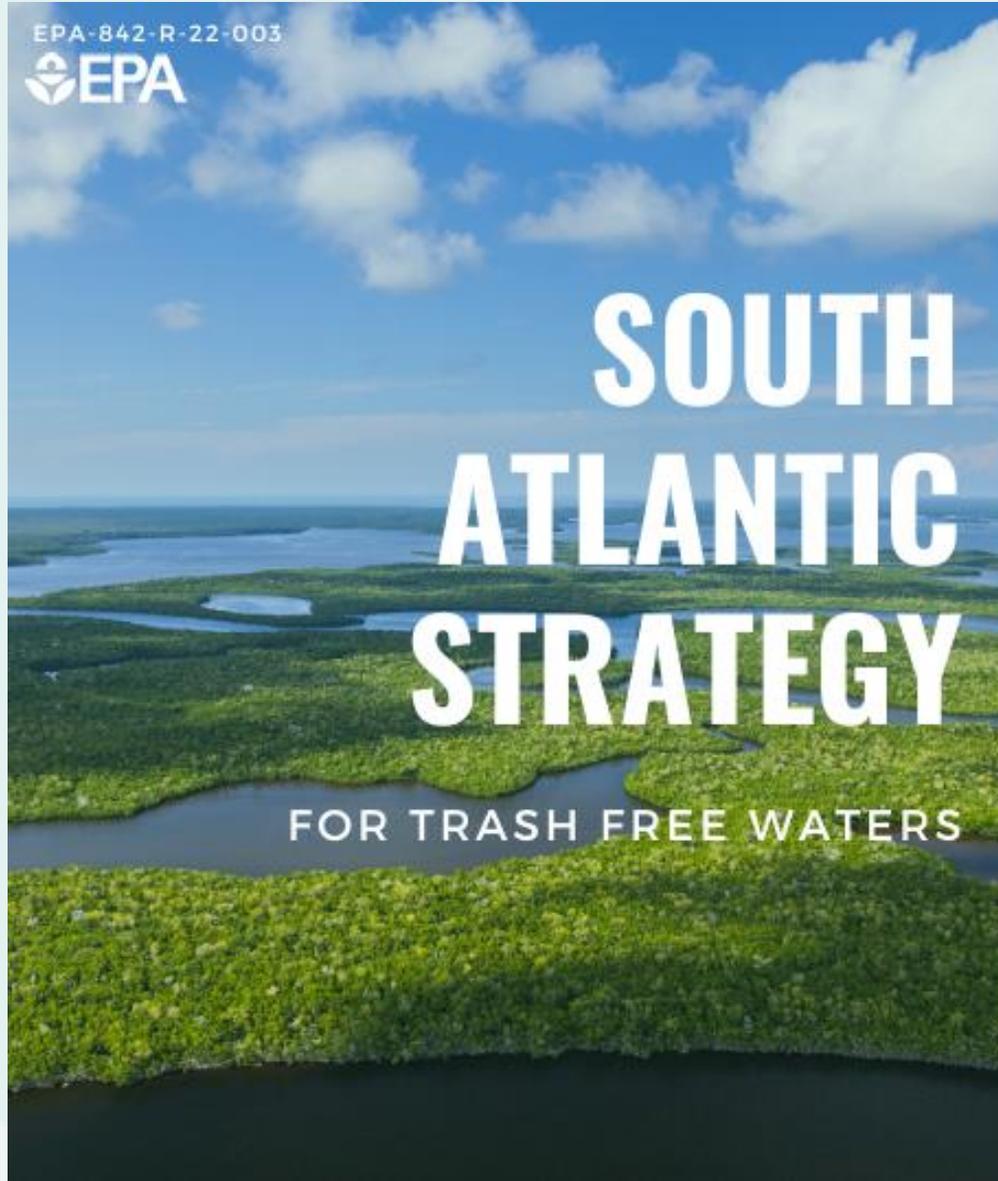
Wade Lehmann, USEPA Region 4

EPA-842-R-22-003

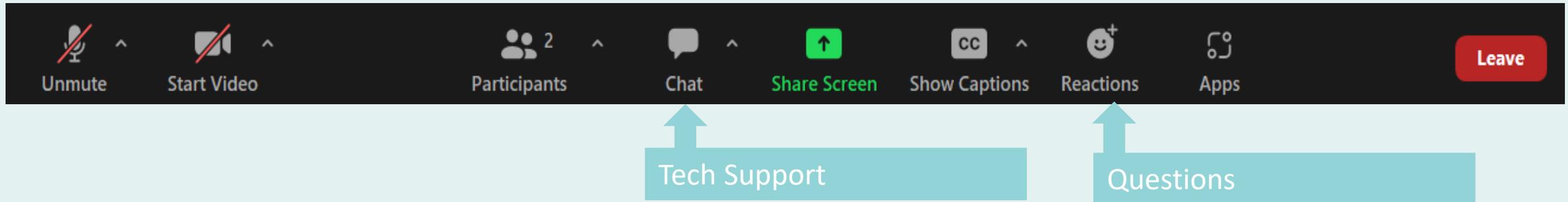


SOUTH ATLANTIC STRATEGY

FOR TRASH FREE WATERS



Housekeeping



- Please keep your camera off and stay muted unless you want to ask a question.
- To ask a question: We have time built in after presentations. Click the Raise Hand icon 🖐 under Reactions 😊+ and we will ask you to unmute.
- Feel free to drop websites or other additional information in the Chat.
- Technical difficulties: If you are having technical difficulties, please send a message through the Chat to Tech Support 1/2 or email Grace.Burke@erg.com and Ansley.Groff@erg.com .

SAS Stakeholder Meeting Agenda

Topic	Speaker
Welcome Introduction and objectives for the meeting	Wade Lehmann, USEPA Region 4
Housekeeping	Christy Williams, ERG
Project Implementation in Action <ul style="list-style-type: none">Reef Relief	Dora DeMaria, Asst. Executive Director Reef Relief
Monitoring and Tracking <ul style="list-style-type: none">Circularity Assessment ProtocolsMarine Debris Tracker	Jenna Jambeck & Kathryn Youngblood, University of Georgia
Project Implementors Peer to Peer Share challenges and lessons learned.	Christy Williams, ERG
Closing and Next Steps	Wade Lehmann, USEPA Region 4

Project Implementation in Action!

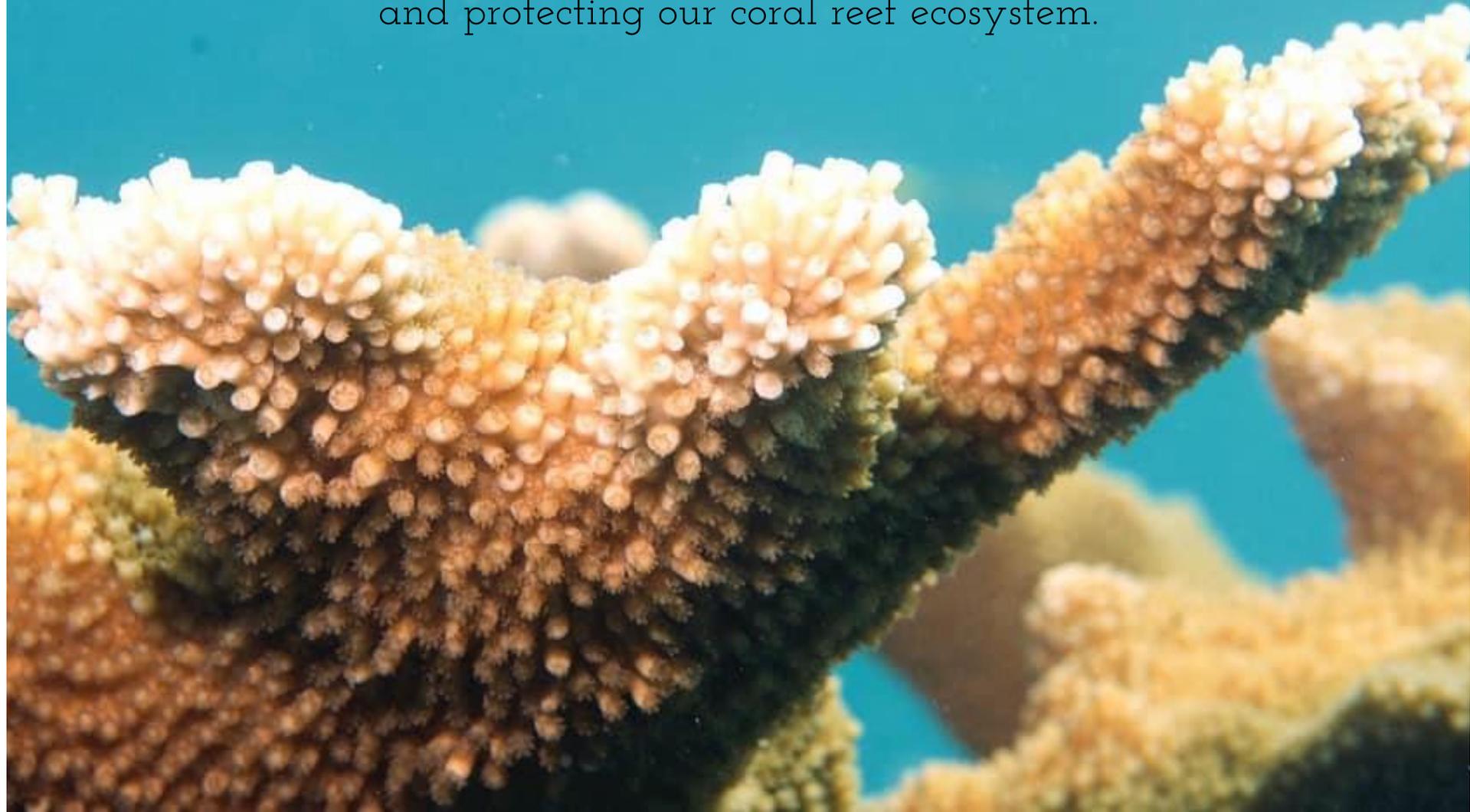
REEF RELIEF

Making Key West Plastic Free



REEF RELIEF

Reef Relief® is a nonprofit membership organization dedicated to improving and protecting our coral reef ecosystem.





Since 2010, Reef Relief has collected over 238,000 lbs of marine debris.



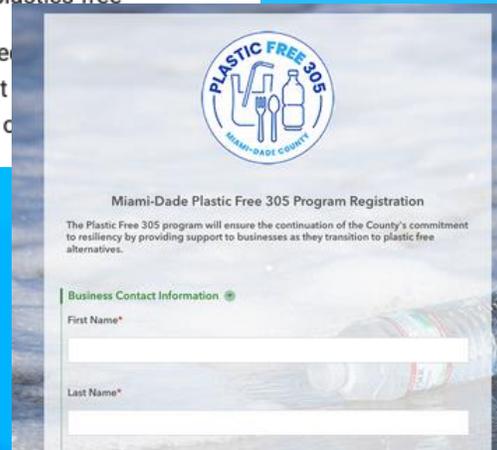
Plastic Free Key West Is adapted from Plastic Free 305 In Miami Dade

Certification Tiers

Plastic Free 305 is designed as a three-tier annual certification based upon the progressive level of single-use plastic elimination:

- **Tier One:** Business pledges to remove one or more eligible single-use plastic products* during the first calendar year of partnership, or business has already removed one single-use plastic
- **Tier Two:** Business has removed two or more single-use plastic products*
- **Tier Three:** Business is 100% single-use plastics-free

* Excluding single-use plastics currently prohibited
Check if your business operates within a city that has certain single-use plastics items such as straws or



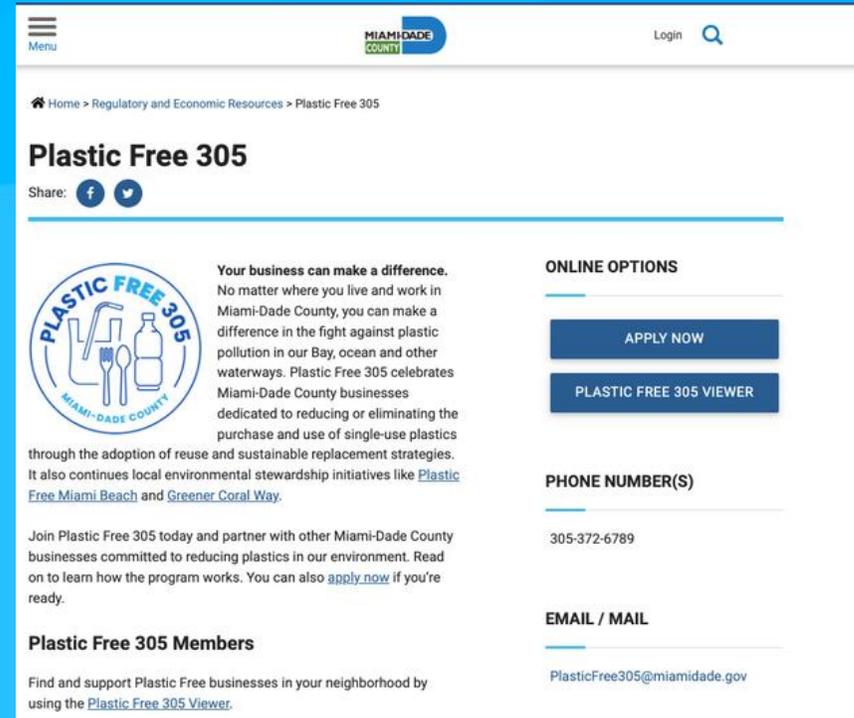
Miami-Dade Plastic Free 305 Program Registration

The Plastic Free 305 program will ensure the continuation of the County's commitment to resiliency by providing support to businesses as they transition to plastic free alternatives.

Business Contact Information

First Name*

Last Name*



MIAMI-DADE COUNTY

Home > Regulatory and Economic Resources > Plastic Free 305

Plastic Free 305

Share:  

ONLINE OPTIONS

[APPLY NOW](#)

[PLASTIC FREE 305 VIEWER](#)

PHONE NUMBER(S)

305-372-6789

EMAIL / MAIL

PlasticFree305@miamidade.gov

Plastic Free 305 Members

Find and support Plastic Free businesses in your neighborhood by using the [Plastic Free 305 Viewer](#).

Eligible Products

To be eligible for Plastic Free 305, participants must eliminate or replace with a more sustainable item* the following single-use plastic (including Styrofoam) products:

- Drinking bottles and caps
- Grocery bags
- Produce bags
- Cups
- Lids
- Straws
- Stirrers
- Cutlery
- Food wrappers
- Ramekins/sauce containers
- Take-out containers

* Excluding Bioplastics. See Bioplastics section for more information.

HOW TO APPLY



City of Key West
Resolution 23-015

Eligible Products

Certification Tiers

Join Plastic Free Key West

Plastics in our
Environment

Bioplastics and Recycling
Strategies

[Home](#) • [Our Community](#) • Plastic Free Key West

Plastic Free Key West

Your business can make a difference.

No matter where you live and work in Key West, you can make a difference in the fight against plastic pollution in our Bay, ocean, and other waterways. Plastic Free Key West celebrates businesses dedicated to reducing or eliminating the purchase and use of single-use plastics through adopting reuse and sustainable replacement strategies.

Join Plastic Free Key West and partner with other businesses in the City of Key West to reduce plastics in our environment.

Plastic-Free Key West Members

Find and support Plastic Free businesses in Key West using the [View Map](#).

ONLINE OPTIONS



REEF RELIEF

Phone: 305-294-3100

E-mail [Reef Relief](#)



City of Key West Plastic Free 305 Program Registration

Plastic Free Key West (aka Plastic Free 305) was launched in 2023 to recognize businesses dedicated to reducing plastic. This program will ensure the continuation of Reef Relief and the City's commitment to resiliency by providing support to businesses as they transition to plastic free alternatives.

reefrelief@gmail.com [Switch account](#)



The name, email, and photo associated with your Google account will be recorded when you upload files and submit this form

* Indicates required question

Business Contact Information

Participation is completely voluntary

Bioplastics and Recycling Strategies

Bioplastics, or “biodegradable” or “compostable” plastics, are products made from natural renewable plant-based substances instead of fossil fuels (which is why most bioplastics bear an “eco-friendly” leaf on the product).

However, most bioplastics don’t fully break down in home composts, landfills or in the environment, and many bioplastics contain significant amounts conventional plastic. Further, most bioplastics require commercial composting facilities employing controlled conditions to process and break down the bioplastics correctly, and at this time **there are no** commercial bioplastic processors in Miami-Dade County.

Bioplastics can also contaminate municipal recycling waste streams when people unknowingly add them to their recycling, and when illegally discarded in the environment they act just like conventional plastics and can break down into harmful microplastics.

Miami-Dade County recommends that for now we treat bioplastics no differently than plastic. For more information on bioplastics in our environment, visit our [Business Resource Partner](#).

Regarding plastic recycling, currently less than 10% of all plastic produced is recycled. Many plastic products degrade each time they’re recycled and reprocessed — unlike metal or glass, which can be perpetually recycled — making plastics progressively less valuable. In Miami-Dade County, **the only plastics that are recycled are bottled-shaped plastics**, which means that all other plastics, including plastic bags, utensils and straws are headed straight for the landfill, or worse, our environment, despite being put inside the recycling bins.

Bioplastic limitation similar toward the City of Key West’s Ordinance 19-22 straw ordinance

ORDINANCE NO. 19-22

AN ORDINANCE OF THE CITY OF KEY WEST, FLORIDA, AMENDING CHAPTER 26 OF THE CODE OF ORDINANCES, ENTITLED “ENVIRONMENT” BY CREATING ARTICLE VII ENTITLED “PLASTICS” TO PROHIBIT ~~THE POSSESSION OR DISTRIBUTION~~ DISTRIBUTION OR SALE OF PLASTIC STRAWS OR STIRRERS IN THE CITY OF KEY WEST; CREATING SECTION 26-312 ENTITLED “DEFINITIONS”; CREATING SECTION 26-313 ENTITLED “PROHIBITIONS”; CREATING SECTION 26-314 ENTITLED “PENALTIES”; CREATING SECTION 26-315 ENTITLED “EXCEPTIONS”; PROVIDING FOR SEVERABILITY; PROVIDING FOR REPEAL OF INCONSISTENT PROVISIONS; PROVIDING FOR AN EFFECTIVE DATE

participating businesses

Purple Heron Charters

Happy Landings Marina

Boathouse Bar & Grill

Irish Kevin's

Doing Work Coffee

Hyatt Centric Key West Resort and Spa

Kimpton Key West

Koffie House

Tavern and Town

At Sea Key West, LLC

Sea, Key West

Southernmost Pint

Fausto's Food Palace on Fleming

Amri Day Spa and Salon

Sugar Apple Natural Foods

Key West Botanical Gardens

Bug Ceramics

Argo Navis

Date & Thyme

Key Fillery

Key West Yoga Sanctuary

Bella Laine

Tier 1

Tier 2

Tier 3

BOTTOM LINE:

- Eliminating plastic at the source
- Business participation is their choice
- Reef Relief works with the City of Key West to recruit, process, and audit businesses in this program.
- Reef Relief recognizes those businesses participating via signage and social media.
- No code enforcement will be needed from the City of Key West.



Monitoring and Tracking

South Atlantic Strategy Actions: Circularity Assessment Protocol

6.2 Circular Economy and Sustainable Materials Management Explore sustainable materials management, including the circular economy model – a zero waste systematic approach.

- ...
- **6.2.2 Use methodologies like the Circularity Assessment Protocol (CAP) created by the University of Georgia to gain insight on gaps in the waste management system and how to improve circularity at the local level.**

South Atlantic Strategy Actions: Marine Debris Tracker

3.1 Uniformity of Litter-Data Collection Decision makers need reliable litter-collection data to make informed decisions. Having basic uniformity within data collection reporting can help leaders address litter and trash issues across the south Atlantic region.

- ...
- 3.1.2 Establish a central, publicly accessible hub for sharing litter data in the region that synthesizes citizen science data from various platforms (e.g., **Marine Debris Tracker**, Clean Swell, Litterati, etc.).
- 3.1.3 Improve data comparability across time and geographies by using existing tools like the EPA's Escaped Trash Assessment Protocol (ETAP) or other widely used lists in the **Marine Debris Tracker**.

Circularity Assessment Protocol (CAP) Introduction



New Materials Institute
UNIVERSITY OF GEORGIA

University of Georgia
Jambeck Research Group
Circularity Informatics Lab

Jambeck Research Group

Circularity Informatics Lab



Jenna Jambeck, PhD
 Regents Professor, University of Georgia
 College of Engineering
 MacArthur Fellow

Not pictured:
 Kaylee Tam



Lindsay Coats



Eduardo Martinez-Gullardo



Jesse Sanchez



Shelby Mendez



Deborah Madden



Karina Carrasco



Kathryn Youngblood
 Research Engineer
 Director, Debris Tracker



Taylor Maddalene
 PhD Candidate
 Director, Circularity
 Assessment Protocol



Jenni Mathis
 PhD Candidate



Madison Werner
 Environmental
 Anthropologist
 Project Manager



Rachel Johnson
 Environmental Engineer
 Masters Student



Jill Blackmon
 Environmental Engineer
 Research Assistant

We believe

that cities and
community
members have the
right to optimize their
own circularity.



Circularity:

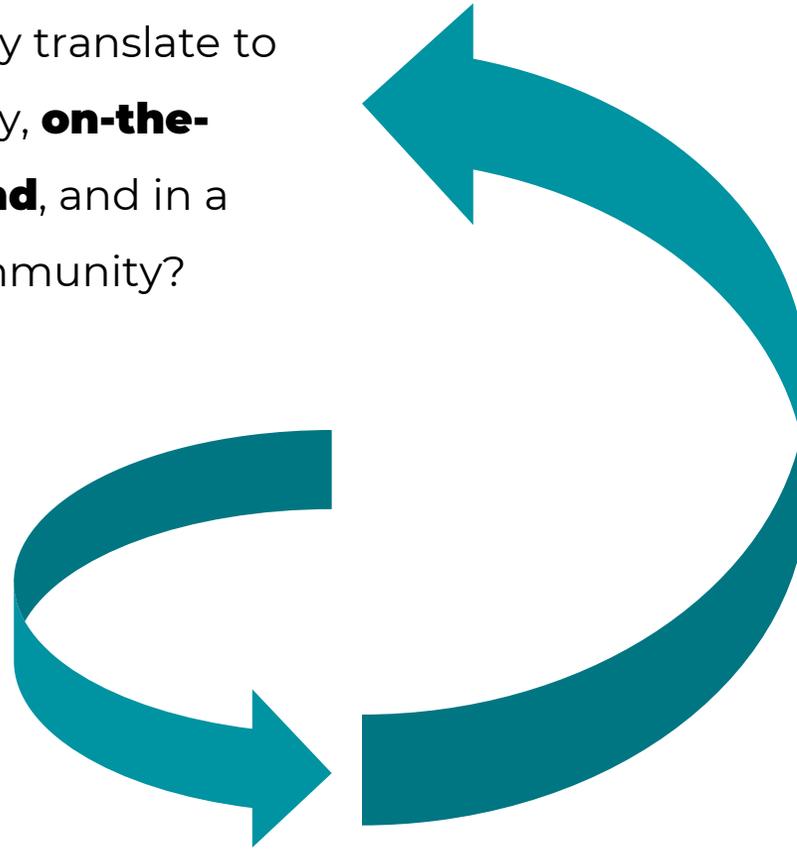
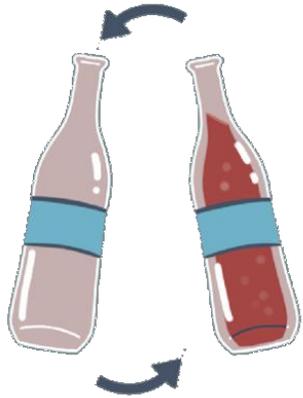
most often through waste management - has been both literally and figuratively **pushed aside.**

Although there are global moves toward circularity, **cities and communities bear the burden of materials management.**

A fundamental issue of reaching circularity is the **mismatch** between material use and design.



How does the circular economy translate to reality, **on-the-ground**, and in a community?



What do the components look at?



INPUT

What products are sold in the community and where do they originate?



COMMUNITY

What conversations are happening and what are the stakeholders' attitudes and perceptions?



PRODUCT DESIGN

What materials, formats, and innovations are found in products, particularly packaging?



USE

What are the community trends around use and reuse of product types?



COLLECTION

How much waste is generated, what does it comprise, how is it disposed? How much is collected and what infrastructure exists?



END OF CYCLE

What is the fate of waste once it is properly discarded? How is it treated?



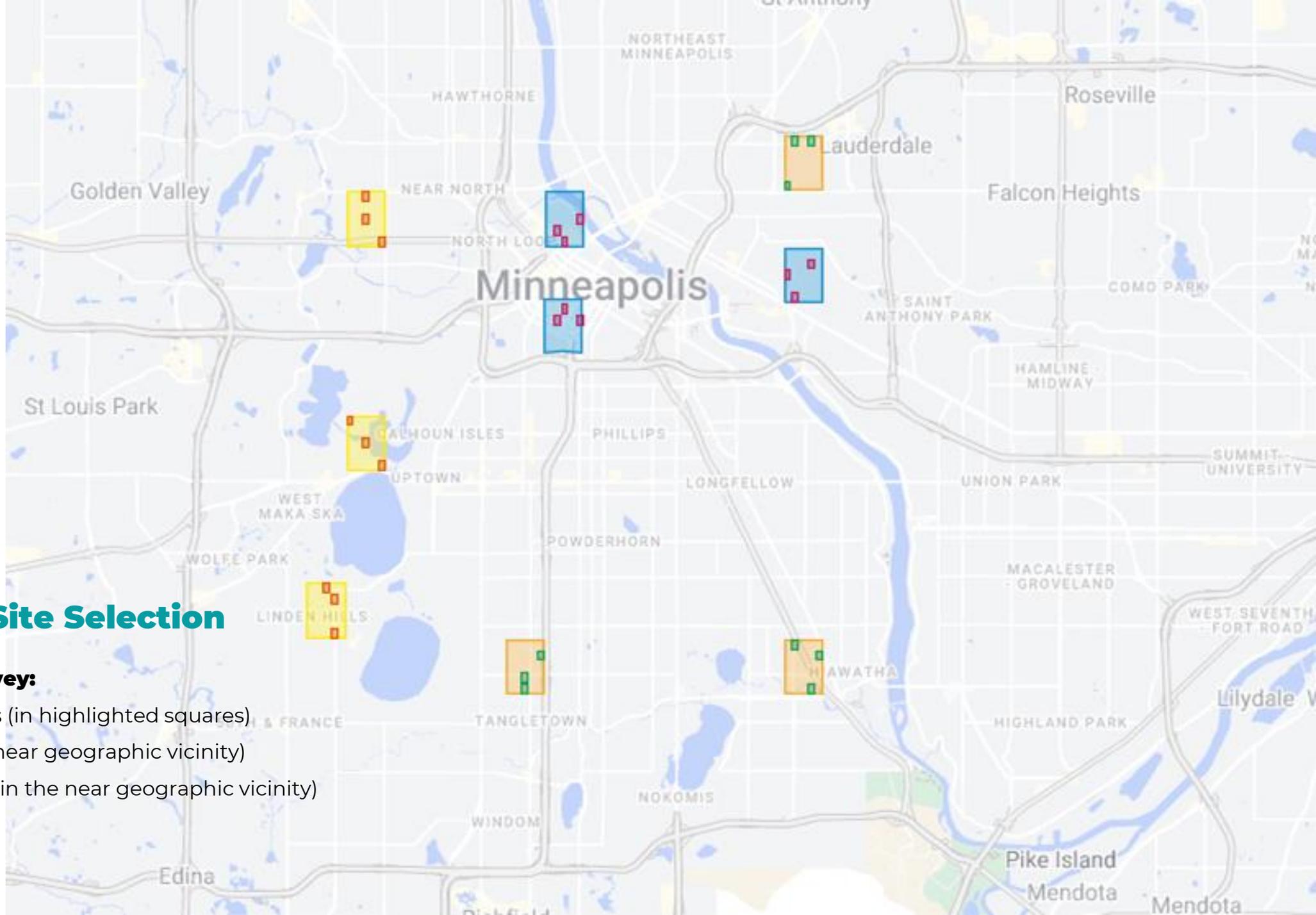
LEAKAGE

What waste ends up in the environment? Why and how is it getting there?

Field Methods | Site Selection

In each site, we will survey:

- Three litter transects (in highlighted squares)
- Three stores (in the near geographic vicinity)
- Three food vendors (in the near geographic vicinity)



INFORMATION SHARING

The local community's knowledge and expertise is honored. Partners and teams build capacity through learning methods and collaboration. **Debris Tracker** is an important tool that is used by researchers and the community alike. Open data is important to the process.

DATA ANALYTICS

Data for each city's CAP is analyzed and co-owned by the researchers, city and sponsors. Trends across cities, countries and regions can illuminate global narratives and influencing factors.

EMPOWERING COMMUNITIES

Communities are empowered by local and global CAP data to inform their decisions about what is working - or where and how to intervene to increase circularity. Communities that participate in CAP can better define resource needs and participate in knowledge exchange.

SYSTEMS CHANGE





Product Design

Atlanta – alternatives available, but not equitably.

Island nation banned many single-use plastics but allowed “compostable” items.

Use (Reuse)

Four cities in US using CAP and are putting in reusable food ware systems with Perpetual.

One City received a 1.5 million SWIFER grant to now develop this system.

Leakage/Collection

Pittsburgh litter slightly less than Atlanta, but similar items.

The first international placement of “trash wheel” from US and recycling.

Data Sharing Platform

Free and open data to everyone, customized for cities

The screenshot shows the 'Circularity Informatics Lab' web application. The main heading is 'Compare Data'. A filter is set to 'Stakeholders'. A dropdown menu for 'Select Graph Type' is open, showing options like 'Stakeholders', 'Convenience Packaging', etc. The interface displays four data tables for different cities, each with a 'Download csv data' link.

Stakeholder Group	Number of Interviews
Grocery or Convenience Store Staff	5
Private Waste Hauling, Landfill, or Recycling Companies	5
Informal Recycling Aggregators	5
Food Vendors	4
Companies Using or Producing Plastic Alternatives	4
Local Government	3
Local NGOs	2

Stakeholder Group	Number of Interviews
Private Waste Companies	4
Shops	3
Waste Pickers / Scrap Shops	3
Industry	2
RWAs	2
Government	2
Academia	2
NGOs	1

Stakeholder Group	Number of Interviews
Convenience Store Owners	4

Stakeholder Group	Number of Interviews
Food Vendors	5



This material is based upon work supported by the National Science Foundation under Grant No. 2236080

Future Platform

Training on CAP Methods



Reduce plastic **production**

Innovative materials & product **design**

Reduce waste generation

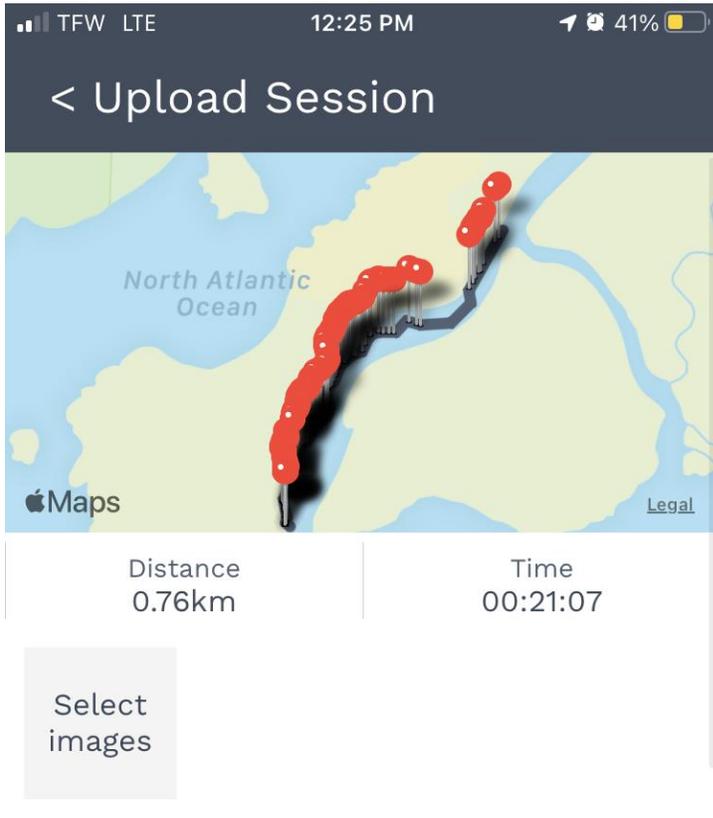
Improve global **waste management**

Improve **litter capture**

Reduce input concentrations (zero goal)

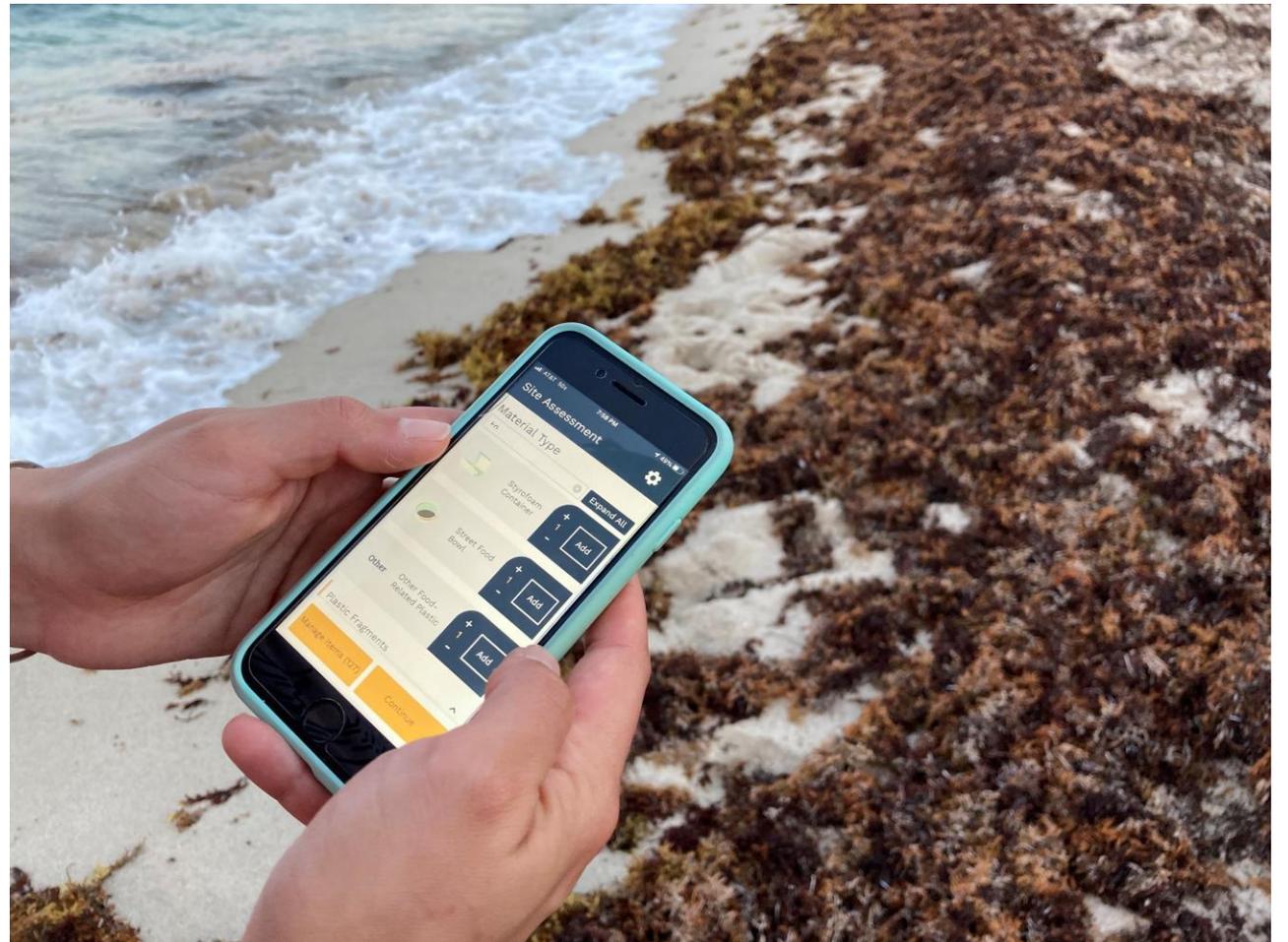


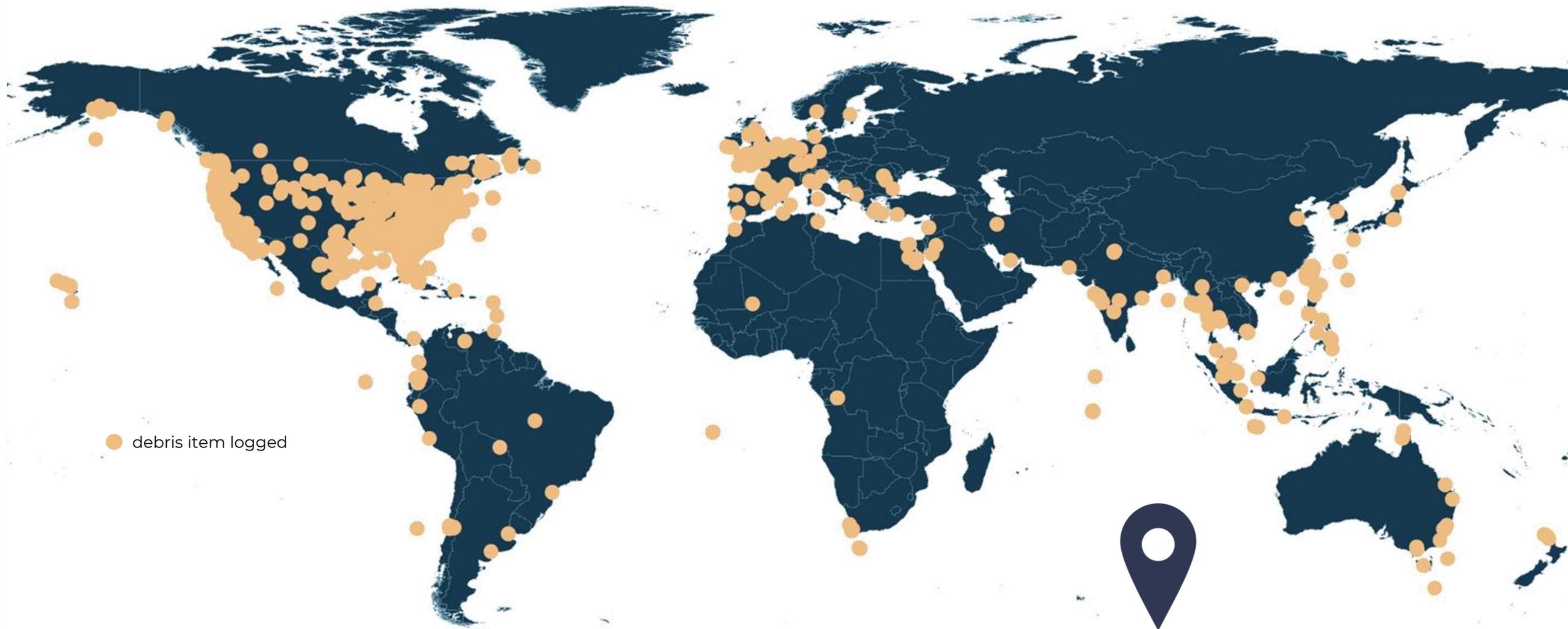
This material is based upon work supported by the National Science Foundation under Grant No. 2236080



Marine Debris Tracker

Powered by Morgan Stanley

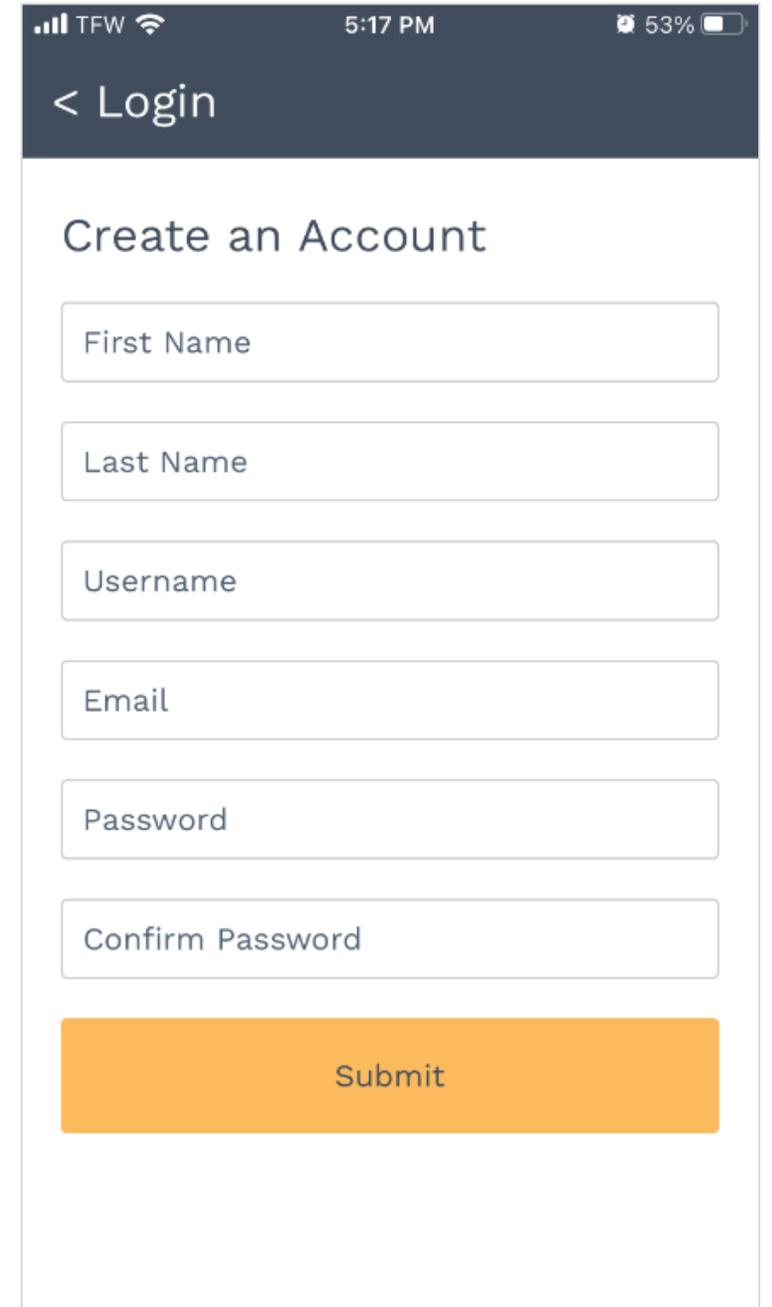
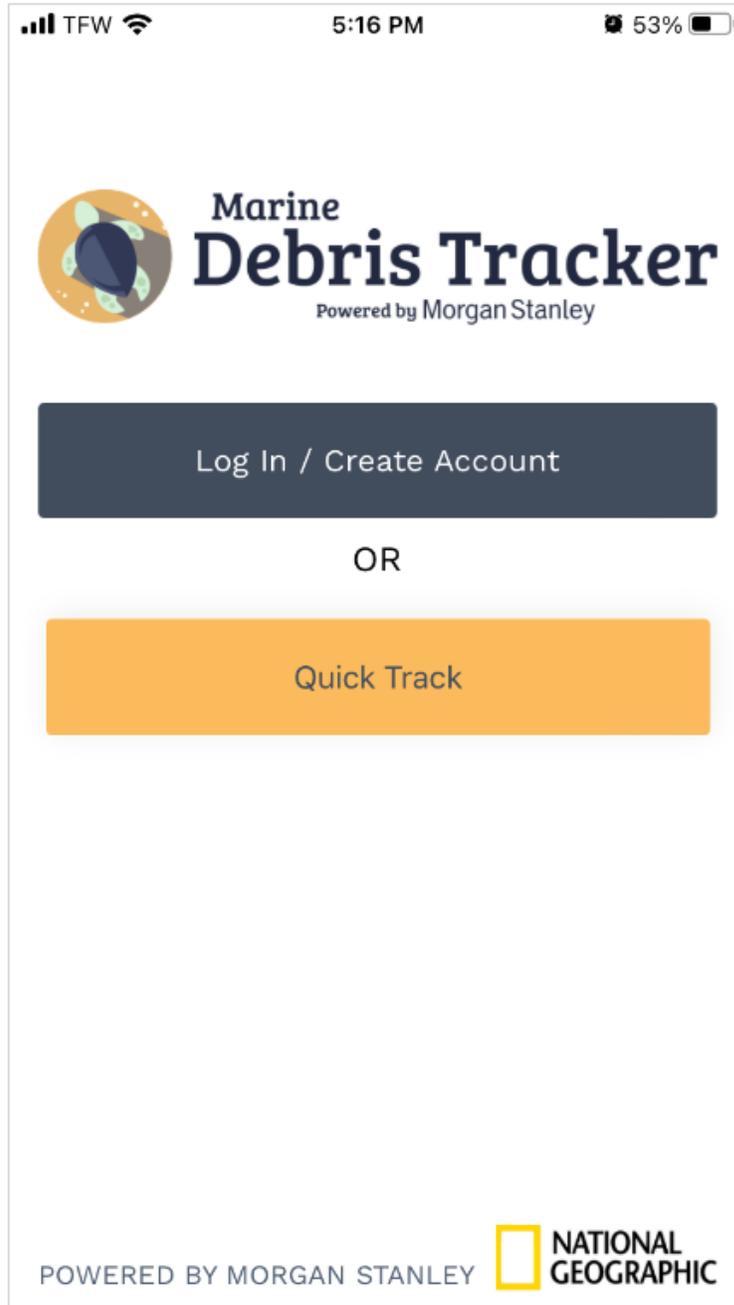
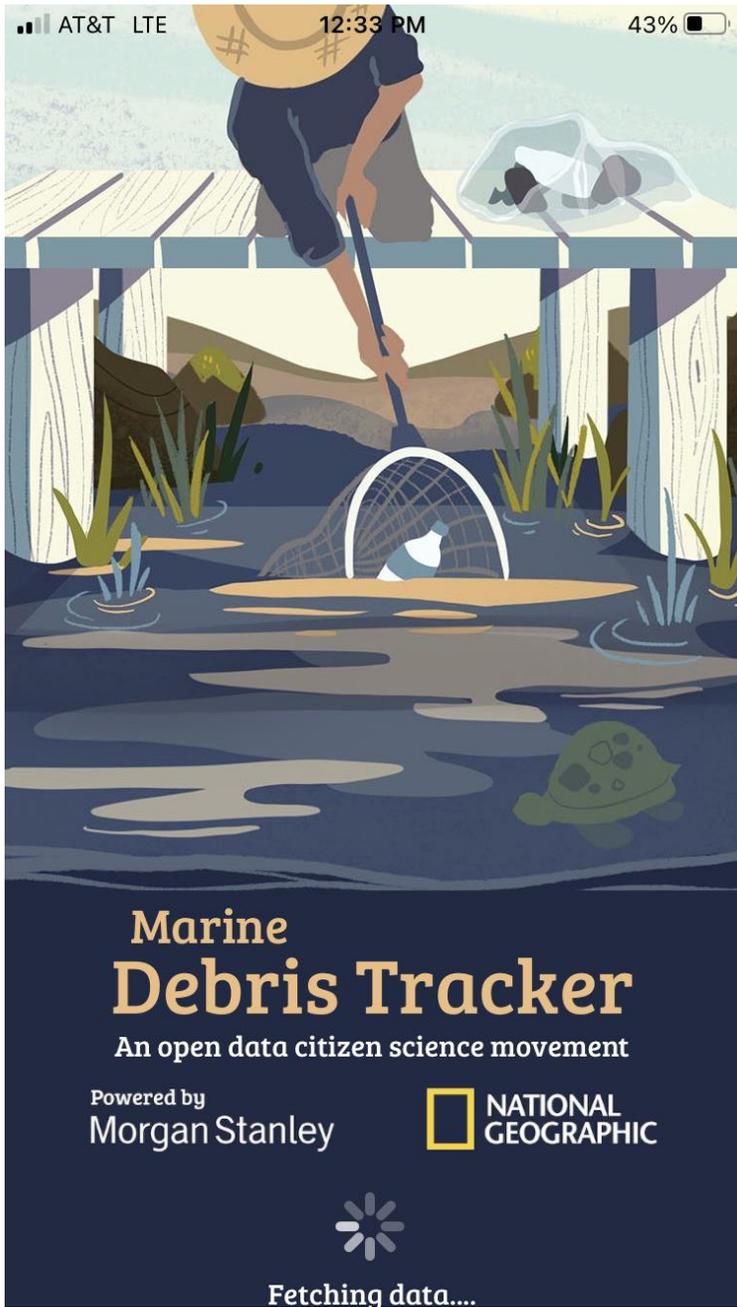


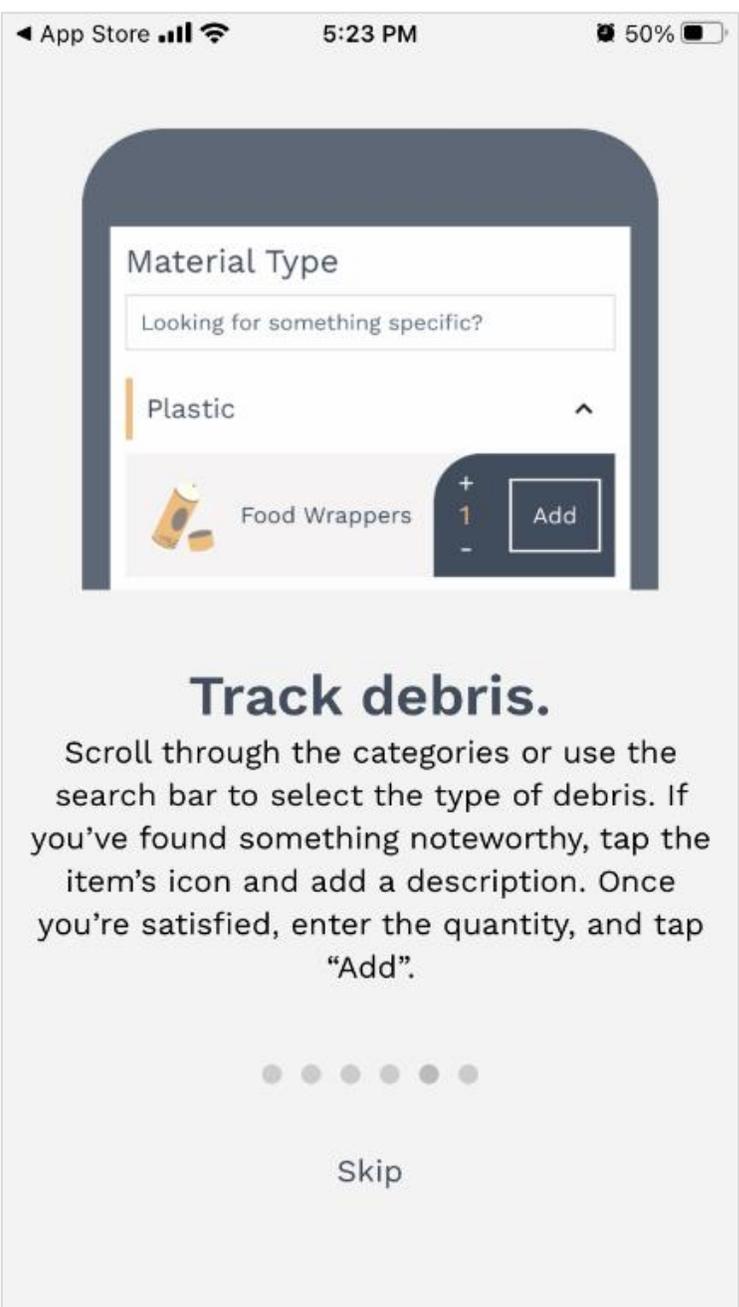
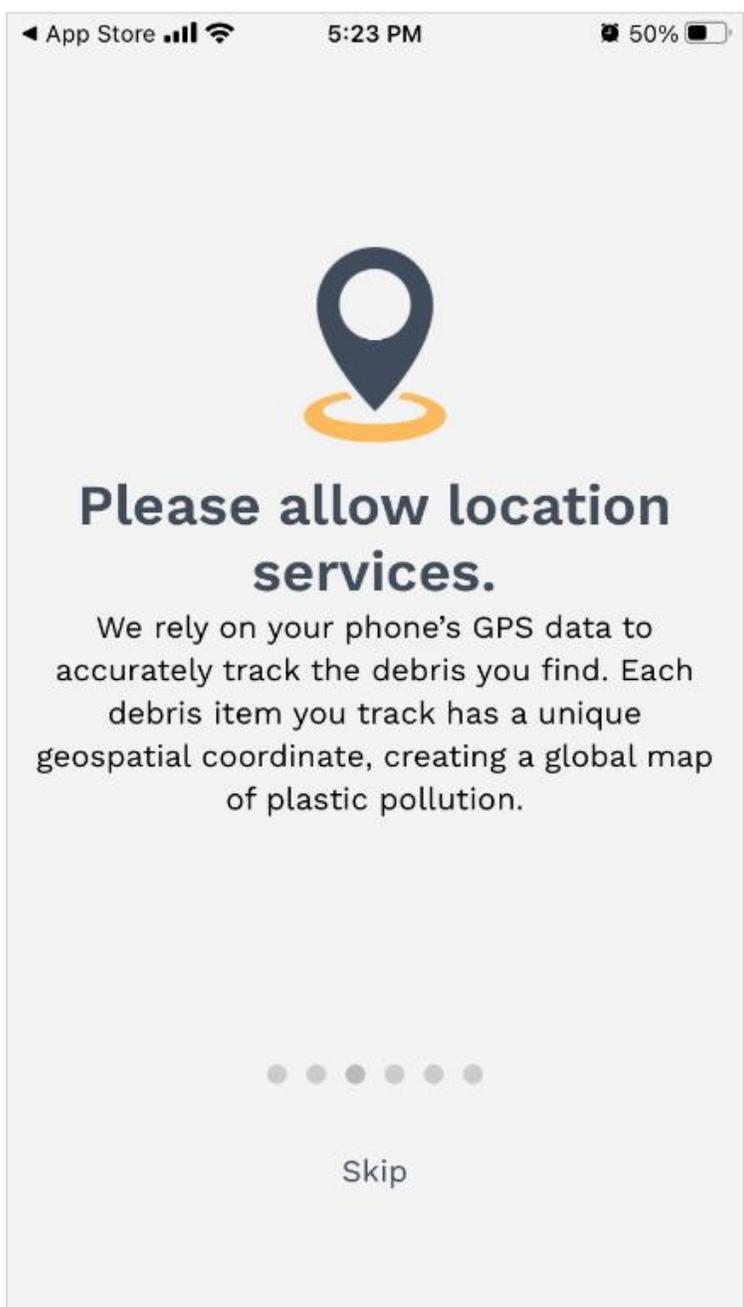
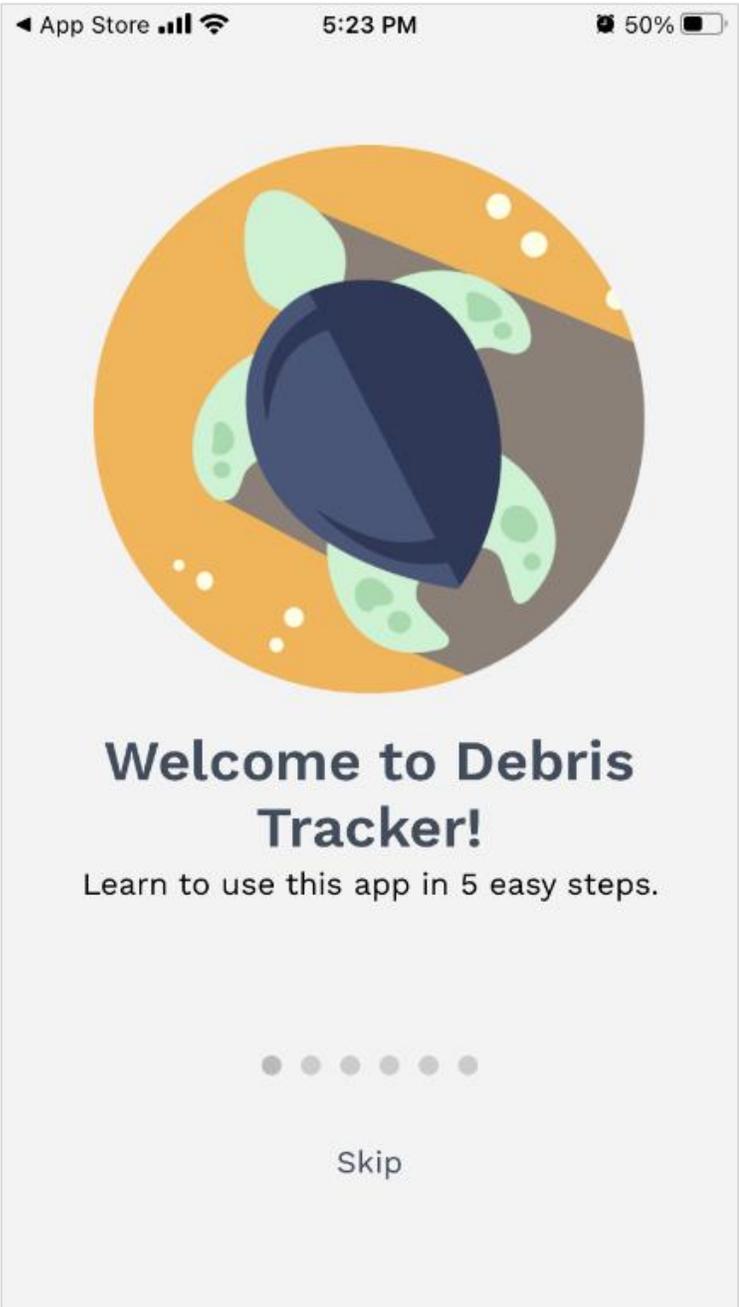


● debris item logged



8 Million





TFW 5:40 PM 23%



Marine Debris Tracker

Powered by Morgan Stanley

Welcome Back!
Kathryn Youngblood




Recent Tracking Sessions

December 15, 2022 at 4:53 pm

35 Items

Site Assessment

[View Session](#)

Actions

[Continue tracking for Site Assessment](#)

TFW Wi-Fi 9:00 PM 91%

Esca

Organizations



EPA's Escaped Trash Assessment Protocol

TFW Wi-Fi 8:51 PM 88%

EPA's Escaped Trash...

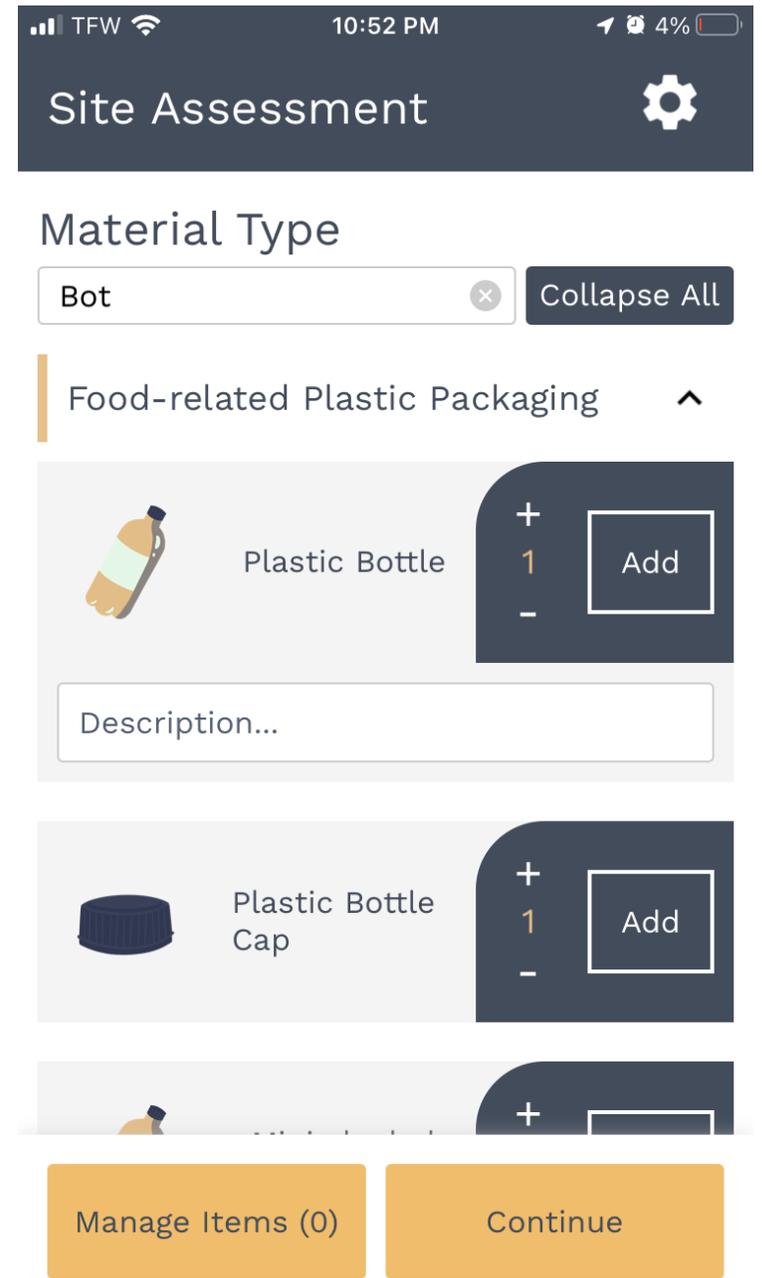
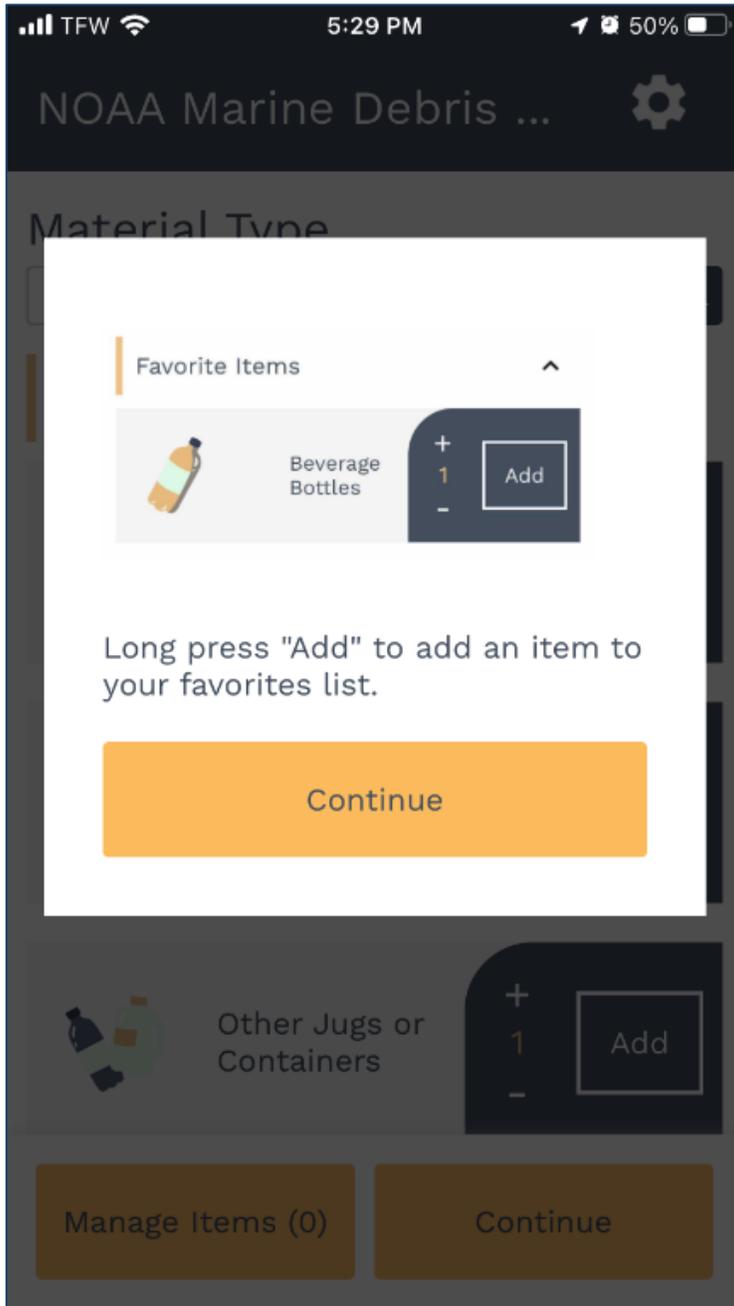
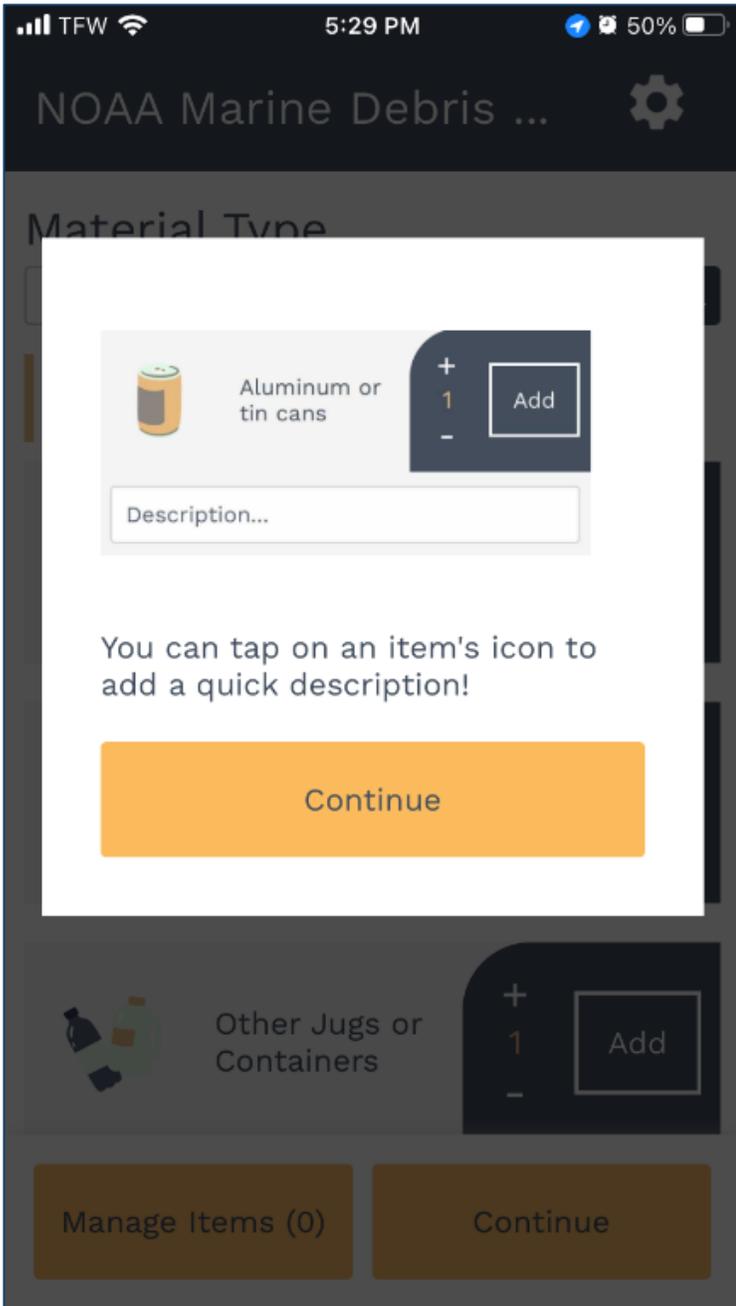
Looking for a specific item? [Expand All](#)

Material Type

Site Info

- 
 Site boundary point
 + 1 -
[Add](#)
- Storm Drain
 + 1 -
[Add](#)
- 
 Critical Habitat
 + 1 -
[Add](#)

[Manage Items \(0\)](#) [Continue](#)



Material Type

Looking for a specific item?

Expand All

Site Info



Plastic



Foam



Paper



Glass



Metal



Fishing



Manage Items (0)

Continue

Material Type

Tes



Expand All



cigarette receptacle (comment if no lid or overflowing)



1



Add

Is this item degraded?

No

Yes

Substrate



concrete



1



Add

Manage Items (0)

Continue

1. Organization Name

2. Location

Select an option

3. Funding Source

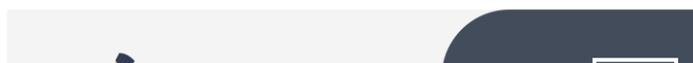
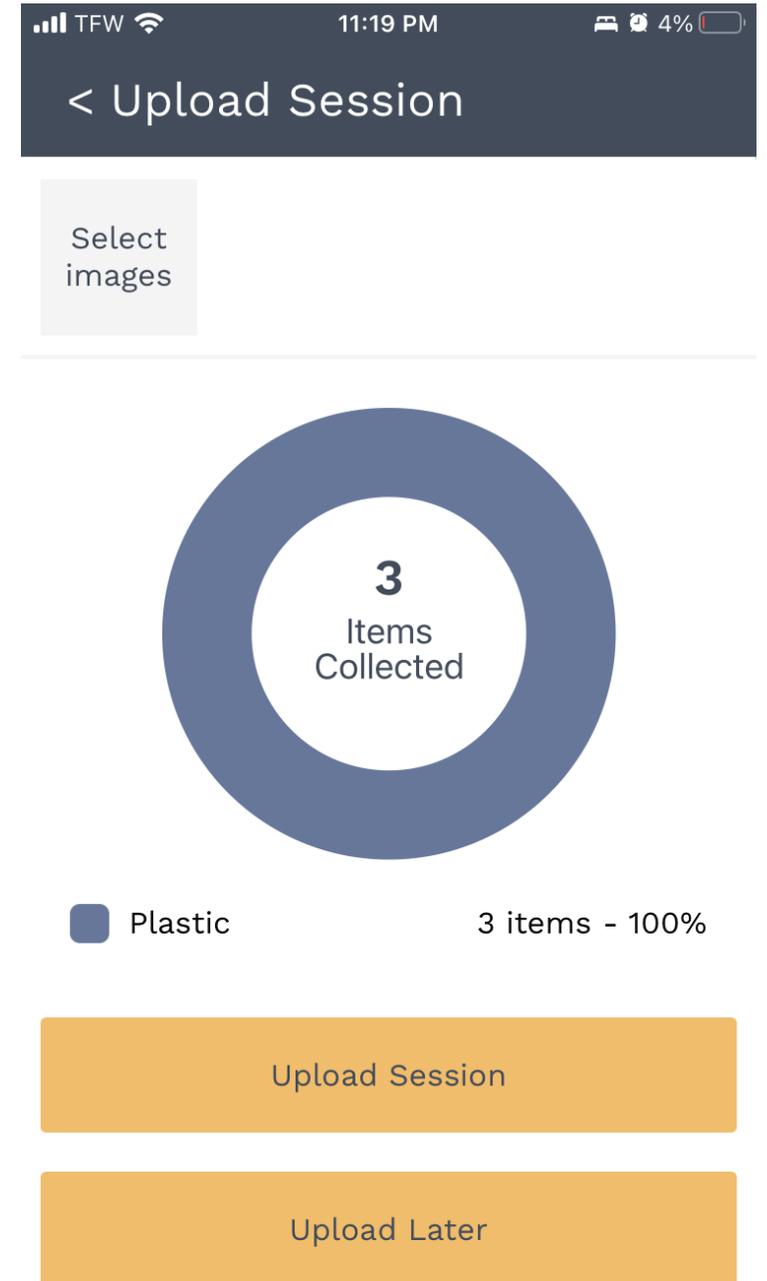
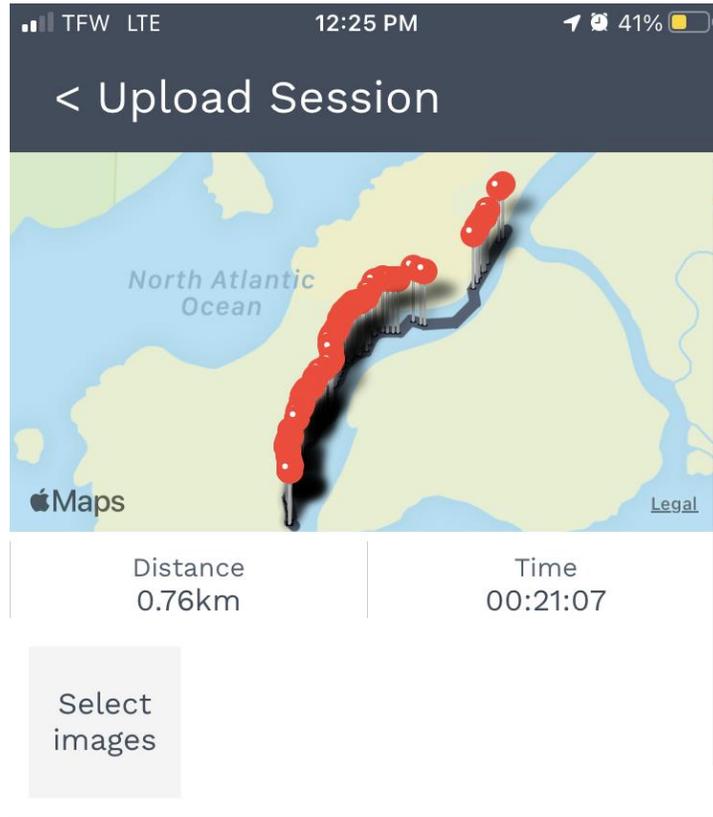
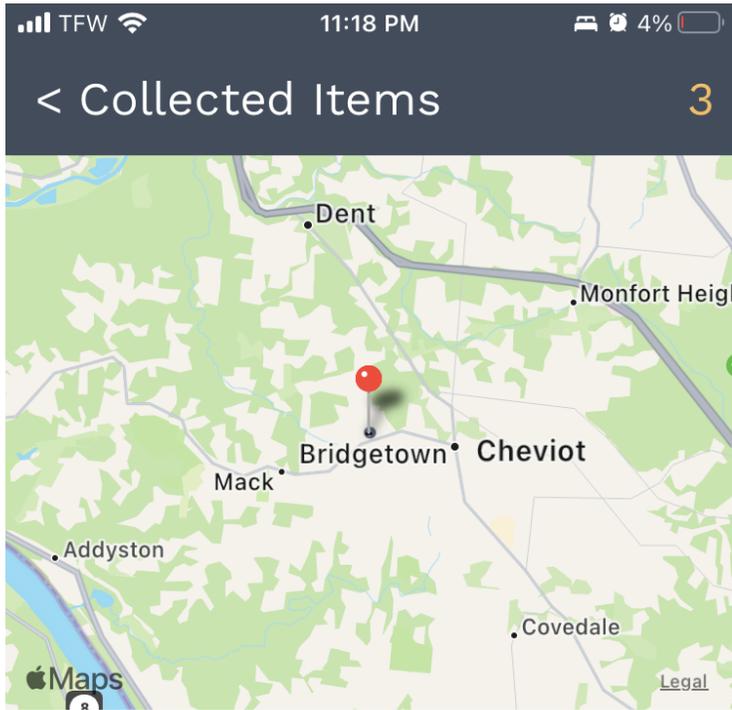
Select an option

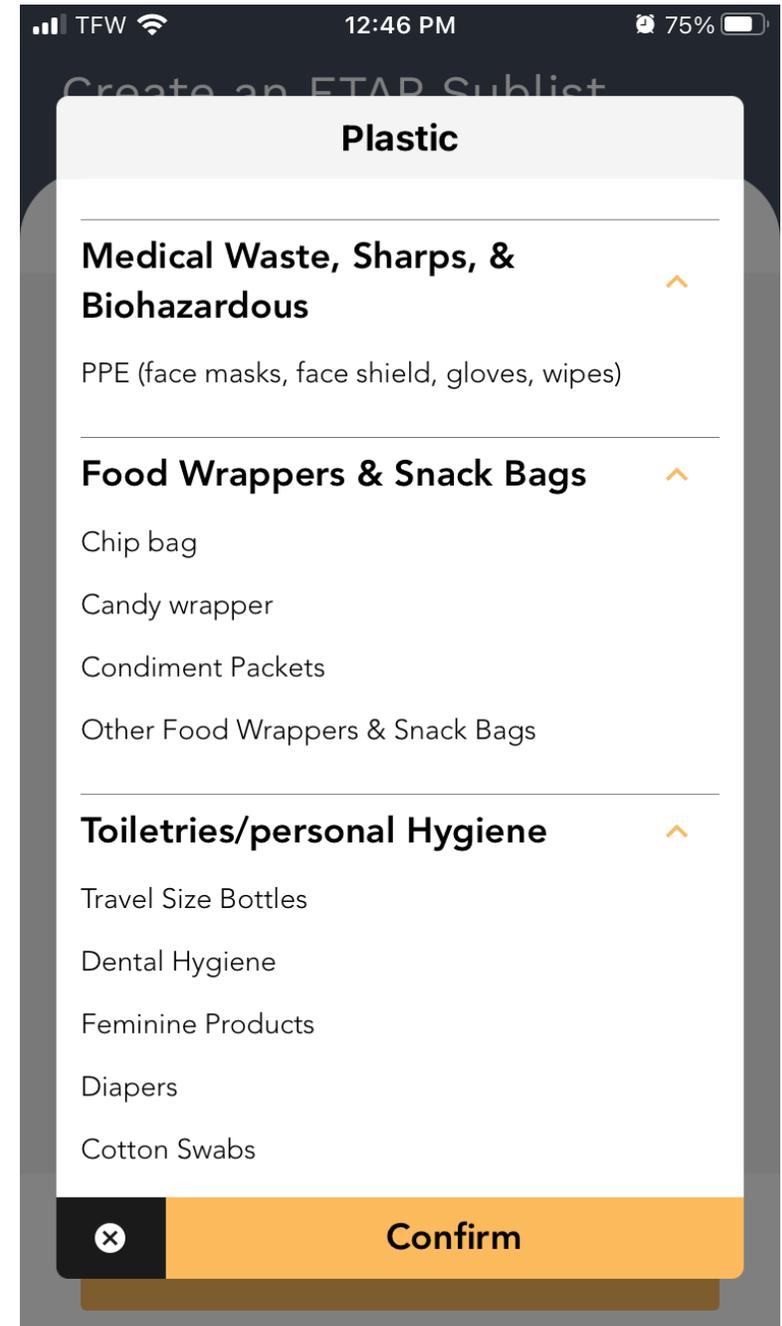
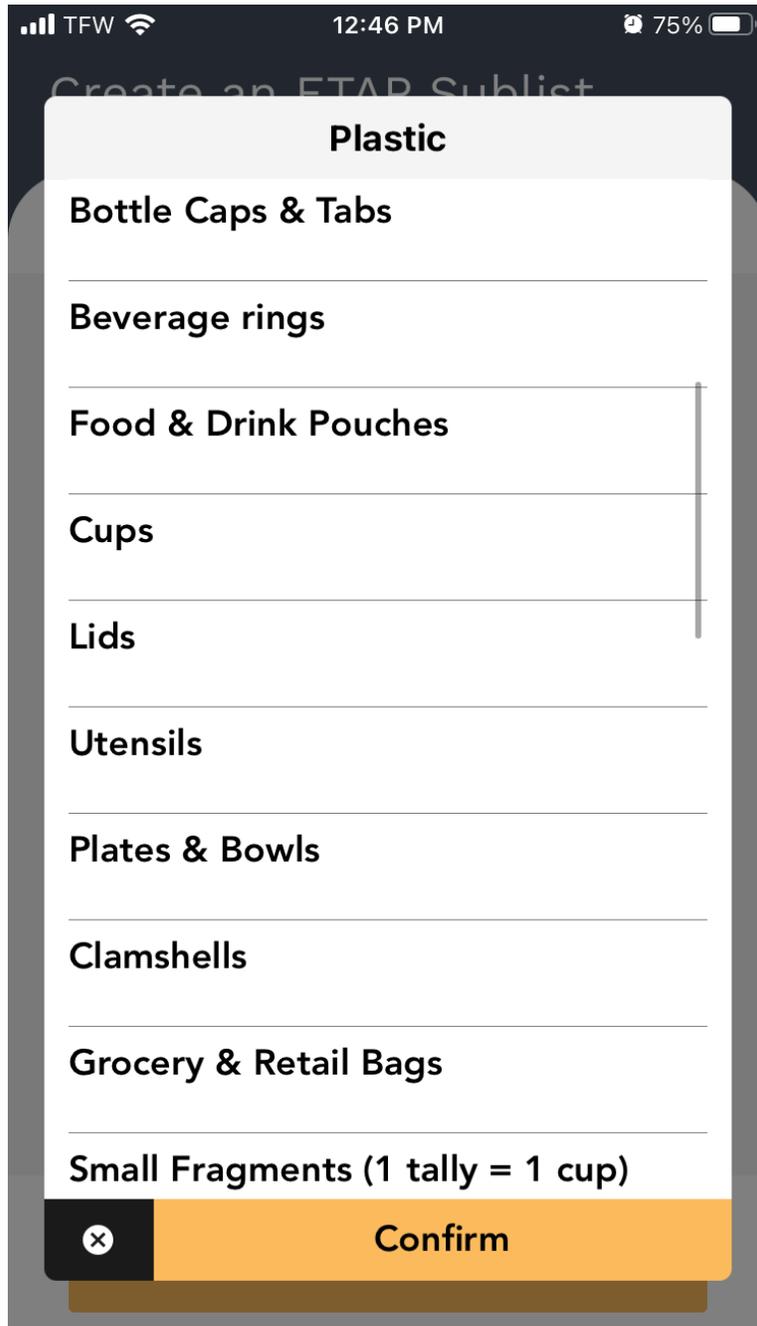
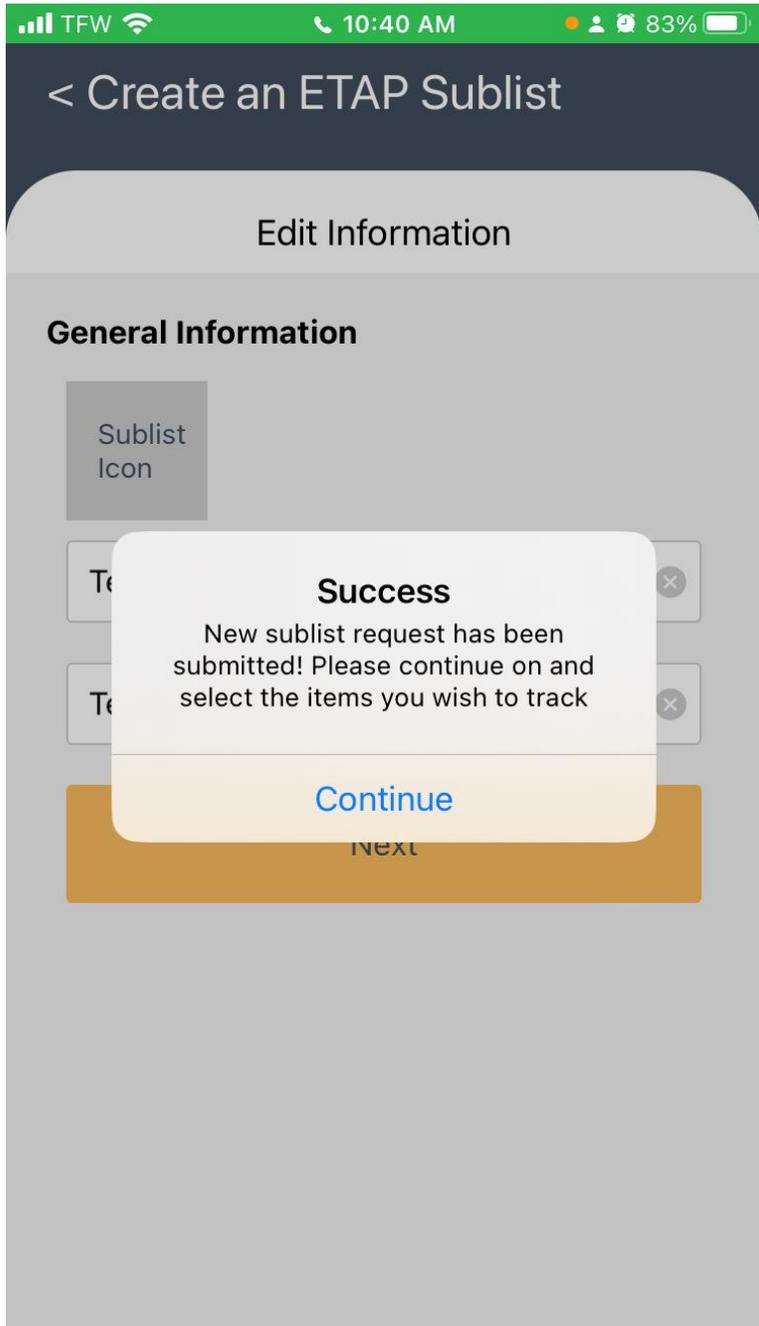
4. If other funding source, please specify

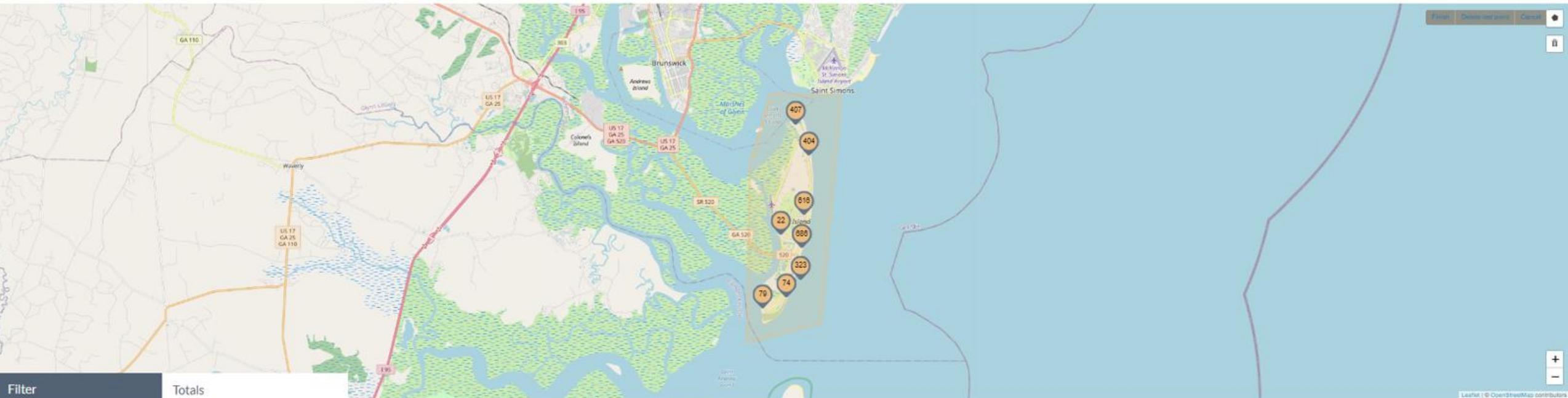
5. Cleanup Type

Select an option

Save







Filter

All Organizations

Categories

All

Exact

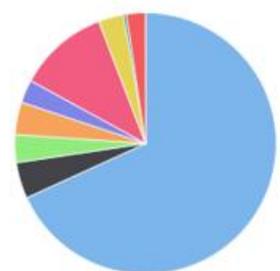
Range

Totals

Total debris count: 5,961

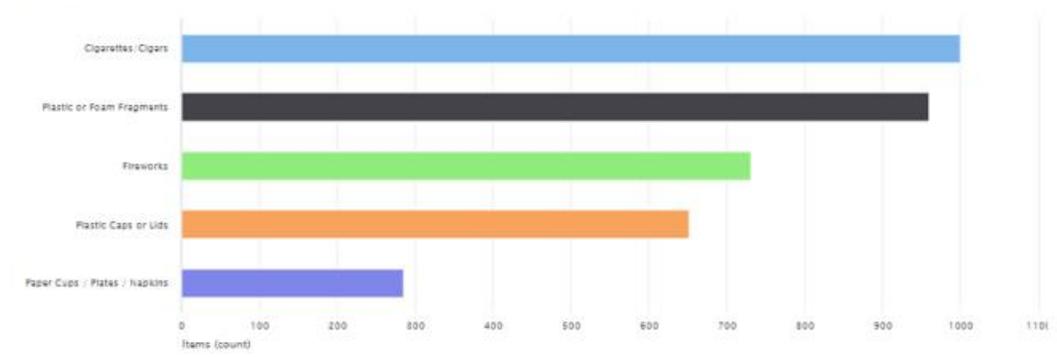
Total collection events: 2,611

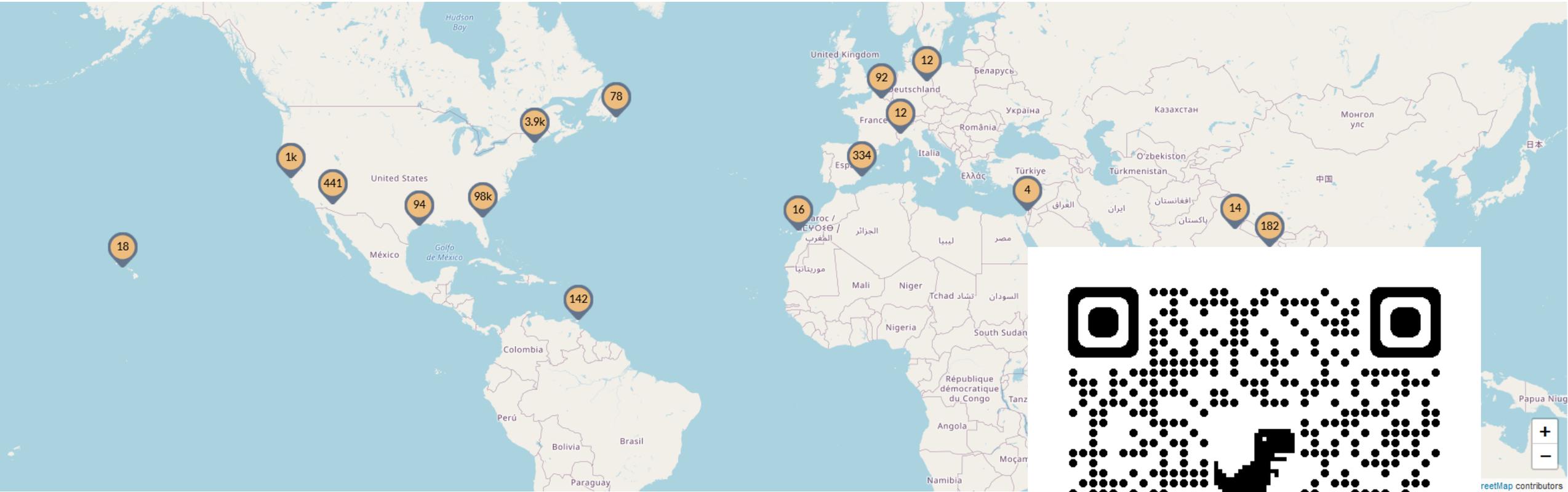
Distribution by Category



- PLASTIC
- BOAT PARTS
- OTHER ITEMS
- METAL
- CLOTH
- PAPER & LUMBER
- GLASS
- RUBBER
- FISHING GEAR

Top Items





Marine Debris Tracker
 Powered by Morgan Stanley

University of Georgia | Circularity Informatics Lab

Legend ×

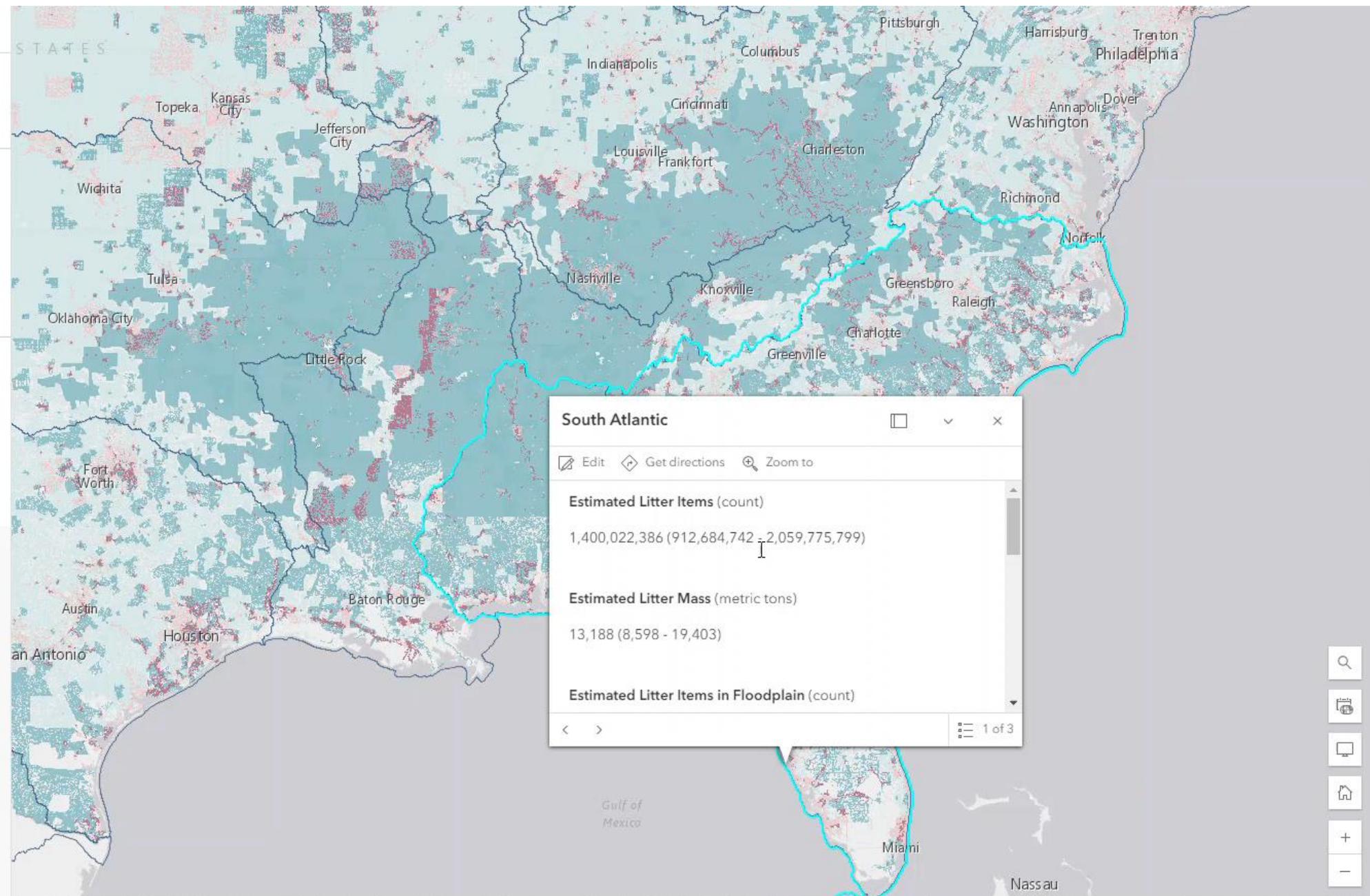
River Basins



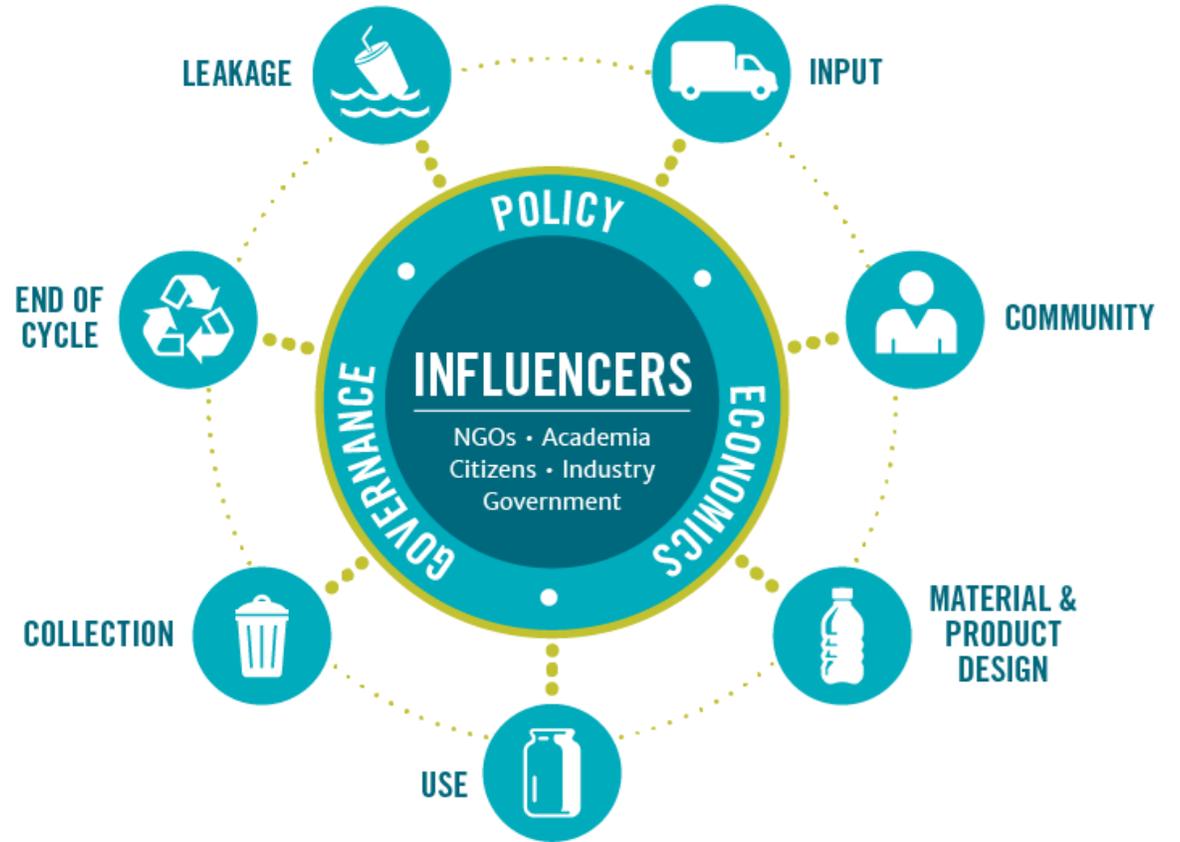
Estimated Litter Density in Floodplain (items/m2)



Estimated Litter Density (items/m2)



Questions?



Poll Questions

Project Implementors Peer-to-Peer

Christy Williams, ERG

Please Share...

- Challenges you are facing in your program or project efforts:
 - Funding?
 - Technical issues?
 - Public engagement difficulties?
 - Other?
- What have you learned that others might benefit from:
 - Funding opportunities?
 - Partnership opportunities?
 - Informational resources?
 - Learning events?
- Is there a particular topic you want EPA to consider for Fall SAS meeting agenda?

Closing and Next Steps

Wade Lehmann, USEPA Region 4