



**Mississippi River Plastic Pollution Initiative:
Clean River, Clean Seas**

GLOBAL PLASTIC PRODUCED

Humans have created about 8.3 billion metric tons of plastics, outgrowing all man-made materials other than steel and cement.

2M METRIC TONS



1950

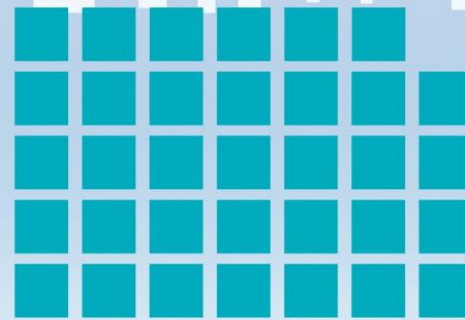
8.3B METRIC TONS

2017



2000

34B PROJECTED METRIC TONS



2050

PLASTIC WASTE

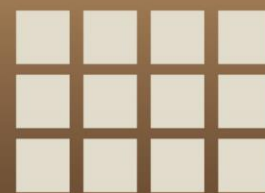
Plastic waste can be recycled, incinerated or discarded where it accumulates in landfills and the natural environment.

2015

6.3B METRIC TONS



12B PROJECTED METRIC TONS



9%

Recycled



12%

Incinerated



79%

Accumulated in landfills & natural environment



HOW HEAVY IS 8.3 BILLION METRIC TONS?

1 million metric tons (Mt) = 1.1 million tons



1,000,000,000 X
ELEPHANTS
(7.5 tons)

80,000,000 X
BLUE WHALE
(104.5 tons)



800,000 X
THE EIFFEL TOWER
(20,000 tons)

25,000 X

EMPIRE STATE BUILDING
(331,000 tons)



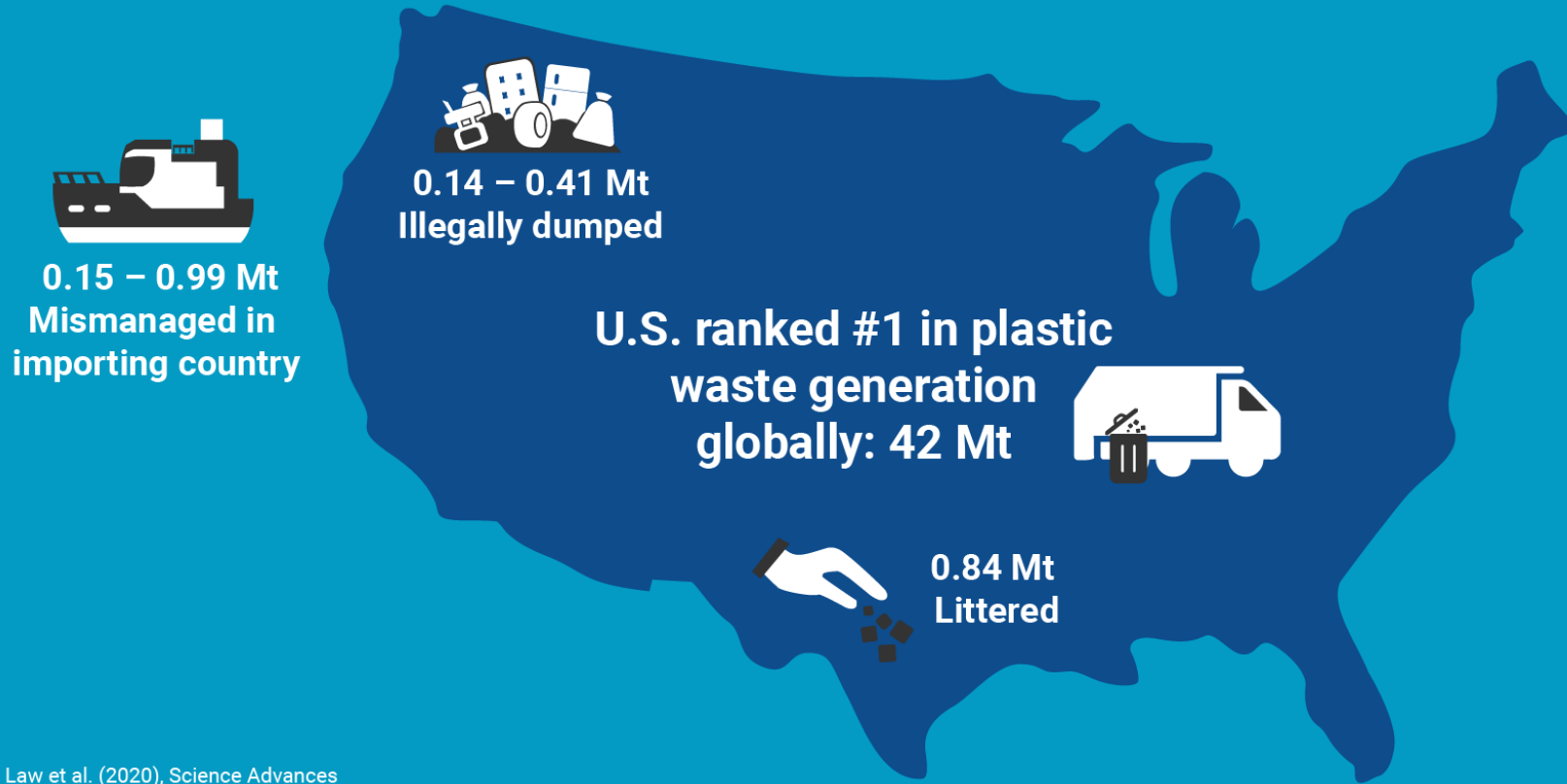
Plastic waste inputs from land into the ocean in 2010

The 192 countries with a coast bordering Atlantic, Pacific, and Indian oceans, Mediterranean and Black seas produced a total of 2.5 billion metric tons of solid waste. Of that, 275 million metric tons was plastic, and an estimated 8 million metric tons of mismanaged plastic waste entered the ocean in 2010.



2016

U.S. plastic waste inputs to the coastal environment were among the highest in the world:
0.51 – 1.45 million tonnes (Mt)



Law et al. (2020), Science Advances

Total mismanaged U.S. plastic waste: 1.13 – 2.24 Mt

Mismanaged waste = Littered + Illegally dumped + Exported waste mismanaged in importing country



MONTANA

NORTH DAKOTA

MINNESOTA

WYOMING

SOUTH DAKOTA

WISCONSIN

NEBRASKA

ILLINOIS

COLORADO

KANSAS

INDIANA

OHIO

MISSOURI

KENTUCKY

OKLAHOMA

ARKANSAS

TENNESSEE

MISSISSIPPI

LOUISIANA



Marine Debris Tracker

Powered by
Morgan Stanley



UNIVERSITY OF
GEORGIA

1. **What is Debris Tracker?**
2. **How to use the app**
3. **Data collection**
4. **Suggested surveying protocols**

debristracker.org/mississippi



What is Debris Tracker?





59

24

90

200

2.2k

1.5k

6.7k

88

277

162

16

United Kingdom

Deu

France

España

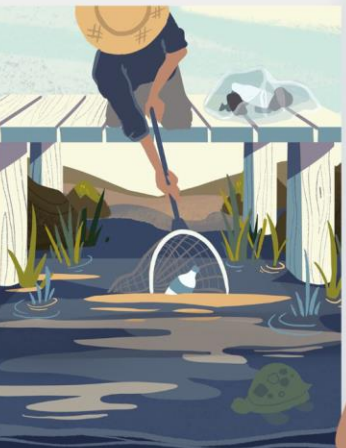
Maroc /
المغرب

الجزائر

موريتانيا

Mali

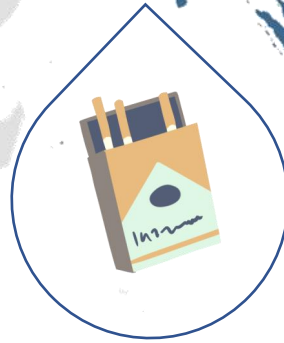
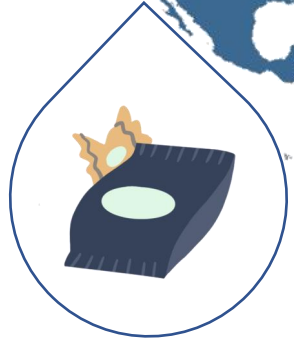
Golfo
de México



Marine
Debris Tracker
an open data citizen science movement

Start Tracking

Saved Sessions

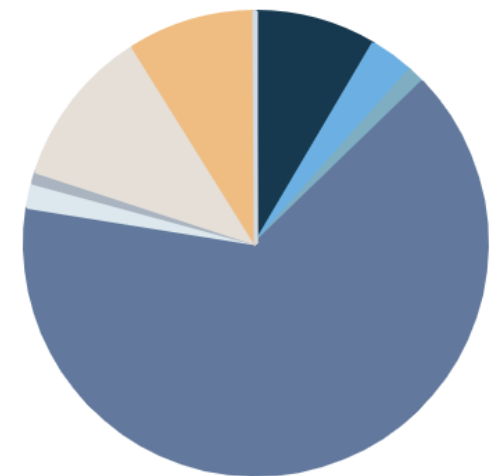
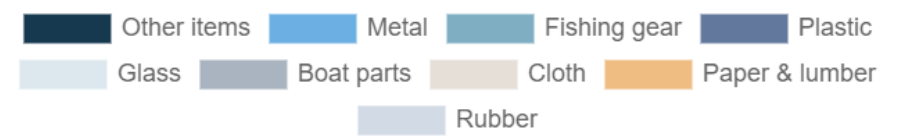


3 Million

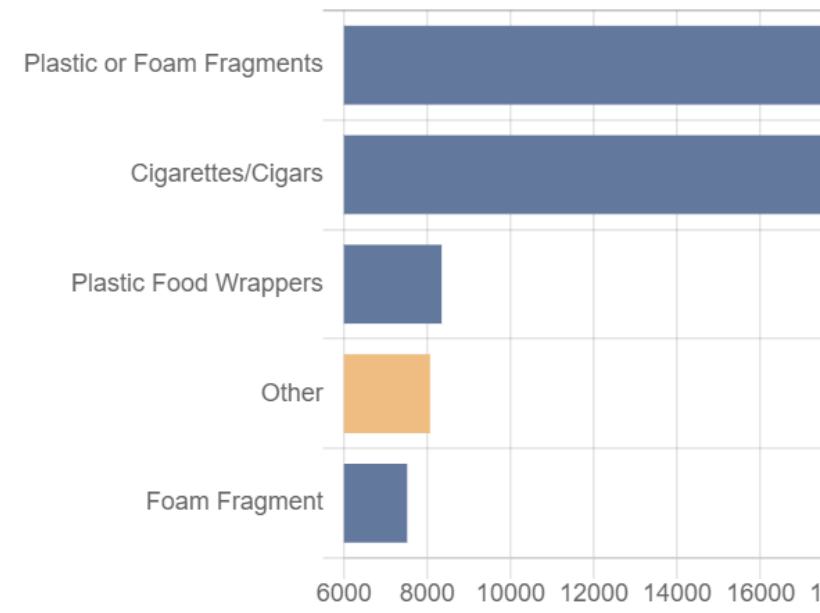


All
 Exact
 Range

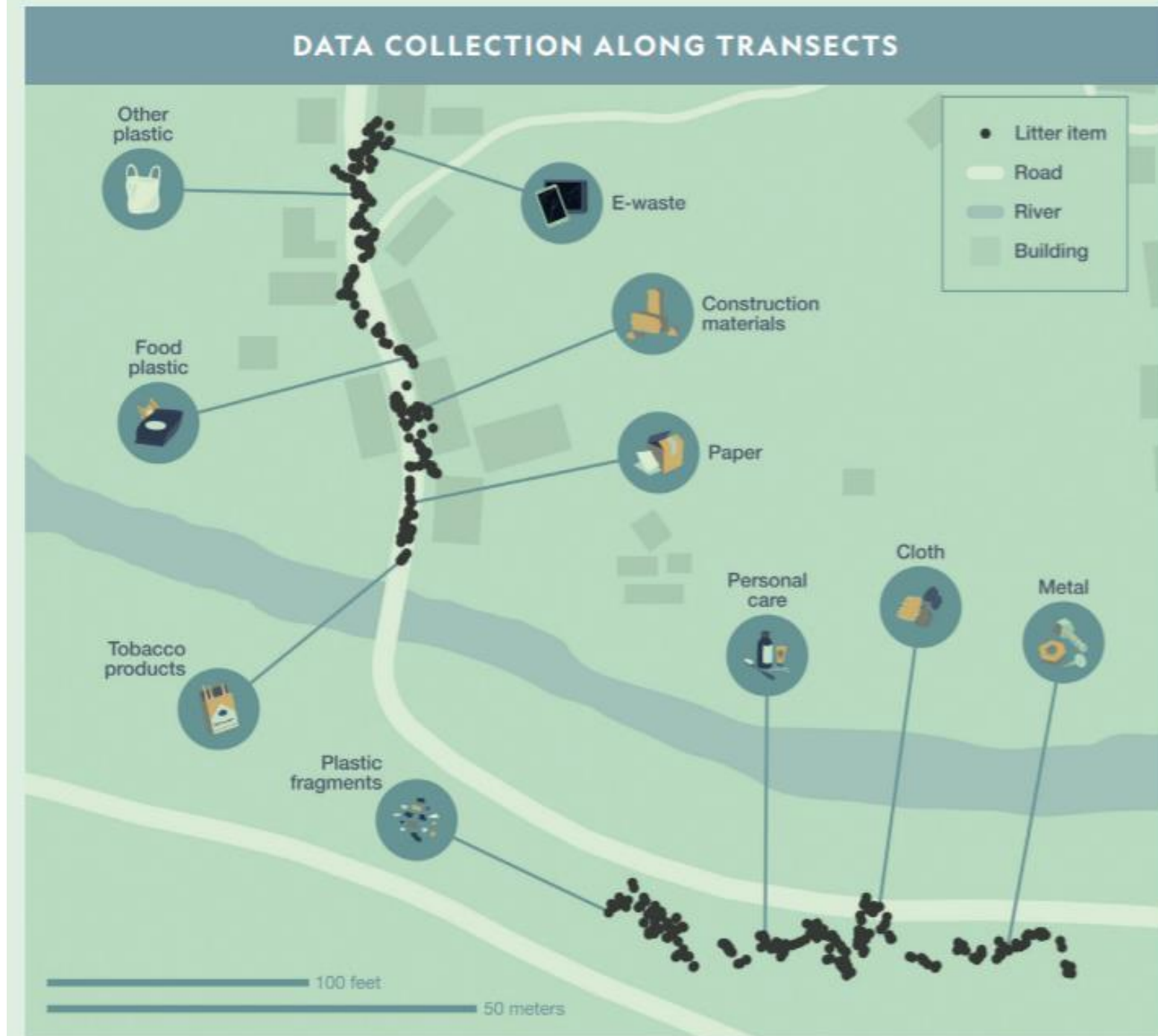
Distribution by Category



Top Items



1. What is it?
2. How did it get here?
3. Together, what can we do about it?



How to use the app



Powered by Morgan Stanley



Debris Tracker

An open data citizen scientist movement



Marine Debris Tracker

Powered by Morgan Stanley

Welcome Back!

Kathryn Youngblood

Recent Tracking Sessions

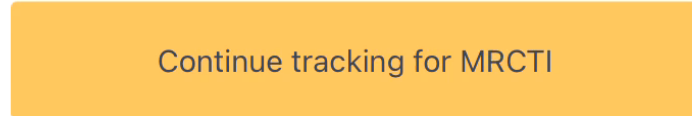
December 2, 2020 at 11:18 pm

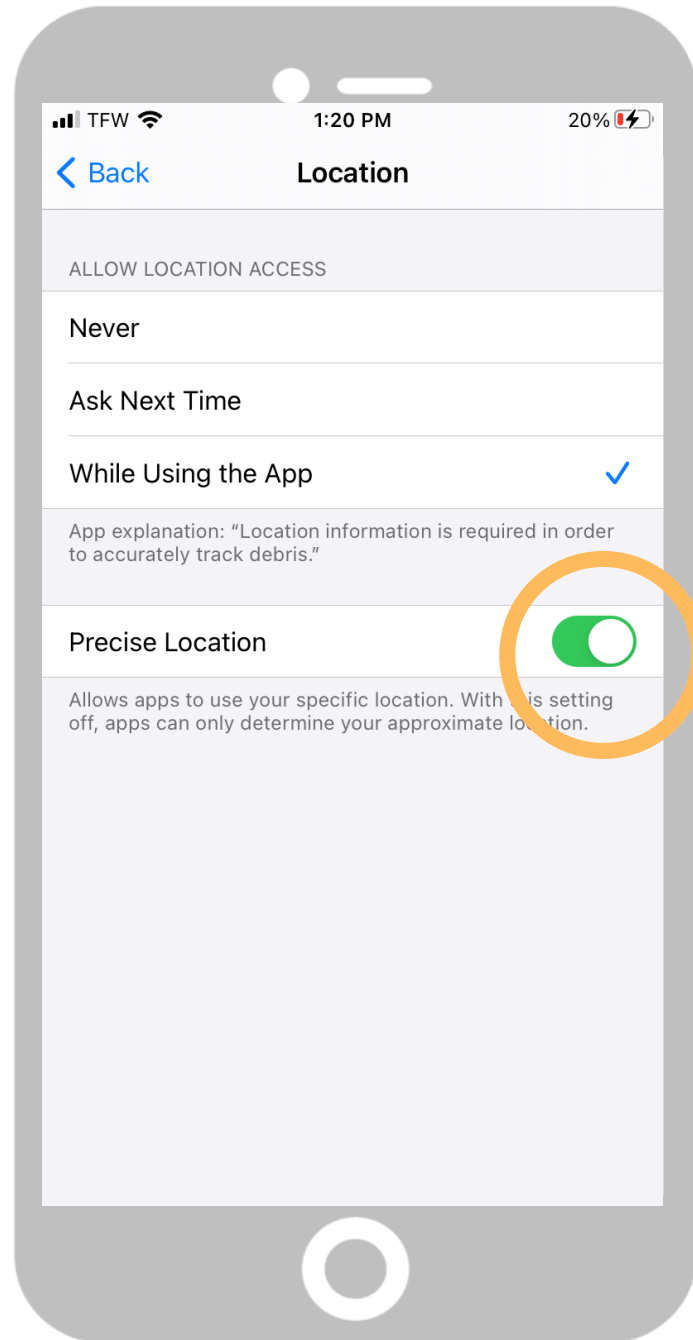
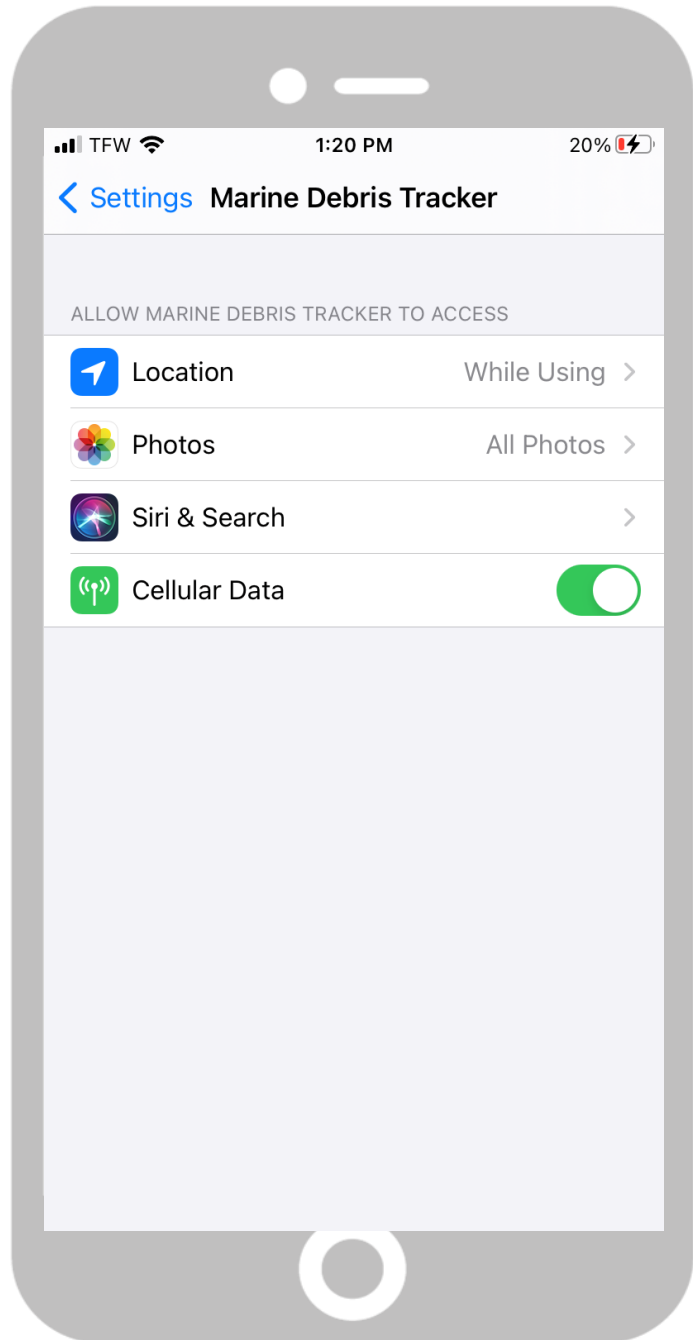
1 Item

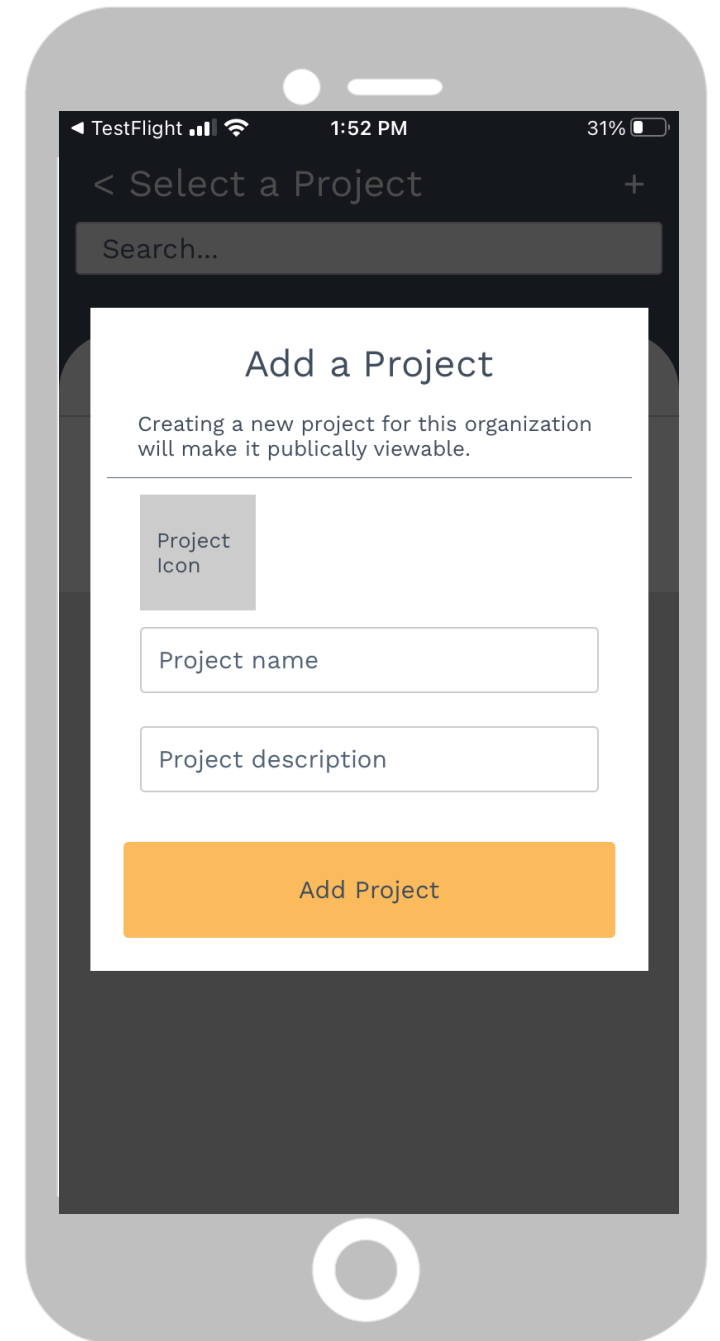
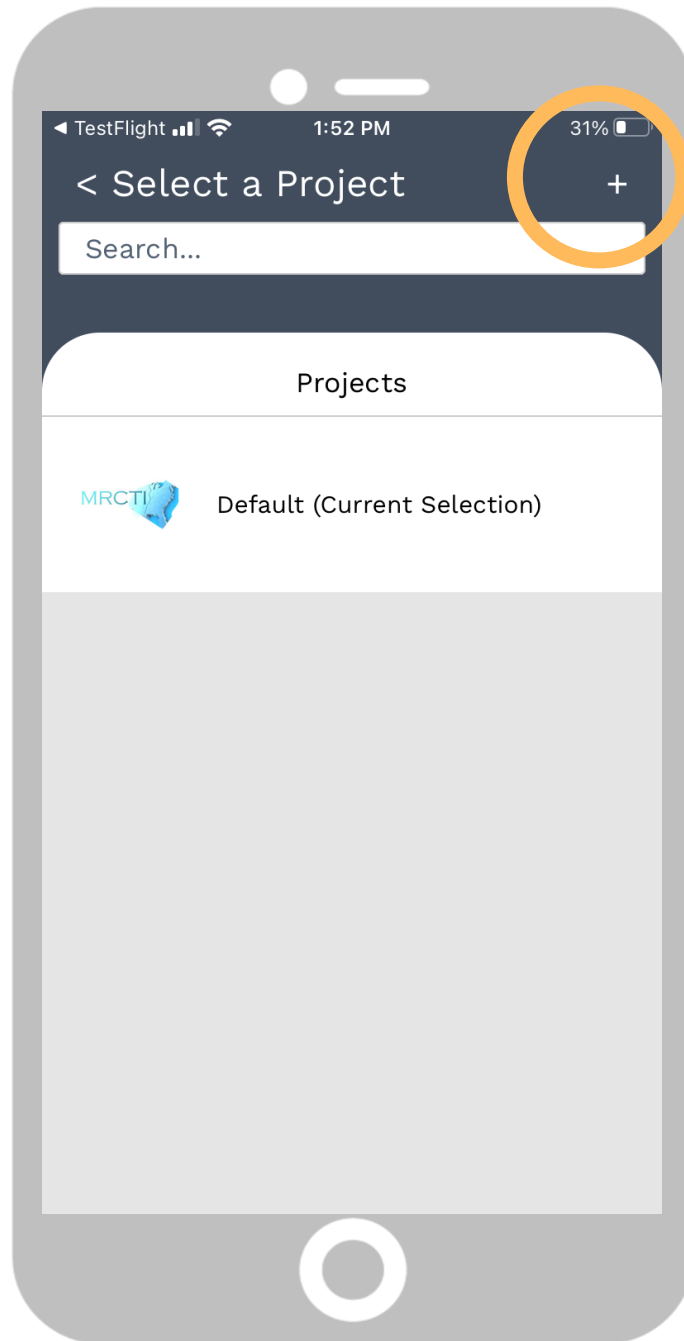
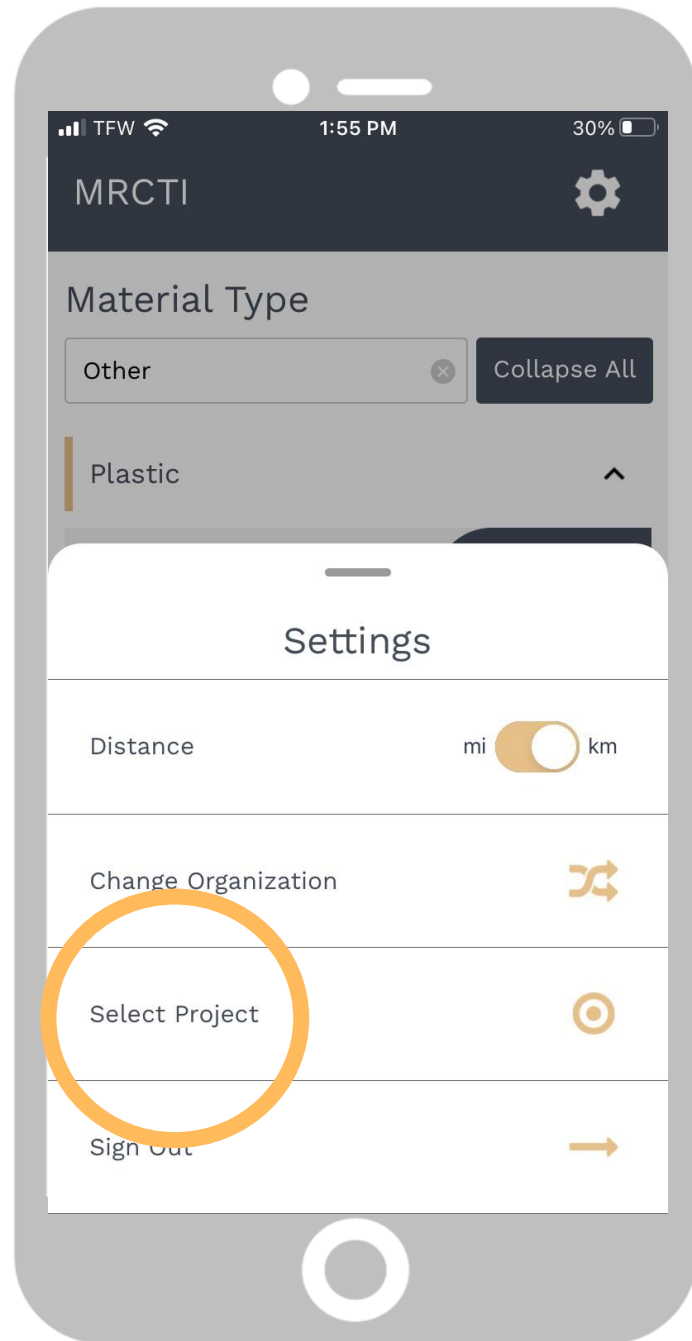
Kind Human Solutions



Actions

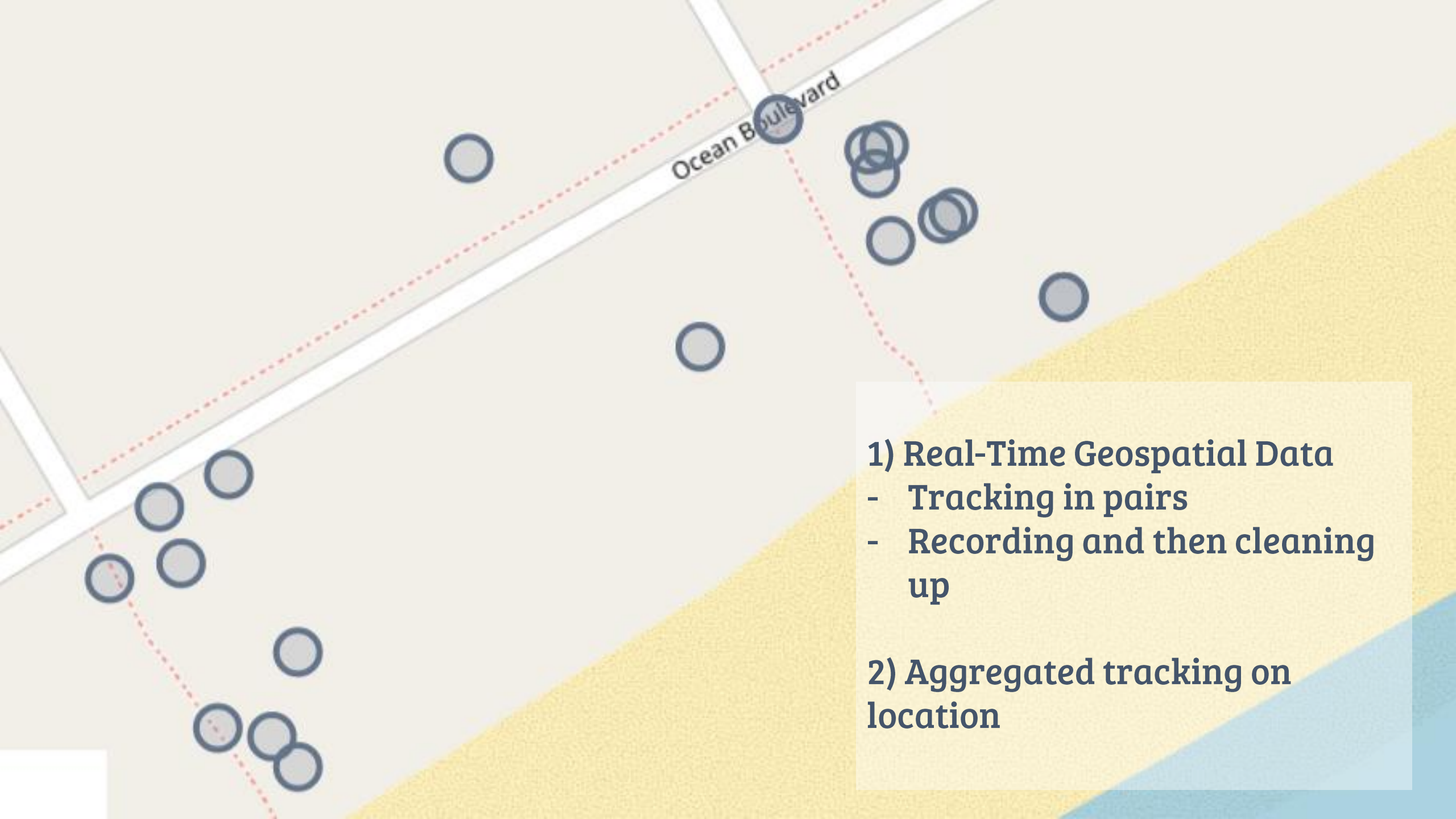






Data collection





1) Real-Time Geospatial Data
- Tracking in pairs
- Recording and then cleaning up

2) Aggregated tracking on location

Manually upload data

Upload Data

6

Cigarettes

Add



6 Cigarettes



2 Plastic Bags



1 Aluminum or tin cans

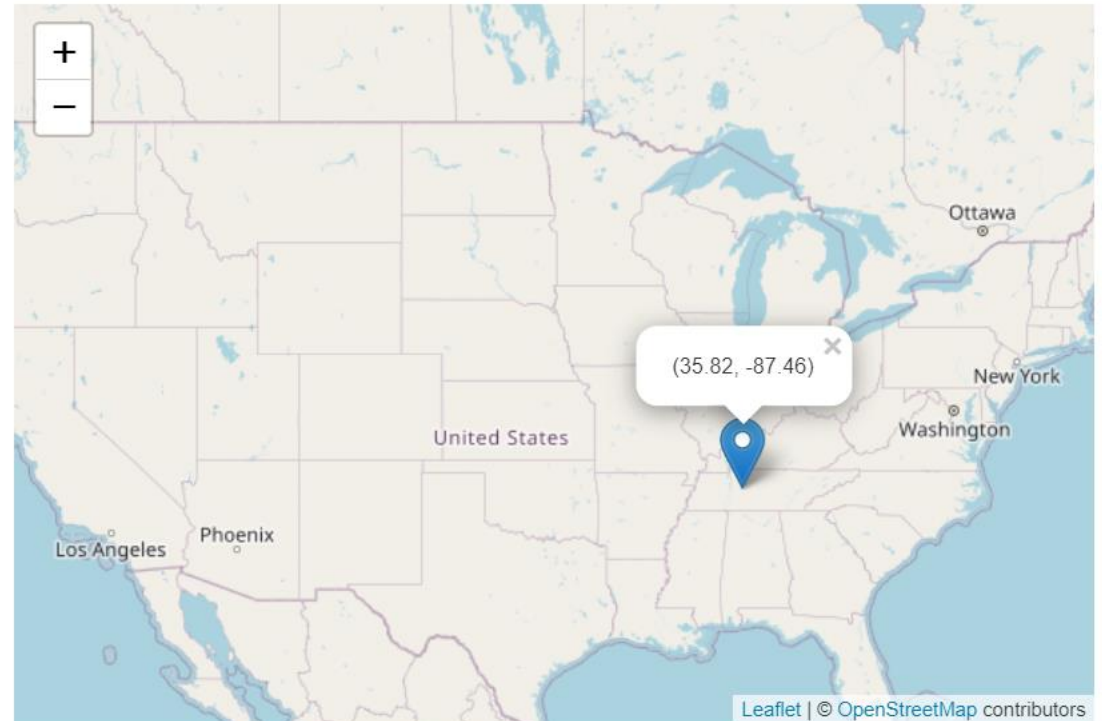


< Prev

Next >

Select the cleanup location.

Start Searching...



< Prev

Next >

3) Aggregated data logged off-site

Guidelines for Tracking Litter

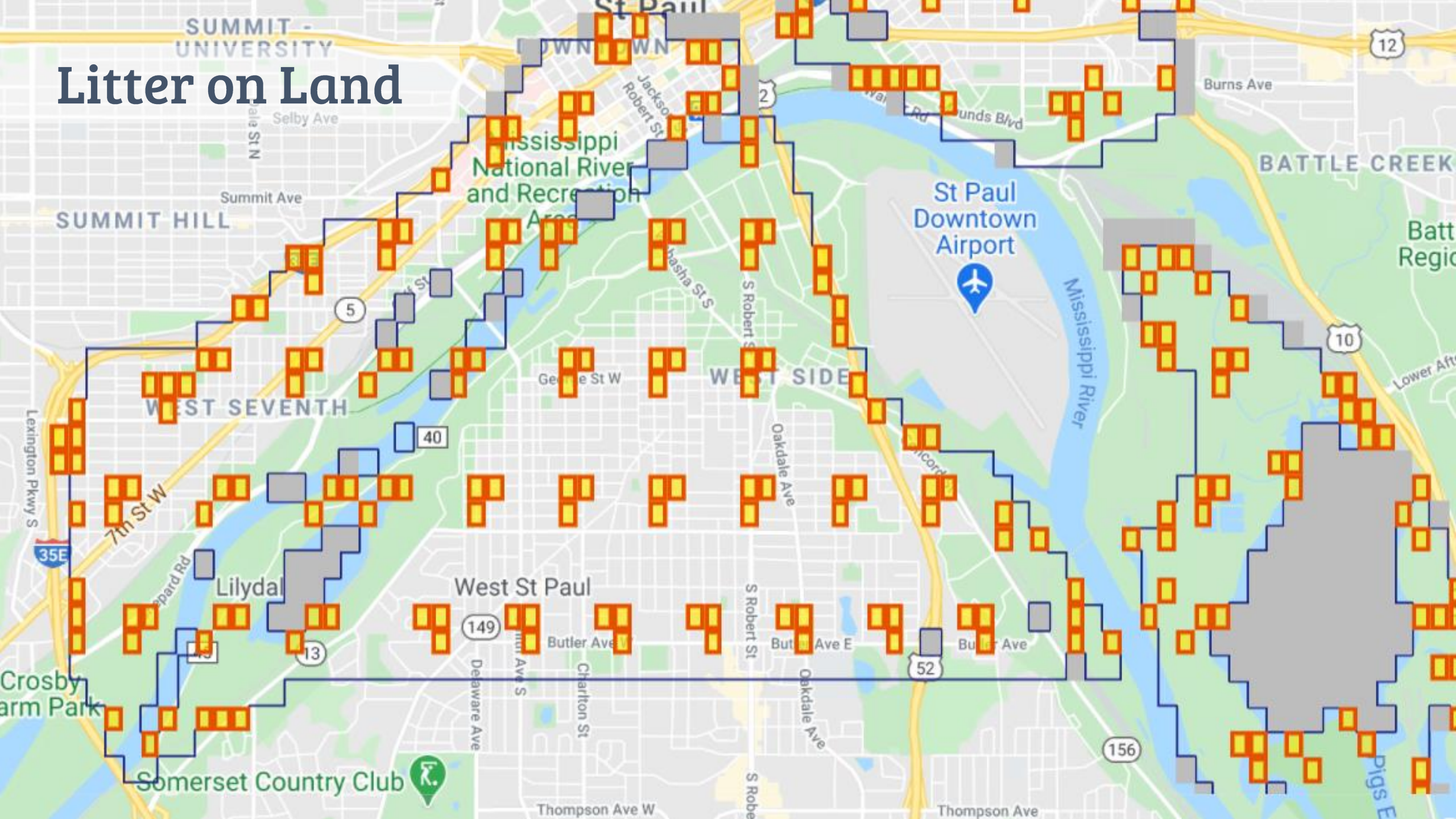
- Record items that are over 2.5 cm (or 1 in) in diameter.
- If the item is fragmented but you can tell what it originally was, log it as the original item. This will help us identify what products are sources of litter. For example, log a piece of a chip or crisp wrapper as a plastic food wrapper rather than a fragment.
- If the brand of the item is identifiable, use the description box to add in the brand name.
- If you come across an item you're not familiar with, use the "Other" item and add a description of the item.
- When you're done tracking, continue to the mobile survey to answer a few short questions about the type of sampling event, time spent collecting, and the number of volunteers. You can also add photos to your log and share on social media to encourage others to get involved. Don't forget to tag **@DebrisTracker!**



Surveying protocols

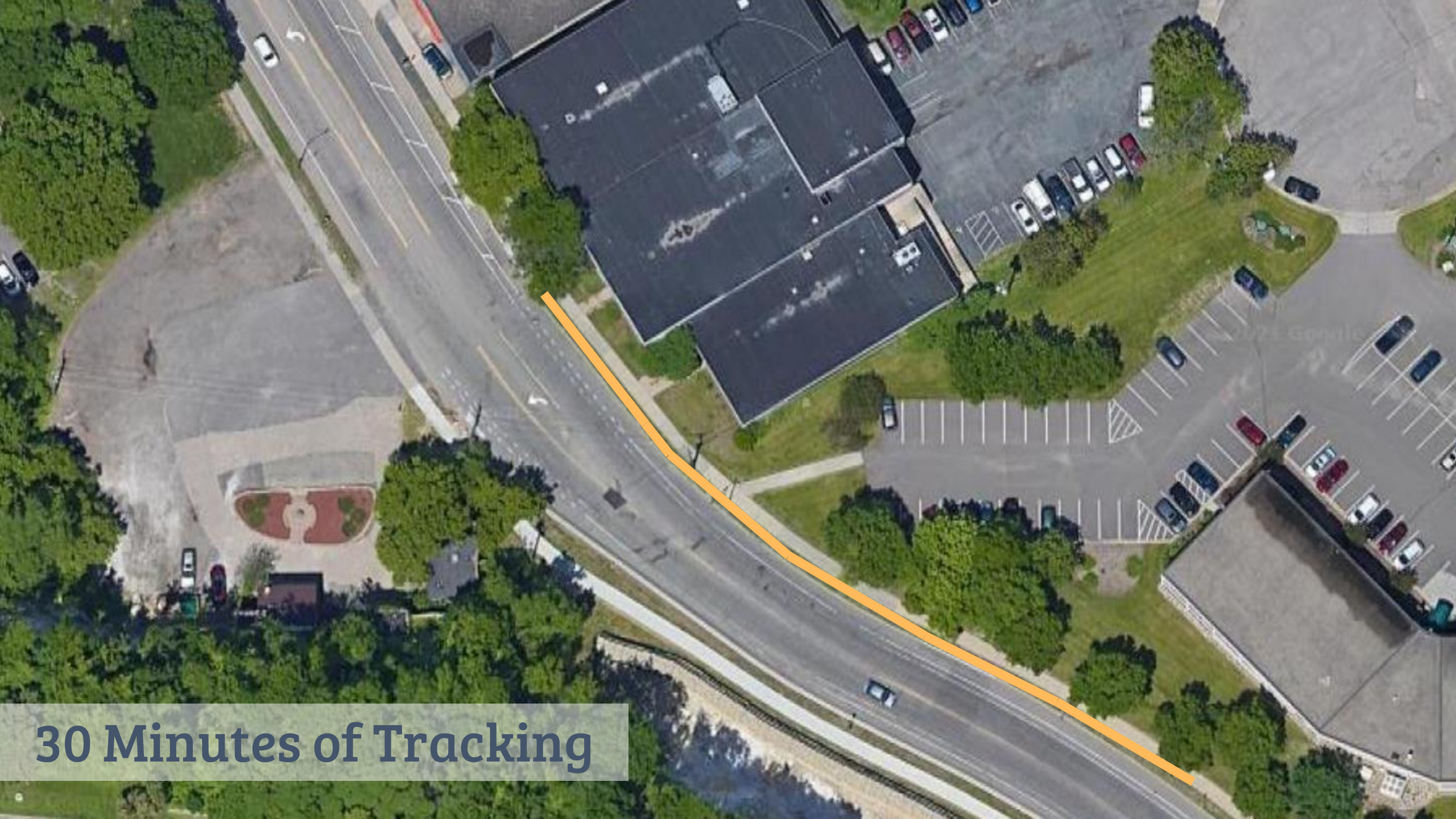


Litter on Land



Survey Litter Aggregation Pathways





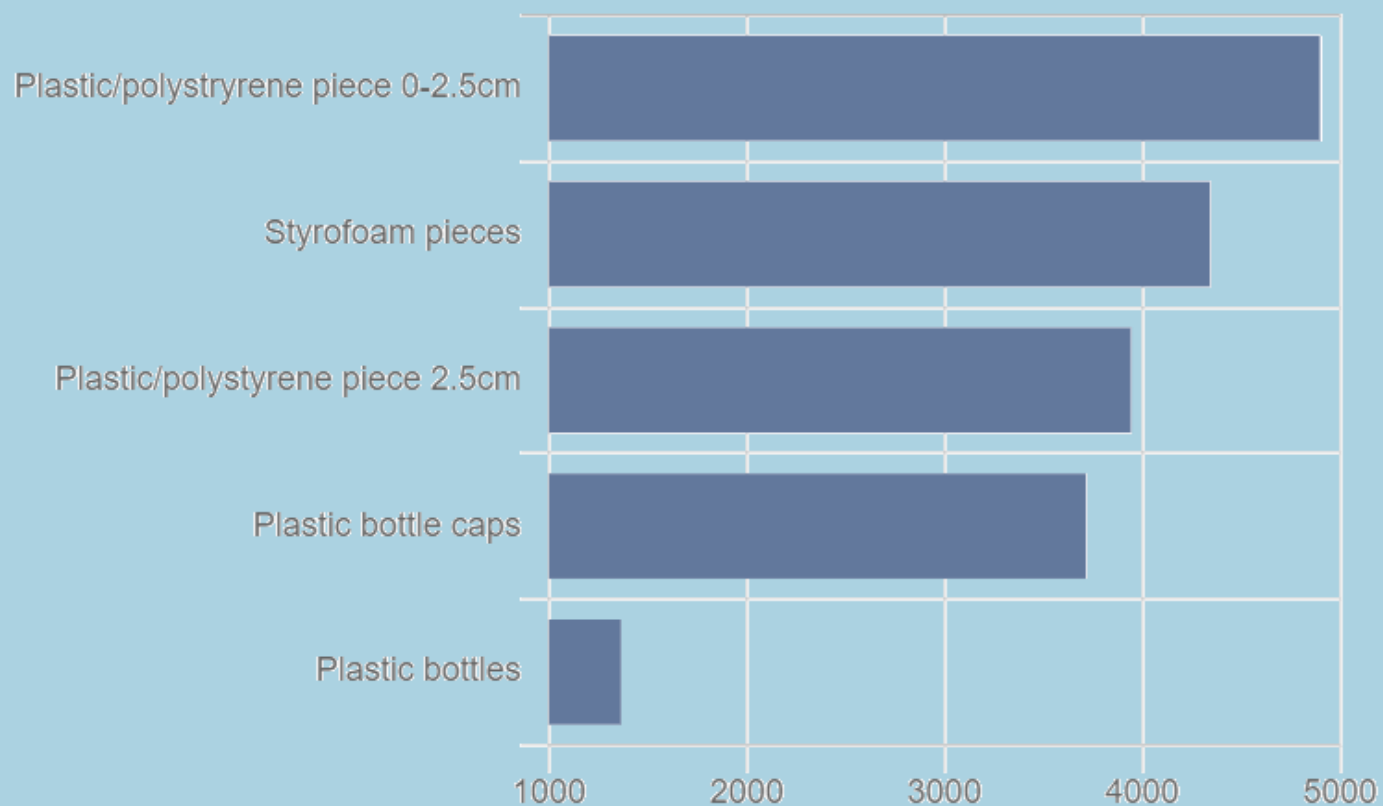
30 Minutes of Tracking

Floating Debris



Accumulation Sites

Top Items



Stay safe while tracking litter!

- 1 Wear utility gloves whenever you are touching trash.
- 2 Avoid dangerous pieces of trash like needles, broken glass, and syringes unless you have been properly trained on how to safely pick them up.
- 3 During your tracking session, do not touch your face. After your tracking session, wash your hands with soap and water for 20 seconds or use hand sanitizer.
- 4 Disinfect your phone after each tracking session. Just type “how to clean your mobile phone” into your browser for proper instructions .
- 5 Recommendation: Have an up to date tetanus shot. Remember, you are working with trash.
- 6 Follow all local health department guidelines for preventing the spread of COVID-19. Wear masks where appropriate and maintain a distance of 6 feet between volunteers.



Questions?



@DebrisTracker

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New Materials Institute
UNIVERSITY OF GEORGIA

