



PARTNERSHIPS IN LITTER ABATEMENT: THE TEXAS LITTER DATABASE TXLITTER.ORG



OVERVIEW

Dr. Erin Kinney, HARC

The Beginning: Galveston Bay Watershed Aquatic Debris Action Plan and Partners in Litter Prevention

Taking Action: Building a Database and Boots On the Ground: Texas Litter Database, Trash Survey, Take 2 For Texas

Website Tour: Texas Trash Litter Database



HOUSTON...WE'RE A LITTLE TRASHY

On average
the citizens of
Houston
produce 6.2 lbs
of solid waste
per day

Plastic waste
comprises
about 13% of
municipal solid
waste in the
U.S.

If we do the
math, each
Houstonian
produces 0.81
lbs of plastic
waste per day

In 2015, there
were
6,656,947
people in the
Houston Metro
area

Each day Houston
could produce
5,365,299 lbs
of plastic, or
1,958,407,200 lbs
per year
(~ 979,200 tons)

The Beginning: Action Plan and Partners in Litter Prevention

- Non-regulatory
- Stakeholder lead
- 25 government agencies, departments, non-profits, private organizations
- Annual Trash Summits began May 2017
- Phone workshops to brainstorm goals
- Created *Galveston Bay Watershed Aquatic Debris Action Plan*



Dr. Erin Kinney, HARC
The Beginning: Action Plan and Partners in Litter Prevention

WHY DID GALVESTON BAY STAKEHOLDERS COME TOGETHER?

Identified Need For:

- Research & Assessment
- Coordination
- Prevention
- Removal, Emergency Response & Preparedness



WHAT IS THE ACTION PLAN?

A non-regulatory guidance document

- The document is not intended to be regulatory or specifically binding on actions or timeframes.
- Plan addresses many aspects of marine debris and aquatic trash: removal, prevention, awareness, education, outreach, research, etc.

2020

Galveston Bay Watershed Aquatic Debris Action Plan



GOALS

1: Conduct High Quality **Research** and Needs Assessment

2: **Reduce** Land-Based and Water-Based Debris through Prevention

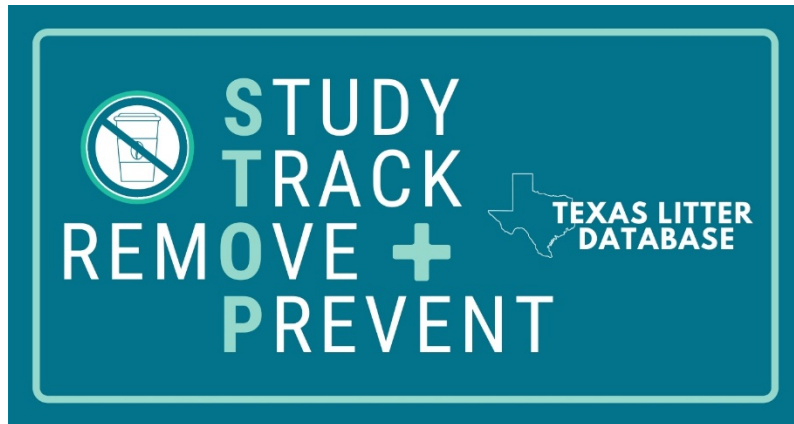
3: Support and Sustain **Removal** of Litter, Trash and Debris



TAKING ACTION: TEXAS TRASH LITTER DATABASE

Need identified in *Galveston Bay Watershed Trash Action Plan*:

Goal 1: Conduct High Quality Research and Needs Assessment



**Texas Litter Database:
Website is Live!
TXLitter.org**





- Funded by the Garver Black Hilyard Family Foundation
- Developed by HARC with guidance from Black Cat GIS and KTB
- Tested by Black Cat GIS and KTB
- Working with all collaborators
- Will be housed at KTB



Texas Litter Database Team

TEXAS LITTER DATABASE OBJECTIVES

- Collecting data and metadata
- Clean ups, regular removal, reported trash, etc.
- Amount (volume, weight, recycled, conversion factors)
- Location (GPS coordinates, cross-street, waterway)
- Date, Time, Place
- Number of volunteers, miles/area covered
- QA process: how do you check your data? train volunteers?



TAKE 2 FOR TEXAS AND THE STOP SURVEY METHOD

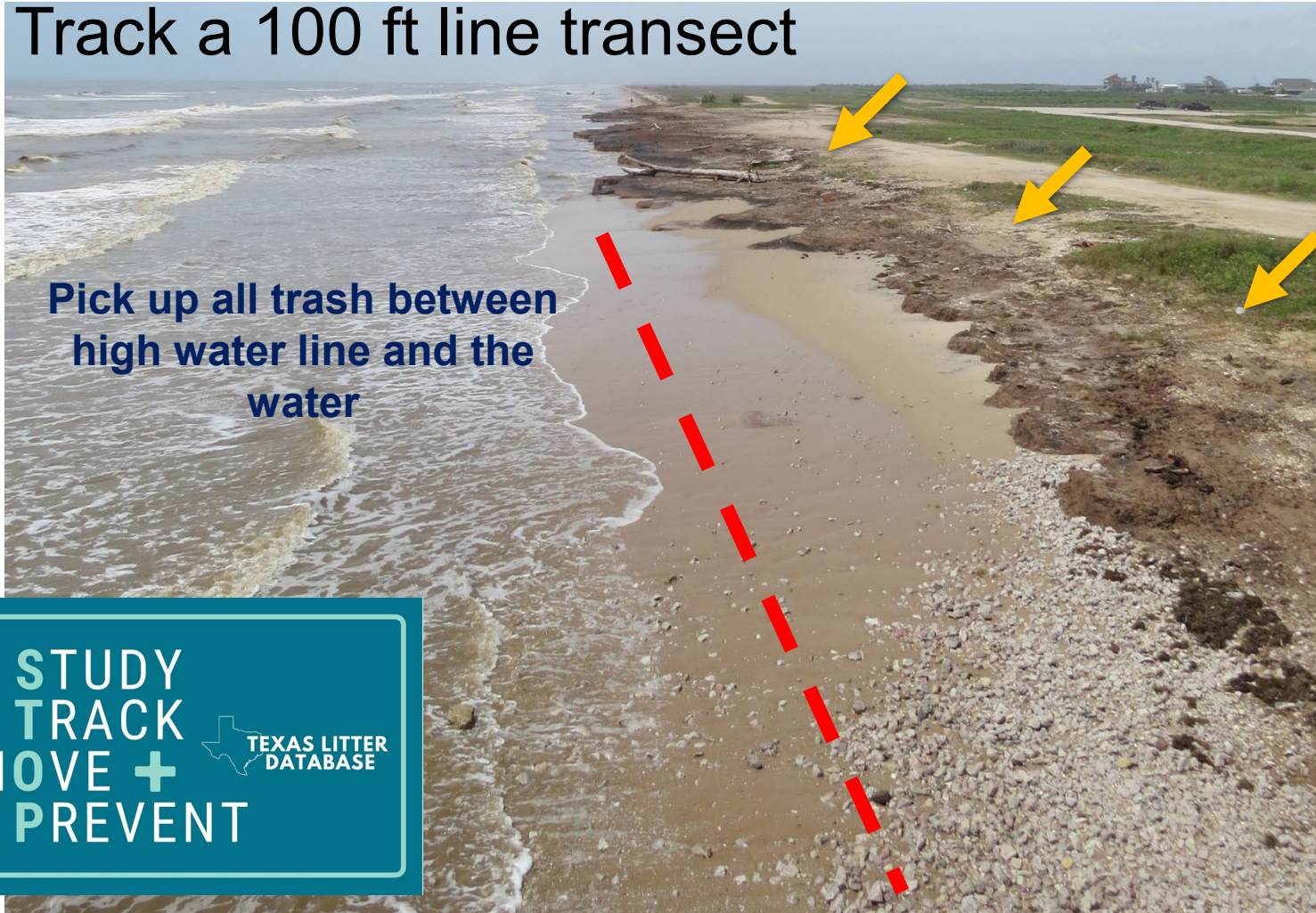
- Methodology comparison between plastic litter survey techniques in the Galveston Bay watershed
- Funded by the Garver Black Hilyard Family Foundation
- Rapid Assessment to gather data on plastic pollution
 - (specifically plastic beverage containers/ bottles)



SETTING UP A TRANSECT

Track a 100 ft line transect

Pick up all trash between
high water line and the
water



STUDY
TRACK
REMOVE +
PREVENT

TEXAS LITTER
DATABASE

SETTING UP A TRANSECT



STOP

Survey Datasheet

Examples: any "hard" plastic that is not styrofoam or plastic film

| Item | Tally | Total # |
|------------------------------|-------|---------|
| 6 pack rings | | |
| Beverage Bottles/ Containers | | |
| Bottle/ Container Caps | | |
| Buoys and Floats | | |
| Cigar plastic tips | | |
| Cigarette butts | | |
| Disposable lighters | | |
| Fishing Lures and Line | | |
| Food Containers | | |
| Fragments | | |
| Non-Food Containers | | |
| Personal care products | | |
| Plastic Cups/ Plates | | |
| Plastic Rope/net pieces | | |
| Plastic Toys | | |
| Plastic Utensils | | |

Examples: any metal including foil, aluminum, iron, tin, etc.

| Item | Tally | Total # |
|--------------------|-------|---------|
| Aluminum Foil | | |
| Aluminum/ Tin cans | | |
| Aerosol cans | | |
| Crab/ Fish traps | | |
| Metal Bottle Caps | | |
| Metal Fragments | | |
| Other: | | |

| Item | Tally | Total # |
|------------------|-------|---------|
| Beverage Bottles | | |
| Jars | | |
| Glass Fragments | | |
| Other: | | |

| Item | Tally | Total # |
|------------------------|-------|---------|
| Flip flops/ Shoe soles | | |
| Work (Thick) Gloves | | |
| Rubber Fragments | | |
| Tires | | |
| Other: | | |

Hard and Solid Plastic

Metal

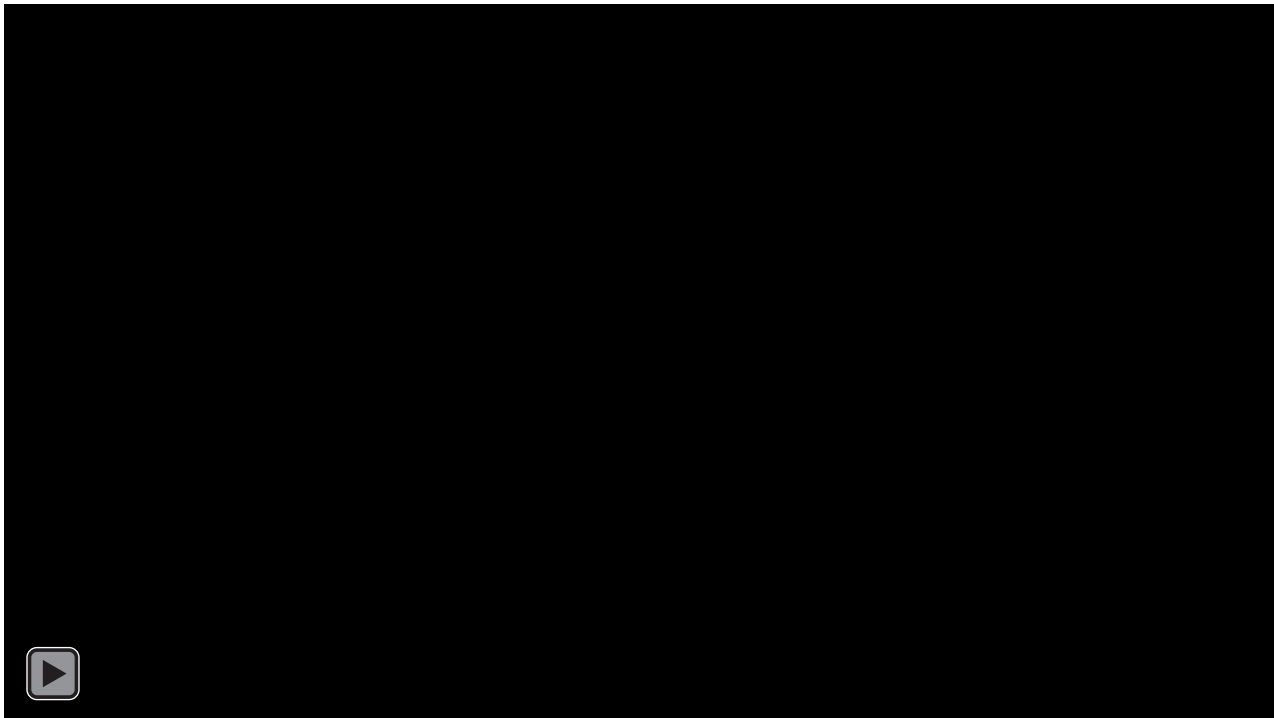
Glass

Rubber

STOP: STUDY, TRACK, REMOVE AND PREVENT METHOD

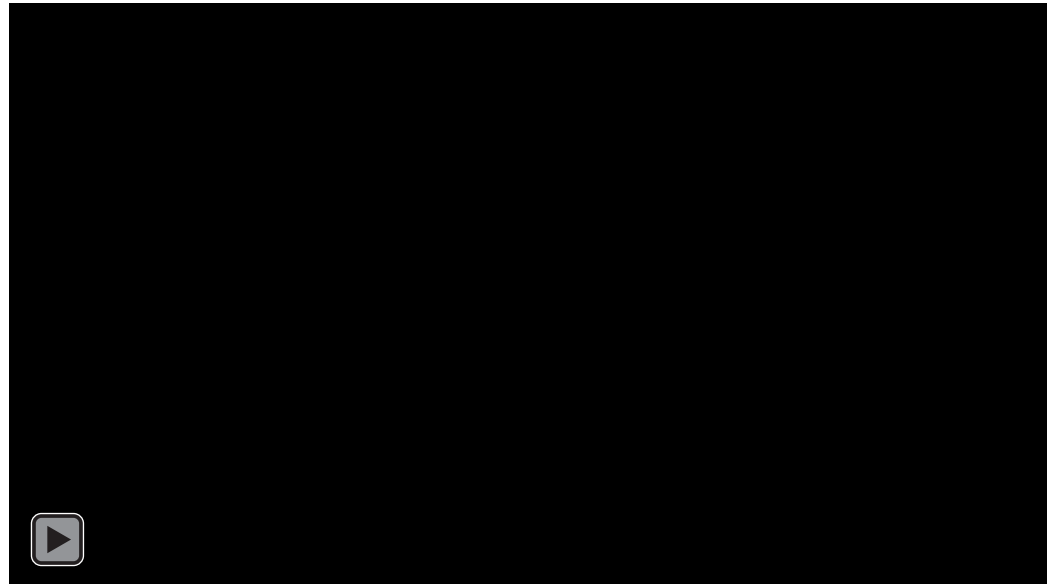
Track a 100 ft line transect

Oodles of Trash? Reduce to 10, 20, 50, etc. and record length



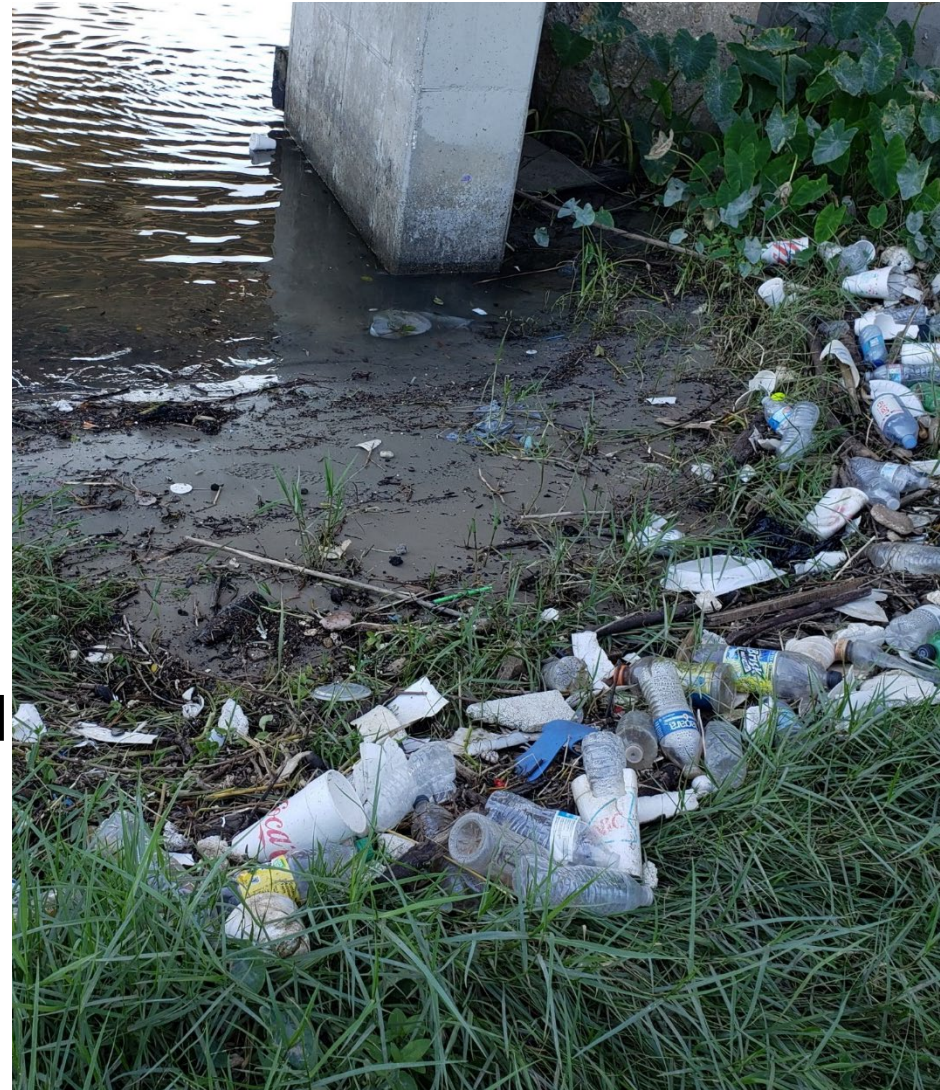
STOP: STUDY, TRACK, REMOVE AND PREVENT METHOD

- Pick up every single piece of trash you see.
 - Shoreline not accessible? Do what you can!
 - How far do you go up?
 - Always look for the high water/wrack line
 - How small an item do you pick up?
 - Our smallest items are bottle caps and cigarette butts
 - Styrofoam and plastic film – estimate fragments on datasheet



RAPID ASSESSMENT

- Field test a plastic bottle count method.
 - Pick up as many plastic bottles as you can in 2 minutes
 - Compare this data with bagged trash collected to discover correlations between bottle counted and overall litter loads



Welcome to Texas Litter Database

STOP EVERY PIECE COUNTS!



Create New Event



Download Field Sheet



Enter Data

Have 2 minutes? Help us count the number of plastic bottles littering Texas! [Take 2 For Texas](#)



FAQ:

- > [User Guide](#)
- > [Definitions](#)
- > [What is STOP?](#)
- > [What is Take 2?](#)
- > [How do I start?](#)
- > [What's the background?](#)



Total Trash Counts

24,476

Total Volunteers

5,550

Total Events

36

Total Reports

57

100+ Plastic Film
Fragment Reports

1

100+ Hard Plastic
Fragment Reports

3

Highest Weight (lbs) in
One Cleanup

30,000



Last updated on August 18, 2021 3:33 PM

TEXAS LITTER DATABASE

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The Texas Litter Database was created for Keep Texas Beautiful by HARC in partnership with BlackCat GIS with funding from the Garver Black Hilyard Family Foundation.



Survey Datasheet

Examples: any "hard" plastic that is not styrofoam or plastic film

Hard and Solid Plastic

| Item | Tally | Total # |
|---------------------------------|-------|---------|
| 6 pack rings | | |
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| Bottle/ Container Caps | | |
| Buoys and Floats | | |
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| Disposable lighters | | |
| Fishing Lures and Line | | |
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| Fragments | | |
| Non-Food Containers | | |
| Personal care products | | |
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Examples: any metal including foil, aluminum, iron, tin, etc.

Metal

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Glass

| Item | Tally | Total # |
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Rubber

| Item | Tally | Total # |
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| Rubber Fragments | | |
| Tires | | |
| Other: | | |



New Take 2 Report



Take 2 For Texas

2 Minutes Can Make a Difference on Aquatic Trash

- Take just two minutes to pick up and count all the plastic bottles you can see as you walk along slowly.
- Report the total number and location and throw away or recycle the bottles. It's that easy!

* Location:

* Date:

* Plastic Bottles:

Notes:

0 / 500

* Agreement: I have read the agreement

Examples: any wearable ob

| Item | Tally | Total # |
|---------------------|-------|---------|
| E Disposable Gloves | | |
| PPE Face Masks | | |
| Other: | | |

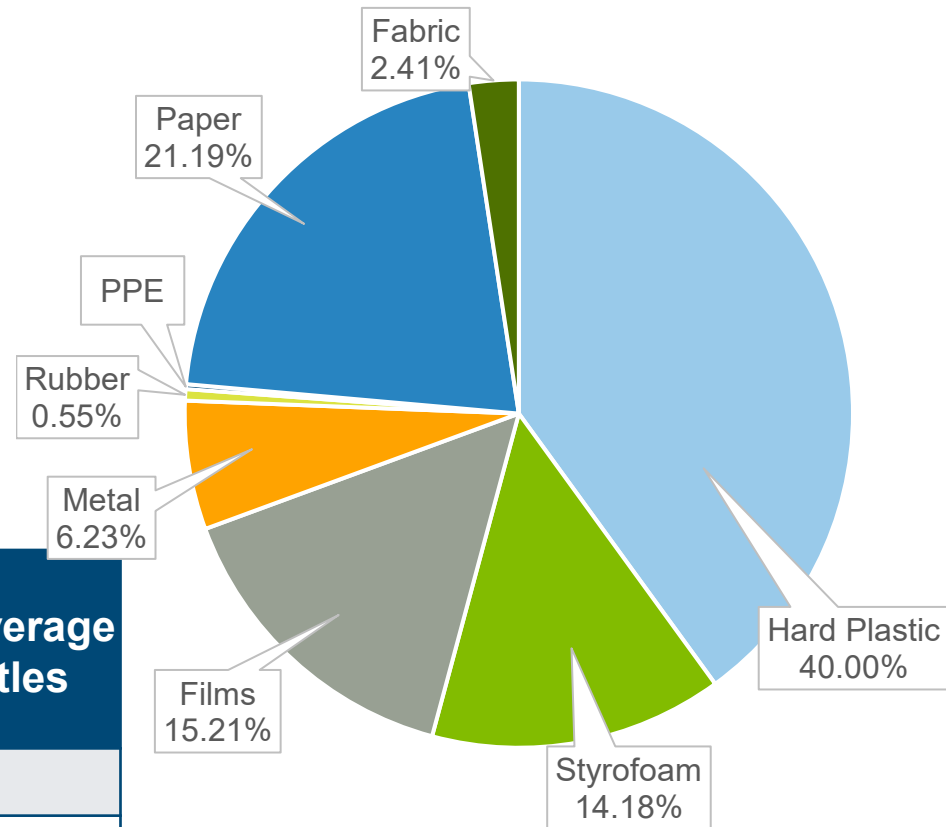
Examples: any MAN MADE

| Item | Tally | Total # |
|------|-------|---------|
|------|-------|---------|



FIRST YEAR DATA RESULTS (2/20 – 2/21)

| County | #Sites | #Surveys |
|-----------|--------|----------|
| Harris | 17 | 19 |
| Galveston | 31 | 42 |
| Fort Bend | 1 | 1 |
| Dallas | 1 | 1 |
| Chambers | 6 | 6 |
| Brazoria | 2 | 2 |



| Site Name | Total Weight LBS | Beverage Bottles |
|-----------------------------|------------------|------------------|
| TC Dike Entry Rip Rap | 260 | 259 |
| WC Britton Park | 92.94 | 137 |
| Bolivar North Jetty East | 79.8 | 89 |
| Pelican Island Ship Channel | 34.71 | 54 |
| Anahuac NWR Gulf Beach | 23.62 | 51 |

TXLITTER.ORG



- Mobile Friendly
- Pre-create Events
 - Enter multiple Reports on-site or after the fact
- Will accept data of almost any type
- STOP method built-in
- Printable field sheets
- Loom How-To Videos
- Data Maps and Charts
- Data Download



HARC



Keep Texas
Beautiful
KEEP AMERICA BEAUTIFUL AFFILIATE

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black cat

GIS and Biological Services



**UPCOMING WEBINAR WITH KTB AND H-GAC:
EXPAND YOUR CLEANUP IMPACT THROUGH REGIONAL
COLLABORATION ON SEP 23, 2021 12:00 PM CDT**

