



DROP-OFF

DROP-OFF TOPICS

OPTIONS FOR SET/UP OPERATIONS

ILLEGAL DUMPING

CONTAMINATION

COMMUNICATIONS

OPERATIONS

EDUCATION



DROP-OFF OPERATIONS

THE GOAL



Better
Customer
Service



Improve Material
Quality (minimize
Illegal Dumping)



Increase
Recycling
Tonnage



Lower
Operational
Costs

STAFFED DROP-OFF



STAFFED DROP-OFF



UNSTAFFED DROP-OFF



UNSTAFFED DROP-OFF

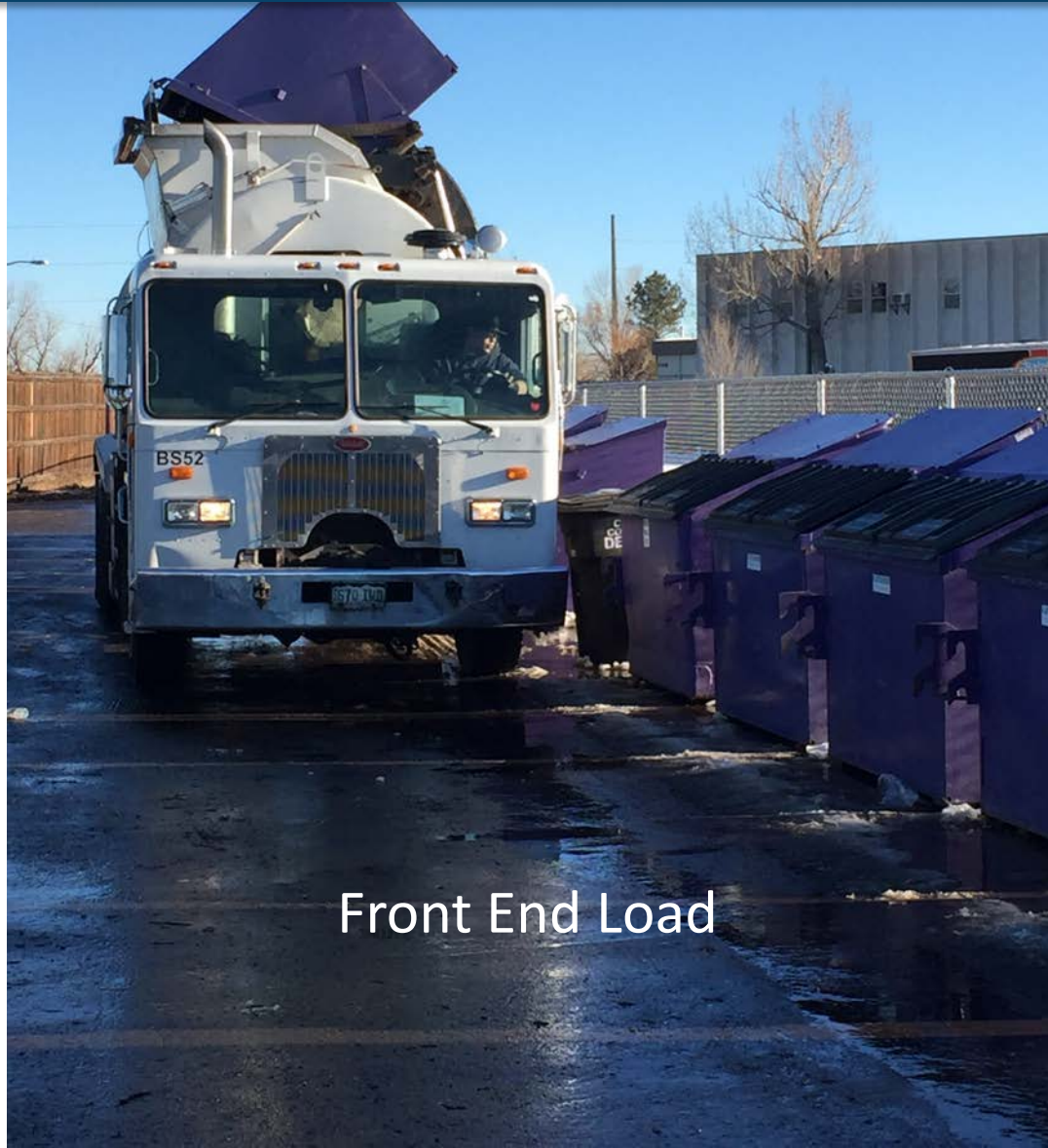


TYPES OF CONTAINERS

Key Considerations:

- Efficiency
 - Compactor vs. Loose
- Fit your current fleet:
 - Already have hook trucks? – Buy Roll-offs
 - Already have FELs? – Buy Front End Load Containers
 - Only have pick-ups? – Stick to the tailers
- Surface?
 - Concrete Pad
 - Pavement
 - Gravel

TYPES OF CONTAINERS



Front End Load

TYPES OF CONTAINERS



Roll Off

TYPES OF CONTAINERS

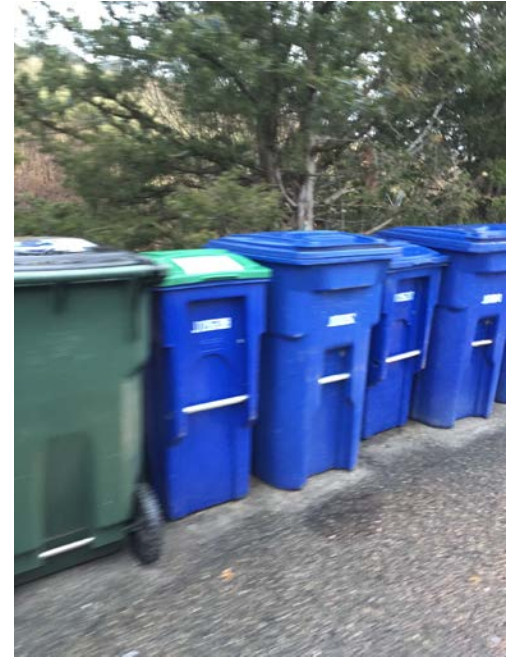


Compactor

OTHER TYPES OF CONTAINERS



Trailer



Carts

LOCATION, LOCATION, LOCATION

- No more than 3 to 5 miles from resident
- Convenient to location resident is already traveling to:
 - Grocery
 - Mall
 - Park
 - Main Thoroughfare



LOCATION, LOCATION, LOCATION



Mall Parking Lot



Grocery Parking Lot

LOCATION, LOCATION, LOCATION



Main thoroughfare outside of town

Commingle + Compaction

KEY STRATEGY: COMMINGLE

Transition from Source Separation to Single Stream in North Carolina

1. Increase convenience for resident
2. Improved Payloads

County	FY 11 – 12 Before	FY 14 – 15 After	Change
Franklin County	996	1,560	56%
Moore County	1,035	1,536	31%
Rutherford County	764	1,192	56%

KEY STRATEGY: COMPACTION

PRO

- Space savings on site
- As much as 3:1 reduction in collection costs
- Increased payload

CON

- Need Power
- Need staff to oversee for safety and to operate
- More upfront costs

Rutherford County, NC Example:

Bills Creek site

Went from 3 trips per month to 1
Annual savings = \$2,600

Danieltown Site

Went from 12 trips per month to 3
Annual savings = \$7,000

DROP-OFF: CONTAMINATION

Two Main Issues:

1. Illegal Dumping

2. Wrong Stuff in the Container

MINIMIZING ILLEGAL DUMPING



Minimize Illegal Dumping

- Collector/hauler to clean each time collects
- Dedicated city/county/township employee to clean each day
- Neighborhood Spotter
- Security cameras
- Lights (street lights or motion sensor)
- Other Techniques

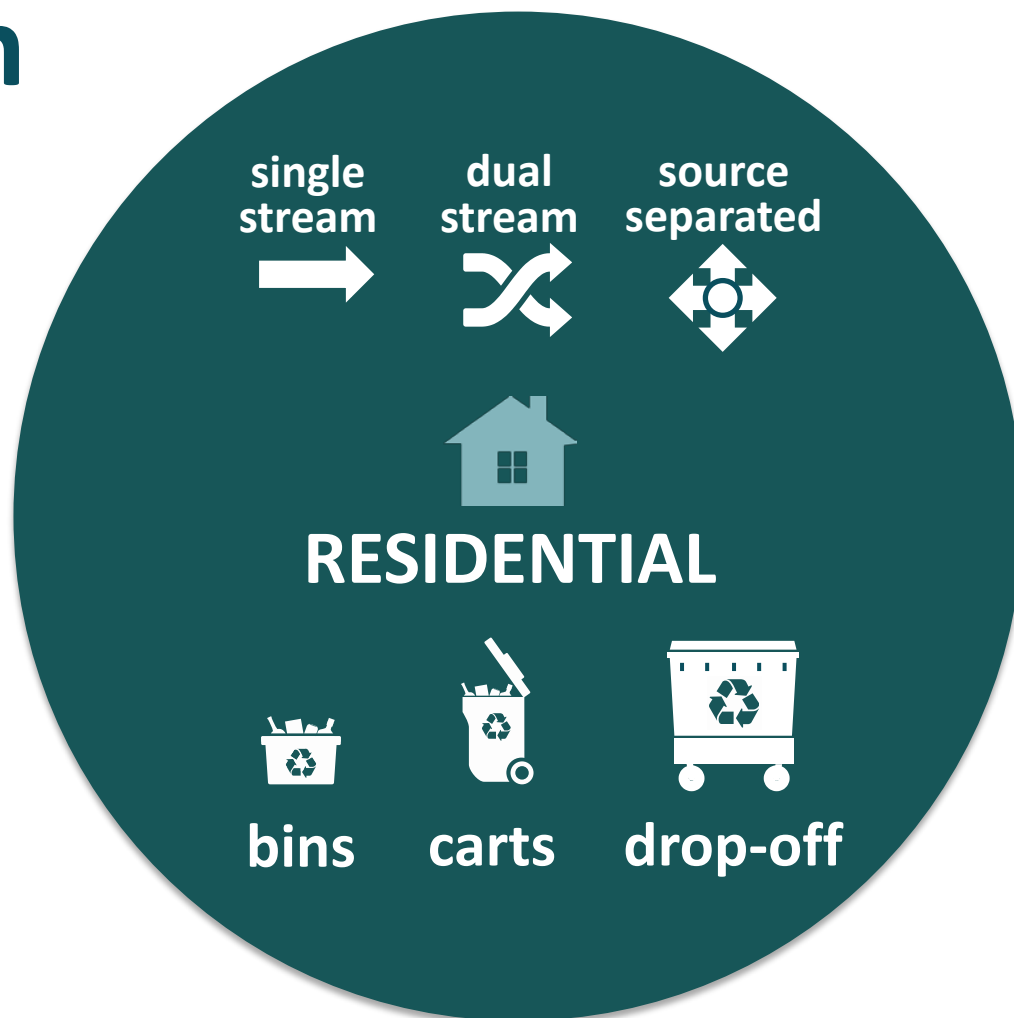
CONTAMI- NATION


THE ISSUE

contamination

[kuh n-tam-uh-ney-shuh]

1. The wrong materials in the system.
2. The right materials prepared the wrong way.





WHY FIGHT CONTAMINATION?

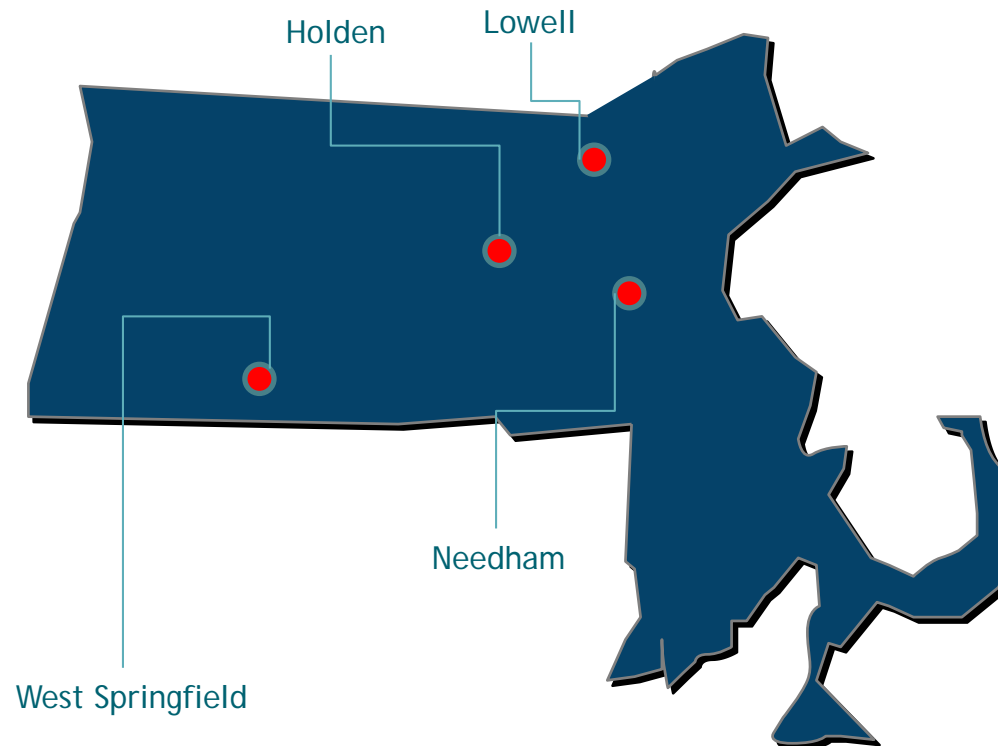
WHAT ARE WE FIGHTING?

list materials we need to target

HOW SHOULD WE FIGHT?



SAMPLE RESULTS



DROP-OFF: Tools



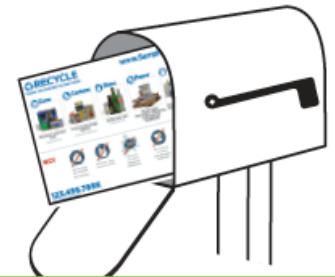
TOP ISSUE SIGNAGE



IN-PERSON FEEDBACK



SITE SIGNAGE



ANNUAL INFO CARD

TOP ISSUE SIGNAGE



PERSONALIZED FEEDBACK


staff with handouts





NO NAKED CONTAINERS



PAPER



Bagged Recyclables Plastic Bags

CARDBOARD






Bagged Recyclables Plastic Bags

BOTTLES & CANS






Bagged Recyclables Plastic Bags

PROPANE TANKS



\$5
PLEASE PAY IN OFFICE

MONITORS and TVs



\$15
PLEASE PAY IN OFFICE

TIRES



\$5 Cars
\$10 Trucks
PLEASE PAY IN OFFICE

SCRAP METAL



REFRIGERATORS and ACs



\$15
PLEASE PAY IN OFFICE

COMPUTERS



SINGLE STREAM

COMMERCIAL USE ONLY






Bagged Recyclables Plastic Bags

TAKEAWAY INFORMATION FOR INSIDE



Don't forget about mailing homes in area about drop off.

Town of Needham
Recycling Transfer Station (RTS)
1421 Central Ave.
Needham, MA 02492

SHINE ON. Recycle.

Recycle and dispose of waste at Needham's Recycling and Transfer Station.

*This project is funded in part by a grant from the Massachusetts Department of Environmental Protection. Min. 30% recycled paper.

RECYCLING

We have **3** different containers for recycling. Presort for fast drop-off. See needhamma.gov for information.

1 Paper
Mixed Paper, Newspaper, and Paperboard

2 Cardboard
Boxes
Flatten

3 BOTTLES AND CANS

Cans
Aluminum and Steel Cans
empty and rinse

Cartons
Food and Beverage Cartons
empty and replace cap

Glass
Bottles and Jars
empty and rinse

Plastic
Kitchen, Laundry, Bath:
Bottles and Containers
empty and replace cap

SAFE DISPOSAL

Refrigerators A/C
Scrap Metal
Proppane Tanks
TVs
Computers
Trees
Needles

See Needham.gov for information.

TRASH
Yellow Trash bags required to dispose of non-recyclable trash at the RTS. Bags are available in large (30-gallon) and small (15-gallon) sizes at a variety of local stores.

COMPOSTING
Leaves, grass clippings, brush and branches accepted at the RTS during regular hours throughout the year, and leaves only on Leaf Sundays in November, noon to 4 p.m.

Needham Recycling and Transfer Station
1421 Central Ave.
www.needhamma.gov
781.455.7568

Do Not Bag Recyclables

No Plastic Bags or Wrap (return to retail)

No Food or Liquid (empty all containers)

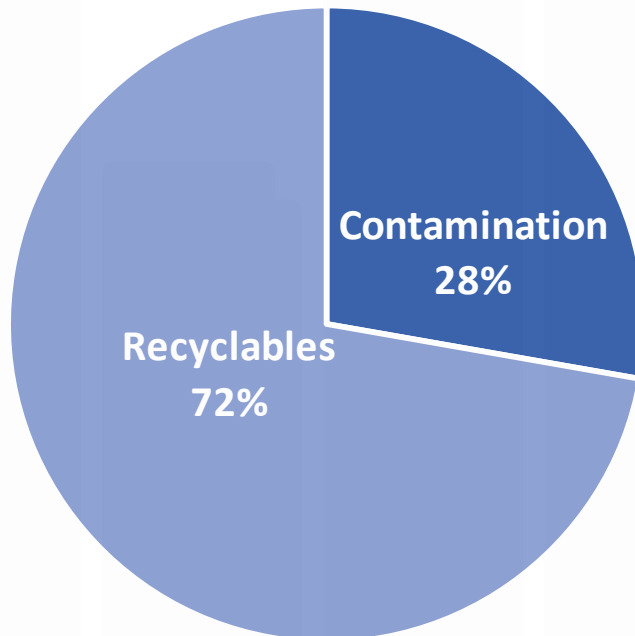
Overall Contamination Trended Downward

Total contamination dropped from 28 to 14 percent (by weight).

NEEDHAM

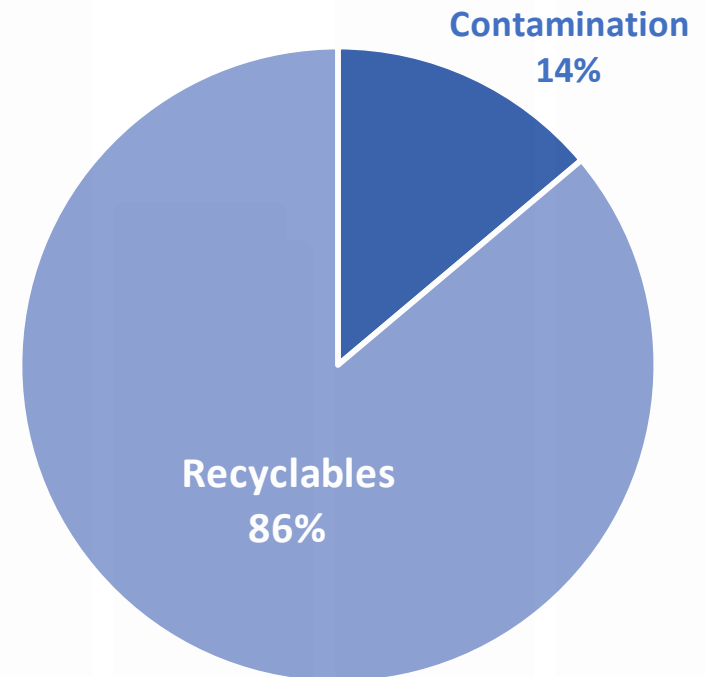
Drop-Off
Entire toolkit was used

BEFORE



- Contamination decrease was specifically due to reduction in target material (stuff in bags).
- During the same time period, recovery of recyclables did not change.

AFTER



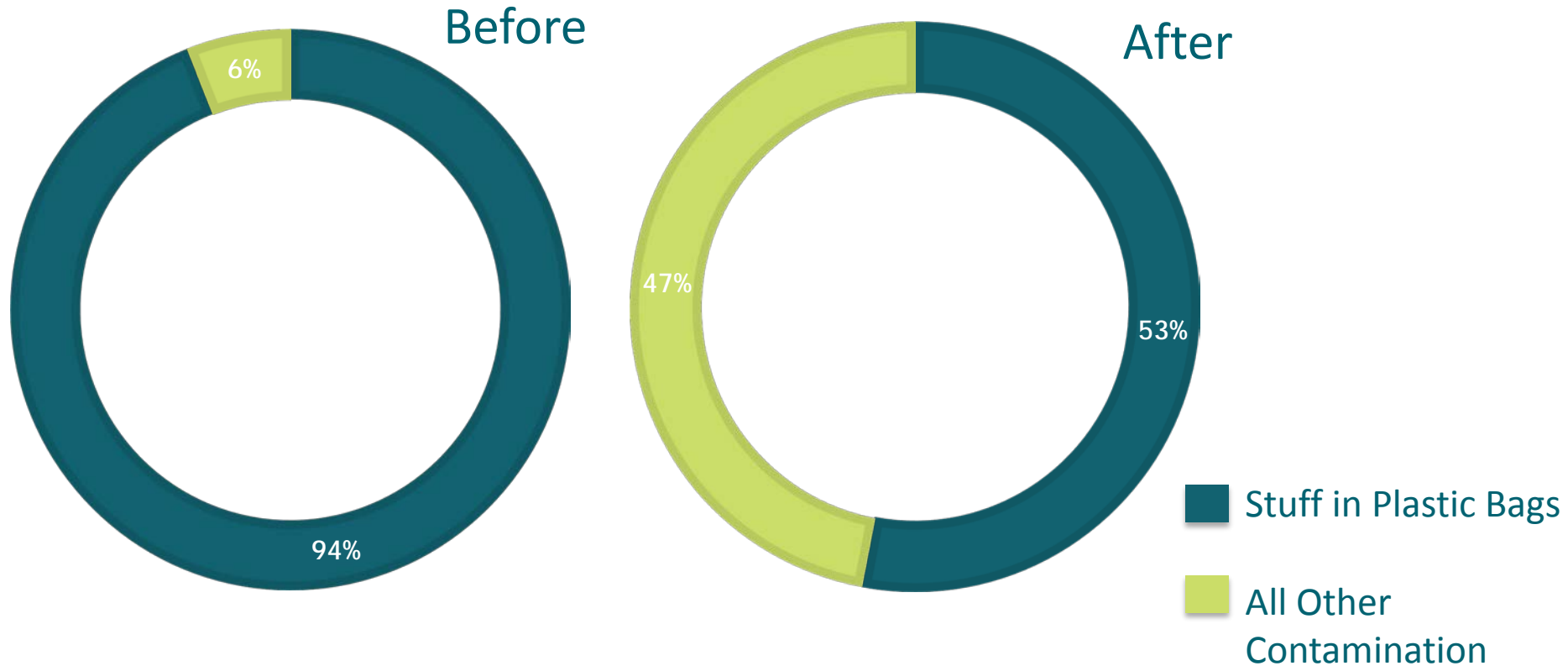
Targeted Material Trended Downward

“Stuff in Bags” dropped from 94 to 53 percent contamination by weight.

NEEDHAM

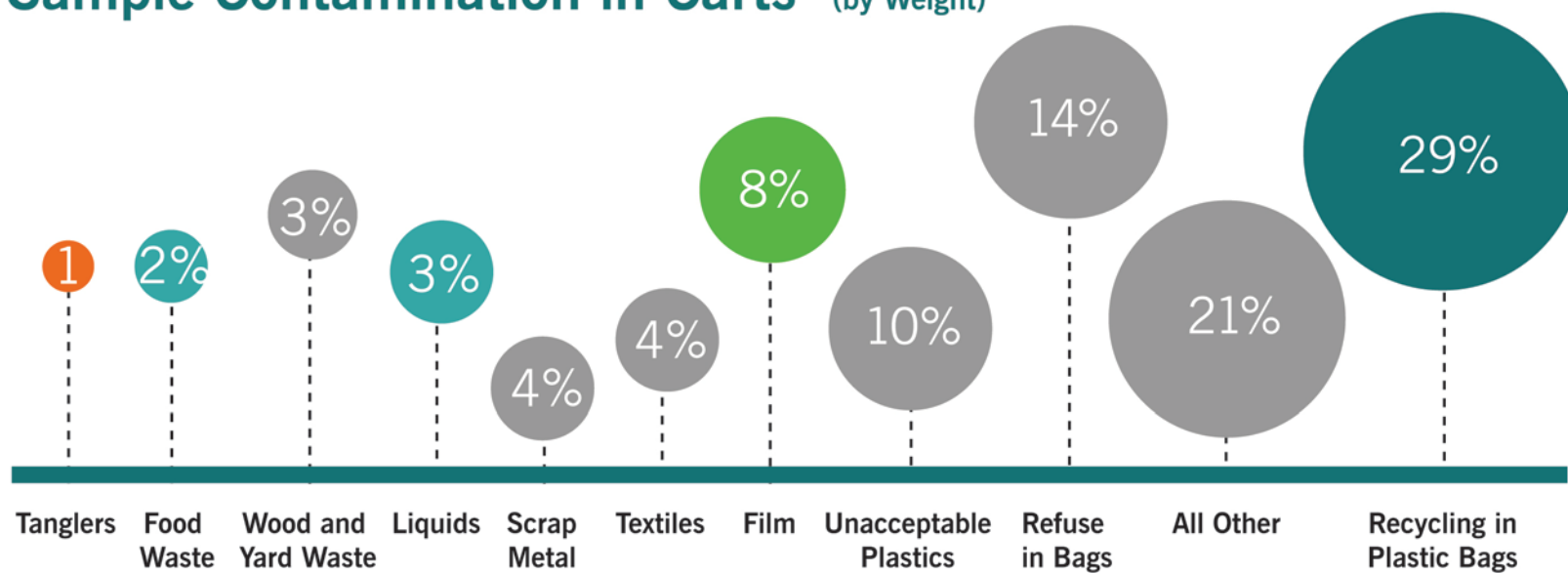
Drop-Off
Entire toolkit was used

- Recyclables in bags and trash in bags were identified as the most problematic contaminant.
- That material was specifically targeted.



Weight Alone Doesn't Tell the Story

Sample Contamination in Carts (by Weight)



VS

Top 5 Contaminants

according to 2016
The Recycling Partnership
MRF survey

1. **Tangles** (hoses, cords, clothes)
2. **Film** (plastic wrap or bags)
3. **Bagged Things** (refuse or recycling)
4. **Hazardous Material** (propane tanks, needles/sharps)
5. **Yuck** (food, liquids, diapers, etc.)

MEASURE & SHARE

PROGRAMMATIC DATA

Curbside

Multi-Family

Drop-Off

Commercial

DETAIL For Drop-Off:

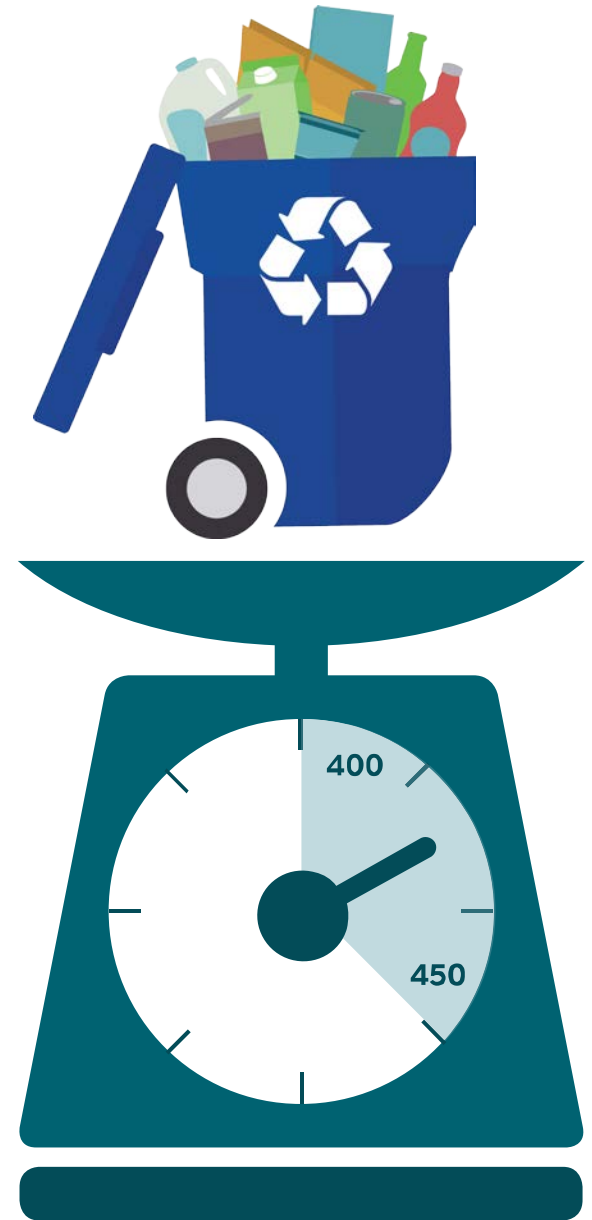
Recycling Tonnage

Garbage Tonnage

of Visitors

of Pulls

Contamination





DROP-OFF COMMUNICATION

Who Is Your Audience?

RESIDENTS

FRONT LINE STAFF

DECISION MAKERS

HAULER /
MRF

Have a Plan

A grayscale photograph of a residential street. A person wearing a safety vest and a cap is walking towards the camera, carrying a clipboard. Several recycling bins are visible along the curb. In the background, there are trees and a house.

**HOW
DO WE
CHANGE
BEHAVIOR?**

3

THREE KEY ELEMENTS TO CHANGING BEHAVIOR

INFORM – BASIC
DO'S AND DON'TS

CLEAR SIGNAGE
(Ideally reinforced by sturdy mailers, which can also promote site)

PERSONALIZED
FEEDBACK

ONSITE STAFF

ISSUE SPECIFIC
COMMUNICATIONS

MAILERS + MEDIA

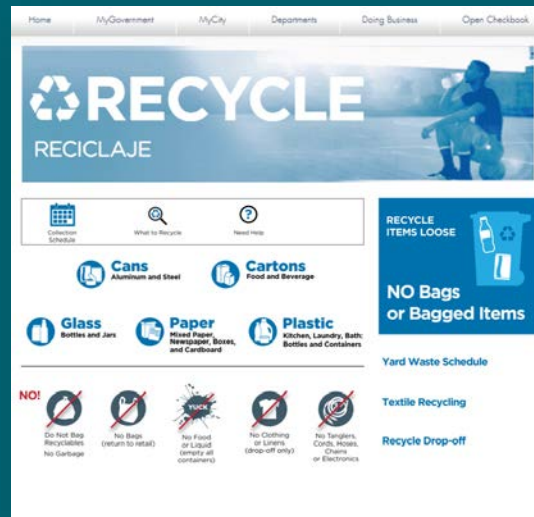
1

BUILD A CULTURE OF RECYCLING

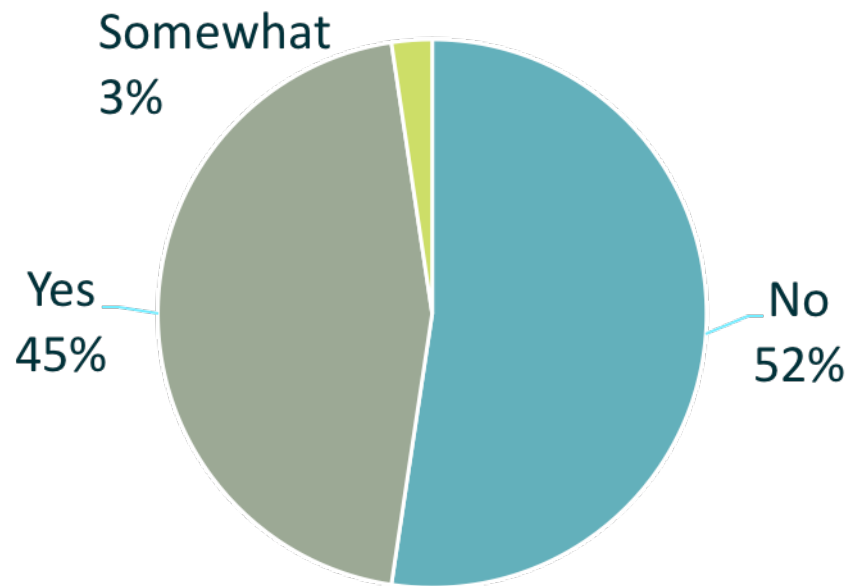
GENERAL
ADVERTISING

1

GIVE RESIDENTS GREAT CUSTOMER SERVICE

STANDING
RESOURCE

WAS RECYCLING INFORMATION EASY TO OBTAIN?



20 municipal sites had recycling information that could be found in an average time of 13.15 seconds.

19 communities had no information to be found.

3 municipal programs had recycling information, but it took over two minutes to find.

MoreBetter Program

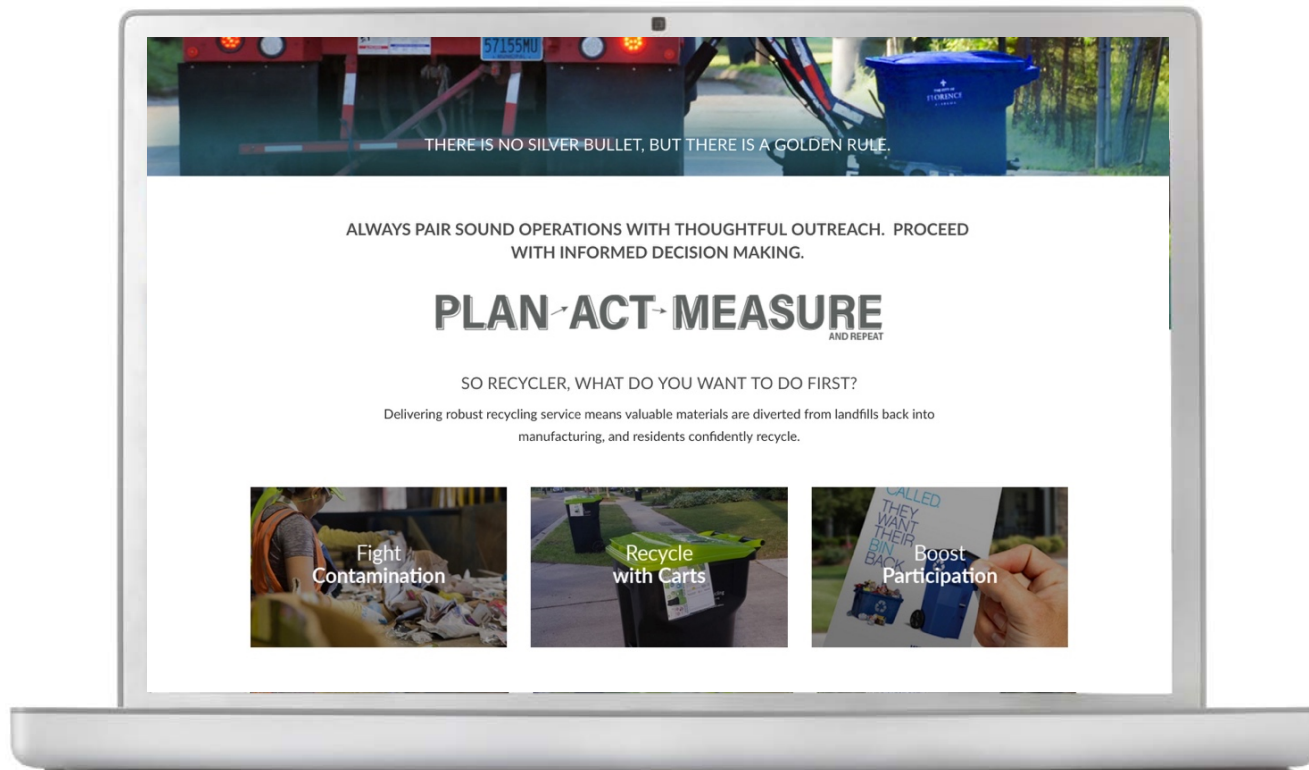
Emotive relatable: “Recycling is a part of life.”



Open Source Tools Online

Field ready tools for you

Find them on our website:
www.RecyclingPartnership.org



Open Source Tools Online

Three categories

Click on the category you want to download a tool from:



Downloading a Tool

Participation Graphics - Tools.RecyclingPartnership

tools.recyclingpartnership.org/shine-on/

Apple Yahoo! Google Maps YouTube Wikipedia

Boingo Hotspot | Welcome Participation Graphics - Tools.Recyclin... Mail - slewis@recyclingpartnership.org Recycling Partnership |

TOOLS FIGHT CONTAMINATION RECYCLE WITH CARTS BOOST PARTICIPATION MAIN

PARTICIPATION GRAPHICS

SHINE ON. RECYCLE.

IT'S ALL YOU. RECYCLE.

GET THE MOST OUT OF THESE FILES

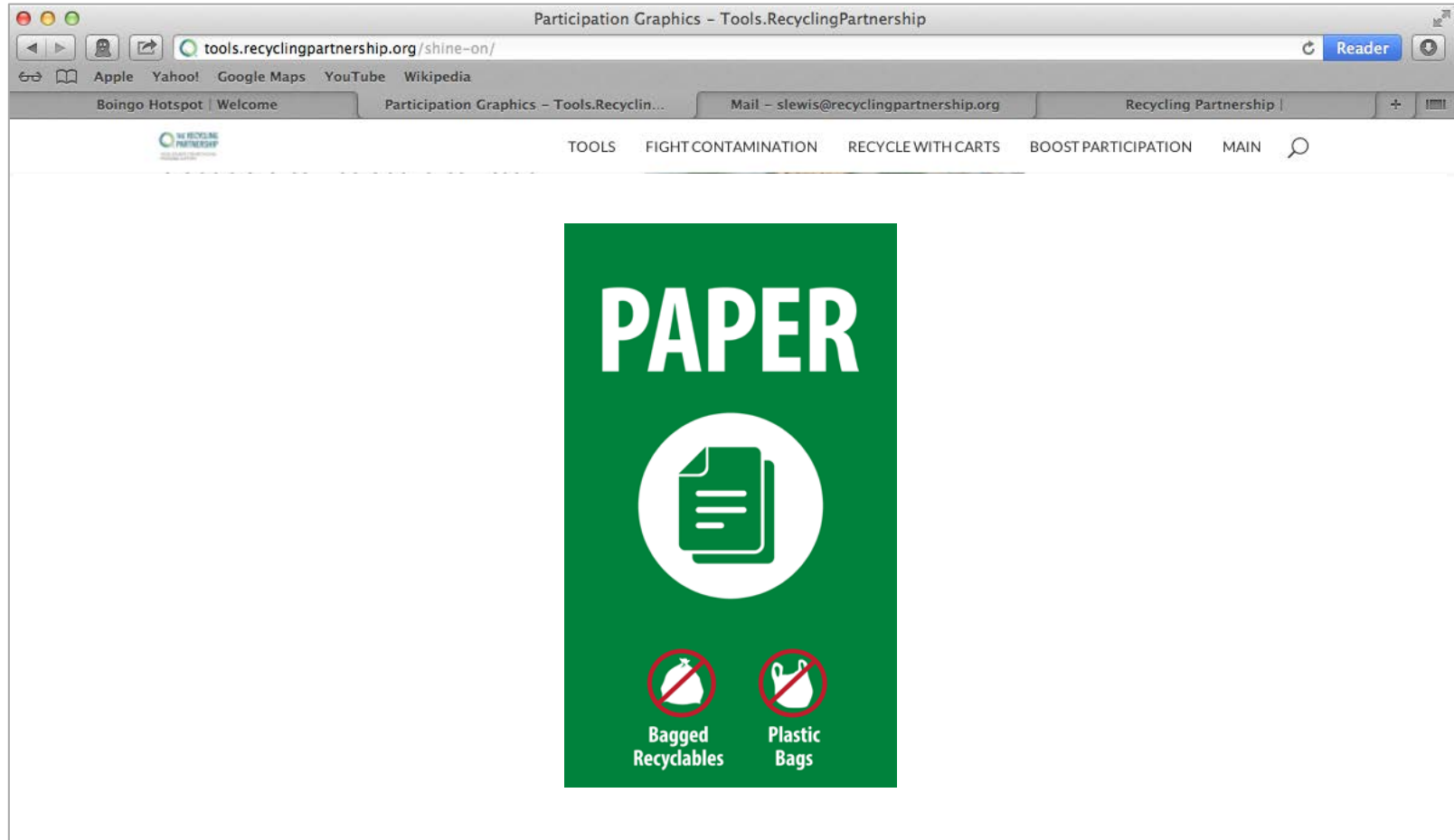
Banner	Bus Ad	Facebook	Info. Card	Magnet
<p>Print this on heavy cardstock and send it to every household you service to give them an easy reference guide to your basic YES and NO lists. (Extra credit: order it as a magnet so it's always front and center in the kitchen - the place most household recycling happens.)</p>				
DESIGNER FILES	FILLABLE PDF	JPGS		

OTHER LINKS

CONTAMINATION GRAPHICS

NEW! RECYCLING ICONS

Downloading a Tool



Downloading a Tool

Signage



TRY THESE TOOLS, JOIN OUR NETWORK, and let's make recycling more & better!



TOOLS

Online
Library
Starters
BMPs



IDEAS

Webinars
Newsletters
E-Books
Forums



RESOURCES

Grants
Campaigns
Tech
Assistance