



CURBSIDE

CURBSIDE TOPICS

CART BENEFITS & BMPs

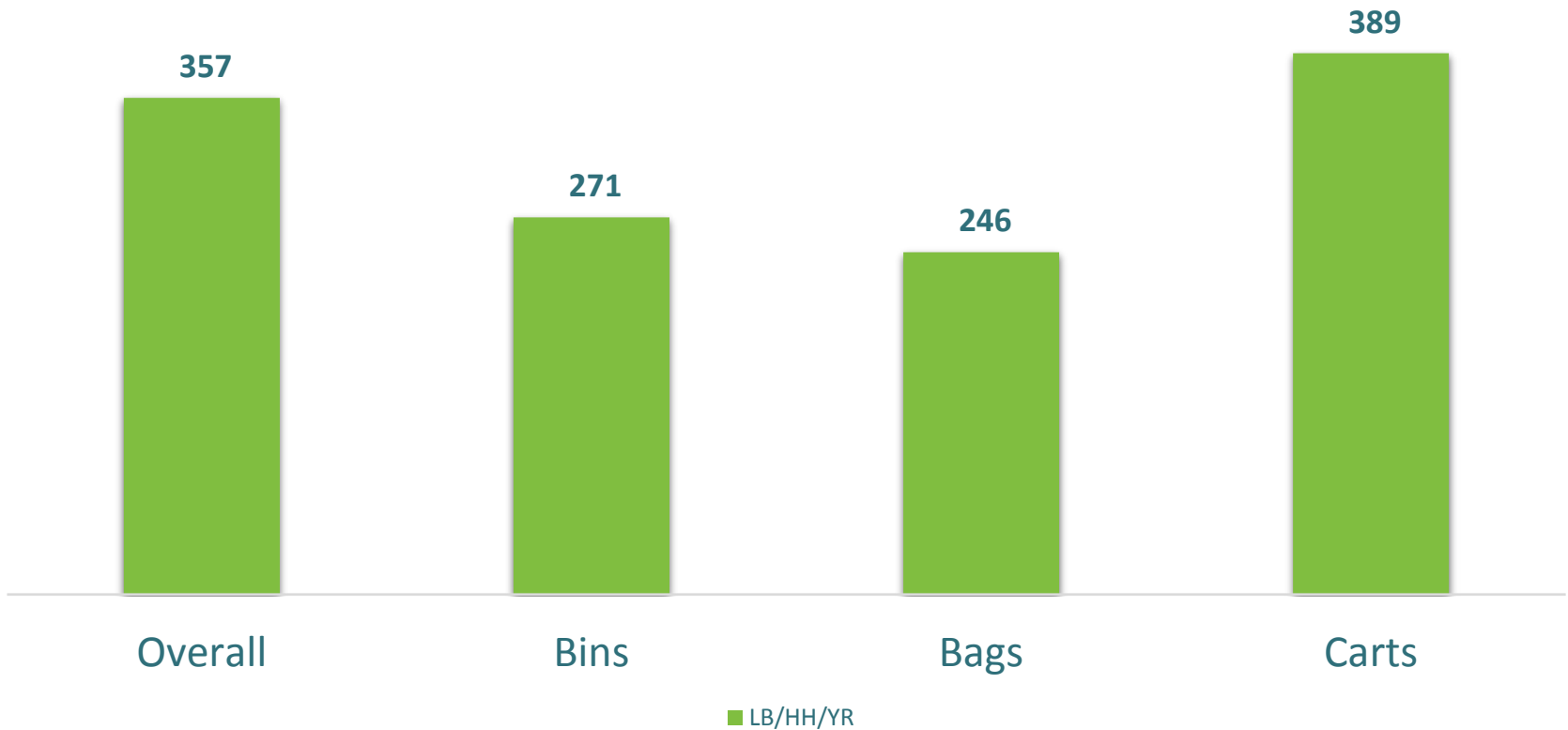
CONTAMINATION

COMMUNICATIONS

Container Type



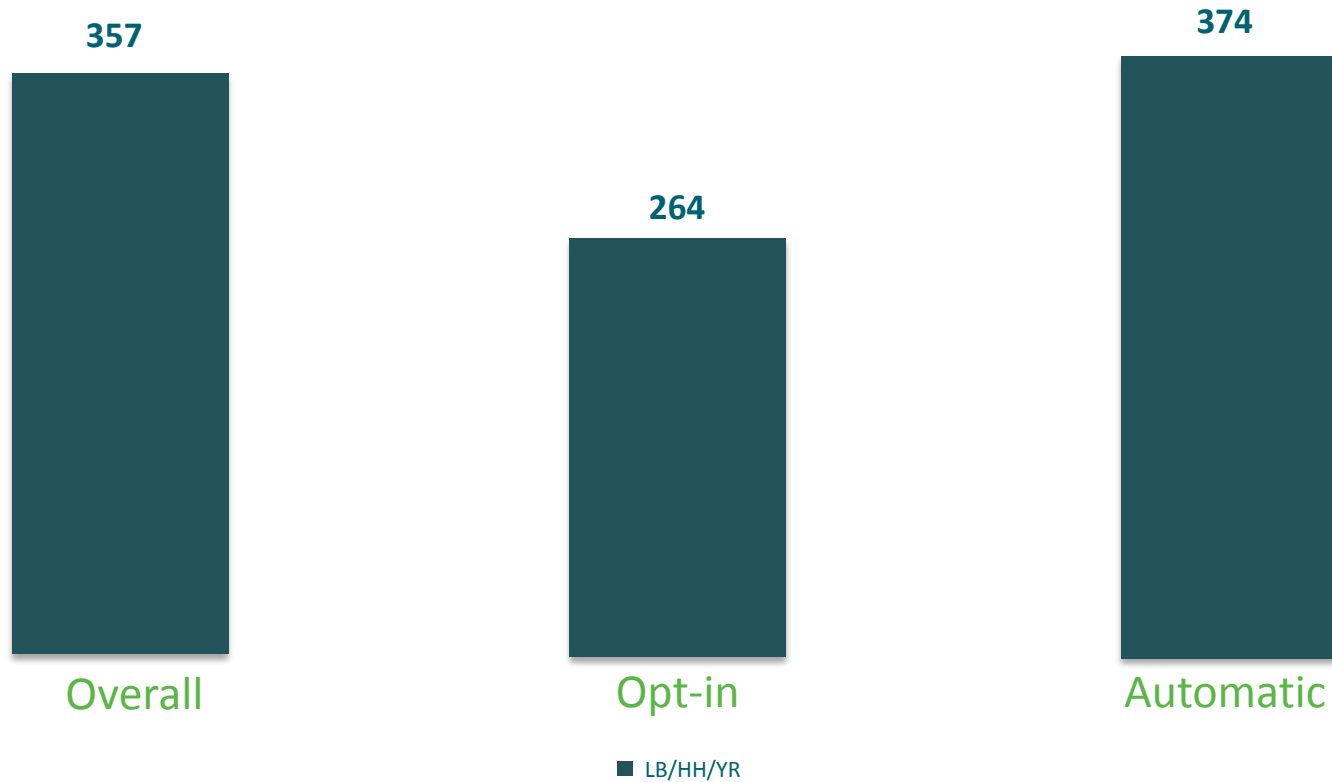
Average Surveyed City Curbside Recycling Performance Data



Service Provided: Automatic vs Opt-in Service



Average Surveyed City Curbside Recycling Performance Data



SINGLE STREAM CARTS MUCHMOREBETTER



OPERATIONS

EVERY HOME
SHOULD HAVE
THE SAME LEVEL
OF **RECYCLING**
AS **GARBAGE**

If you have **this...**

TRASH ONLY

A stylized illustration of a suburban neighborhood. In the foreground, a dark grey trash can with the words "TRASH ONLY" in white capital letters stands on a grey sidewalk. Behind the trash can is a green lawn and a white picket fence. In the background, there are two dark blue houses with black roofs and chimneys, and some green trees. A white speech bubble with a grey border and a pointer directed at the trash can contains the text "If you have this...". The top of the image has a green header with the word "OPERATIONS" in white capital letters. On the left side, there is a white vertical bar containing the text "EVERY HOME SHOULD HAVE THE SAME LEVEL OF RECYCLING AS GARBAGE", where "RECYCLING" and "GARBAGE" are in green.

OPERATIONS

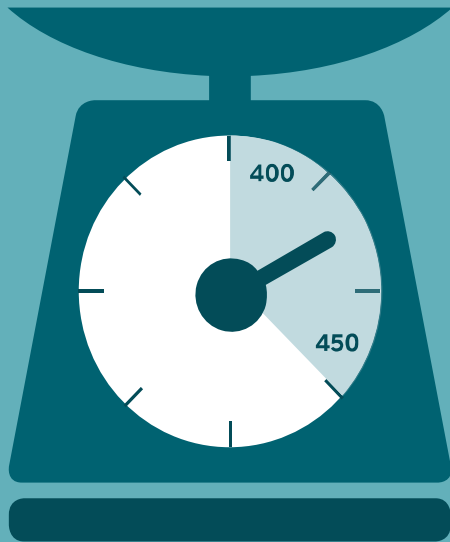
EVERY HOME
SHOULD HAVE
THE SAME LEVEL
OF **RECYCLING**
AS **GARBAGE**



INCREASED RECOVERY

Programs using carts, common suite of materials, strong outreach and other BMPs can recover 400-450 lbs/hh/yr.

**400-450
LBS. PER
HOUSEHOLD**



MORE CONVENIENCE

Residents can more easily fit all of their recyclables into one container, then simply roll those items to the curb.



Lid keeps materials contained

Holds more recyclables

All in one container; no need to sort at home

Rolling easier than carrying to curb

BENEFITS OF CARTS



Decreased
disposal
costs



Smaller
collection
staff



Automation
and compaction
mean more
efficient routes

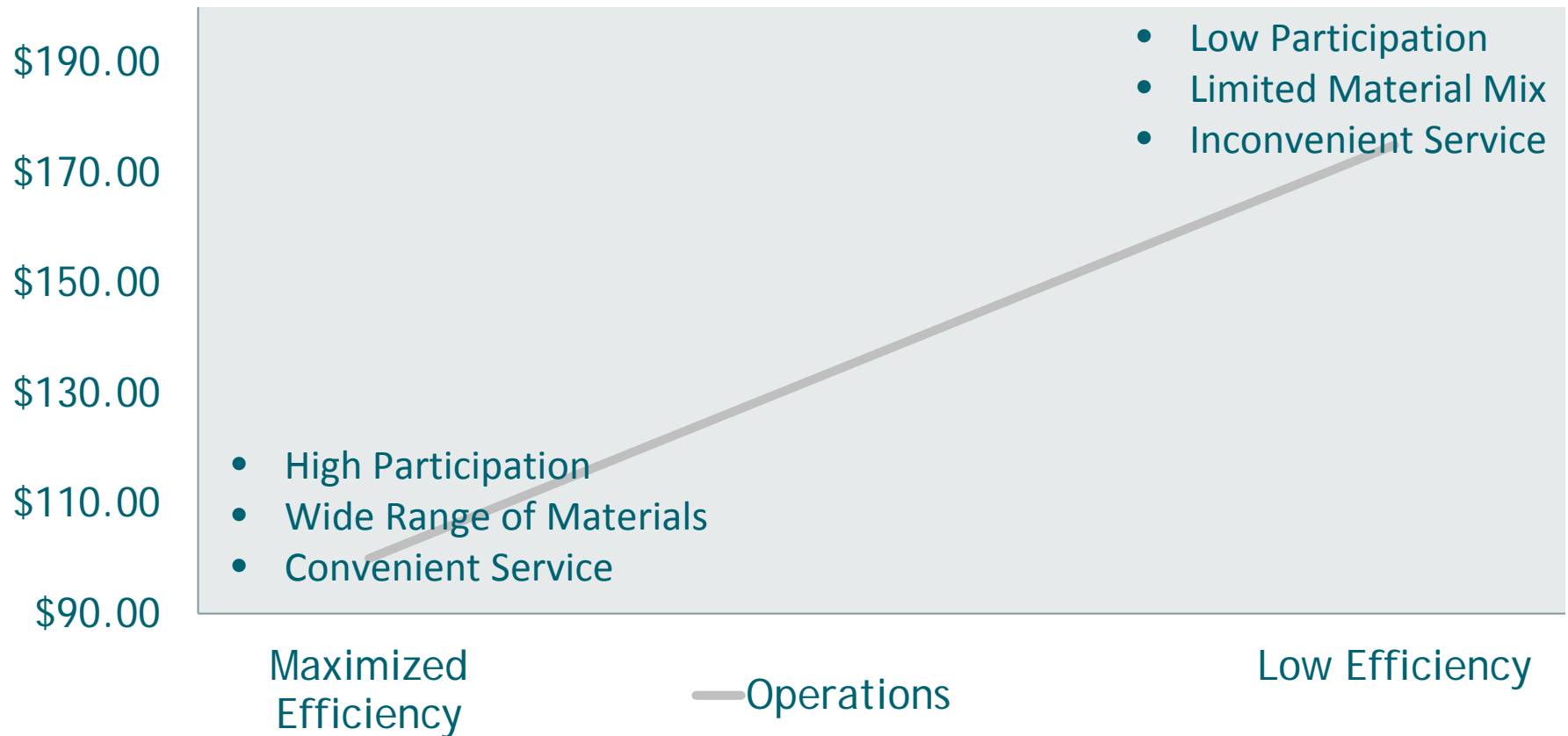


Flexibility
to collect
every other week



Decreased
workers'
compensation
claims

RECYCLING COLLECTION – COST PER TON



*Source: Scott Mouw & Garth Hickie
AMERIPEN presentation 2012*

Economic Model

Model Control and Key Assumptions

(Green Is An Input Cell)



Community Name:	<input type="text"/>
Community State:	<input type="text"/>

MSW Summary

All inclusive MSW Tipping Fee (Excludes transfer station costs)	<input type="text"/>	\$/te
Total Current Residential MSW Tonnage	<input type="text"/>	Tons/year
Current Households Served for MSW	<input type="text"/>	HouseHolds
Container Type for MSW	<input type="text"/>	Type
Type of Current MSW Truck	<input type="text"/>	Type
Average Distance from Community to Landfill(s)	<input type="text"/>	Miles
Does the Community utilize a Waste Transfer Station	<input type="text"/>	Yes or No
Collection Service Type	<input type="text"/>	Private or City Collection
If Private, Cost per HH per Month (otherwise leave blank)	<input type="text"/>	\$/HH/month
Fully Loaded Worker Wages for MSW Collection	<input type="text"/>	\$/yr
Number of Workers Per Truck	<input type="text"/>	No.

Current Recycling Program

Current Recycling Container	<input type="text"/>	Type
Size of Current Recycling Container	<input type="text"/>	Gallons
Current Households Served for Recycling	<input type="text"/>	HH (service including single family and multi-family)
Current Recycling Collection Service Type	<input type="text"/>	Private or City Collection
Current Number of Workers Per Truck	<input type="text"/>	No.
Type of Current Recycling Truck	<input type="text"/>	Type
If Private, Cost per HH per Month	<input type="text"/>	\$/HH/month
Average Distance from Community to MRF(s)	<input type="text"/>	Miles
Does the Community Utilize a Transfer Station for Recyclables	<input type="text"/>	Yes or No
Average Fee to Tip at MRF	<input type="text"/>	\$/ton
Annual Residential Curbside Recycling Tonnage	<input type="text"/>	Tons/yr (excludes all other commercial, C&D, yard waste, etc.)
Frequency of Collection	<input type="text"/>	Frequency

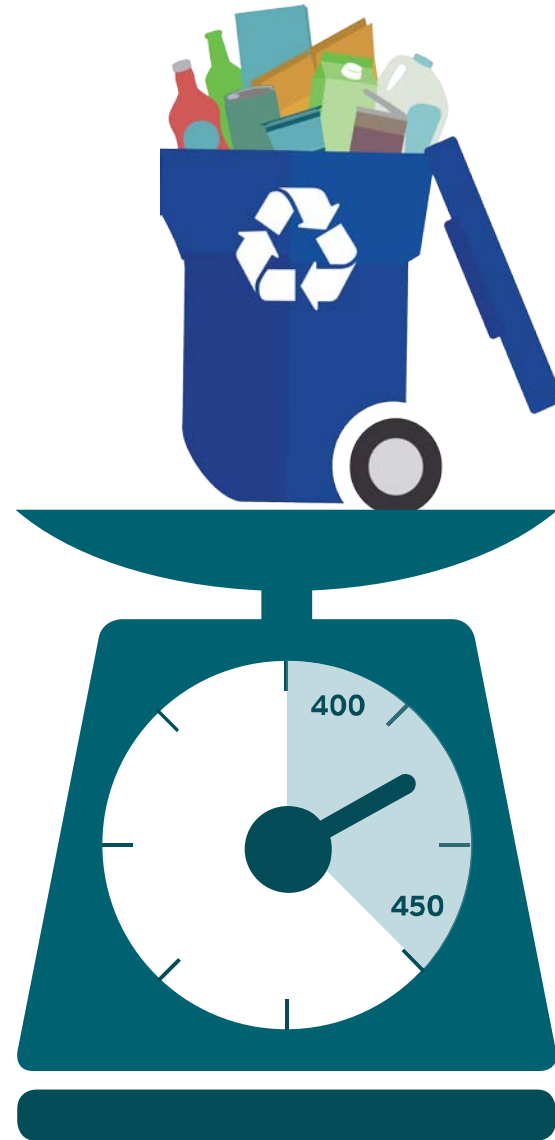
MEASURE & SHARE

PROGRAMMATIC DATA

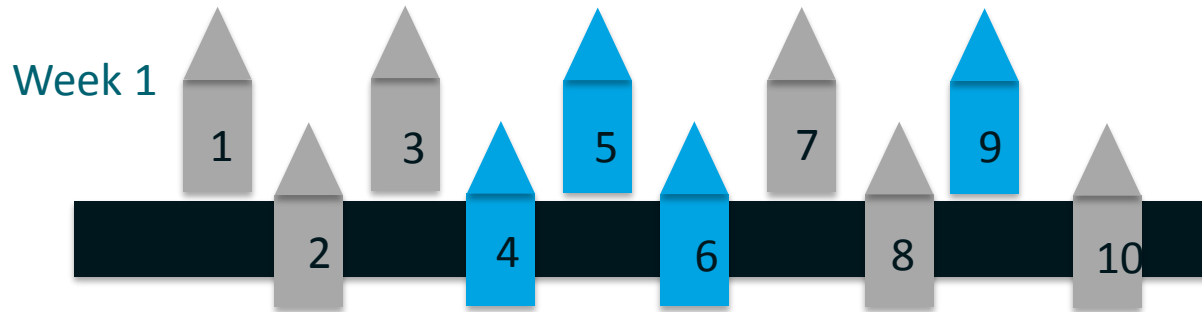
Curbside
Multi-Family
Drop-off
Commercial

Detail For CURBSIDE:

Recycling Tonnage
Garbage Tonnage
Set-out
Participation
Contamination



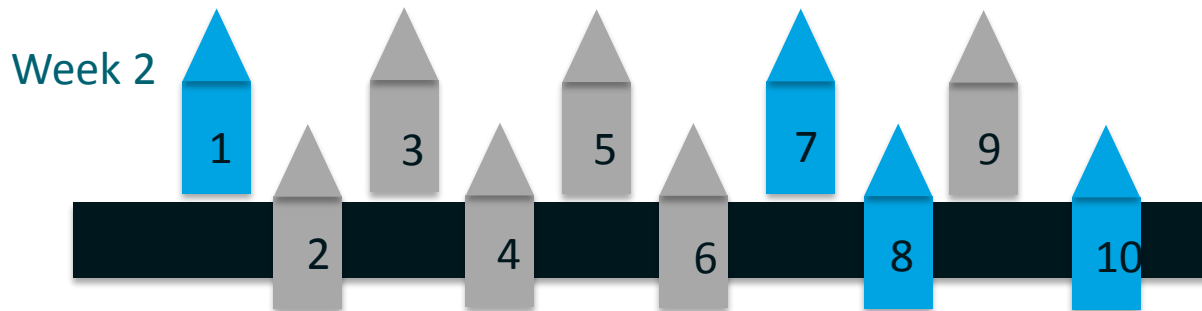
PARTICIPATION RATE vs SET OUT RATE



Set-out Rate

40%

*4 out of 10 homes
on average*



**Participation
Rate**

80%

*8 out of 10 homes
on average*

RFID





CONTAMINATION



WHY FIGHT CONTAMINATION?

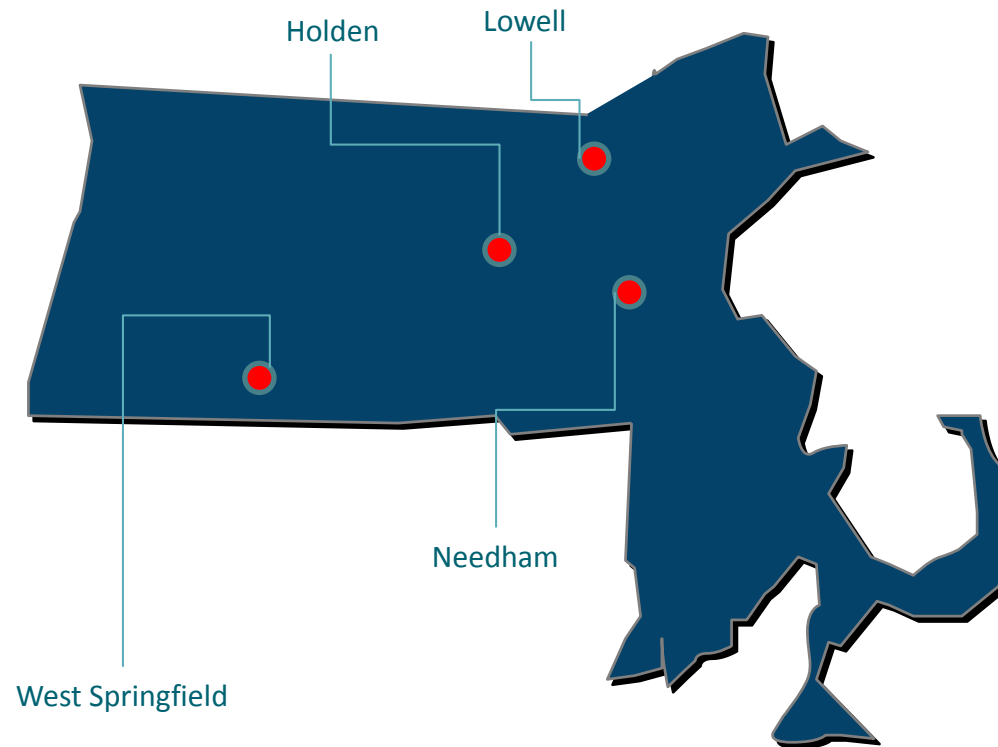
WHAT ARE WE FIGHTING?

List materials we need to target.

HOW SHOULD WE FIGHT IT?

Design a flyer, handout, or
similar communications tool.

Sample Results

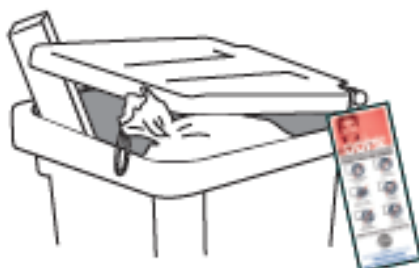


CURBSIDE: Tools

Prioritized. Clear. Simple.



Annual info card mailer



Curbside feedback



Top issue mailer



Top issue signage

Train Staff

Train them well. Set a standard.



Track Results

Technical tools and resources.

MRF MATERIAL TRACKING FORM

Date: _____

City: _____ Hauler: _____

Truck Number: _____ Container Number (if drop-off): _____

Route Number: _____ Container Material (if drop-off): _____
(e.g. bottles/cans, cardboard, paper)

**QUALITY
GRADE**
(circle one)

A

Quality is acceptable.
Less than 10%
of material is
contaminated.

B

Quality is poor.
10% to 20%
of material is
contaminated

C

Quality is bad.
Over 20%
of material is
contaminated.

Grade B or C?
Check main
contaminant:

☐ Recyclables in Bags ☐ Refuse in Bags ☐ Loose bags/film ☐ Scrap Metal

☐ Wood Waste ☐ Large bulky/heavy Items ☐ Hazardous Waste ☐ Tangles ☐ Textiles

Other: _____

Photographed?

Quality Inspection Signature: _____

Driver Signature: _____

Overall Contamination Trended Downward

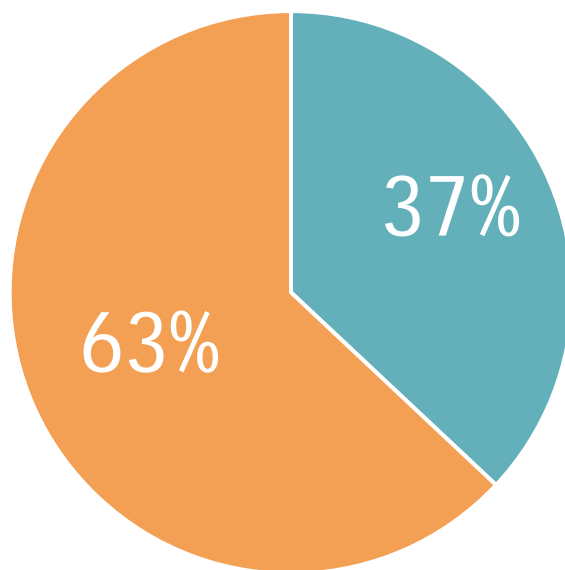
Total contamination dropped from 37 to 26 percent (by weight).

LOWELL and W. SPRINGFIELD

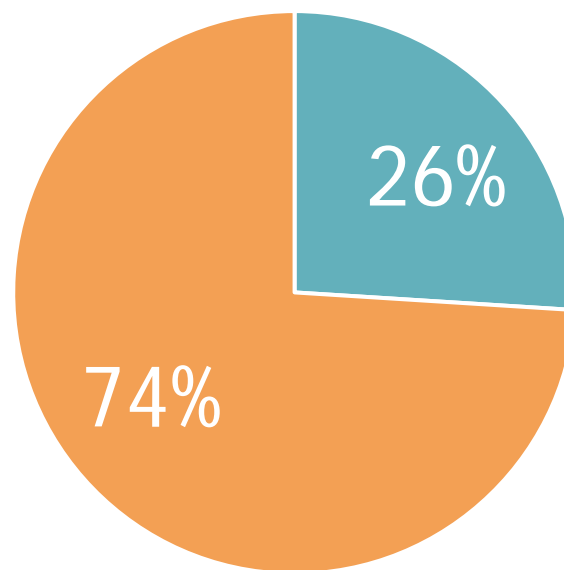
Curbside
Entire toolkit was used

- Each of the four pilot routes behaved slightly different.
- Single family routes seemed to have less contamination and better recovery rates than the multi-family routes.

● Contamination
● Recyclables



BEFORE



AFTER

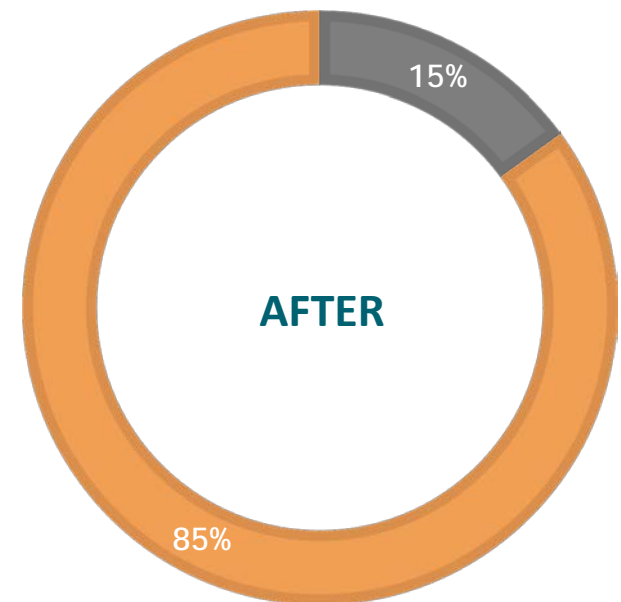
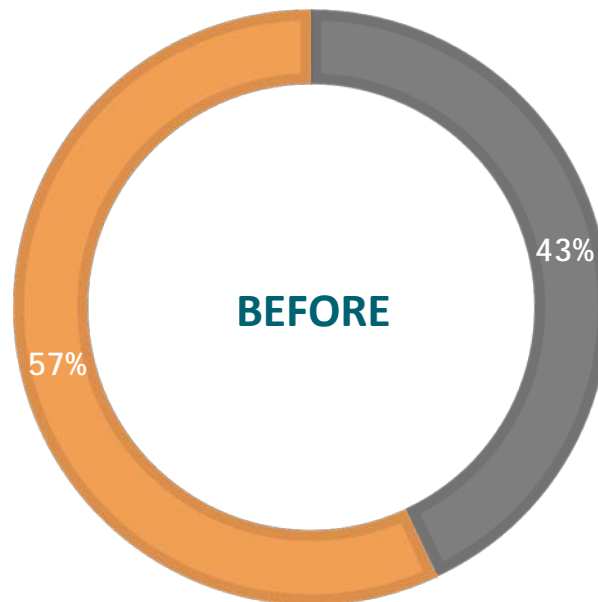
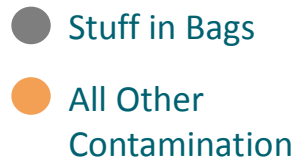
Targeted Material Trended Downward

“Stuff in Bags” dropped from 43 to 15 percent contamination by weight.

LOWELL and W. SPRINGFIELD

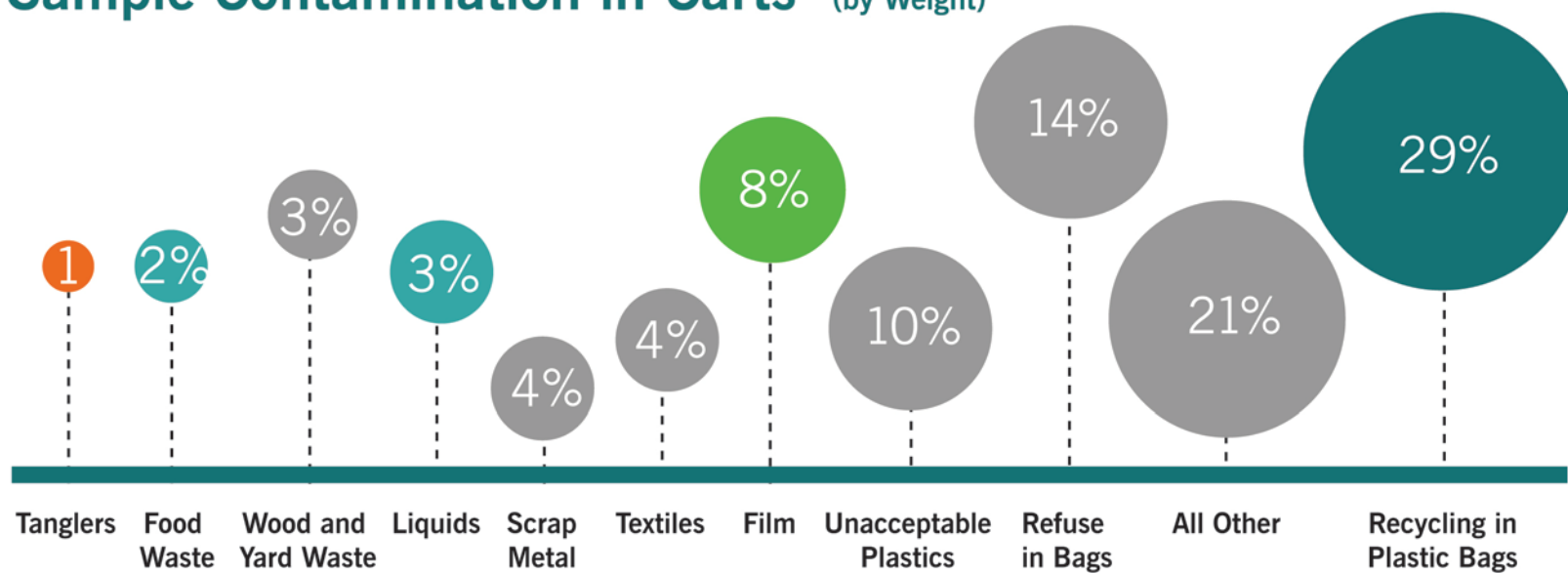
Curbside
Entire toolkit was used

- 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

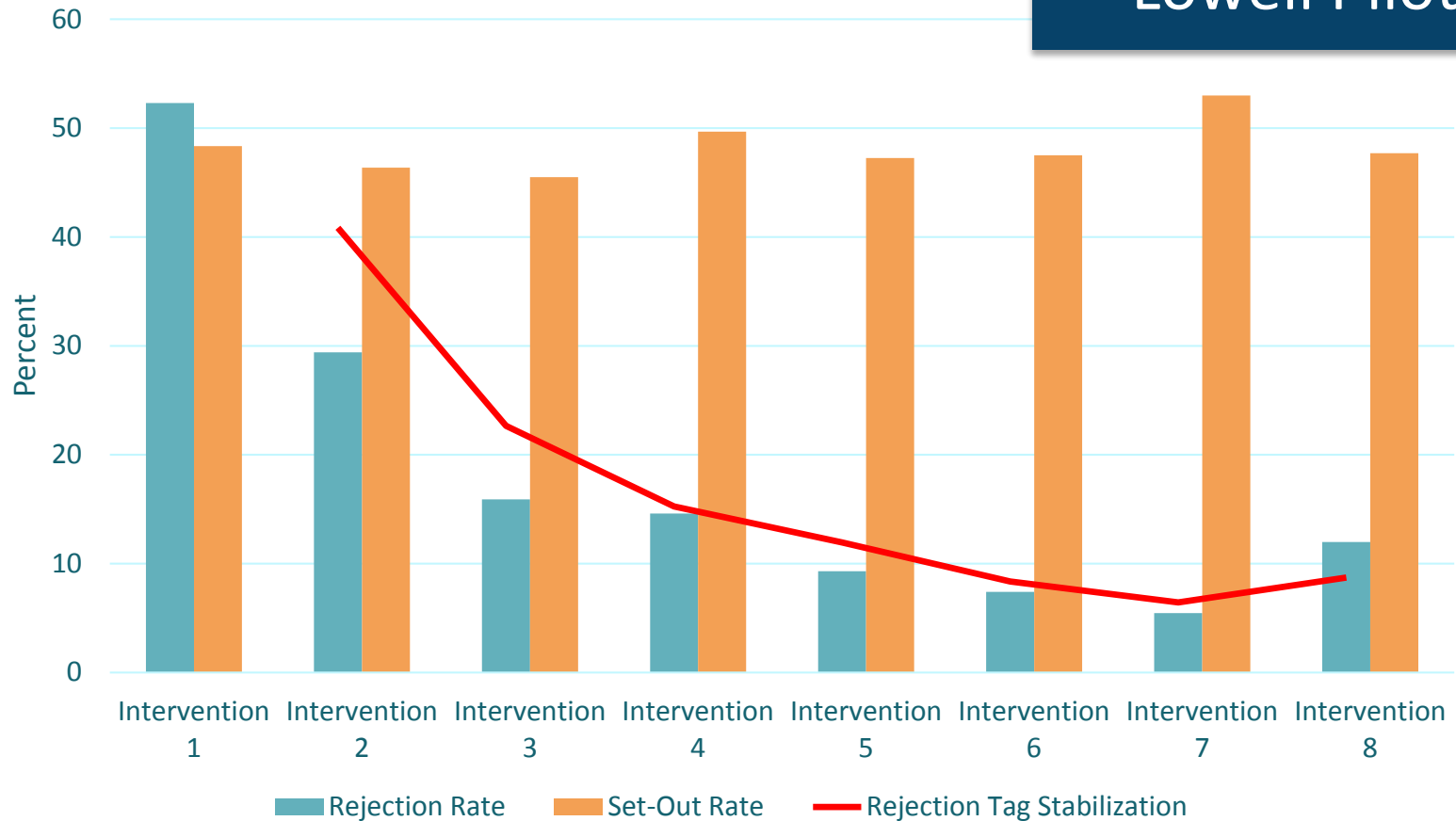
Top 5 Contaminants

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.)

Rejection and Set-Out Rates for Lowell Pilot

Poor Quality Route



OPERATIONS DISCUSSION

**What else
would you like to
talk about?**





CURBSIDE COMMUNICATION

Who Is Your Audience?

RESIDENTS

FRONT LINE STAFF

DECISION MAKERS

HAULER /
MRF

Have a Plan

A grayscale photograph of a person wearing a safety vest and a cap, walking on a residential street. They are carrying a clipboard. In the background, there are trees, houses, and recycling bins. The text 'HOW DO WE CHANGE BEHAVIOR?' is overlaid in large white letters on the right side of the image.

HOW DO WE CHANGE BEHAVIOR?

81

3 THREE KEY ELEMENTS TO CHANGING BEHAVIOR

INFORM – BASIC DO'S AND DON'TS



POSTCARD/MAGNET

PERSONALIZED FEEDBACK



CART TAGS

ISSUE SPECIFIC COMMUNICATIONS



MAILERS + MEDIA

1 BUILD A CULTURE OF RECYCLING

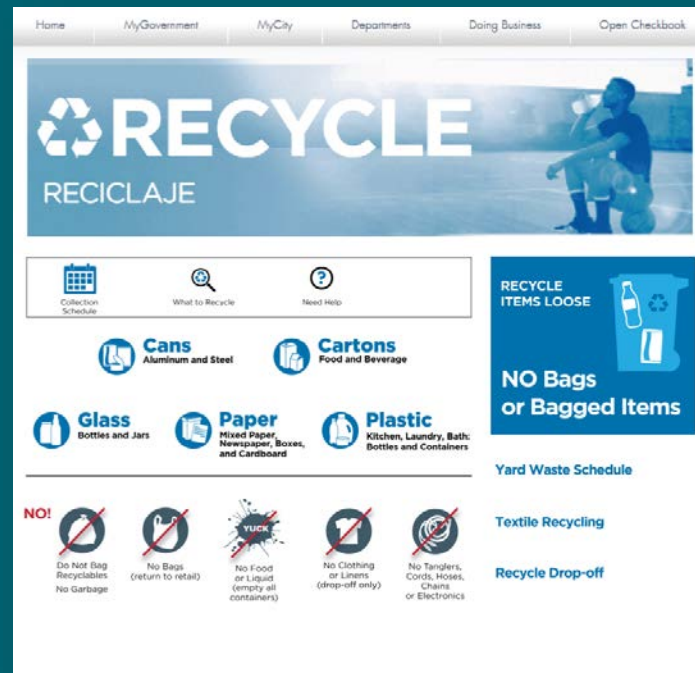
GENERAL ADVERTISING



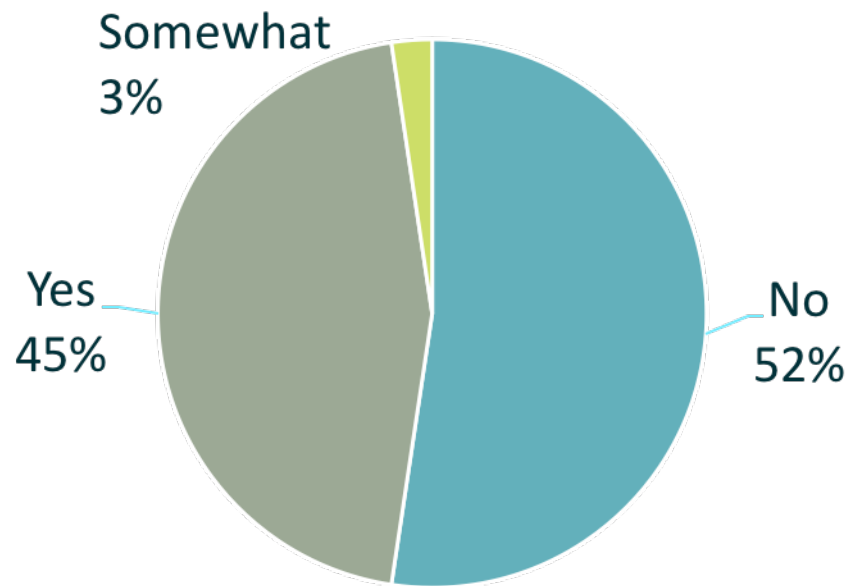
1

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.”

IT'S ALL YOU. Recycle.

one simple act. Recycle.

SHINE ON. Recycle.

IT'S ALL YOU RECYCLE RIGHT

- Do not Bag Recyclables
No Garbage
- No Plastic Bags (return to retail)
- YUCK**
No Food or Liquid (empty all containers)
- No Clothing or Linens (use donation programs)
- No Tangles (no hoses, wires, chains, or electronics)

YES! RECYCLE THESE

Cans	Cartons	Glass	Paper	Plastic
Aluminum and Steel Cans empty and rinsed	Food and Beverage Cartons empty and replace cap	Bottles and Jars empty and rinsed	Mixed Paper, Newspaper, Books, and Cardboard clean	Kitchen, Laundry, Bath Bottles and Containers empty and replace cap

123.456.789X
Department Name

www.SampleUrl.org
This poster is provided as part of the program by the Massachusetts Department of Environmental Protection. No. 104-00000-0000

Carts: Grants, Assistance, Resources

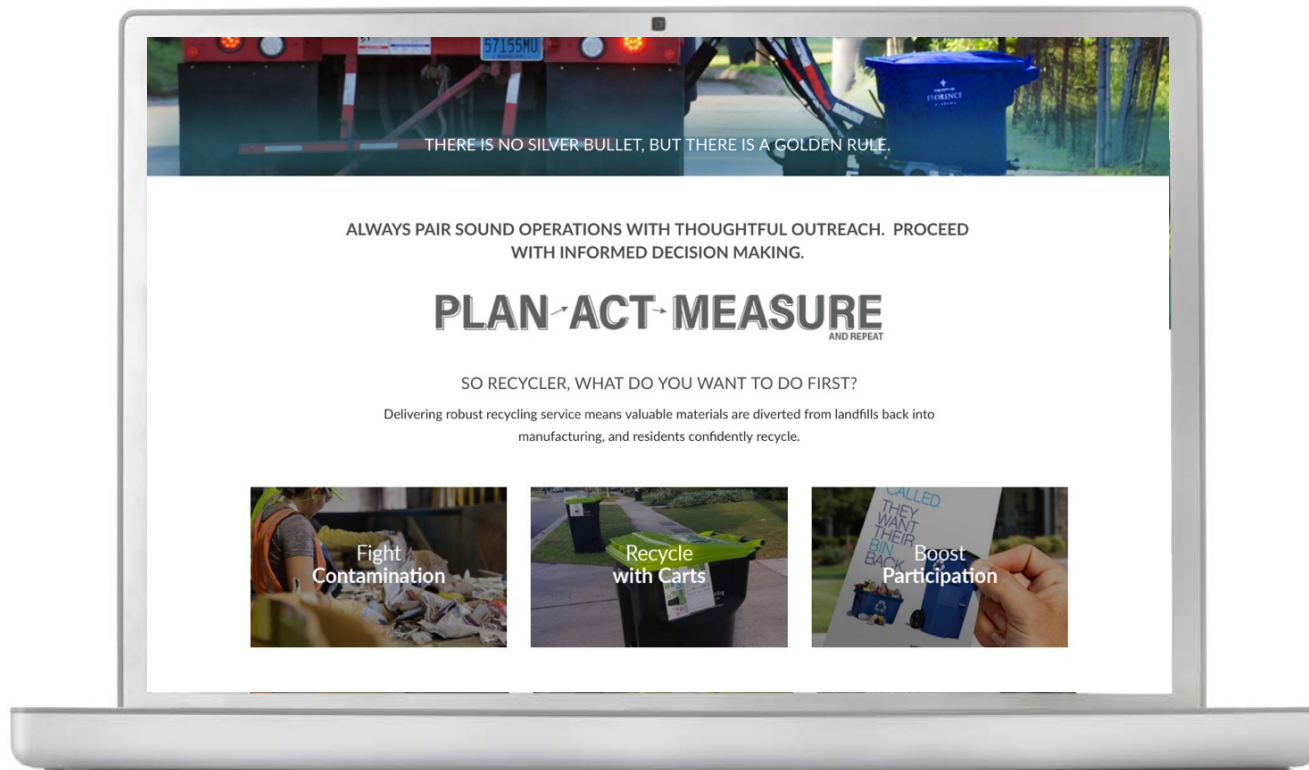
How-to guide and open source tools



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

Mailing side of the info card PDF file

Click in the light blue fields to place your cursor in the field. Then type in the *return* mailing address.

The screenshot shows a PDF viewer window titled "Info.Card.pdf". The viewer's toolbar includes icons for printing, saving, navigating, and zooming (currently at 93.3%). A purple status bar at the top of the document area contains the text "Please fill out the following form. You can save data typed into this form." and a "Highlight Fields" button. The main content of the PDF is a vertical poster. The top half of the poster features a photograph of a young child with curly hair, wearing a pink shirt, holding a crushed aluminum can. The bottom half of the poster has a green background with a green recycling bin icon on the left and the text "SHINE ON. Recycle." in large white letters. To the right of the poster, there is a form with three light blue input fields labeled "Your Organization", "123 Street", and "City, ST 12345".

Downloading a Tool

Back of the info card PDF file

Click in the light blue fields to place your cursor in the field. Then type in your website URL (top right) and telephone number.

Info.Card.pdf

2 / 2 93.3%

Sign Comment Find

Please fill out the following form. You can save data typed into this form. Highlight Fields

RECYCLE
THANK YOU FOR RECYCLING THESE:

SampleUrl.org

Cans	Cartons	Glass	Paper	Plastic
				
Aluminum and Steel Cans empty and rinse	Food and Beverage Cartons empty and replace cap	Bottles and Jars empty and rinse	Mixed Paper, Newspaper, Magazines, and Flattened Cardboard	Kitchen, Laundry, Bath: Bottles and Containers empty and replace cap

NO!

				
Do Not Bag Recyclables No Garbage	No Plastic Bags (return to retail)	YUCK No Food or Liquid (empty all containers)	No Clothing or Linens (use donation programs)	No Tangles (no hoses, wires, chains, or electronics)

123-456-7890

City Department Name

Graphics provided by The Recycling Partnership

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