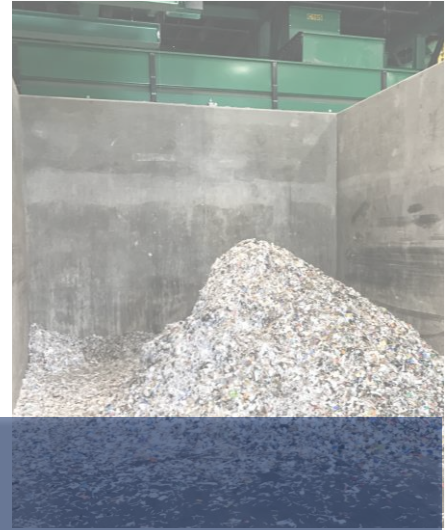


# **Regional Recycling Survey and Campaign Kick-off Meeting**

**Wednesday, August 29, 2018**







# Agenda

Welcome and Project Introductions (1:00 – 1:30pm)

Discuss Goals and Objectives (1:30 – 2:00pm)

Municipal Measurement Program Tool (*Emerge Knowledge*) (2:00 – 2:30pm)

Break (2:30 – 2:45 pm)

Survey Evaluation of MRF-Sheds (2:45 – 3:00pm)

Data Collection and Analysis (3:00 – 3:45 pm)

Create Regional Educational Campaign (*The Recycling Partnership*) (3:45 – 4:30pm)



# Welcome and Project Introductions

*1:00 pm – 1:30 pm*

*Attendee RSVPs*

*Project Schedule*

*Project Meetings*

*Request for Information*

# Attendee RSVPs

Name	Title	Represents
Soria Adibi	Materials Management Planner	City of Fort Worth
Greta Calvery	Public Affairs Manager	Waste Management
Lester Dalrymple	Plant Manager	Waste Management
Dustin Deel	Director of Municipal & Community Services	City of Weatherford
Vanessa Ellison	Education Coordinator	City of Denton
Marcos Estrada		City of Dallas
Brenda Finch	Executive Director	Keep Dallas Beautiful
Kathy Fonville	Water Conservation & Recycling Coordinator	City of Mesquite
Steve Funk	Environmental Waste Services Superintendent	City of Plano
TJ Gilmore	Public Sector Services Sales II	Waste Management
Christian Harper	Materials Management Marketing Analyst City of Fort Worth	City of Fort Worth
Tiana Lightfoot-Svendsen	Environmental Outreach Coordinator	City of Garland
Kelly Longfellow	Sustainability Program Specialist	General Services Administration, Region 7
Duane McDonald	MRF Division Manager	Republic Services
Robert Medigovich	Waste Minimization/Recycling Consultant	Community Waste Disposal, Inc.
Alex Pharmakis	Sustainability Outreach Coordinator	City of Plano
Tonya Randell	Program Manager	More Recycling
Patricia Redfearn	Solid Waste Manager	City of Grand Prairie
Jennifer Shaver	Environmental Programs Coordinator	City of Arlington
Andrea Smith	Environmental Educator	City of Allen
Robert Smouse	Assistant Director – Solid Waste Services	City of Fort Worth
Jeremy Starritt	Environmental Services Manager	City of Frisco
Nicole Warhotfig	Environmental Education and Outreach	Recycling Coordinator City of Plano

# Updated project schedule

- ▶ See revision by Zane



# Project Meetings - Draft

Meetings	Tentative Time Frame	Attendees
Kick off meeting	August 29, 2018	RSVP list
Re-TRAC Connect Training/Pre-test	September/October 2018	NCTCOG and cities
Waste Characterization Coordination Meeting	September/October 2018	Participating cities
MRF On-Site Meetings	October – November 2018	MRFs
Waste Characterization Study	October 2018	Participating cities
MRF Acceptable Materials List Workshop and Pretesting Educational Campaign Focus Group Workshop	January 2019	RSVP list, Cities' recycling/outreach staff and MRFs
Final Workshop and PPT	April/May 2019	

Note: additional meetings may be scheduled throughout projects, as necessary

# Request for Information

- ▶ Information requested may include
  - PDF of cities' public education materials
  - Recycling audit and waste characterization data
  - Participation in survey
- ▶ Formal data request will come from NCTCOG

# Goals and Objectives

*1:30 pm – 2:00 pm*

*Group Discussion*



# Project Goals and Objectives

## Creation of data tool

- Standardize data collection and entry format

## Revised recyclable material list

- Align the priority materials to include and exclude (contamination)

## Recycling and refuse composition data collection

- Understand recycling material being disposed

## Develop regional educational campaign assets

- Create tools to increase awareness and reduce contamination

# Municipal Measurement Program Data Tool

*2:00 pm – 2:30 pm*

*Municipal Measurement Program  
Local Government Reporting Solution*

# Municipal Measurement Program

- ▶ Utilizing Re-TRAC Connect's local government reporting solution
- ▶ NCTCOG will be able to add some questions to survey
- ▶ Team will pre-test survey with 3 – 4 cities
- ▶ Team will conduct in-person training session with cities, will be accessible via internet/conference call
- ▶ NCTCOG staff to have lead responsibility to work with cities to complete the survey
- ▶ Results from survey will be used for project analysis



**For Municipalities** - A web-based service providing standardized program assessment and information management tools.

Municipalities complete a Program Assessment Survey and will then gain access to:

- Program summaries
- Performance reports
- Benchmarking reports



## Municipalities

137 municipalities & counties filled out a survey (199 total resp.)

- Significant support
- Great feedback on useful reports
- See a need for standardization
- Benchmarking a priority





## Municipalities

What would help motivate you to complete assessment form?

> 94%

- Program performance & benchmarking reports
- Access to data management tools
- Sharing data with residents

# Local Government Solution Walk Through



## Program Assessment Form



## Program Assessment Form

### Community Overview

**ABOUT YOUR MUNICIPALITY**

What is your municipal classification? \*

- Urban
- Suburb (shares a border with an urban area)
- Suburb (does not share a border but it's within 30 miles of an urban area)
- Rural (does not share a border and is not within commuting distance of an urban area)
- Other

What is the population of your municipality? \*

How many single-family households are in your municipality? \*

When it comes to providing residential curbside MSW, recycling, and organics collection services, which of the following housing unit categories does your municipality use to describe single-family households? (select all that apply) \*

- Single unit (detached or attached)
- 2 units
- 3 - 4 units
- 5 - 9 units
- Mobile homes



## Program Assessment Form

Community Overview

Residential programs 

### ABOUT YOUR RESIDENTIAL SINGLE-FAMILY CURBSIDE RECYCLING PROGRAM

Does your municipality provide curbside recycling to residents in single-family households? \*

- Yes
- No
- I don't know

### Describe your municipality's single-family curbside recycling program

How many years has your municipality been running the residential single-family curbside program? \*

6 - 10 ▼

How many of the single-family households are served by your curbside recycling program? \*

- All single-family households in the municipality are served by the curbside recycling program
- Other

Please specify how many single-family households are served by your curbside recycling program \*

50,000

What type of curbside recycling collection do you offer residents? \*

- Single stream
- Single stream (with glass collected separately)
- Dual stream (with fiber and containers collected separately)
- Mixed waste collection
- Other





## Program Assessment Form

Community Overview

Residential programs

Materials collected 

Are the following types of PAPER accepted in your municipality's curbside recycling collection program?

PAPER TYPES	YES	NO	I DON'T KNOW
Books *	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
Boxboard / Paperboard *	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
Cardboard *	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
Cartons / Aseptic containers / Drink boxes *	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
Catalogs *	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
Magazines *	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
Mail *	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
Newspaper *	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
Office paper *	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
Telephone directories / Phone books *	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
Shredded paper *	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
Other paper *	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>



## Program Assessment Form

Community Overview

Residential programs

Materials collected

Tonnage data 

Can you provide 2018 tonnage information specifically for your municipality's single-family curbside recycling program? \*

Yes, I can provide total annual tons

Yes, I can provide annual tons broken out by material category (paper, plastic, glass, metal)

No, I don't have specific tonnage data for the curbside recycling program (the curbside tons are part of our general recycling tonnage, and not broken down by program or source)

No, I don't have any tonnage data for the curbside recycling program

Provide the total amount of single-family curbside recycling collected in 2018

PROGRAM	AMOUNT COLLECTED *	UNITS *	CURBSIDE RECYCLING, TOTAL TONS
Residential single-family curbside recycling	27,000.00	Tons	27,000.00

Does the above single-family curbside recycling tonnage represent the material collected in the 2018 calendar year (i.e. Jan 1 - Dec 31, 2018)? \*

Yes

No

How did you calculate the total single-family curbside recycling tons? \*

Weight records/reports

Records of collected specific curbside recycling volumes converted to tonnage

It is an approximation based on curbside percentage of total general recycling diversion tonnage from municipality

Other



## Program Assessment Form

Community Overview

Residential programs

Materials collected

Tonnage data

Education & outreach 

### ABOUT YOUR EDUCATION AND OUTREACH ACTIVITIES

What is the annual recycling outreach budget for your municipality? \*

\$

How many full time equivalent (FTE) staff does your municipality employ for outreach/education? \*

How often does your municipality engage in the following advertising activities?

ADVERTISING ACTIVITIES	MORE THAN ONCE PER YEAR	ONCE PER YEAR	LESS THAN ONCE PER YEAR	NEVER
Billboard *	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
Bus ads (interior & exterior) *	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
Newspaper ads *	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
Public Service Announcement (PSA) *	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
Radio ads *	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
TV ads *	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>

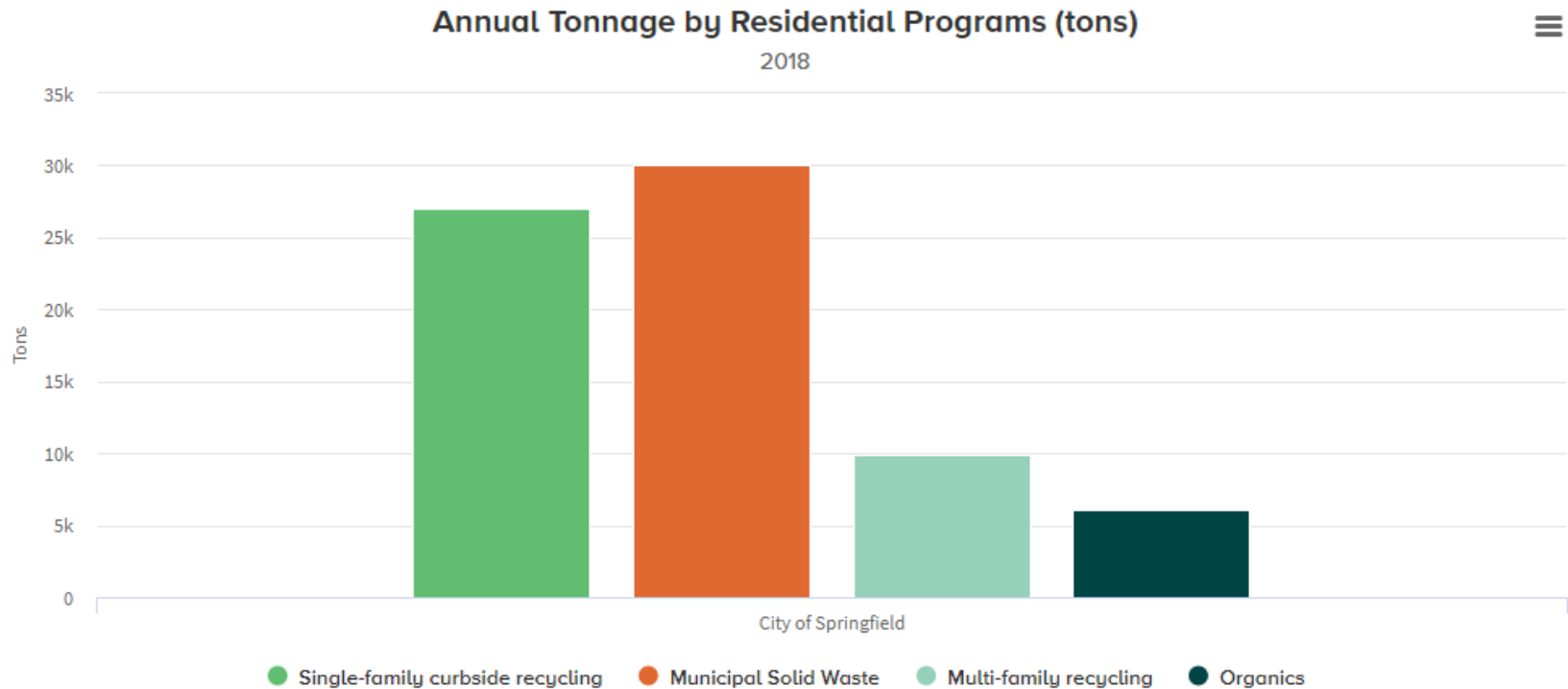
How often does your municipality deliver the following types of promotional materials or activities?

PROMOTIONAL MATERIALS & ACTIVITIES	MORE THAN ONCE PER YEAR	ONCE PER YEAR	LESS THAN ONCE PER YEAR	NEVER
Brochures *	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>



## Analytics

Program summaries 

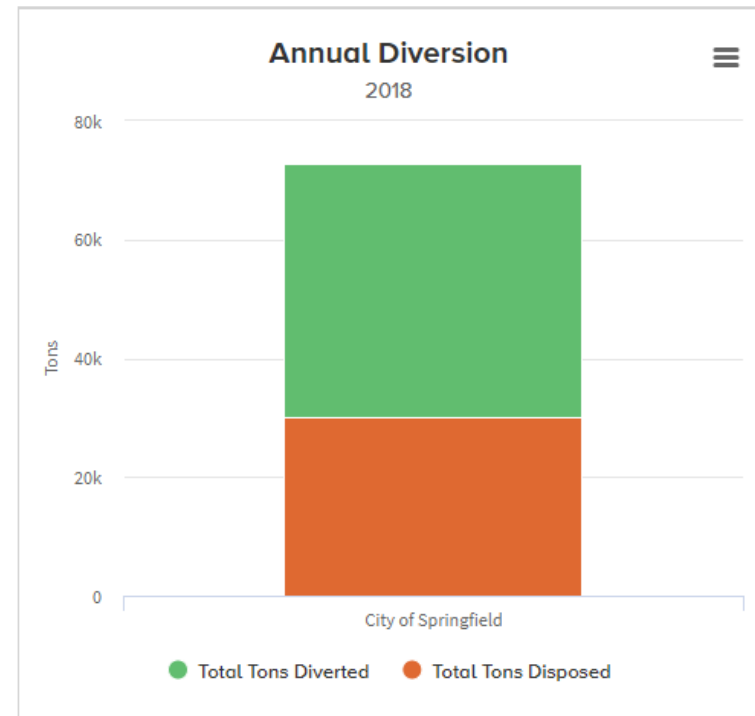
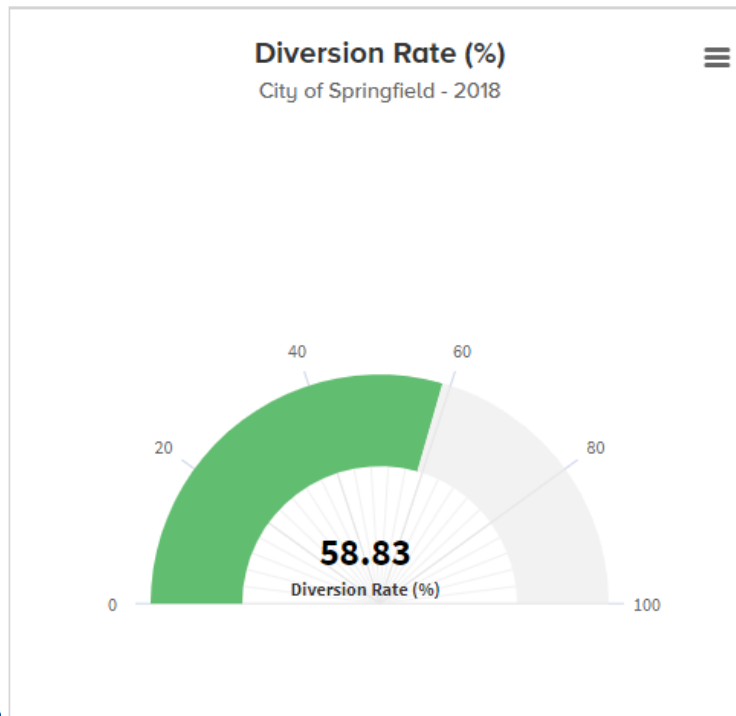




## Analytics

Program summaries

Diversion rates ▼





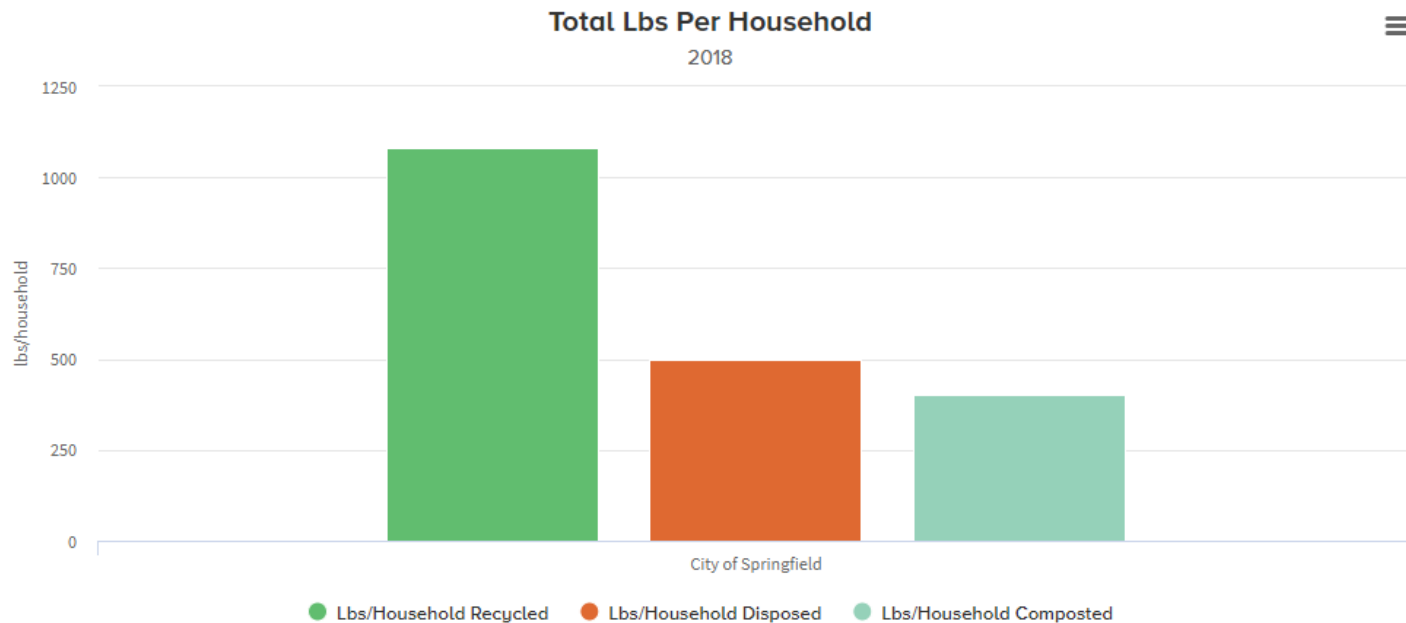


## Analytics

Program summaries

Diversion rates

Per household analysis ▼





## Analytics

Program summaries

Diversion rates

Per household analysis

Trend reports

Economic benefit reports ▼

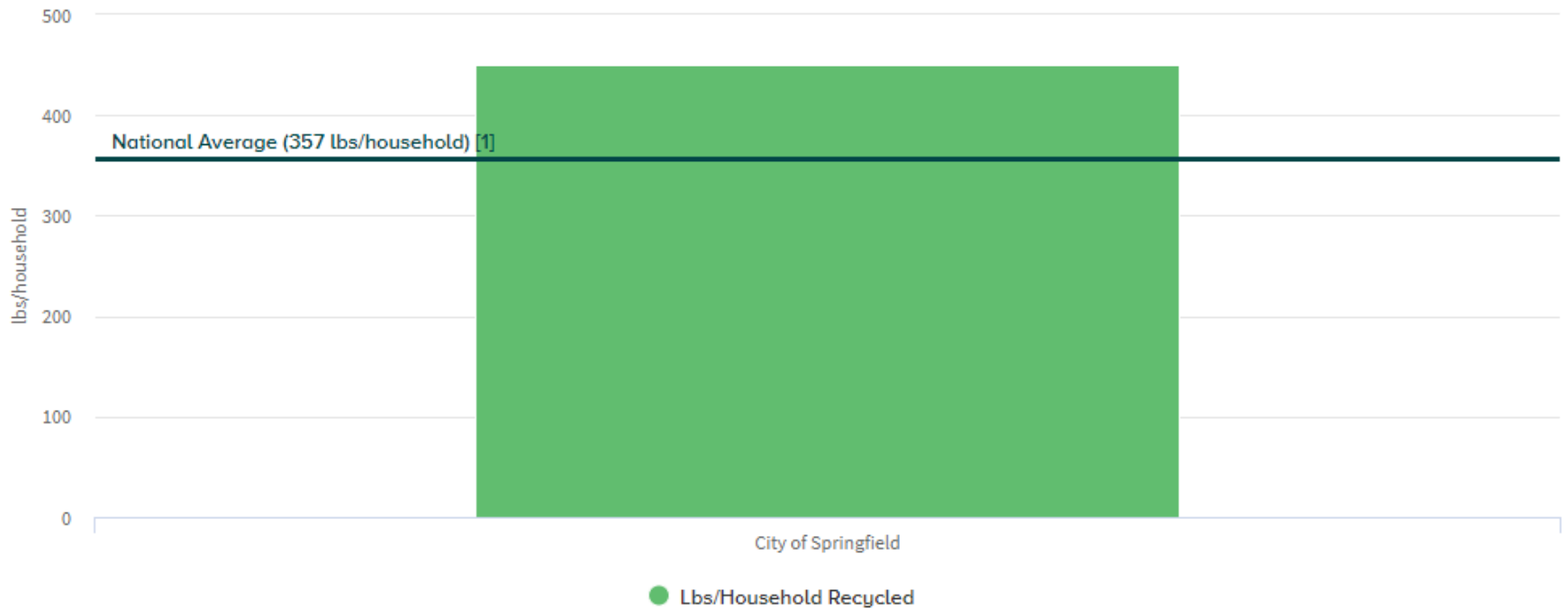
ECONOMIC BENEFITS OF RECYCLING				
Displaying data collected for: 2018				
Displaying 1 results				
MUNICIPALITY	TOTAL RESIDENTIAL RECYCLING (TONS) [1]	ESTIMATED JOB CREATION IMPACT [2]	ESTIMATED WAGES ATTRIBUTABLE [3]	ESTIMATED TAX REVENUE ATTRIBUTABLE [4]
City of Springfield	36,850.00	57	\$2,801,706	\$519,622



## Benchmarking Report

### Single-family Household Recycling vs. National Average

2018





## Publish Information on RecycleSearch

Program information ➤

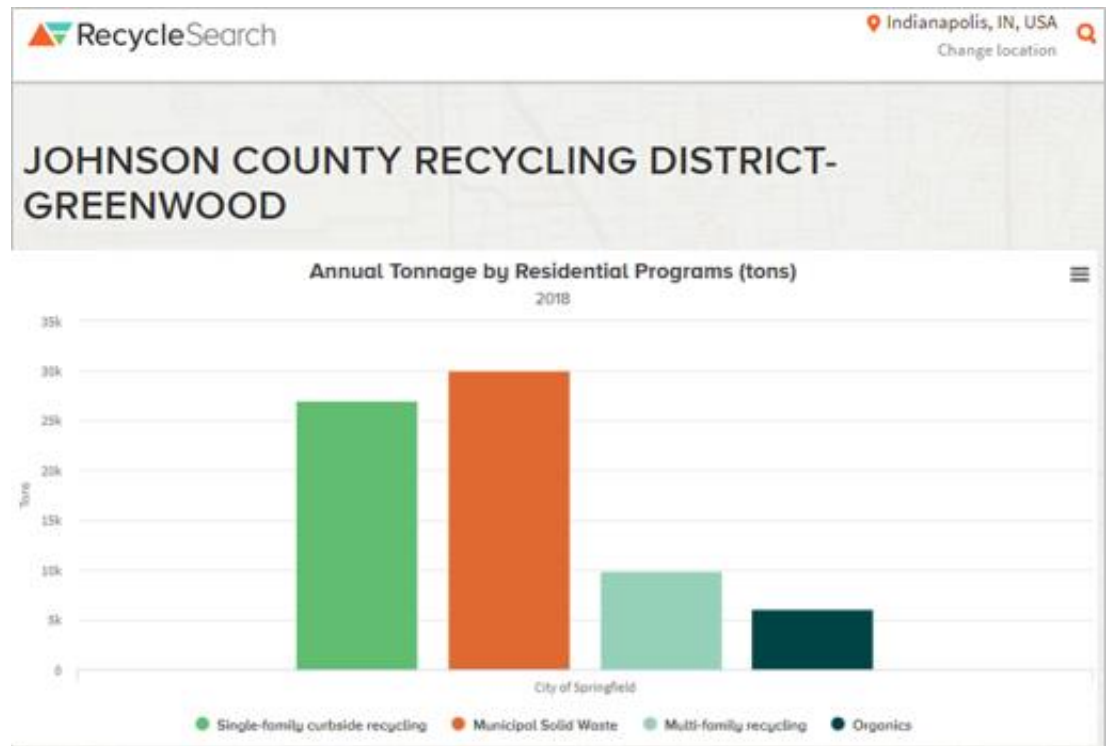
The screenshot shows the RecycleSearch interface for the Johnson County Recycling District - Greenwood. At the top, the RecycleSearch logo is on the left, and the location is set to Indianapolis, IN, USA with a 'Change Location' link. The main heading is 'JOHNSON COUNTY RECYCLING DISTRICT - GREENWOOD'. Below this, the address is listed as 2425 South Emerson Avenue, Greenwood, IN 46143, USA, with a 'Visit our website' link and a phone number 317-738-2546. A 'Hours of Operation' box indicates 'Open 24/7'. To the right is a Google Map showing the location with a red pin and a 'Get Directions' button. Below the map, there is a text block: 'Please place cardboard and paper products into the designated paper recycling bin(s) unless full. All recyclables can be placed into the mixed recycling bin(s). Please call the Johnson County Recycling District's main office with questions or to report contamination.' At the bottom, a white box with a red header 'Materials Collected' is partially visible.



## Publish Information on RecycleSearch

Program information

Analytics



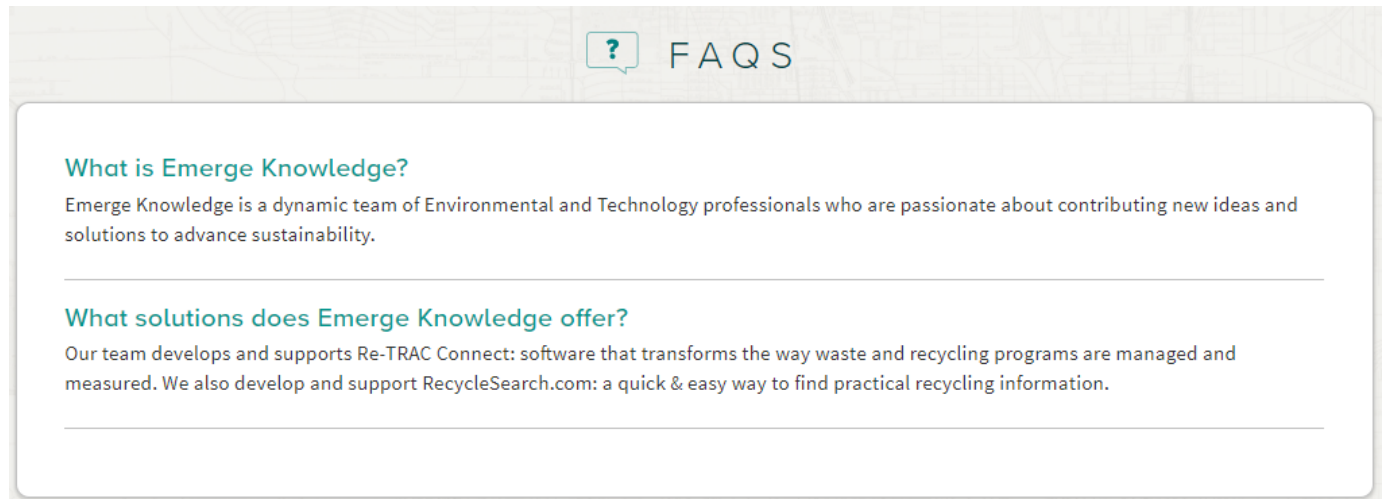



## Publish Information on RecycleSearch

Program information

Analytics

FAQs 



 FAQS

**What is Emerge Knowledge?**  
Emerge Knowledge is a dynamic team of Environmental and Technology professionals who are passionate about contributing new ideas and solutions to advance sustainability.

---

**What solutions does Emerge Knowledge offer?**  
Our team develops and supports Re-TRAC Connect: software that transforms the way waste and recycling programs are managed and measured. We also develop and support RecycleSearch.com: a quick & easy way to find practical recycling information.

---

# Customizing Program Assessment Survey

- ▶ Program Assessment Survey tool will be customized
  - Questions will be added but baseline survey will remain as presented here
- ▶ Additional questions may include
  - What is the most problematic materials in regards to contamination?
  - What are the most important materials to encourage residents to put in the recycling container?
  - What MRF does your city's material go to?
  - Which hauler collects your city's material?
  - When does the contract with your city's hauler expire?

# Ongoing Use of Data Tool

- ▶ Project includes a one-year annual subscription for Re-TRAC Connect
  - NCTCOG staff will support cities to engage with tool
  - After one-year subscription expires, NCTCOG can choose to re-subscribe
  - Program Assessment Survey utilized after project to centralize data collection



# Break

*2:30 pm – 2:45 pm*

# Survey Evaluation of MRF-Sheds

*2:45 pm – 3:00 pm*

*MRF Acceptable Materials Worksheet Review*

*MRF Interviews*

*MRF-shed Mapping*

*Acceptable Materials Worksheet Workshop*



# MRF Acceptable Materials Worksheet

## Overview



## MRF Acceptable Materials Worksheet



# MRF Acceptable Materials Worksheet

## Overview



## MRF Acceptable Materials Worksheet

### Participant Information



#### MRF SURVEY

*Note: This information is confidential unless otherwise noted.  
Any changes to the information on this form should be communicated in writing.*

MRF:

CITY:

DATE:

PERSON REQUESTING INFO:

PERSON COMPLETING FORM:

This worksheet serves to ensure that local programs and MRFs remain on the same page regarding acceptable and problematic materials. Use this document to identify and address issues, inform front line staff, and create materials to educate residents. It is recommended that the local program representative and MRF representative complete this worksheet together every 6 months and during the creation or renewal of processing contracts. We encourage this document be used in the RFP process as well.

When creating educational materials, use this document to understand the ins and outs of acceptable items, then create broader categories, images, and definitions to inform residents.

Please go through the entire worksheet and mark whether each item is acceptable or not acceptable. You will see two categories under the "Do Not Accept" column. Here is how they are defined:

**Non-detrimental:** Item is not sent to a market for recycling, but does not cause any major problems if found in the stream.

**Detrimental:** Item can shut down or damage equipment, harm employees, and/or substantially degrade the value of material.



# MRF Acceptable Materials Worksheet

## Overview



## MRF Acceptable Materials Worksheet

Participant Information

Acceptable Materials



PAPER PRODUCT	ACCEPT	DO NOT ACCEPT		DO NOT WANT ON LIST BUT ACCEPT
		NON-DETRIMENTAL	DETRIMENTAL	
Cartons (gable top containers like milk and orange juice, and aseptic containers like juice boxes and soup)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Cold Cups (e.g. paper fountain drink cup)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Hard Cover Books	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Hot Cups (e.g. coffee cup)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Ice Cream Container	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Mail	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Kraft Bags	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Magazines	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Newspaper	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
OCC	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Office Paper	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Paperback Books	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Paperboard Boxes	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Pizza Boxes	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Shredded Paper	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<i>Directions on how to prepare</i>				
Take-out Containers	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Tissue Paper	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Other:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>



# MRF Acceptable Materials Worksheet

## Overview



## Publish Information on RecycleSearch

Participant Information

Acceptable Materials

Prohibitive Items



If you could tell residents to leave five items out of their recycling streams, which items would you choose?

Rank the top five (5) unacceptable items that are causing the most problems in your facility (i.e. degrading other commodities significantly, causing damage to MRF equipment, presenting danger to staff, becoming high volume residual). Please rank with numbers "1" through "5." Put a "1" in the box of the worst contaminant. Only rank the top five and leave everything else blank.

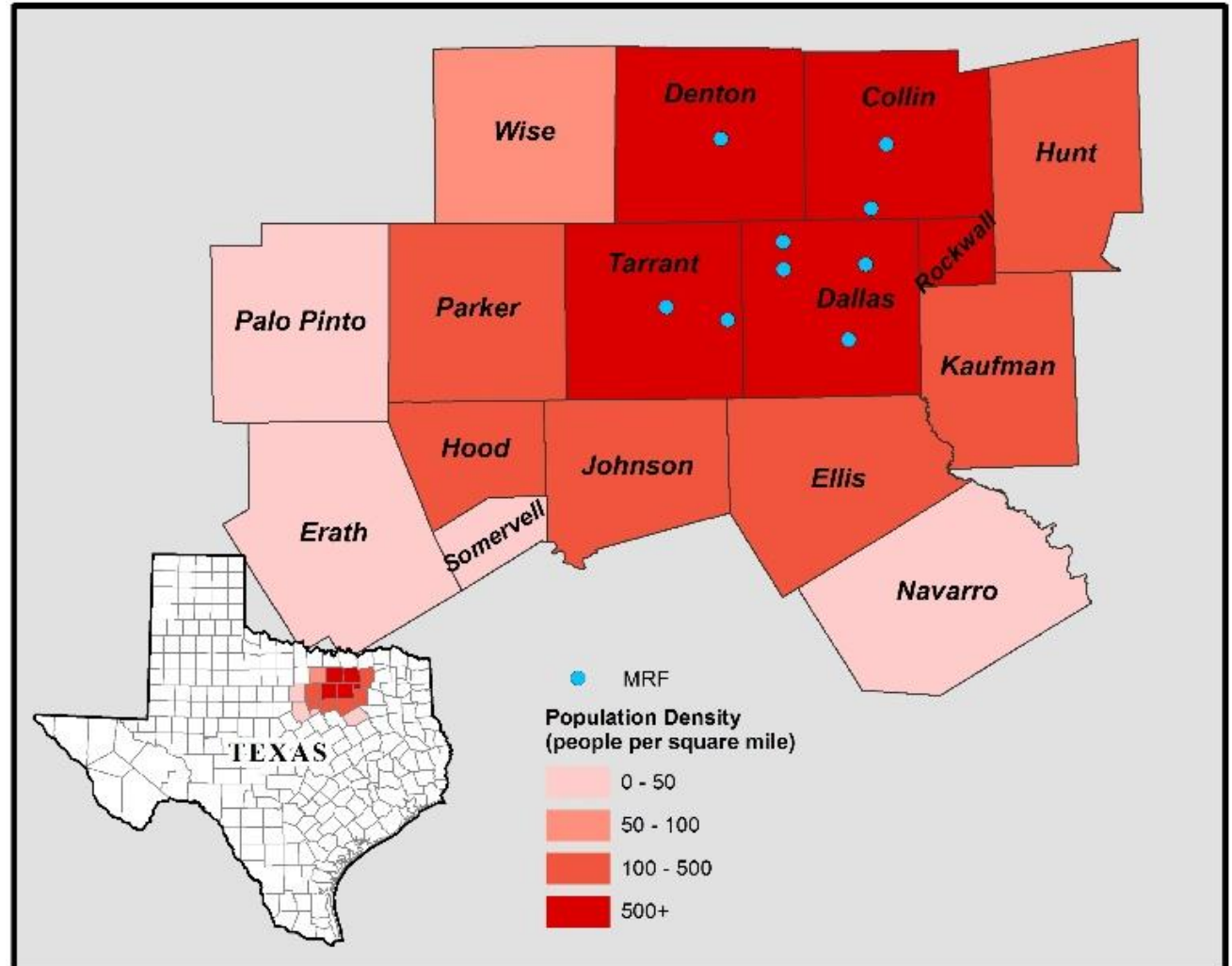
PROHIBITIVE ITEMS

TOP 5

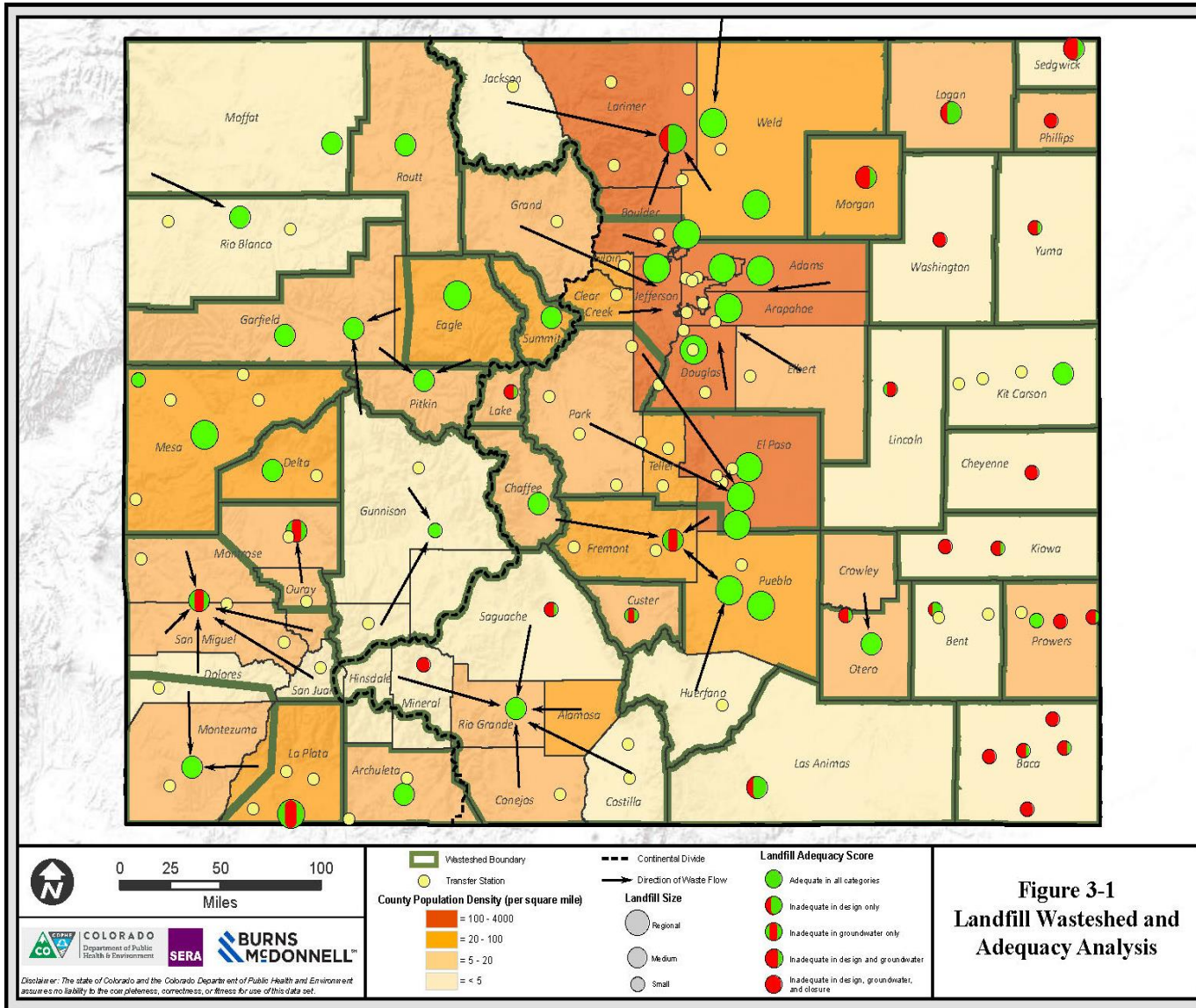
Aerosol Cans	
Bulky Plastics	
Cartons	
Dishes	
Electronics	
EPS Foam (block and/or food service containers)	
Flexible Packaging	
Fluorescent Bulbs	
Food Waste	
General Hazardous Waste	
Glass	
Ink/Printer Cartridges	
Mercury Containing Objects	
Motor Oil Containers	
Needles	
Pet Food Bags	
Plastic Bags	
Plastic Furniture	

# MRF Interviews

- ▶ Conduct MRF interviews and site visits from October - November 2018
- ▶ Review MRF acceptable materials list with MRF operators



# Waste Flow Mapping Example





# Acceptable Materials Worksheet Workshop

- ▶ Communicate the findings from the Survey and Evaluation of MRFsheds task (Task 3) and the Data Collection and Analysis task (Task 4)
- ▶ Facilitate a discussion to develop a list of targeted acceptable recyclable materials and non-accepted materials for the educational campaign
- ▶ Develop a common set of terms and common language to be used for public engagement
- ▶ Will be conducted as a part of the focus group described in Task 5

# Data Collection and Analysis

*3:00 pm – 3:45 pm*

*Recycling Data Collection*

*Review Waste Characterization Memo*

*Recycling and Refuse Data Analysis*

# Recycling Data Collection

- ▶ Implement Re-Trac Connect Survey
  - Cities will fill out survey to collect and analyze recycling data
  - NCTCOG will encourage Cities to fill out survey
- ▶ Leverage Data from the *Study on the Economic Impacts of Recycling*
  - Pull data from NCT MRFs (aggregated on at regional level) compiled as part of previous effort
- ▶ Summarize Recycling Audit and Characterization Data
  - Gather results of recent audits
  - May include Arlington, Dallas, Fort Worth, Garland, and Mesquite

# Waste Characterization Study

- ▶ Collect information on NCTCOG region waste composition
- ▶ Will occur at McCommas Bluff Landfill facility in Dallas
- ▶ Select participants to represent diversity of locations in NCTCOG region
- ▶ Physically sort 50 samples
  - Each sample approximately 200 pounds (represents ~five 95-gallon refuse carts)
- ▶ Material categories to focus on recyclable and determined by
  - MRF operator interviews
  - MRF Acceptable Materials Sheet
  - MRF audit data

# Tentative Selection of Participating Cities

Cities	Criteria							
	Population	Recycling Collection frequency	Refuse Collection Frequency	Refuse Program Type	Set Out Type	Refuse Service Provider	Existing Data	Willingness to Participate
Dallas	1,341,075	1x/wk	1x/wk	Automatic Enrollment	Carts	City	WC and Audit	Yes
Fort Worth	874,168	1x/wk	1x/wk	Automatic Enrollment and PAYT	Carts	Waste Management	WC and Audit	Yes
Irving	240,373	1x/wk	2x/wk	Auto Enrollment	Bags	City	None	Yes
Grand Prairie	190,682	1x/wk	2x/wk	Auto Enrollment	Bags	Grand Prairie Disposal	None	Yes
Frisco	163,656	1x/wk	1x/wk	Auto Enrollment	Carts	Waste Connections	None	Yes
Mesquite	143,949	1x/wk	2x/wk	Auto Enrollment	Carts (?)	City	Audit	Yes
Weatherford	30,654	1x/wk	2x/wk	Subscription	Carts	City	None	Yes
TBD	less than 100,000	-	-	-	-	-	-	TBD
TBD		-	-	-	-	-	-	TBD
TBD		-	-	-	-	-	-	TBD

# Requested Support from Participants

- ▶ Cities to directly deliver material to the sorting location
  - **Individual carts (preferred approach):** collect 200-pound samples from individual carts from representative geographic areas of the city.
  - **Refuse trucks at the city's typical disposal location (alternative approach):** collect 200-pound samples from a location other than McCommas Bluff Landfill and transfer to sorting site

# Number of Samples Requested

- ▶ Number of samples requested based on
  - Annual tons disposed by municipality
  - Population

Population	Number of Samples
500,000+	12+
100,000 – 499,000	4-7
25,000 – 99,000	2-3

# Recycling and Refuse Data Analysis

- ▶ Harmonize material categories with recycling data
- ▶ Estimate recyclables generation and capture
  - Allow “apples to apples” calculation of commodities in residential trash and recycling
- ▶ Inform the outreach plan for increasing material recovery



# Create Regional Educational Campaign

*3:45 pm – 4:30 pm*

*Pretesting via Workshop Focus Group*

*Develop Campaign Assets*

# Pretesting Via Workshop Focus Group

- ▶ Host a workshop of NCTCOG key stakeholders
- ▶ Build on The Recycling Partnership's *It's All You* Campaign
- ▶ Define the top issues and desired focal points of campaign
- ▶ Generate stakeholder buy-in for successful campaign development, adoption and roll-out
- ▶ Develop messaging based on outcomes of workshop

# Developing Campaign Assets

We Work Hand in Hand with Communities and Companies

IMPROVING RECYCLING FOR:  
THE ENVIRONMENT THE ECONOMY AND THRIVING COMMUNITIES



OPERATIONS



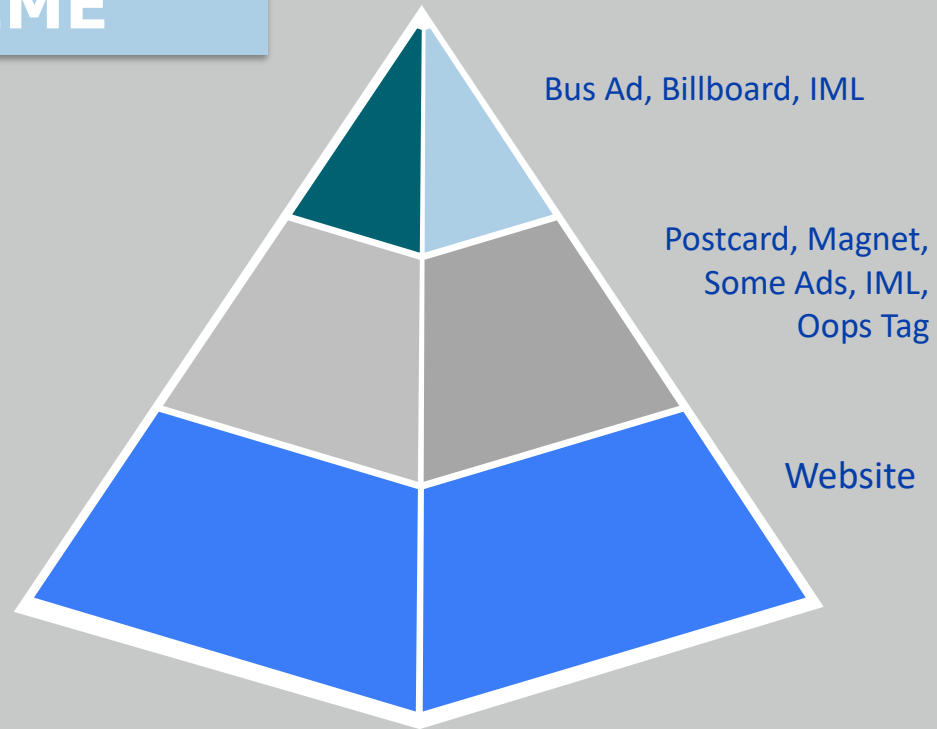
EDUCATION



MEASURABLE  
CHANGE

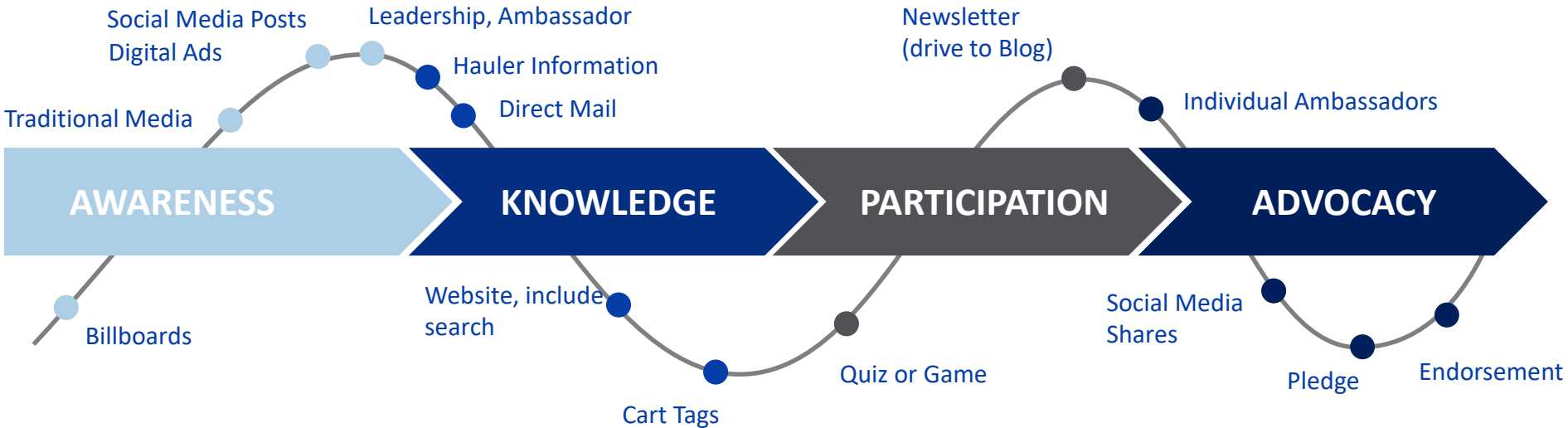
# COMMUNICATING THE RIGHT THING AT THE RIGHT TIME

AWARENESS	1	TOP YES/NO
UNDERSTANDING	5	THE "ADDITIONAL"
	50	QUESTIONS



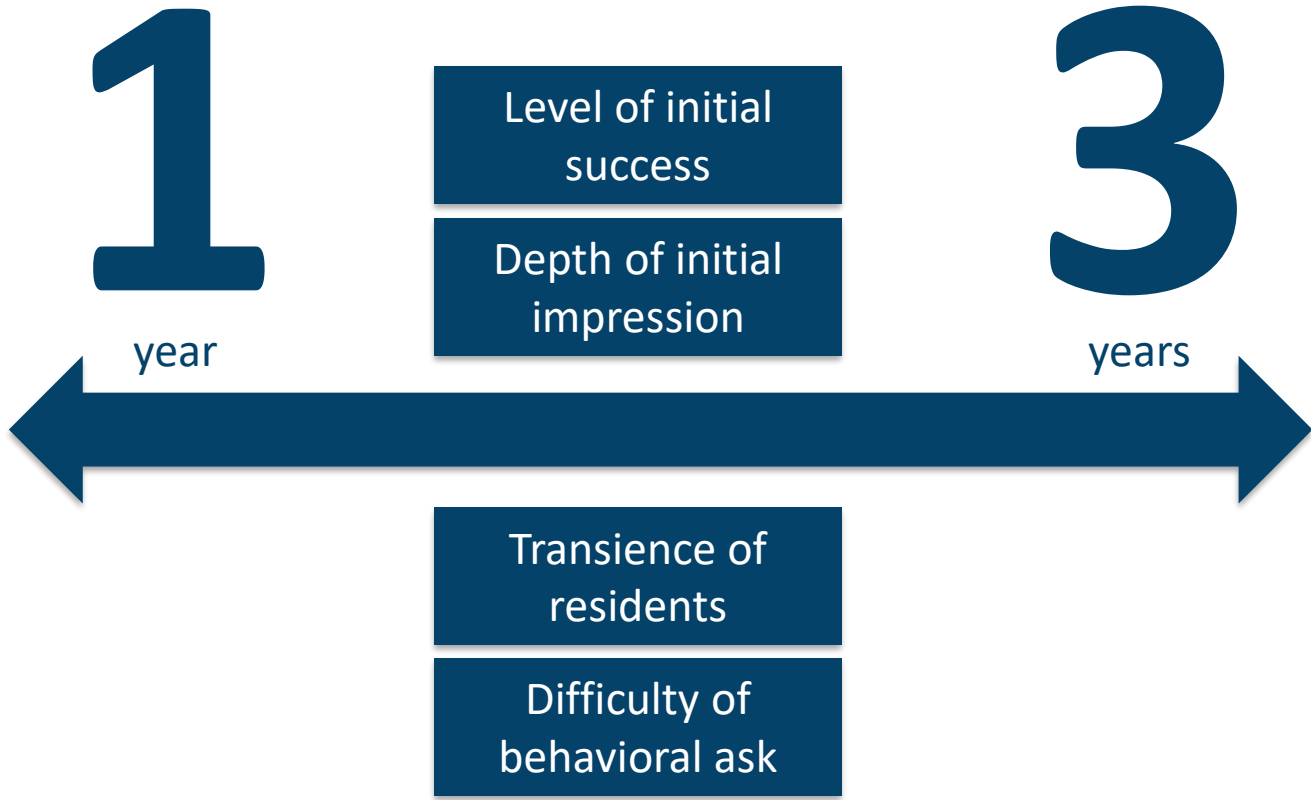
# Commitment and Knowledge and Behavior

To make the most of limited communications, coordinate and integrate messaging



Awareness Is Not Behavior

# HOW LONG DO CAMPAIGN EFFECTS LAST?



## KNOW YOUR AUDIENCE

**Where do they look for information?**

**What words (terms, etc) do they use?**

**What guidelines do they already know?**

Is their knowledge correct and up to date?

*Know yourself-*

***What are you saying? Could it be clearer?***

# Getting to a COMMON SUITE

PAPER PRODUCT	ACCEPT	DO NOT ACCEPT		DO NOT WANT ON LIST BUT ACCEPT
		NOT DANGEROUS	DANGEROUS	
OCC	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Pizza Boxes	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Newspaper	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Magazines	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Hard Cover Books	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Paperback Books	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Office Paper	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Junk Mail	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Cartons (gable top containers like milk, orange juice, etc)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Shredded Paper <i>Directions on how to Prepare</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Round Can (fiber body, metal bottom)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Ice Cream Container	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Other:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>



# WHAT DO WE KNOW?

## KEEP IT SIMPLE

Consistent, simple messaging works best.

### ALUMINUM

- Aerosol
- Can
- Foil or Foil-like Container
- Other Aluminum Containers

### CARTONS

#### PAPER

- Cold Cups
- Hard Cover Books
- Hot Cups
- Ice Cream Container
- Junk Mail
- Kraft Bags
- Magazines
- Newspaper
- OCC
- Office Paper
- Paperback Books
- Paperboard Boxes
- Pizza Boxes
- Shredded Paper

#### GLASS

- Bottles and Jars
- Drinking Glass
- Mugs
- Window

### PLASTIC

- Buckets
- Bulky Plastic
- EPS Foam
- Flower Pots
- HDPE Bottles & Jars
- Non-bottle HDPE Containers & Lids
- Non-bottle PET Containers & Lids
- Other Containers & Packaging
- Other Drink Bottles
- Other Food Bottles & Jars
- Other Household Bottles & Jars
- Other Tubs & Lids
- PET Bottles & Jars
- PET Thermoform
- PP Bottles
- PP Containers & Lids
- Produce, Deli & Bakery Containers, Cups, Trays

### STEEL

- Aerosol
- Can
- Pots and Pans
- Scrap Metal



### Cans



#### Aluminum and Steel Cans

empty and rinse



### Cartons



#### Food and Beverage Cartons

empty and replace cap



### Glass



#### Bottles and Jars

empty and rinse



### Paper



#### Mixed Paper, Newspaper, Magazines, and Flattened Cardboard



### Plastic



#### Kitchen, Laundry, Bath: Bottles and Containers

empty and replace cap

# PROVIDE CRYSTAL CLEAR MESSAGE

Don't bag your recyclables

Recycle your cans

# PROVIDE CRYSTAL CLEAR MESSAGE


BEFORE

AFTER



# PROVIDE CRYSTAL CLEAR MESSAGE

↑ 25%



THINK OUTSIDE THE TRASH!  
**RECYCLE YOUR CANS**

Don't throw aluminum cans in the trash.  
Recycle them in your purple cart!

TRASH

DENVER RECYCLES

Questions or Service Requests?  
Call 311 or Visit [DenverGov.org/DenverRecycles](http://DenverGov.org/DenverRecycles)

This graphic shows a recycling bin with a can being placed inside. The bin is purple with a recycling symbol and the text 'DENVER RECYCLES'. To its left is a black trash bin labeled 'TRASH'. A white arrow points from the trash bin towards the recycling bin. The background features a stylized house and mountains.

THINK OUTSIDE THE TRASH!

**RECYCLE YOUR CANS**



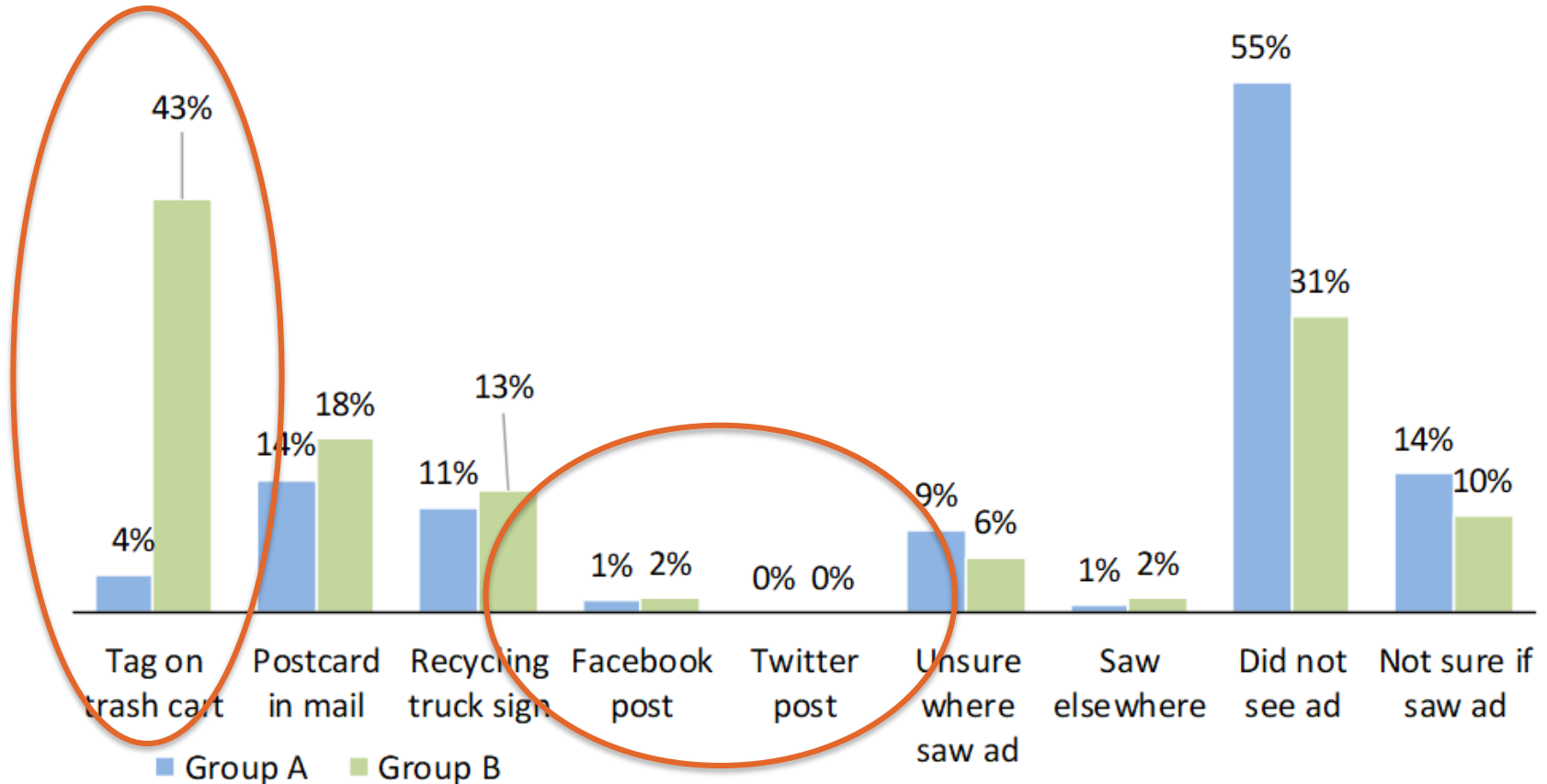
TRASH

DENVER RECYCLES

This graphic shows two recycling bins side-by-side. The left bin is black and labeled 'TRASH'. The right bin is purple and labeled 'DENVER RECYCLES' with a recycling symbol. Two aluminum cans are shown being placed into the purple bin. A white arrow points from the trash bin towards the recycling bin. The background features a stylized house and mountains.

# DENVER SURVEY

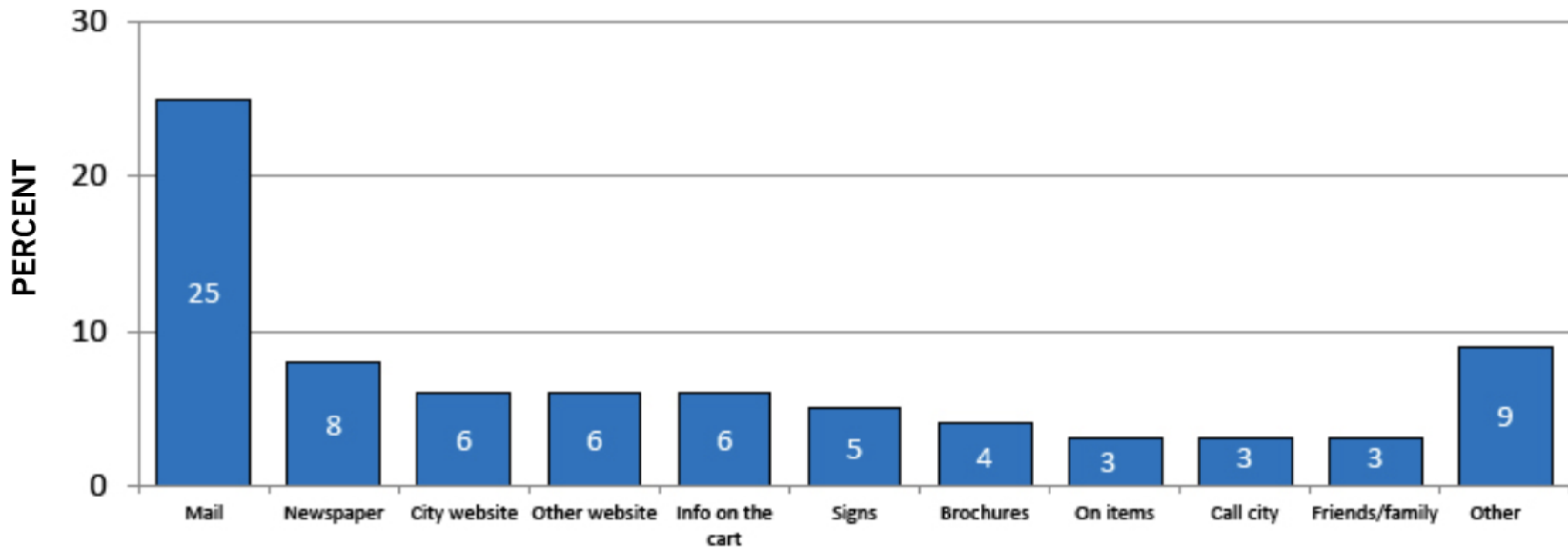
Advertising method recall among residents surveyed (n=1,363)



# CHICAGO – PHONE SURVEY RESULTS

September, 2017 Random sample of 600 Single-Family Residents

## Residents Rely on Information They Have Been Mailed About Recycling



Q: Where do you generally find information about recycling?

# What's the 1-Year UBC Value of the Denver Campaign?

Lbs of UBC/Denver HH	<b>23.5 Lbs.</b>
Total No of Denver HH	<u>x 176,000</u>
Total Available UBC Lbs in Denver	= 4,136,000

## Group B Results:

Capture Rate Before	47% X 4,136,000 = 1,943,920
Capture Rate After	59% X 4,136,000 = <u>2,440,240</u>
Difference:	496,320 lbs. X \$0.60/lb = <b>\$297,792</b>

This reflects a **first-year benefit**, roughly equal to the variable cost of the Denver campaign (i.e. all costs other than Partnership time and results measurement), if the capture rate increase achieved in Group B were achieved throughout the entire city.

# Tools for Contamination

1. ANTI-CONTAMINATION KIT WITH FREE CUSTOMIZABLE FILES
2. IMAGES, ICONS, MAGNETS, SOCIAL MEDIA KIT
3. MORE TO COME!

## Anti-Contamination Recycling Kit

Improving Quality in Your Recycling Program

If you are looking to clean up your residential recycling stream, this kit might be for you. As you will see, the approach is well tested and the results are both immediate and noteworthy.

This kit has been designed to provide steps, tools, and resources to help you improve the quality of your recycling program. It will require resources, planning, and time on your end, as well as a partnership with your MRF and hauler, but the benefits are many. Increasing the quality of the recycling stream can save on disposal fees, improve resident satisfaction with your program, and ensure the success and sustainability of the recycling system.

To get started, use this [ASSESSMENT TOOL](#) to make sure your community is ready to take on this challenge. Before starting this project you'll need to assess your budget, present your case to decision makers, and get buy-in from your city/town officials, your hauler and your MRF. Lastly, take advantage of what others have learned by reviewing this [PRO TIPS PAGE](#).

This Kit was developed in collaboration with  
Massachusetts Department of Environmental Protection



### This toolkit includes:

- Guidance to help you broach this subject with your MRF and hauler
- Visual instructions and tools for targeted messages
- Tips to help you get the best results
- Tools to help you track and report results

