

Resource Conservation Council Meeting

Thursday, February 13, 2020

Cassidy Campbell

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1. Welcome and Introductions

2. Notification of Conflicts of Interest

Action Items

3. Meeting Summary. The October 30, 2019 meeting summary will be presented for approval.

Action Items

4. FY2020-2021 Materials Management Call for Projects. Kathy Fonville, City of Mesquite and chair of the Grant Selection Subcommittee, will present the subcommittee's funding recommendations for the FY2020-2021 Call for Projects. A motion to recommend to the NCTCOG Executive Board will be sought.

FY2020-2021 Materials Management Call for Projects

FY 2020-2021 Materials Management Call For Projects

Number of Applications Received	36
Total Requested Funding Amount	\$3,338,380.17
Projects Recommended for Funding	16
Total Recommended Amount for Funding	\$1,141,698.80
Total Projects Recommended for Partial Funding	2

FY2020-2021 Materials Management Call for Projects

Rank	Entity	Project Title	Recommended Award
1	City of Garland	City of Garland Recycling and Waste Minimization Technical Study	\$ 70,000.00
2	City of Frisco	Enhancing Source Separated Cardboard Recycling	\$ 87,533.00
3	City of Plano	Reducing Recycling Contamination - Education at the Cart Pilot Study	\$ 118,593.00
4	Hood County	Hood County Recycling Improvement Project	\$ 58,070.00
5	City of Dallas	Dallas Parks Treecycling Program	\$ 200,000.00
6	City of Mesquite	Expansion of City of Mesquite Compost Operation	\$ 148,289.00
7	City of Mansfield	HHW Hauling Trailer	\$ 15,000.00
8	City of Fort Worth	Special Events Collection Program Expansion	\$ 39,900.00

FY2020-2021 Materials Management Call for Projects

Rank	Entity	Project Title	Recommended Award
9	City of Princeton	Litter Reduction and Education Project	\$ 18,192.80
10	City of Heath	City of Heath Household Hazardous Waste Collection Program - Public Education Program and Tote Purchase	\$ 18,052.21
11	City of Rowlett	Solid Waste and Recycling Education Vehicle	\$ 48,172.00
12	City of Lewisville	Solar Powered Illegal Dumping Cameras	\$ 22,950.00
13	City of Southlake	City of Southlake Disaster Debris Management Plan	\$ 49,528.00
14	City of Fort Worth	Environmental Investigation Unit Camera Grant 2020	\$ 79,200.79
15	City of Euless	Multi-City Disaster Debris Management Plan	\$ 125,000.00
16	City of Burleson	City of Burleson Debris Management Plan	\$ 43,218.00

Action Items

5. Re-TRAC Connect Contract. NCTCOG will present the Regional Management Plan Subcommittee's informal recommendation regarding whether to continue the Re-TRAC Connect contract with Emerge Knowledge, and if so, which option.

Presentations

6. Second Waste Characterization Assessment Results. Burns and McDonnell, Inc. will present the results of the November 2019 waste characterization assessment conducted in association with the Regional Recycling Survey and Educational Campaign.

7. Weatherford Technical Study. Burns and McDonnell, Inc. will provide a presentation covering the City of Weatherford's Solid Waste Technical Study performed during the FY2018-2019 biennium.

Waste and Recycling Characterization Results

February 13, 2020

Resource Conservation
Council

Scott Pasternak



Waste Characterization Study Methodologies

	2018	2019
Participating Cities	10	8
Trash Samples	50	49
Recycling Samples	None; used MRF audit data	44
Material Categories	31	34

- ▶ Study methodology changes between 2018 and 2019
 - Two cities unable to participate in 2019
 - Included hand-sorting of recycling in 2019
 - Added e-commerce OCC, pizza boxes, and polypropylene (#5 plastic) categories to provide additional perspective

Participating Cities Involvement

Cities
Dallas
Fort Worth
Arlington
Garland
Grand Prairie
Irving*
Frisco
Mesquite
Allen*
Weatherford

- ▶ Collected samples and tracked pickups
- ▶ Transported and delivered samples
- ▶ Represented a range of solid waste collection programs varying by
 - Size of program
 - Set out type (e.g. cart, bags)
 - Collection frequency (e.g. weekly, every other week)

*unavailable to participate in 2019 sorting event

Waste Delivery



Hand-Sorting Material



Fines Screens



Weight Data Collection



Sorting Bins From Participating Cities



Waste and Recycling Characterization Data Analysis

- ▶ Regional analysis replicated 2018 study plus hand-sorted recycling to provide
 - Waste and recycling composition
 - Contamination rate
 - Capture rate
 - Value of material disposed
- ▶ Hand-sorting recycling allowed additional analysis on participating cities including
 - Individual waste and recycling composition
 - Participating cities' capture rate

Data Analysis Limitations

Year over Year Comparison

- 2018 recycling data based on MRF audits
- 2019 recycling data based on hand-sort
- Cannot directly compare region-wide and participating cities capture rates

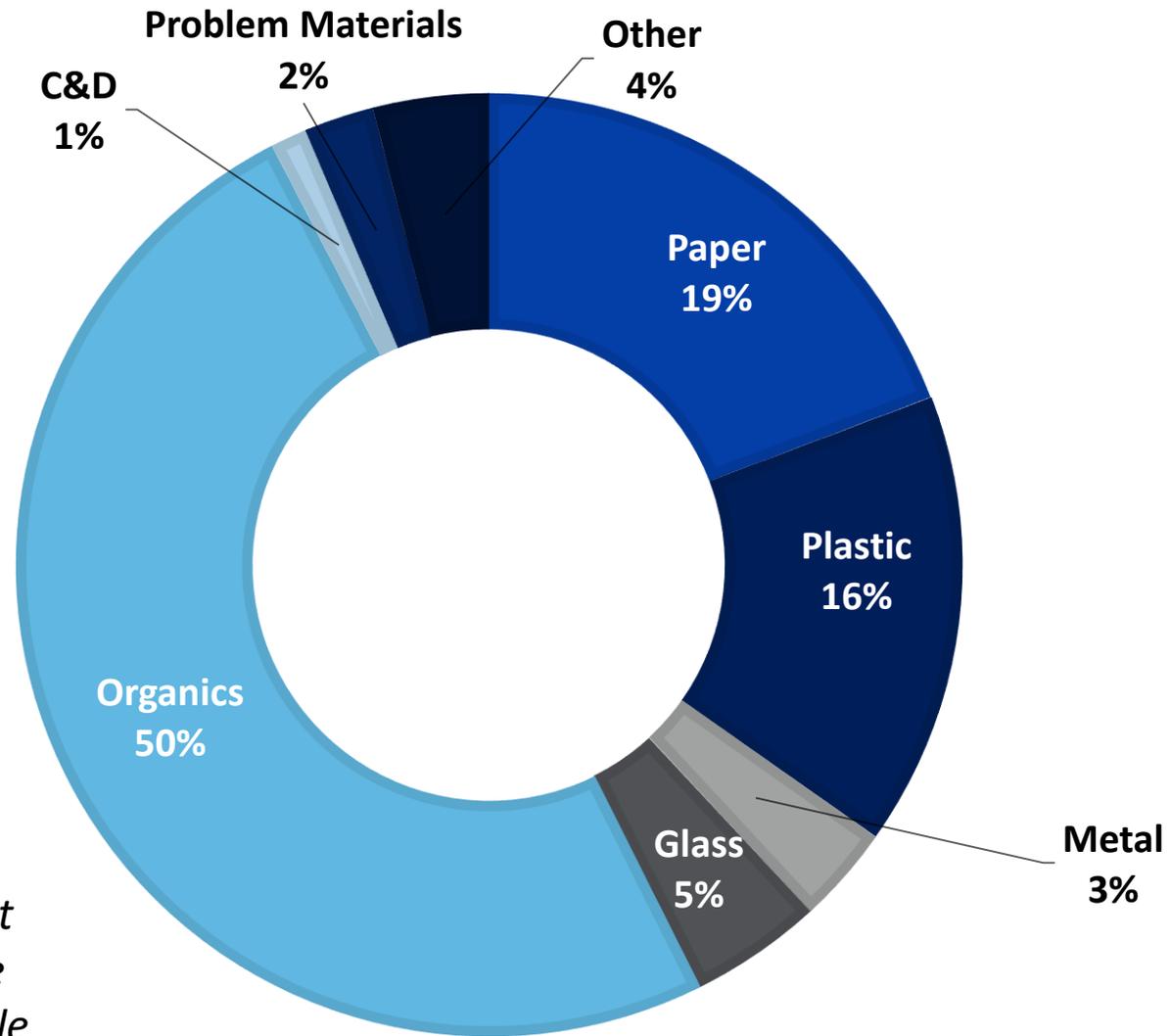
Extrapolating Data

- Individual city composition / capture rate cannot be extrapolated due to small sample size
- Hand-sorted recycling contamination higher than MRF audits

Effectiveness of Regional Campaign

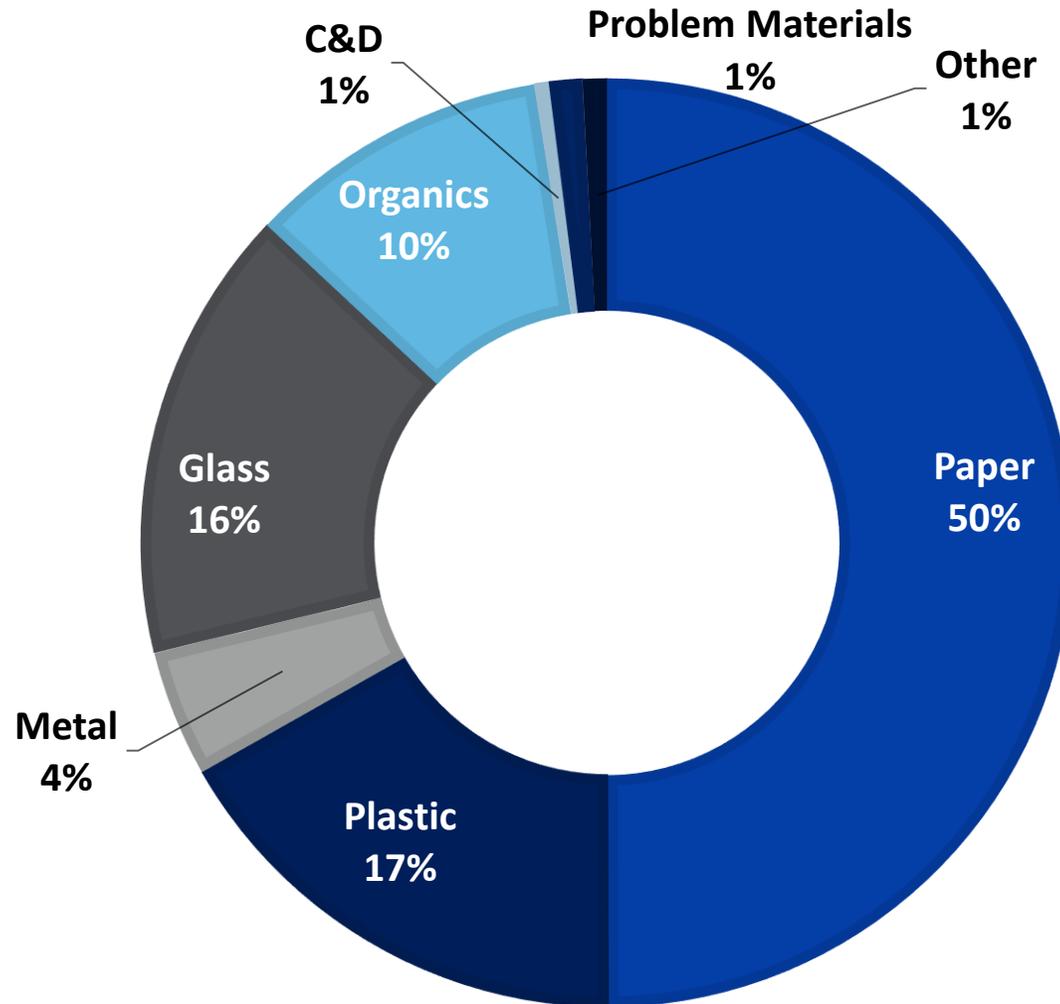
- Behavior change requires sustained campaign
- Individual cities adopting campaign critical
- Behavior change occurs at the source of recycling

2019 Regional Garbage Composition



Note: see handout for detailed waste composition profile

2019 Regional Recycling Composition



Note: see handout for detailed waste composition profile

Regional contamination rate ***estimated at 24%***. Included material categories

- Non-recyclable OCC
- Other non-recyclable paper
- Non-recyclable plastic*
- Non-recyclable glass
- Organics*
- C&D
- Problem material
- Fines and other organics

*higher percentage than typical MRF audit due to material category differences and handling

Overall Capture Rates

Capture Rate Methodology	Recycling	Garbage	Capture Rate
Participating Cities	3,526 lbs.	1,604 lbs.	69%
Regional	411,223 tons	967,176 tons	30%

- ▶ Weight of recyclables in recycling and garbage streams used to calculate overall capture rate
 - Participating cities capture rate sums material segregated during sorting event
 - Regional capture rate extrapolates garbage and recycling composition profiles across all material disposed/processed in North Central Texas
- ▶ Following slides present capture rate by material category for each methodology

2019 Participating Cities Capture Rate

Recyclable Material	2019 Participating Cities Capture Rate
Recyclable OCC	86%
Mixed Paper	65%
PET Containers	56%
HDPE Containers - Natural	65%
HDPE Containers - Colored	61%
#3-#7 Containers	35%
Aluminum Used Beverage Containers	63%
Ferrous Metal Food Containers	44%
Recyclable Glass	68%

Note: figures calculated by compiling total *weight of material segregated at the sorting event* – ***does not represent region-wide capture rate***

Regional Capture Rate Comparison

Recyclable Material	2018 Regional Capture Rate	2019 Regional Capture Rate	Year-over-Year Change
Recyclable OCC	60%	59%	-1%
Mixed Paper	41%	34%	-7%
PET Containers	22%	25%	3%
HDPE Containers - Natural	28%	28%	0%
HDPE Containers - Colored	30%	26%	-4%
#3-#7 Containers	14%	11%	-3%
Aluminum Used Beverage Containers	19%	26%	7%
Ferrous Metal Food Containers	18%	14%	-4%
Recyclable Glass	25%	34%	10%

Note: figures calculated by *extrapolating composition for garbage and recycling over total disposed and processed in region. Different analysis than sample-based capture rate*

Conclusions



▶ Regional composition indicates

- High levels of e-commerce packaging and clean pizza boxes in refuse stream
- #5 polypropylene (clamshell containers) significant portion of #3-#7 plastic
- High volume of organics present in refuse (50%) and recycling (10.5%)



▶ Regional capture rate comparison shows

- Improved capture of PET and aluminum between 2019 and 2019
- Increase focus on capture of HDPE and steel cans
- Hand-sorting recyclables provides more granular capture rate analysis



▶ Continued regional campaign and integration of content into individual city outreach will provide

- Improved capture rates of key materials over time
- Decreased contamination rates entering MRFs

Questions?

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City of Weatherford Regional Waste Minimization Evaluation

February 13, 2020

NCTCOG

Scott Pasternak



Regional Waste Minimization Evaluation

▸ Project Background

- The City of Weatherford, nearby communities, Parker County, and regional entities face current and future factors and challenges that will impact solid waste management:
 - Significant projected local and regional growth
 - Anticipated increases in material generation quantities
 - Limited regional landfill capacity
 - Increasing costs of disposal

▸ Project Purpose

- Evaluate interest in and feasibility of future regional options to increase waste minimization, recycling, and diversion, focused within Parker County

Regional Cities & Community Stakeholders

Cities

- ▶ Weatherford
- ▶ Aledo
- ▶ Annetta
- ▶ Annetta North
- ▶ Annetta South
- ▶ Hudson Oaks
- ▶ Springtown
- ▶ Willow Park

Community Stakeholders

- ▶ Weatherford ISD
- ▶ Aledo ISD
- ▶ Weatherford College
- ▶ Weatherford Downtown Business Alliance
- ▶ Medical City Weatherford
- ▶ Walsh (neighborhood)

Content of Evaluation Report



Section 1
Executive Summary



Section 2
Overview of Regional
Characteristics



Section 3
Summary of Current
Programs and Services



Section 4
Stakeholder Workshop
Summary



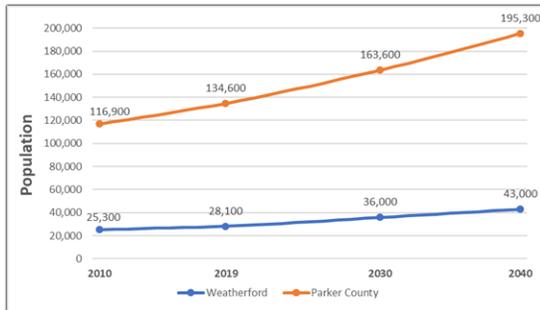
Section 5
Regional Options



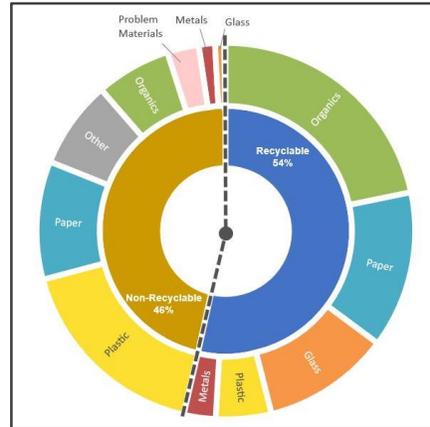
Section 6
Implementation Plan



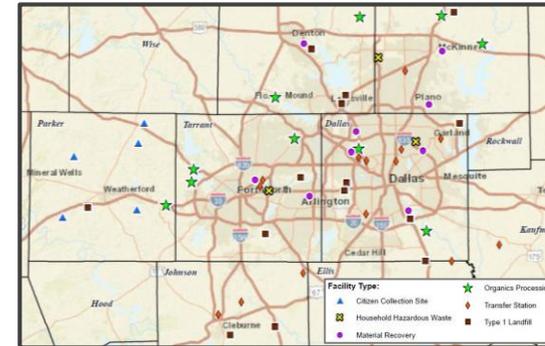
Overview of Regional Characteristics



Demographics



Diversion & Disposal

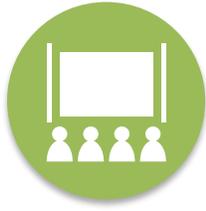


Regional MSW Facilities



Summary of Current Programs and Services

- ▶ Provided an overview of residential and commercial solid waste and recycling services currently provided by and for the following entities
- ▶ Developed through series of interviews with entities and public information searches



Stakeholder Workshop

► Intent of Workshop

- Bring regional stakeholders together to obtain input regarding potential program options through facilitated discussion

► Content

- Reviewed state of regional solid waste and recycling industry, current programs, and need for enhanced waste minimization, reduction, and diversion efforts
- Presented regional waste minimization options and gathered feedback from stakeholders regarding interest and priority

► Outcome

- Stakeholder feedback was utilized to further evaluate and prioritize final waste minimization options recommendations (Sections 5 & 6)



Regional Options

- ▶ Evaluated multiple strategies



Commercial waste
reduction & recycling



Citizens' Collection
Station (CCS)



Brush and yard
trimmings processing



Household Hazardous
Waste (HHW)



Regional
collaboration

- ▶ **For each option, the following is presented:**

- Program description
- Implementation considerations
- Key findings and recommendations



Implementation Plan

Implementation Plan					
Strategy Target	Strategy ID	Strategy	Timeline	Estimated Financial Impact	Waste Diversion/Minimization Impact
Commercial Waste Reduction & Recycling	1-1	Develop business recognition program and WRAP	Near-term	Low	Moderate
	2-1	Explore expansion of existing collection programs	Mid-term	Low	Moderate
	3-1	Develop commercial waste generation study	Mid-term	Moderate	Low

Strategy Target	Strategy ID	Strategy	Timeline	Estimated Financial Impact	Waste Diversion/Minimization Impact
Commercial Waste Reduction & Recycling	1-1	Develop business recognition program and WRAP	Near-term	Low	Moderate

Household Hazardous Waste	3-4	Explore opportunities for intergovernmental collaboration for mobile collection	Near-term	Variable	Moderate/High
	4-4	Explore opportunities for contracted at-your-door service options	Near-term	High	Moderate/High
	5-4	Explore grant funding through NCTCOG	Near-term/Ongoing	Moderate	N/A
Regional Collaboration	1-5	Continue collaborative contracting	Near-term	Low	Low
	2-5	Participate in NCTCOG Regional Recycling Survey and Campaign	Near-term	Low	Moderate
	3-5	Consider long-term strategic relationships among municipal entities	Long-term	Low	Moderate

Questions?

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Discussion Topics

8. Analysis of *Know What To Throw* Promotional Activities.

NCTCOG will discuss the results of the analysis conducted to determine the most cost-effective promotional activities for the *Know What To Throw* campaign.

DO YOU KNOW WHAT TO THROW?

Cost/Benefit Analysis for Paid Advertising

Brian Geck

North Central Texas Council of Governments

February 13, 2019



Recycle Campaign Advertising - Users By Location June-August 2019 -

Legend

- Movie Theater
- Billboard
- Passenger Rail Station
- Blue Line
- Green Line
- Orange Line
- Red Line

Community Impact Newsletter

- Community Impact Newsletter

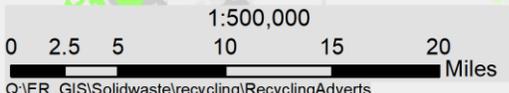
Users

By City

- 1 - 18
- 19 - 49
- 50 - 95
- 96 - 172
- 173 - 283
- 284 - 470
- 471 - 1158
- 1159 - 2201
- 2202 - 4613
- 4614 - 15411

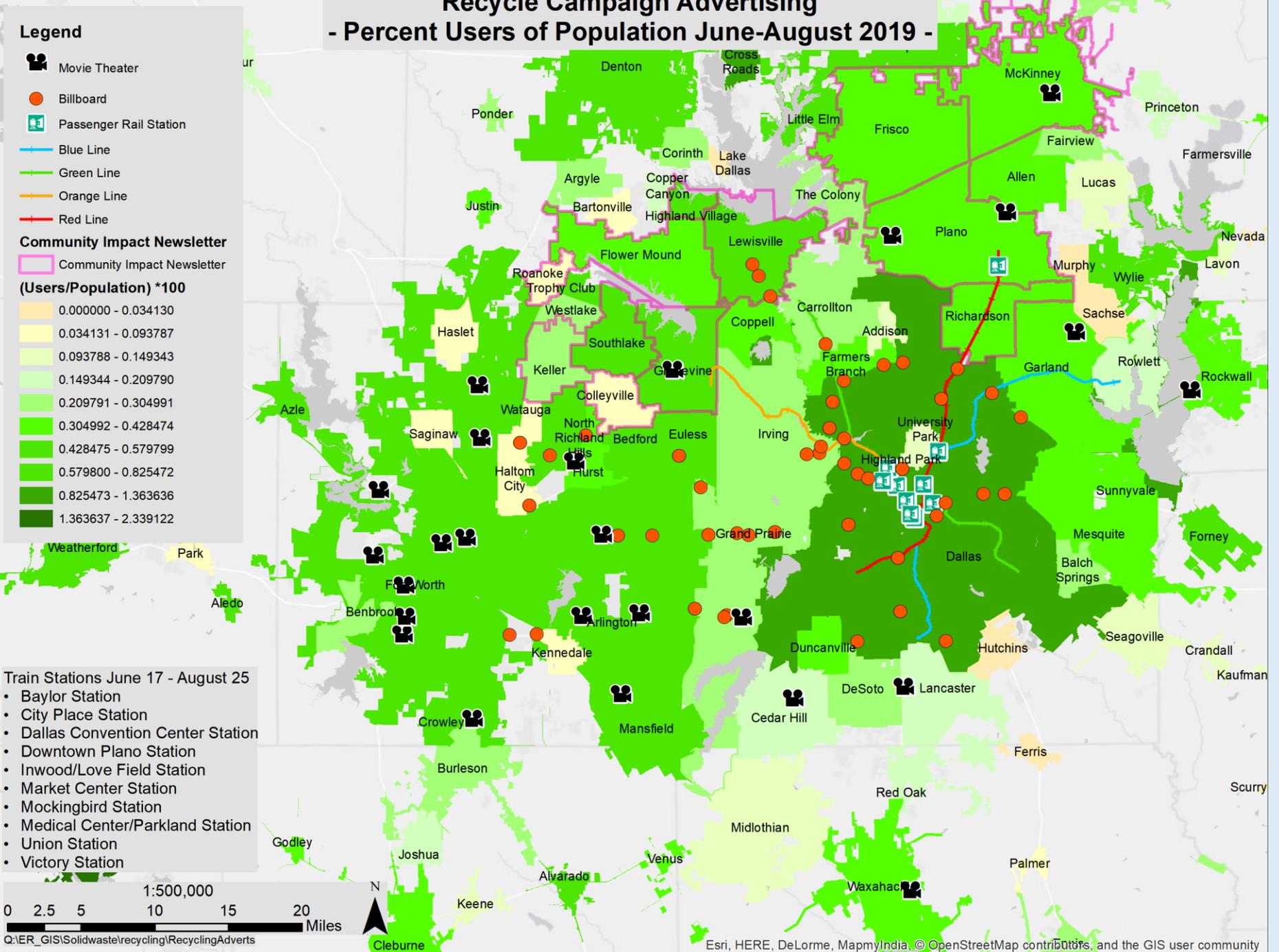
- Train Stations June 17 - August 25**
- Baylor Station
 - City Place Station
 - Dallas Convention Center Station
 - Downtown Plano Station
 - Inwood/Love Field Station
 - Market Center Station
 - Mockingbird Station
 - Medical Center/Parkland Station
 - Union Station
 - Victory Station

Not pictured:
 Dallas Bus Routes
 Fort Worth Bus Routes
 Dallas Morning News Newspaper
 Fort Worth Star-Telegram Newspaper



Q:\ER_GIS\Solidwaste\recycling\RecyclingAdverts

Recycle Campaign Advertising - Percent Users of Population June-August 2019 -



Legend

- Movie Theater
- Billboard
- Passenger Rail Station
- Blue Line
- Green Line
- Orange Line
- Red Line

Community Impact Newsletter

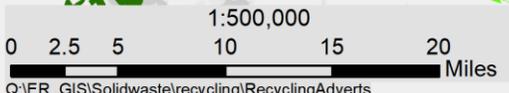
- Community Impact Newsletter

(Users/Population) *100

- 0.000000 - 0.034130
- 0.034131 - 0.093787
- 0.093788 - 0.149343
- 0.149344 - 0.209790
- 0.209791 - 0.304991
- 0.304992 - 0.428474
- 0.428475 - 0.579799
- 0.579800 - 0.825472
- 0.825473 - 1.363636
- 1.363637 - 2.339122

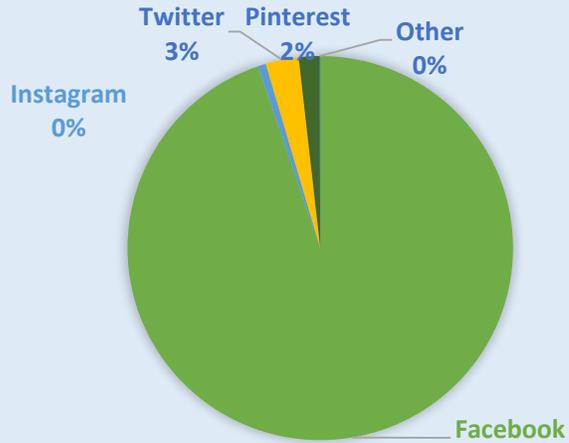
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 - Union Station
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Not pictured:
 Dallas Bus Routes
 Fort Worth Bus Routes/Benches
 Dallas Morning News Newspaper
 Fort Worth Star-Telegram Newspaper
 Radio

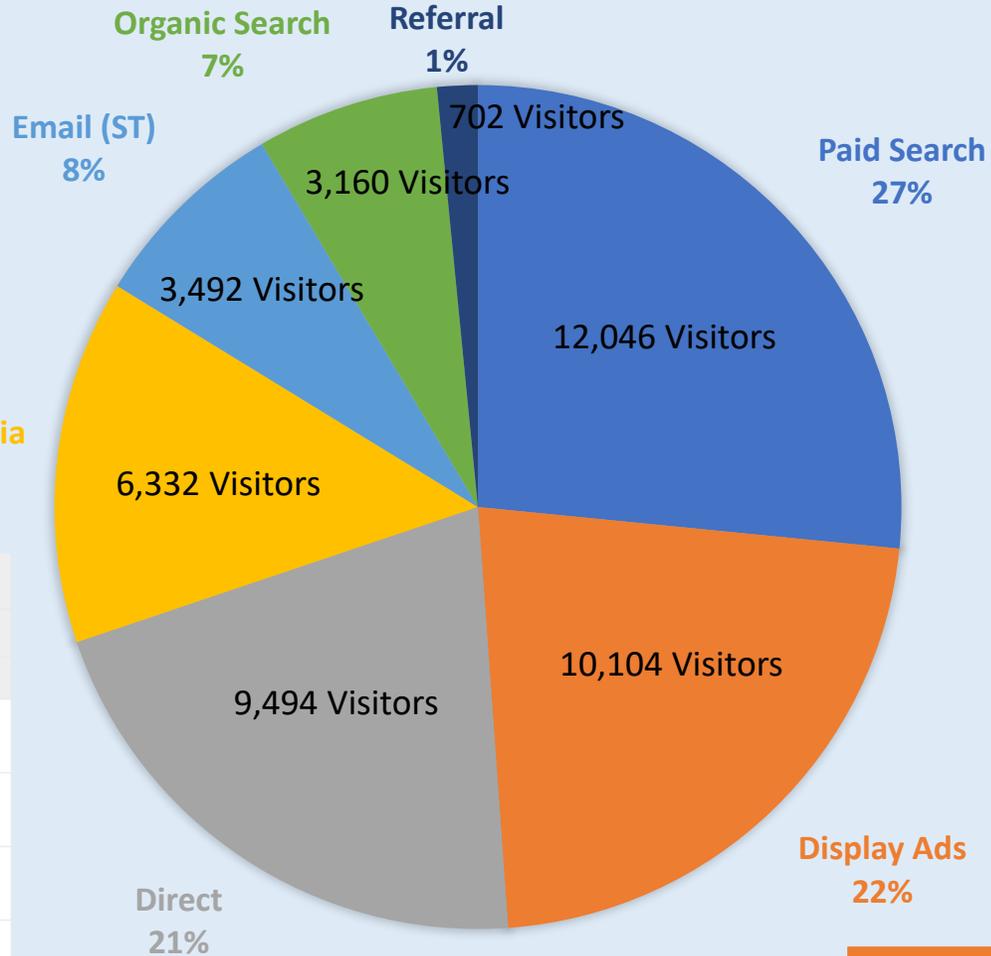


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Top Website Traffic Sources



Social Media
14%



Acquisition			
	Users	New Users	Sessions
	45,028	44,893	52,894
1 Paid Search	12,046		
2 Display	10,104		
3 Direct	9,494		
4 Social	6,332		
5 Email	3,492		
6 Organic Search	3,160		
7 Referral	702		

Display Ads
22%



45,028 Users

*June 1, 2019 through August 31, 2019

June 1 – August 31, 2019

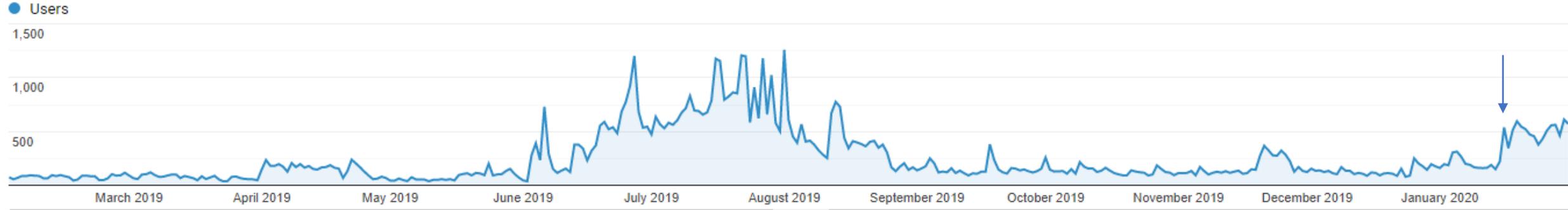
Cost analysis for traffic to www.TimeToRecycle.com

Platform	Spend	Users to TTR	Est. Cost/User
Google Paid Ads	\$11,307.41	12,320	\$0.13 – \$2.45
Facebook Paid Ads	\$766.86	5,782	\$0.43 – \$10.00
Twitter Paid Ads	\$1,795.38	175	\$1.80 – \$26.32
Dallas Morning News Digital	\$16,000	8,502	\$1.88
Fort Worth Star-Telegram Digital	\$14,000	4,751	\$2.95
All digital Mediums	\$43,869	31,530	\$1.39
Dallas Morning News - Print	\$24,000	2,801 – 12,695*	\$1.89 – \$8.57
Fort Worth Star-Telegram - Print	\$15,868	2,840 – 12,695*	\$1.25 – \$5.59
Community Impact Newsletter (Print)	\$15,610	1,719 – 4,343	\$3.59 – \$9.08
Movie Theatres	\$95,250	5,647 – 12,695*	\$7.50 – \$16.87
Radio	\$33,940	12,695*	\$2.67
Billboards	\$95,478	12,695*	\$7.52
DART Bus Wraps/Rail Wraps/Posters	\$47,000	2,801 – 12,695*	\$3.70 – \$16.78
Fort Worth Bus Wraps/Benches	\$21,050	2,840 – 12,695*	\$1.66 – \$7.41
All Non-digital Mediums	\$348,195	12,695*	\$27.43

*12,695 is the total number of unaccounted/unknown traffic to the website, this includes all direct traffic and organic search Traffic across the whole region. If shown, the smaller number is unaccounted/unknown traffic that is geographically filtered relevant to that medium.

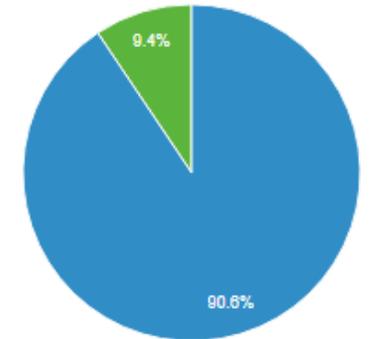
Users vs. Select a metric

Hourly Day Week Month



Users 83,001	New Users 81,891	Sessions 95,902	Number of Sessions per User 1.16	Pageviews 151,259
Pages / Session 1.58	Avg. Session Duration 00:00:57	Bounce Rate 76.32%		

■ New Visitor ■ Returning Visitor



On January 16th the Recycling Partnership started running Facebook Ads driving traffic to TimeToRecycle.com.



Time To Recycle

Published by Hootsuite [?] · December 27, 2019 ·

Confused on what to recycle after the holidays? Here is an infographic to help guide you through some tricky items. Learn more at TimeToRecycle.com!

#RecyclingGuide #Infographic #KnowWhatToThrow

Holiday Recycling Guide

During the holiday season, 25% more waste is produced in the United States (compared to the rest of the year), resulting in an extra 5 million tons of garbage!

- Your recycling bin hates glitter and metallic items! Any gift wrap, ribbons or holiday cards cannot be recycled.
- Christmas lights are considered tangles, and can wrap around the recycling facility's equipment, causing significant problems. If lights are beyond repair, throw them in the trash or find an organization that can recycle them!
- Plastic bubble wrap can be deflated and recycled with plastic bags. Take them back to retail stores with drop off locations!
- You cannot throw your ornaments in the recycling bin!
- Break down and flatten your cardboard boxes before recycling! Most cities will not recycle them if you leave them out on
- Did you know you can recycle your natural tree? Before you can recycle your tree, make sure you remove all lights, tinsel,

4,349 People Reached

508 Engagements

Boost Unavailable

Performance for Your Post

4,349 People Reached

173 Reactions, Comments & Shares

112 Like	10 On Post	102 On Shares
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2 Love	0 On Post	2 On Shares
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1 Haha	0 On Post	1 On Shares
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14 Comments	0 On Post	14 On Shares
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44 Shares	43 On Post	1 On Shares
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335 Post Clicks

225 Photo Views	2 Link Clicks	108 Other Clicks
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NEGATIVE FEEDBACK

1 Hide Post	0 Hide All Posts
0 Report as Spam	0 Unlike Page

Reported stats may be delayed from what appears on posts

Questions?

Brian Geck

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Discussion Topics

9. NCTCOG Updates:

- Tire Disposal Meeting and Next Steps
- Recycle Roundtable
- *Know What To Throw*
- Request for Proposals
 - Regional Waste Disposal Capacity Study
 - Third Waste Characterization Assessment
- Illegal Dumping Conference
- Electronics Recycling Project
- Regional Solid Waste Management Plan
- Stormwater Project – Regional Clean-Up Competition

Other Business

10. Future agenda items

11. Roundtable topics

12. Next Meeting Date:

Wednesday, May 20, 2020 at 1:30 p.m.

Metroplex Conference Room

NCTCOG Offices, CP11, First Floor

616 Six Flags Drive, Arlington, TX 76011

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