Quality of Life Committee

Council Member Robert Gallegos, Chair Council Member Abbie Kamin, Vice-Chair









City of Houston

Solid Waste Management Department





AGENDA

- Cart Tagging Intro
- Objectives
- Methodology
- Results
- Action Items
- Questions





Cart Tagging Campaign



- In 2021, The Recycling Partnership, HGAC and TCEQ partnered with SWMD to implement a cart tagging campaign with Cascadia Consulting Group.
- Goal: to reduce the contamination of residential single-stream recycling.
- Target contamination reduction 30%



Cart Tagging Announcement

- Public Announcement Release 4/28/21
- Social Media Campaigns Begin





Direct Mail Piece

materials collected in the single-stream curbside recycling program. The education project is funded by a grant from The Recycling Partnership and a solid waste reduction grant provided by the Houston-Galveston Area Council from the Texas Commission on Environmental Quality.

The cart-tagging recycling education program will provide residents personalized and real-time feedback on the contents of their recycling cart. It is intended to educate residents on how to



March 28, 2021

Objective of Capture Rate Studies

- 1. Study recycling behavior
- 2. Evaluate contamination patterns
- 3. Characterize recyclable commodities not being effectively captured
- 4. Measure the effects of communication and outreach campaigns to reduce contamination



Methodology







April 2021 - Pre-Capture Rate Study

October 2021 - Post-capture rate study

| | Week 1 | | | | | | Week 2 | | | | | |
|---------------|--------|------|------|------|------|------|--------|------|------|------|------|------|
| | Mon. | Tue. | Wed. | Thu. | Fri. | Sat. | Sun. | Mon. | Tue. | Wed. | Thu. | Fri. |
| NWMO-A-09 | 12 | | | | | | | | | | | |
| SWTU-A-04 | | 12 | | | | | | | | | | |
| SWTH-A-02 | | | | 12 | | | | | | | | |
| NETH-A-01 | | | | 12 | | | | | | | | |
| SEFR-A-01 | | | | | 12 | | | | | | | |
| NWFR-A-03 | | | | | 12 | | | | | | | |
| Sort Only Day | | | | | | Sort | | | | | | |
| NWMO-B-08 | | | | | | | | 12 | | | | |
| SWMO-B-04 | | | | | | | | 12 | | | | |
| NETU-B-04 | | | | | | | | | 12 | | | |
| SWTU-B-02 | | | | | | | | | 12 | | | |
| Sort Only Day | | | | | | | | | | Sort | | |
| SETH-B-09 | | | | | | | | | | | 12 | |
| NEFR-B-01 | | | | | | | | | | | | 12 |

Field Team Collected & Measured Samples

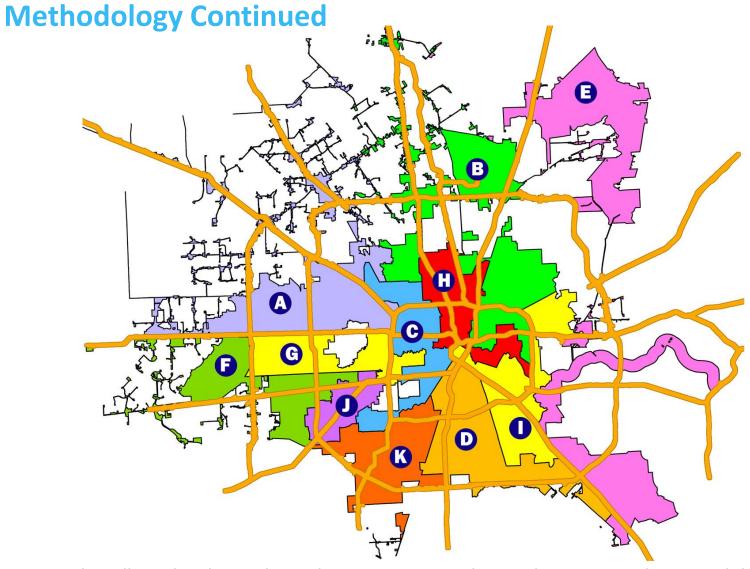


Characterized 31 waste stream materials

| Material | Estimated Percent | Estimated Lbs/HH/wk | |
|--|----------------------|------------------------|--|
| Food | 28.7% | 14.4 | |
| Other | 19.6% | 9.9 | |
| Yard waste | 13.8% | 6.9 | |
| Unacceptable paper | 9.9% | 5.0 | |
| Glass bottles and jars | 4.8% | 2.4 | |
| Film and flexible packaging | 4.4% | 2.2 | |
| Textiles and shoes | 2.4% | 1.2 | |
| Unacceptable plastic and related materials | 2.3% | 1.2 | |
| Mixed Paper | 2.1% | 1.1 | |
| PET Beverage Bottles | 1.3% | 0.7 | |
| al for Top Materials | 89.4% | 44.9 | |



Tagging Process

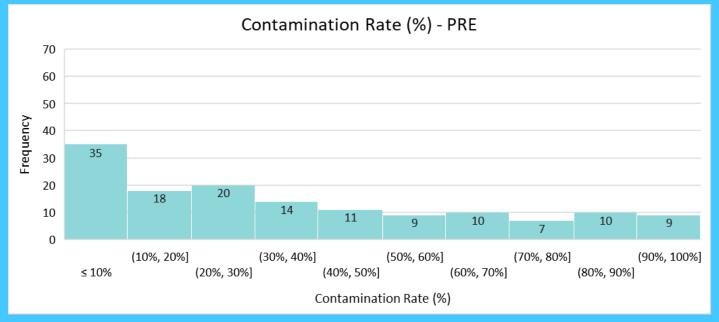


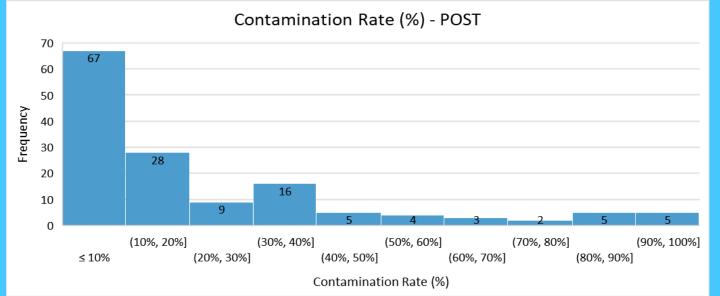
Cascadia collected and sorted samples over two 2-week periods; one in April 2021 and the other in October 2021. The study planned for a total of 144 garbage and recycling samples each round.

Results

- The overall average household capture rate increased by a relative difference of 13% from pre- to post-treatment.
- The overall average household contamination rate decreased by a relative difference of 31% from preto post-treatment.

Results





NOTE: There is a fair shift of household contamination rate between the pre and post-campaign sampling events, with roughly more households performing in the <10-40% range rather than the higher ranges of 50-100%.

Department Action Items

- Marketing Campaign
 Establish monthly education campaign.
- Social MediaIncrease social media presence
- HTV Education Videos
 Work with partners to develop video clips
- Community Outreach
 Increase community education
- Resource Recovery Implementation Committee
 Small and large quantity commercial recycling
 programs
- 6 Enhance Route Management
 Truck route management system and educational tools



