



# 2019 multiunit recycling evaluation

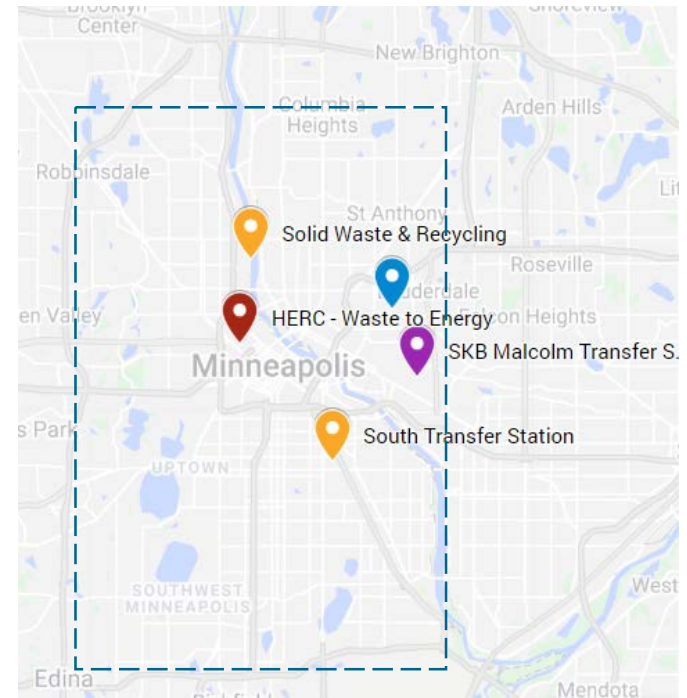
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Minneapolis Solid Waste & Recycling



# Division overview

- Population: 425,000
- City SW&R customers: 107,000 dwelling units
  - Some residential parks, City buildings, small businesses, and larger apts. who opt-in to city service
  - Half serviced by City crews, half by a consortium – MRI
  - semi-automated trucks with 2 person crew

- Solid Waste & Recycling
- South Transfer Station
- HERC - Waste to Energy
- Eureka Recycling
- SKB Malcolm Transfer Station
- SET Empire Composting Fac...



# Division Overview

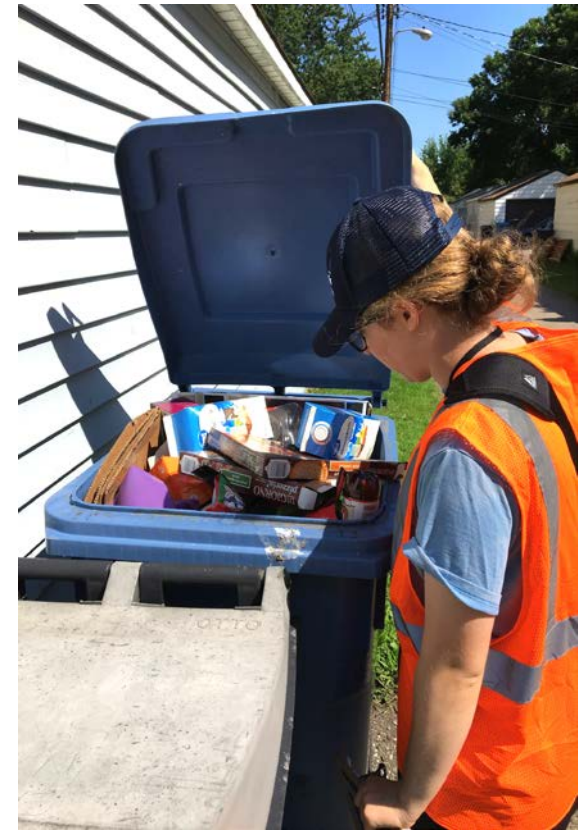
## Services Provided (1-4 unit buildings):

- Garbage (weekly)
- Recycling (every other week)
- Organics Collection (weekly)
- Large Item Collection (weekly)
- Yard Waste (Apr. – Nov.)
- Clean City Services:
  - CleanSweeps
  - Litter Clean-Up Supplies
  - Adopt-A-programs
  - Graffiti Abatement
- Voucher Program
- Event Recycling Services



# Background 2019 project

- 2018 intern project
  - Piloted picture based recycling tag
  - Cart checking
  - Door-knocking
- Found several city-serviced multiunit properties without recycling carts
- Assumed tenants didn't think they could request recycling carts



# 2019 project overview

- Verify if worthwhile to reach properties who do not have recycling
- City serviced 4 or more unit buildings who do not have recycling (278 properties)
- Contact to sign up
  - Mail and cart hanger
  - Resident vs. utility bill or tax payer
- Cart checking
- Door-knocking
- Follow up survey



# Sign up summary

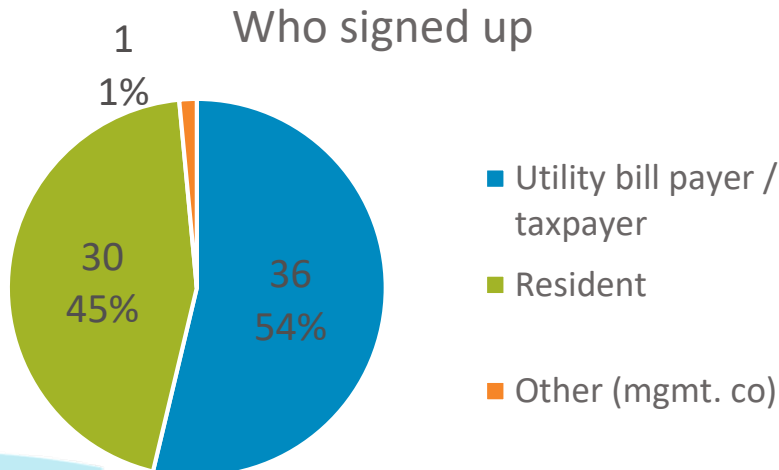
1 month after mailing:

- 45 properties had signed up for a recycling cart (16.2% of target)
- Left cart hangers on all other properties
  - 5 sign-ups while leaving cart hangers
  - 35 properties found to share collection points (12.5% of target)
- Residents infrequently requested educational materials for their whole building.



Sign up method	# of properties signed up	% of total signups	% of targeted properties
Direct mail	47	70.1%	16.9%
Cart hanger	13	19.4%	4.7%
In person	7	10.4%	2.5%
<b>Total signups</b>	<b>67</b>		<b>24.1%</b>

Who signed up



5 properties had carts removed by end of pilot. 92.5% (62) maintained successful recycling programs.

# Cart checking

- Carts checked 3 collections in a row when recycling carts requested
  - Monitored for contamination (ranked 1-4)
  - Tracked how full carts were
  - Added “no plastic bag” stickers if warranted and container labels on top of cart if faded
  - Left “order another cart” hanger when carts were full

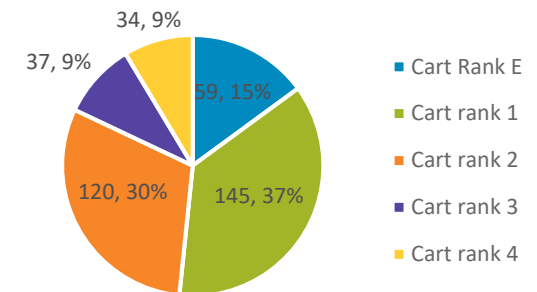
Rank	How full				Total	# carts of recycling
	25%	50%	75%	100%		
1	31	17	8	29	85	51.25
2	18	14	8	48	88	66.5
3	18	10	11	46	85	63.75
4	4	5	3	11	23	16.75
Empty					59	197.25

180.5 carts of clean recycling (ranked 1 or 2) diverted during pilot. At 20 lbs/cart, if the program is maintained, each property would divert 608 lbs each year.



No plastic bag stickers left on 54 (80.6% of properties)

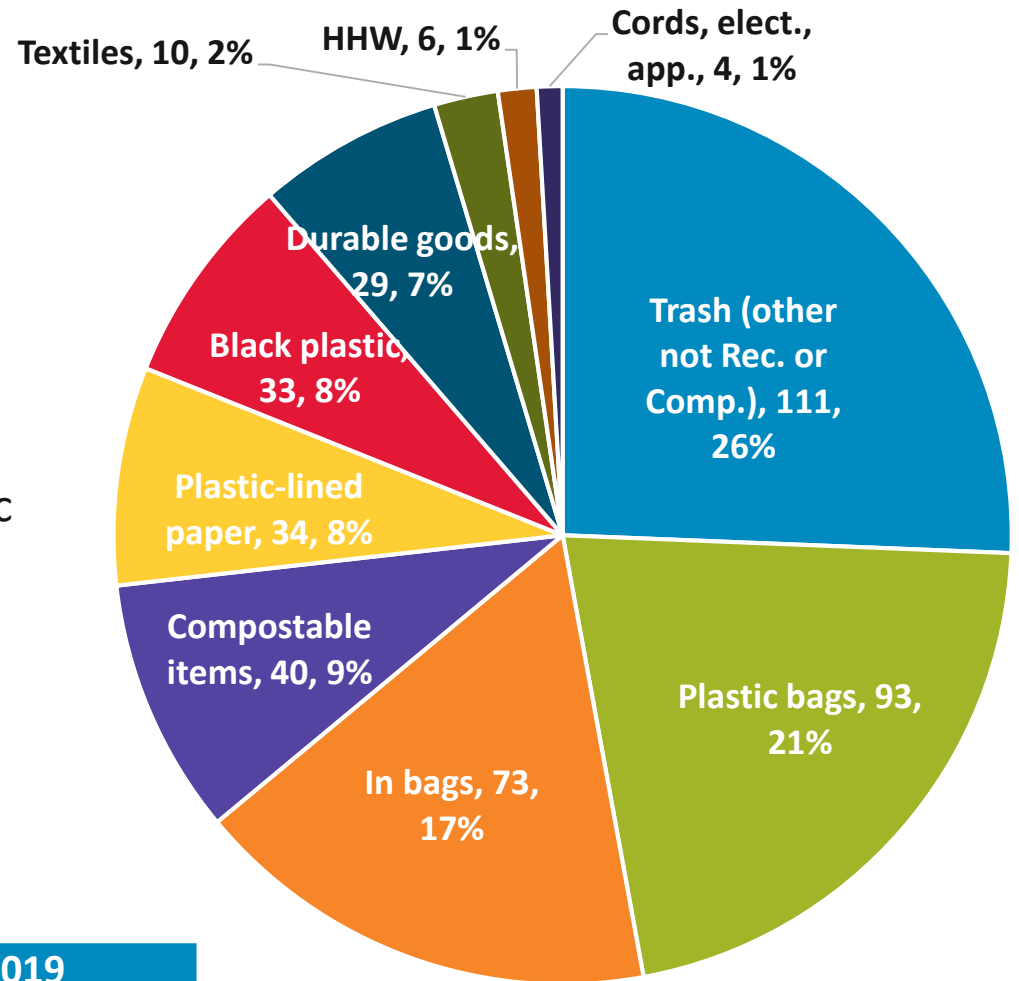
## Overall cart rankings



78.9% of carts checked (empty excluded) contained 0-3 pieces of contamination.

# Contamination

- Trash highest category.
  - 2<sup>nd</sup> highest in 2018.
- Plastic bags second highest.
  - Highest in 2018.
- Plastic lined paper and black plastic counted separately from 'trash' category.
  - Included in trash category in 2018.



Material	2018	2019
Trash	26%	26% (42%*)
Plastic bags and film	30%	21%
Bagged recyclables	10%	17%
Compostable items	19%	9%
Durable goods	7%	7%

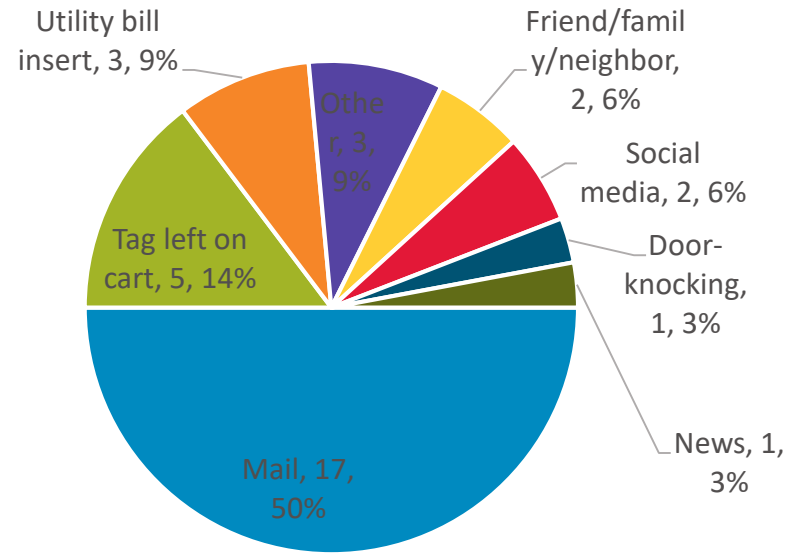
\*2019 Trash total of 42% includes plastic-lined paper and black plastic that were counted separate in 2019.



# Follow up survey

- Mailed to all who signed up for a cart on 8.5.19
  - 67 buildings = 264 units
- Included incentive of a chance to win one of 5 \$20 Target gift cards for returning completed survey by 8.30.19.
- Received 18 total surveys back (6.8%)
- Survey questions evaluated:
  - How resident learned could sign up for recycling cart
  - How and why they recycle
  - What they have/have not recycled since getting the cart
  - How they get information on recycling

How have you received recycling information in the past 3 months?

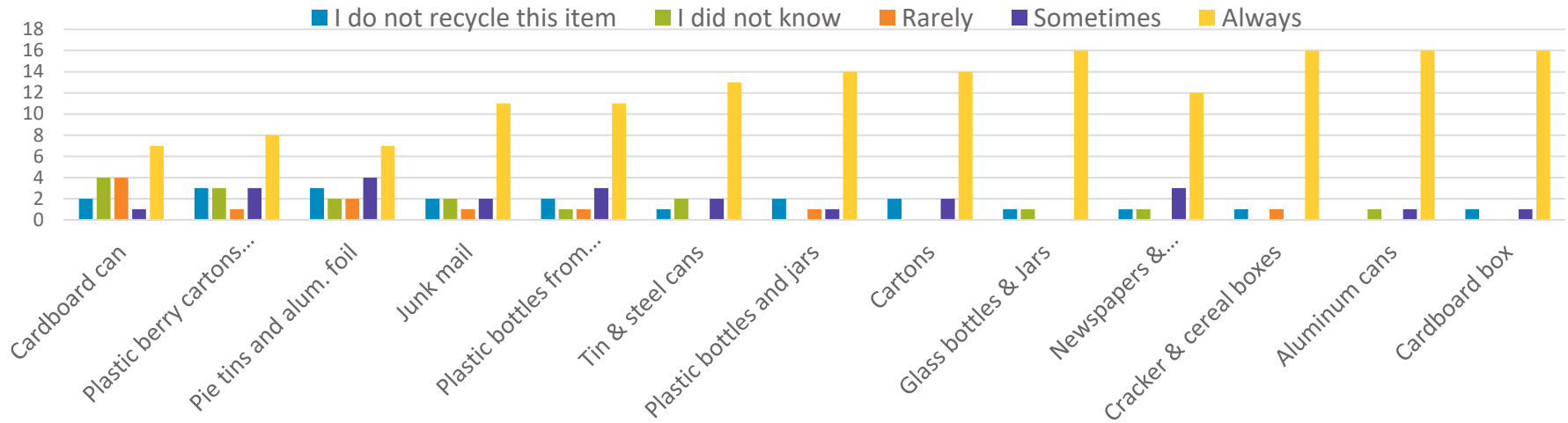


How do you store recycling inside your house before bringing it to your cart?



# Follow up survey (cont.)

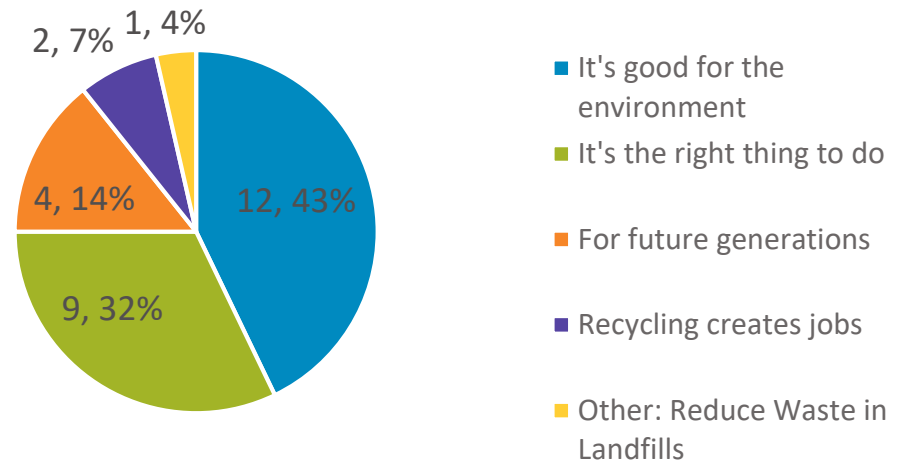
These items are recyclable. How often do you recycle the following items?



Top non-recyclable items respondents have put in recycling in past 3 months:

1. Paper plates
2. Napkins and paper towels
3. Foam items
4. Clothes hangers
5. Drinking glasses and plates
6. Plastic bags

What is the # 1 reason you recycle?



# Educational efforts

- Door-knocking at multiunits is difficult
  - Less likely to get someone to open shared locked entry door and less likely to have the educational materials reach all tenants.
- Education and outreach to tenants and owners is important. Direct mail should be used for this type of outreach.
- Residents are frustrated about losing recycling from others placing contaminants in their cart.
- “No plastic bag” stickers are effective at reducing plastic bag usage (especially in combination with an educational tag).

# End results

- 67 properties signed up; 62 maintained recycling program for tenants (92.5% retention).
- 79% of carts contained less than 3 pieces of contamination.
- 3,945 pounds (181 carts of clean recycling diverted) during pilot
  - Equates to **increased diversion of over 15.8 Tons per year** if program is sustained at current levels by the 62 buildings.
- YES! It was worth the time to reach out to these properties.

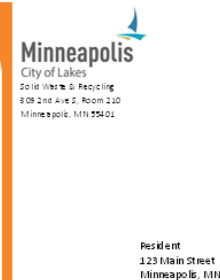
# Reaching all without recycling

- Mailed a postcard to all properties with SW&R service that do not have recycling in Oct 2019

- Single family 2,237
- 2-3 unit 1,207
- 4 or more units 216

- As of 5/18:

- 503 buildings (742 dwelling units) now have recycling
- 669 carts delivered; only 33 removed for continued contamination



# Questions?

## 2019 multiunit recycling evaluation

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