



City of Saint Paul *Recycle it Forward*

*A comprehensive assessment of
recycling and waste management*

Prepared for the City of Saint Paul

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Introduction

In order to meet ambitious statewide goals for a significant reduction in landfilled waste, the state of Minnesota has proposed that communities in the Twin Cities metro area recycle 60 percent of their waste and divert 15 percent of waste for organics recycling by 2030. With existing data suggesting that the Twin Cities region currently recycles about 40 percent of its waste and diverts about 4 percent for organics recycling¹, the City of Saint Paul contracted with Wilder Research in 2012 to conduct a comprehensive assessment of their recycling and waste management system and explore opportunities for greater recycling, composting, and waste reduction. The assessment aims to further the City's understanding of recycling and waste disposal knowledge, behavior, and preferences among Saint Paul residents, to identify the most effective strategies to meet these waste reduction and diversion goals.

The key questions driving this study are:

- What do Saint Paul residents want and need in a recycling and solid waste management program?
- What are the barriers to participation in recycling and waste management programs in Saint Paul?
- What are the community's priorities for recycling and solid waste management programs? What is residents' willingness to pay for these programs?
- Are there any suggested improvements or changes to the existing recycling and solid waste management programs offered?

This assessment, consisting of a mailed survey of residents, six focus groups with residents, and 13 key informant interviews with knowledgeable key stakeholders in the field, addresses issues related to trash, recycling, organics, and bulky items. This study aims to inform programs and policies in Saint Paul as they strive to improve their recycling and waste management services and programs, with the ultimate goals of better meeting resident needs and preferences and reaching statewide waste reduction and diversion targets.

¹ Metropolitan Solid Waste Management Policy Plan 2010, prepared by the Minnesota Pollution Control Agency in consultation with the Metropolitan Counties. Available at: <http://www.pca.state.mn.us/index.php/view-document.html?gid=15714>

Survey methods

An address-based sample of 7,000 Saint Paul residents was purchased from Marketing Systems Group, a national sampling vendor. An address-based sample was chosen so that all households would have an equal chance of being sampled for the study.

The proposed data collection methodology was a modified Dillman approach, which includes an initial survey packet mailing, followed by a reminder postcard two weeks later and another survey packet mailing two weeks after that.

The first survey packet was mailed to the random sample of 7,000 Saint Paul households on February 15, 2013. The mailed survey packets included a cover letter, survey instrument, and a postage-paid return envelope. The cover letter informed residents of the option to call Wilder Research and complete the survey over the phone. In addition, the cover letter included messages in Spanish, Somali, and Hmong to inform residents that Wilder staff speak those languages and that they could call the appropriate language-specific phone number to complete the survey in their language. The survey was not translated into any other languages, but bilingual interviewers were available to translate the survey on the fly to administer it to Spanish-, Somali-, or Hmong-speaking residents who called in to complete the survey.

Wilder Research sent a reminder postcard on March 1, 2013 to sampled households who had not yet completed the survey. Prior to sending the final survey packet, Wilder Research had already received more than the target of 700 completed surveys. Therefore, the mailing sequence was truncated prior to sending the final survey packet. A total of 1,285 completed surveys were received prior to the close of data collection in late March. Returned surveys were coded and checked for completion and accuracy.

To ensure that the survey data are representative of the population of adults living in Saint Paul, the data were adjusted using post-stratification weighting based on:

- Housing status (rent vs. own)
- Housing structure (detached single family home vs. other structure)
- Household location (City of Saint Paul wards)
- Household size (single-person household vs. 2+ person household)

The data were weighted against 2010 U.S. Census counts (for household location), U.S. Census Bureau 5-year (2007-2011) estimates (for housing status and household size), and 2011 IPUMS data (for housing structure). The maximum weight was 2.7, meaning that no single respondent represents more than 2.7 residents in the dataset used for analysis.

Participants

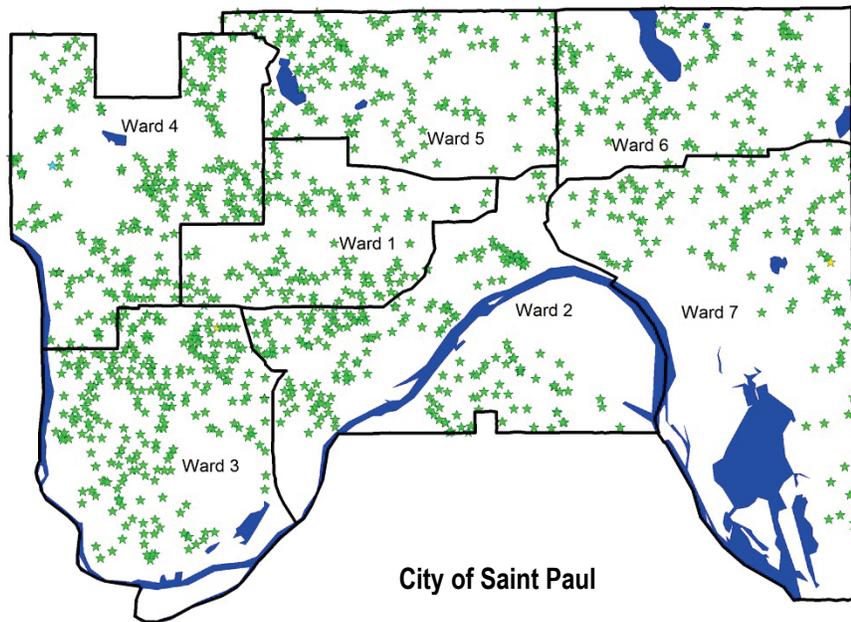
Resident survey participants

The mailed self-administered surveys were completed by 1,285 residents across Saint Paul's seven wards. The overall response rate was 18 percent (Figure 1). Respondents were fairly evenly distributed across the wards, as shown on the map below (Figure 2).

1. Survey response rates

Saint Paul City Wards	Number sampled	Number completing the survey	Response rate
Ward 1	909	133	14.6%
Ward 2	1,172	213	18.2%
Ward 3	1,159	263	22.7%
Ward 4	1,036	247	23.8%
Ward 5	929	160	17.2%
Ward 6	835	129	15.4%
Ward 7	921	130	14.1%
All Survey Respondents	7,000	1,285	18.4%

2. Map of respondent locations



Three-fifths of respondent households contain two or more adults and one-quarter have one or more children living with them (Figure 3). Three-fifths of respondents are 45 or older, including one-fifth who are 65 or older. One-fifth of respondents are people of color, including 7 percent African American, 5 percent Asian, 3 percent Hispanic or Latino, and 4 percent of other or multiple racial identities. Almost one-third of respondent households earned less than \$25,000 in 2012 and one-quarter earned between \$25,000 and \$50,000.

Typical of surveys using this methodology, survey respondents disproportionately represented older, white, and English-speaking residents. To ensure an accurate representation of the Saint Paul population in reported survey results, survey data presented in the remainder of this report are weighted (as described in the “Methods” section above). As shown in Figure 3, the demographics of the weighted survey data closely resemble the overall population in Saint Paul.

3. Survey respondents

	Respondent population (weighted)		City population	
	N (respondents)	Percent	N (households)	Percent
Saint Paul City Wards				
Ward 1	167	13%	14,379	13%
Ward 2	212	17%	18,490	17%
Ward 3	211	17%	18,232	16%
Ward 4	190	15%	16,554	15%
Ward 5	170	13%	14,856	13%
Ward 6	160	13%	13,855	12%
Ward 7	168	13%	14,642	13%
Housing type				
Single-Family	623	49%	54,931	50%
Multi-Family	644	51%	55,844	50%
Household type				
Single adult, no children	446	37%	40,683	36%
2+ adults, no children	474	39%	39,531	35%
Single adult with 1+ children	49	4%	7,438	7%
2+ adults with 1+ children	250	21%	24,230	22%
Household income				
Under \$25,000	361	31%	31,439	28%
\$25,000 – \$49,999	307	26%	28,306	25%
\$50,000 – \$74,999	194	17%	20,698	19%
\$75,000 - \$99,999	119	10%	12,531	11%
\$100,000 or more	194	16%	18,908	17%

Data sources for City counts: Ward counts are based on the 2010 Census: U.S. Census Bureau, Decennial Census, 2010.

Housing type is based on 2011 IPUMS: Steven Ruggles, J. Trent Alexander, Katie Genadek, Ronald Goeken, Matthew B. Schroeder, and Matthew Sobek. Integrated Public Use Microdata Series: Version 5.0 [Machine-readable database]. Minneapolis: University of Minnesota, 2010.

Household type, household income, head of household race/ethnicity, and head of household age are based on ACS 5-year estimates: U.S. Census Bureau, American Community Survey, 2007-2011.

3. Survey respondents (continued)

	Respondent population (weighted)		City population	
	N (respondents)	Percent	N (households)	Percent
Respondent race/ethnicity^a				
White or Caucasian (non-Hispanic)	997	80%	75,793	68%
All people of color	253	20%	36,089	32%
Black or African American	94	7%	15,877	14%
Asian	63	5%	9,364	8%
Multi-Racial/Other	56	4%	10,848	1%
Hispanic or Latino	40	3%	7,673	7%
Respondent age				
18-24 ^b	58	5%	9,170	8%
25-44	444	36%	46,704	42%
45-64	495	40%	39,563	35%
65+	240	19%	16,445	15%
All households	1,285		111,882	

^a The total number of household heads of color is the difference between the total number of household heads and the number of white non-Hispanic household heads. Census data report Hispanic/Latino ethnicity separately from race. For census numbers, Hispanic/Latino heads of household could be of any race and the race categories (except for white) include those of Hispanic/Latino ethnicity. For our survey analysis, all race categories are non-Hispanic.

^b The lowest category for Age of Householder in the U.S. Census is ages "Under 25," while survey respondents were required to be 18 or older. The number of households headed by residents under age 18 is assumed to be very low.

Key stakeholders

The following key stakeholders were interviewed:

Ginny Black, MN Pollution Control Agency	Todd Kolod, former Mac Groveland community council board member
Tim Brownell, Eureka Recycling	Keith Kruppeny, Keith Kruppenny & Sons
Wayne Gjerde, MN Pollution Control Agency	Jane McClure, Saint Paul resident/volunteer
Zack Hansen, Ramsey County	Carl Michaud, Hennepin County
Mike Harley, Environmental Initiative	Peder Sandhei, MN Pollution Control Agency
Rich Hirstein, Republic Services	Kevin Tritz and Anne Ludvik, Specialized Environmental Technologies, Inc.
Julie Ketchum, Waste Management	

In addition to being highly knowledgeable in their field, most of these key stakeholders are also residents of Saint Paul. Key stakeholders were asked questions in their areas of expertise from an interview instrument addressing issues of recycling, organics, bulky waste management, and trash collection. The interview instrument is shown in the Appendix.

Focus group participants

Wilder Research conducted a series of six focus groups, one with representatives of the Saint Paul District Councils, and five with different groups of Saint Paul residents. These focus groups were conducted with the help of four partner organizations (shown in parentheses).

- Hmong homeowners (Hmong American Partnership)
- Somali renters (CommonBond)
- Recent Latino immigrants (Our Lady of Guadalupe)
- Recent Karen immigrants (Karen Organization of Minnesota)
- English-speaking renters

Resident focus groups addressed issues of littering, recycling, composting, and bulky waste disposal. The protocols are shown in the Appendix. The District Council focus group notes were analyzed with the key stakeholder interview notes due to the instruments' similar focuses and the respondents' similar perspectives. The characteristics of the focus group participants are shown in Figure 4.

4. Focus group participants

	N (participants)	Percent
Language		
English	16	19%
Karen	17	20%
Latino	20	24%
Somali	14	16%
Hmong	18	21%
Participant Gender		
Female	50	61%
Male	32	39%
Participant Education		
Some high school or less	30	39%
High school graduate/GED	11	14%
Some college/technical school	10	13%
Associate's degree/certificate	7	9%
Bachelor's degree	11	14%
Some graduate school or more	8	10%
Participant age		
18-24	13	15%
25-44	33	39%
45-64	24	29%
65+	14	17%
Participant race/ethnicity		
White or Caucasian (non-Hispanic)	13	16%
Black or African American	14	18%
Asian	34	43%
Hispanic or Latino	19	24%
Number of children in household		
0	30	36%
1 – 2	26	31%
3 - 4	14	17%
5+	13	16%
Household income		
Under \$25,000	49	65%
\$25,000 – \$49,999	14	19%
\$50,000 – \$74,999	5	7%
\$75,000 - \$99,999	4	5%
\$100,000 or more	3	4%

Findings

Findings from the resident survey, focus groups, and key stakeholder interviews are presented in the following sections, organized by topic (recycling and waste reduction, organics, bulky waste and litter, and trash collection). As a package, these findings point to a need for a comprehensive overhaul of Saint Paul’s recycling and waste management system, of which this study is an essential first step.

Exploring a system that was on the leading edge just two decades ago, in a City with a zero waste goal and a great deal of pride in its role as a leader in innovative environmental stewardship, this study turned up significant enthusiasm among residents and key stakeholders for a revival of their recycling and waste management system. To make Saint Paul a leader once again, they called for some exciting new services that have become available elsewhere in the region (like single-sort recycling and curbside compost collection), to be combined with the great recycling education and hands-on hauler relationship that they value in their current system. To pair these new services with an expansion of the already above-average recycling education and outreach in Saint Paul, key stakeholders said, would reignite resident excitement and energy around reducing, reusing, and recycling.

Findings based on the resident survey and focus group data aligned extremely well with the insights and suggestions of the 13 key stakeholders, and point to the following six recommendations to reinvigorate Saint Paul’s recycling and waste management system:

1. Launch a major educational and promotional campaign to inform residents and reinvigorate their enthusiasm around recycling, composting, and waste reduction.
2. Expand and simplify the selection of plastics collected for recycling.
3. Transition to a single-sort recycling collection system with wheeled, lidded carts.
4. Transition to a source-separated organics (SSO) collection system (curbside or alley), paired with expanded education on food waste prevention and backyard composting.
5. Diversify bulky waste management to offer more convenient reuse and disposal options.
6. Coordinate trash collection to lower costs, reduce truck traffic, and design trash pricing to incentivize recycling.

Each of these recommendations will be discussed in greater detail in the sections that follow.

Recycling and waste reduction

Key findings

- 99 percent of Saint Paul residents participate in at least one waste reduction behavior, such as saving leftovers (80%) and using refillable water bottles and mugs (76%).
- 96 percent of residents participate in the recycling program.
- Recycling rates are highest (80% or above) for items that have been recyclable for years, while newly recyclable items (milk cartons, juice boxes, and pizza boxes) and clothing are recycled at lower rates.
- Problems with or unavailability of recycling bins present the most significant barriers to recycling for residents in both single- and multi-family housing.
- 7 in 10 residents served by the curbside program say their current City-provided recycling bin meets their recycling needs. Bin availability and capacity are the main shortcomings of the current bin system.
- More than 9 in 10 residents rated their curbside recycling service as excellent (62%) or good (31%).
- 71 percent of residents in multi-family housing said their building has enough recycling carts, but recycling cart availability and adequacy varies widely across city wards (as low as 41 percent in one ward).
- Key stakeholders identified several strengths of the current recycling system, most notably the program's unique educational component and the City's historically strong partnership with the hauler toward a shared goal (zero waste).
- Key stakeholders recommended a multi-dimensional system overhaul, with three recommendations specifically related to recycling:
 1. Launch a major educational and promotional campaign to inform residents and reinvigorate their enthusiasm around recycling (relates to other sections as well, but discussed primarily in this section).
 2. Expand and simplify the selection of plastics collected for recycling.
 3. Transition to a single-sort recycling collection system with wheeled, lidded carts.

Waste reduction

The majority of Saint Paul residents said they participate in one or more waste reduction behaviors, from saving leftovers to using reusable bags and bottles, and from purchasing durable, used, or bulk items to repairing items instead of replacing them (Figure 5). Only 1 percent of households said they participate in none of these waste reduction activities. However, only about 3 in 10 households said they rent or borrow infrequently used items instead of purchasing them (32%) or exchange or buy used items online (29%).

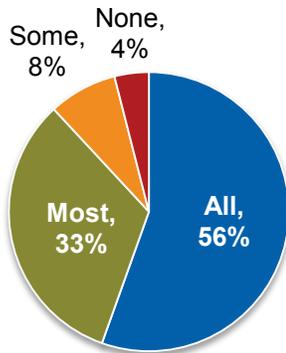
5. In which of the following waste reduction practices do you and others in your household participate? (N=1,285)



Recycling participation

Nearly all Saint Paul residents (96%) said they recycle at least some of their household's recyclable waste, and about 9 in 10 said they recycle at least most of it (Figure 6).

-
6. What proportion of your household's recyclable waste do you recycle?
(N=1,260)

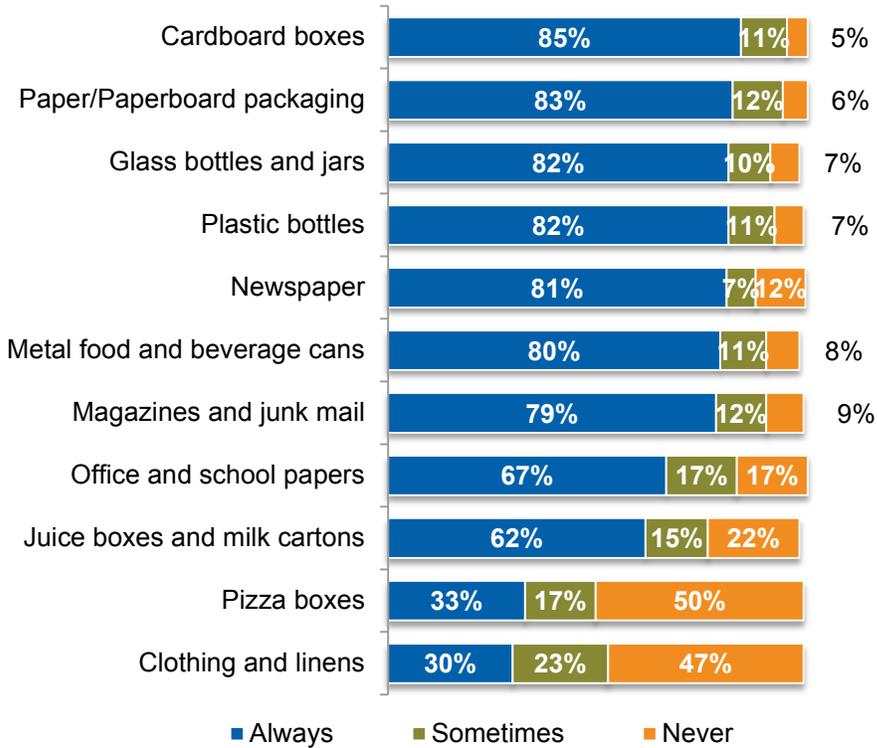


Residents under age 25, Black/African American residents, and Hispanic/Latino residents were least likely to recycle, with 15-20 percent reporting that they recycle none of their recyclable materials. Residents over age 64 were most likely to recycle, with 71 percent saying they recycle all of their recyclable materials. Residents in multi-family housing were less likely than single-family residents to say they recycle all of their recyclable materials (51% compared to 61%), and recycling rates tended to increase with income.

Most residents (80% or more) say they always recycle the materials that have been recyclable for many years, such as cardboard boxes, paper products, plastic and glass bottles, and metal food and beverage cans (Figure 7). Recycling rates were lowest for pizza boxes (50% never recycle them), clothing and linens (47%), and juice boxes and milk cartons (22%).

These items have all become recyclable recently, and residents' most common reason for not recycling them was a lack of knowledge that they were recyclable. About 3 in 10 residents did not know clothing/linens and pizza boxes are recyclable, and 1 in 10 did not know juice boxes and milk cartons are recyclable. A significant minority of residents also said they never recycle office and school papers (17%) and newspaper (12%), but the most common reason for not recycling these items was never having those items in their homes. Very few residents said they choose not to recycle any of these recyclable items, with the exception of clothing, which 10 percent of residents said they choose not to recycle.

7. How often does your household recycle each of the following items?
(N=1,233-1,281)



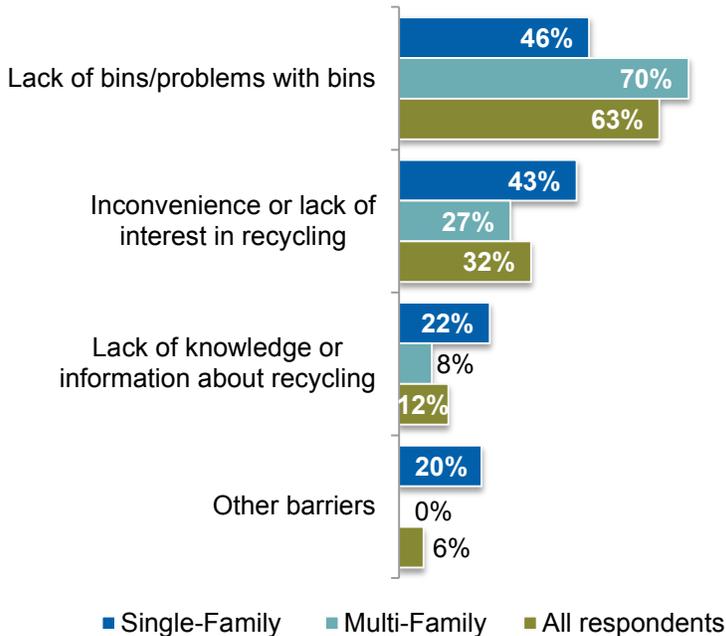
In general, recycling rates of each recyclable item were highest among residents of Wards 3 and 4 and residents living in single-family homes. Recycling rates of these items increased with both age and income, with particularly low rates among residents under age 25 and households with incomes under \$25,000 per year. Recycling rates were lowest among single adults (especially those with children), residents of color (especially Black/African American residents), Ward 5 residents, and residents in multi-family housing.

For clothing/linens and pizza boxes, however, there were relatively few differences in rates among the different resident groups. Recycling rates of clothing and linens increased with age, and residents of Ward 7 were particularly likely to recycle clothing and linens. Residents of multi-family housing were more likely to recycle pizza boxes than single-family residents (in contrast to all other recyclable items). For both pizza boxes and clothing/linens, recycling rates were lowest among Ward 5 residents.

Among the 50 residents who said they recycle none of their recyclable materials, the most common barriers were a lack of recycling bins or problems with recycling bins (63%), inconvenience or their lack of interest in recycling (32%), and the lack of knowledge or information about recycling (12%) (Figure 8).

Residents in multi-family housing were more likely to cite the unavailability of or problems with bins as a barrier, while residents in single-family housing were more likely to note the inconvenience, their lack of interest in recycling, and their limited knowledge about recycling.

8. Barriers to recycling (open-ended) (N=45)



Note: Based on responses to resident survey question 1B in the appendix.

Barriers to recycling among new Karen immigrants

Barriers to recycling participation are different among new Karen immigrants, for whom the entire waste management system is unfamiliar. For these residents, the barriers to recycling are:

- limited understanding of where trash and recycling go and why we should recycle
- lack of access to recycling service, tools, or information on how to get them
- lack of information on the features and requirements of recycling service
- limited literacy (even in their native languages) to read informational materials

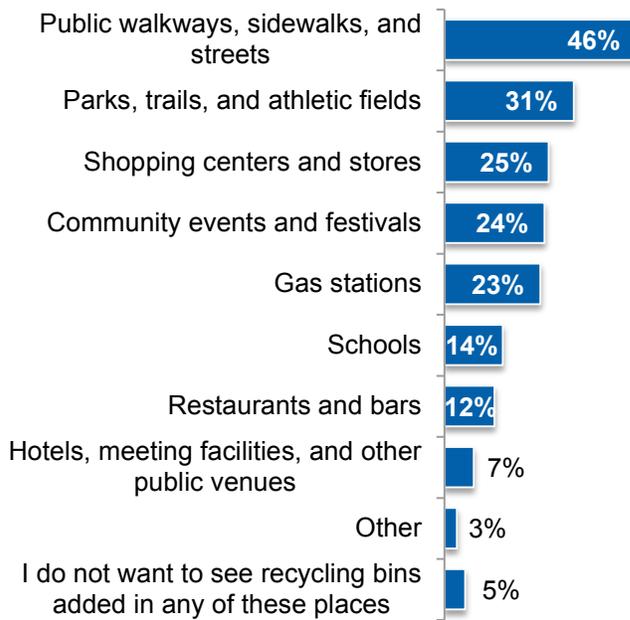
Many Karen residents who participated in this study believed that trash thrown in dumpsters would be taken to a facility and sorted to remove recyclable and reusable items. Focus group participants requested more information about recycling and waste management, and suggested that the City deliver this information via:

- Employers of Karen residents
- Pictures on trash cans and recycling bins
- Demonstrations of proper behavior on TV commercials

Recycling away from home

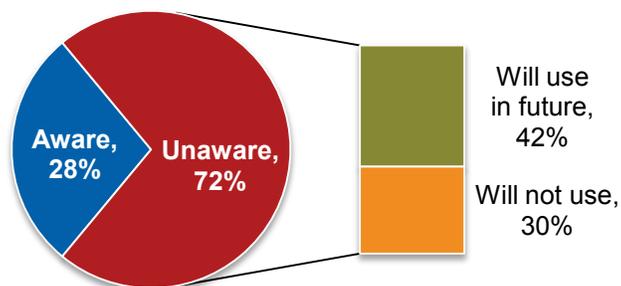
Nearly half of residents would like to see additional recycling bins in public walkways, sidewalks, and streets, and about one-third would like to see more bins near parks, trails, and athletic fields (Figure 9). About one quarter would like to see bins added in shopping centers/stores, community events/festivals, and gas stations.

9. In which two of the following locations in the city would you like to see additional recycling bins? (N=1,122)



Just over one-quarter of residents were aware of the recycling drop-off center at 309 Como Avenue (Figure 10). Awareness was highest among Ward 5 residents (41%) and Asian residents (40%), and lowest among residents under age 25 (9%) and single parents (14%). Two-fifths of residents said they will use this site now that they know about it.

10. Awareness of and willingness to use recycling drop-off site (N=1,272)

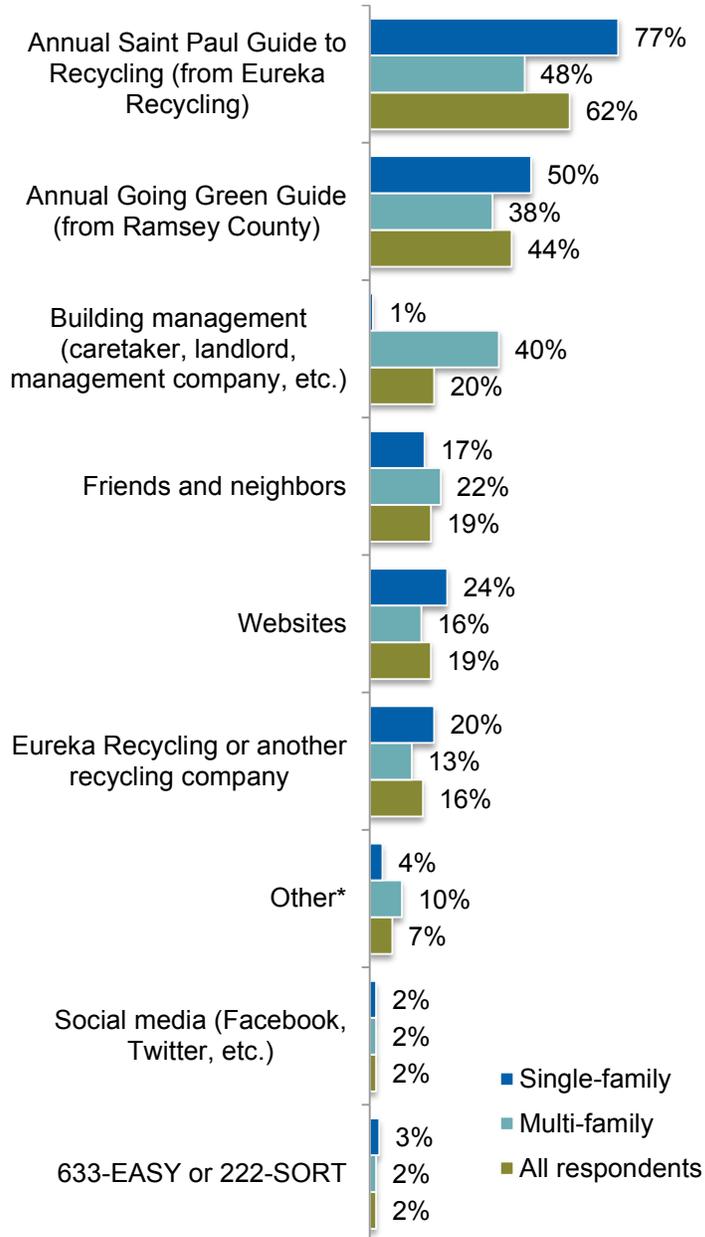


Note: Based on responses to resident survey question 4A-4B in the appendix.

Recycling communication and outreach

Most residents (62%) said they get their information about recycling services from the Annual Saint Paul Guide to Recycling, produced by Eureka Recycling (Figure 11). About 2 in 5 get information from the Ramsey County Going Green Guide (44%), and 1 in 5 get information from their building management, friends and neighbors, and websites.

11. How do you get information about recycling services in your neighborhood or building? (N=1,243)



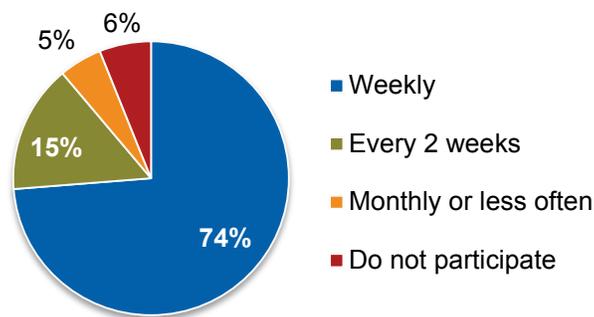
* Other responses included: in information received from any sources (26), mailings - flyers or pamphlets (13), district/ community councils (4), local/neighborhood newspapers (4), nonprofit or direct service organizations (4)

Single-family residents, residents over the age of 64, and residents with incomes over \$100,000 made the most use of the written recycling guides, while low-income residents, residents under 25, residents of color, and residents in multi-family housing tended to report greater use of friends, neighbors, and building management.

Curbside recycling (single-family homes and smaller apartment buildings)

About three-quarters of residents served by the curbside recycling program (including residents in single-family housing and multi-family buildings with fewer than 12 units) said they participate in the curbside recycling program every week (Figure 12). Another 15 percent said they take their recyclable materials to the curb every two weeks.

12. How often does your household place your recyclable materials on the curb for pick-up? (N=820)



The lowest curbside recycling participation rates were reported among Black/African American residents (72%), Hispanic/Latino residents (78%), residents under age 25 (78%), households with incomes under \$25,000 (83%), and single parents (84%). Residents in small multi-family buildings and residents of Wards 1, 5, and 6 also had relatively low rates of participation (88-90%) compared to single-family residents (96%) and residents of the other wards (95-100%).

Among the 50 nonparticipants in the curbside recycling program, the most commonly cited barrier was a lack of recycling bins or problems with their bins (noted by two-fifths of nonparticipants) (Figure 13). One-fifth of nonparticipants mentioned their lack

Recycling among Hmong homeowners

Hmong homeowner focus group participants expressed an understanding of the societal and environmental benefits of recycling, and noted that reuse and recycling are cost-effective on the individual and societal levels. They said that recycling is encouraged and valued in the Hmong community.

Focus group participants said that most Hmong residents recycle, but some do not understand the importance of recycling. They noted several barriers, including:

- Many have large families, stretching the capacity of the blue bins. They need multiple bins or larger bins, and going to pick up the bins is a hassle.
- Sorting is time-consuming.

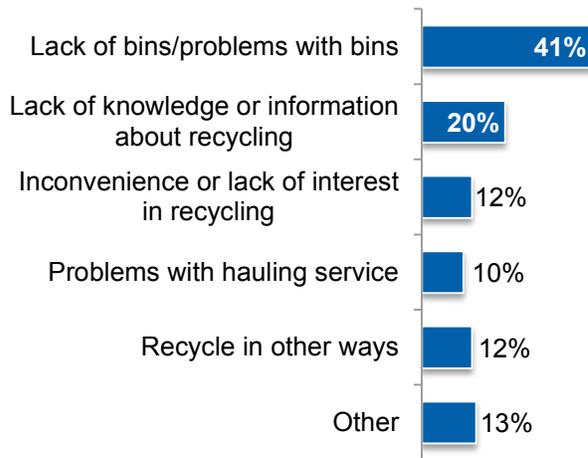
Many Hmong residents do not know which items are recyclable, and are especially confused about milk containers and pizza boxes.

To address these barriers, focus group participants recommended:

- More/larger bins, with a different bin for each sorting category, that should be delivered to residents' homes.
- Incentives to encourage households to recycle.
- Pictures on the bins to illustrate recyclable items.
- A community class to teach the community about recycling.

of knowledge or information about recycling, while about 1 in 10 cited the inconvenience or their lack of interest in recycling or problems with the hauling service. Another 1 in 10 said they recycle in other ways.

13. Barriers to curbside recycling participation (open-ended) (N=50)



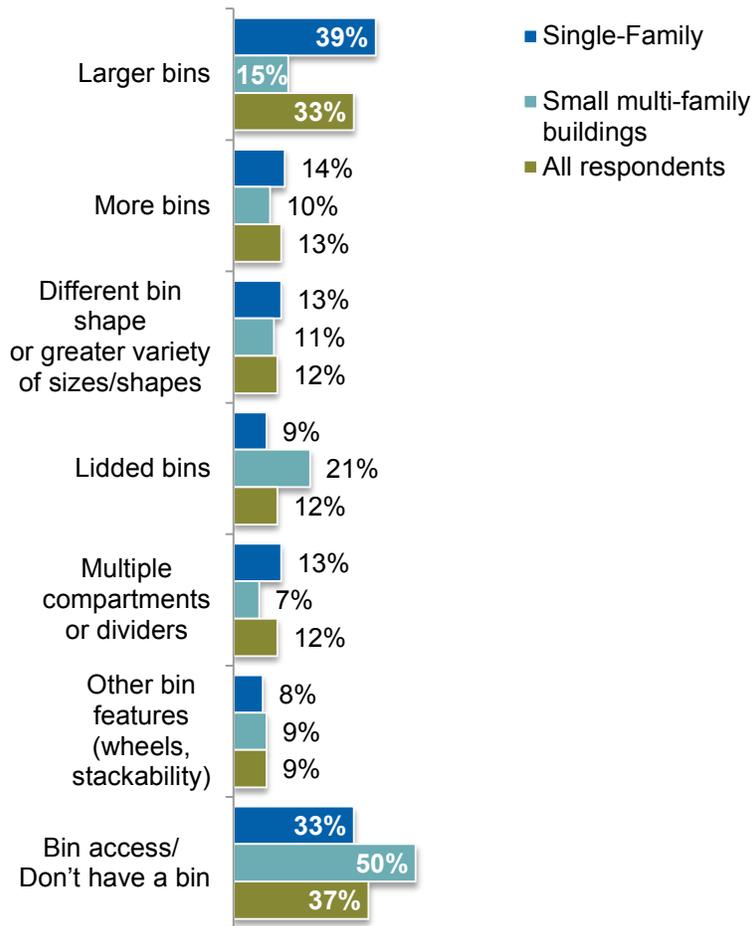
Note: Based on responses to resident survey question 7B (open-ended) in the appendix.

Seven in 10 residents said the city-provided blue recycling bin meets their household’s recycling needs. The blue bins were least likely to meet the needs of Asian residents (50%), Hispanic/Latino residents (59%), Black/African American residents (61%), two-parent families with children (62%), residents between the ages of 25 and 44 (62%), and households with incomes under \$25,000 (63%). Nearly 9 in 10 residents over the age of 65 said the current bins meet their household’s recycling needs. Residents of single-family and small multi-family buildings were equally likely to say the bin meets their household’s recycling needs.

Among those residents who said the current blue bin does not meet their needs, many residents said they need (or do not have) a bin (37%), would like a larger bin (33%), or would like more bins (13%) (Figure 14). Other suggested bin features were different bin shapes or a greater variety of shapes for different purposes (12%), lids for the bins (12%), bins with multiple compartments (12%), and a number of other features including wheels and stackability (9%).

Bin size was a greater concern for single-family residents (39%), while residents of small multi-family buildings were more likely to say they do not have a bin (50%) and to request bins with lids (21%). Families with children were more likely to request larger bins, while residents of Ward 1 and Ward 3 were most likely to say they do not have a bin (56% and 60%, respectively).

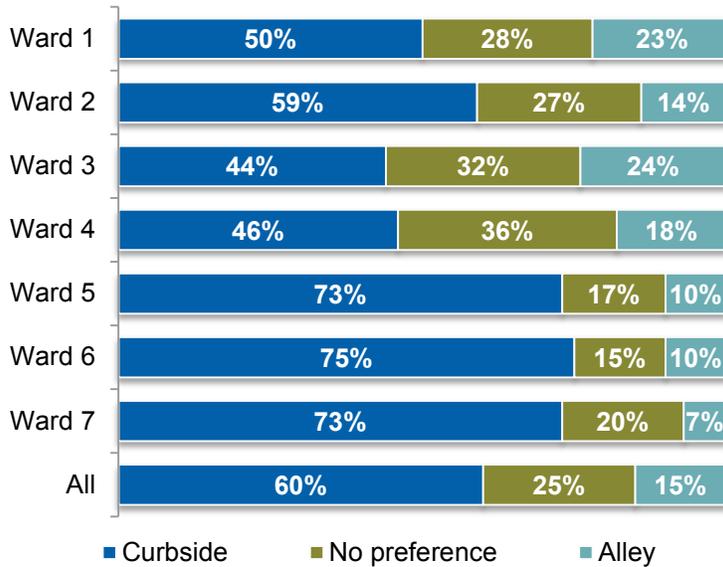
14. Suggestions for improvement of curbside recycling bin (open-ended) (N=209)



Note: Based on responses to resident survey question 8B in the appendix, which was asked only of residents who said the current blue bin does not meet their needs.

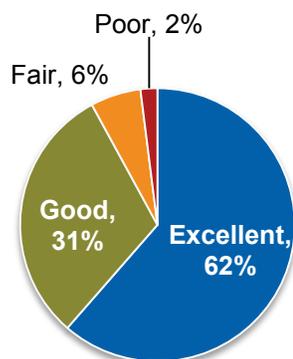
Most residents (60%) said they prefer to have their recycling picked up from their curbside, as is currently the standard in Saint Paul (Figure 15). One-quarter of residents said they have no preference, and 15 percent said they would prefer alley pick-up. The preference for curbside pick-up was strongest among residents under age 25 (83%), residents of Wards 5, 6, and 7 (73-75%), Black/African American residents (73%), and households with incomes under \$25,000 (71%).

15. Would you prefer to have your recycling picked up from your alley or your curbside? (N=818)



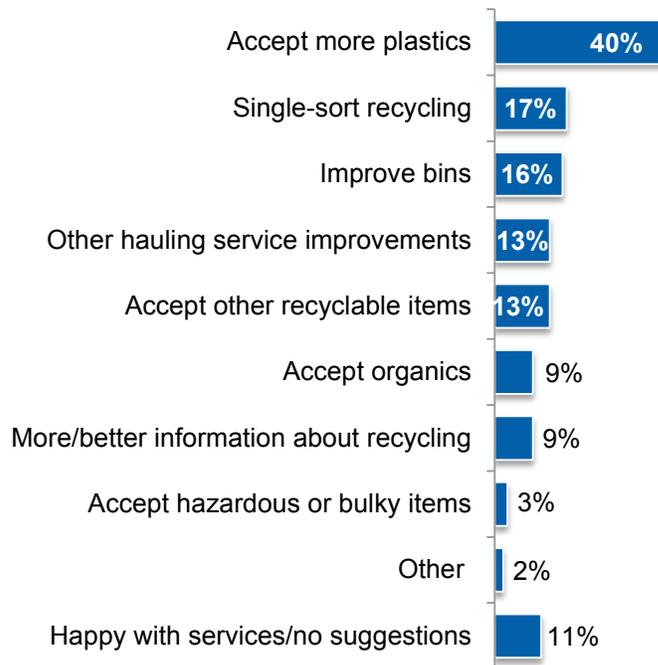
More than 9 in 10 residents rated their curbside recycling service as excellent (62%) or good (31%) (Figure 16). Ratings of the curbside recycling service varied little across groups of residents, though the ratings of residents over age 64 were strongest (82% excellent). Residents under age 25 and Asian residents tended to give the recycling service lower marks, with 24-28 percent of these residents describing the service as fair or poor.

16. Overall, how would you rate the curbside recycling service that your household receives? (N=805)



The most popular resident recommendation to improve the City’s curbside recycling program is to accept more plastics for recycling, a recommendation identified by 40 percent of residents (Figure 17).

17. What one or two changes would you suggest to improve the City’s curbside recycling program? (open-ended) (N=487)



Notes: “Accept other recyclable items” includes pizza boxes, metals, items that are currently accepted (toilet paper rolls, cardboard), yard waste, and clothing.

“Accept hazardous or bulky items” includes electronics, used oil and filters, paint, cleaning products, or other liquid hazardous household items, light bulbs (including CFLs), bulky items, batteries, and large appliances.

“Other hauling service improvements” includes alley pick-up, more pick-up options, more frequent pick-ups, cleaner hauling service/drivers should be careful not to drop items, consistent pick-up schedule (including holidays), changes to current pick-up system (schedule, both sides of street), combine trash and recycling bin

“Improve bins” includes adding wheels, no cost for bin services, larger bins, more bins, material-specific bins (one for cardboard, one for plastics), lidded bins

“More/better information about recycling” includes more easily accessible resources for recycling questions, improved detail, clarity, or availability of written (mailed) recycling information; improved detail, clarity, availability, or promotion/publicity of online recycling information; more/clearer information about pick-up schedules; more/clearer information about sorting requirements or which items are accepted; information in non-English languages; more/clearer information on how to obtain bins

Residents explained their interest in recycling more plastics in the Open Saint Paul forum:

Please accept all shapes, sizes and differently coded plastics. It is so frustrating to be able to recycle almost everything except the one thing that SHOULD definitely be recycled, and that is the plastic containers that either are the incorrect shape or have the incorrect number on the bottom of the container. ALL plastic should be recycled. It has no place in our landfills!

If St. Paul would collect more materials, such as plastics, that have viable markets, we'd be thrilled. We have continued to bring bags with us shopping and buy many foods in bulk. We take our own reusable take-out containers to restaurants and keep asking take-out places to please use our containers instead of their disposables. But, we are still amazed by the volume of plastic waste we generate.

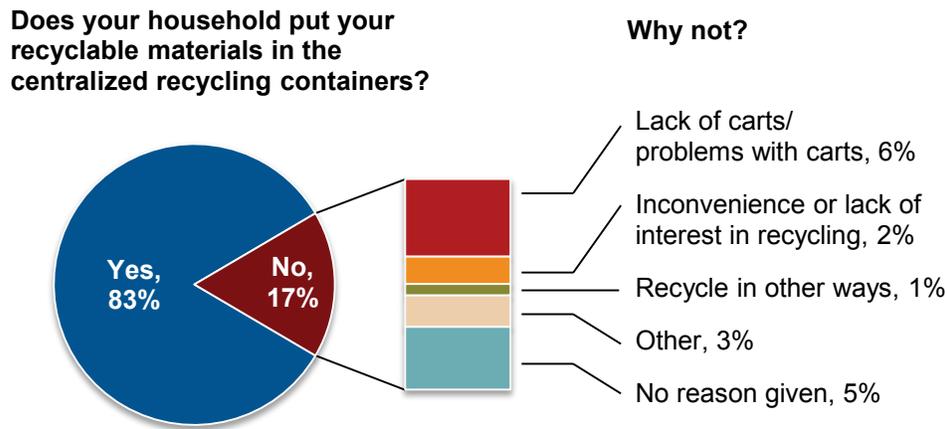
Residents also suggested a single-sort recycling system (17%) and various improvements to the blue recycling bins (like those mentioned above) (16%).

Priorities in these recommendations varied across different groups of residents. The recommendation to accept more plastics was prioritized by households with incomes above \$75,000 per year (52-53%), residents of Ward 3 (52%) and Ward 4 (49%), residents between the ages of 25 and 44 (47%), and white residents (43%). On the other hand, bin improvements were a more popular suggestion among households with incomes under \$25,000 (28%) and residents of color (38%), especially Black/African American residents (56%). Single parents and Hispanic/Latino residents emphasized single-sort recycling (48% and 29%, respectively), while one-fifth of Asian respondents suggested accepting hazardous or bulky items in the curbside program. One-third of residents under age 25 suggested providing more or better information about recycling.

Recycling in large multi-family buildings (12+ residential units)

More than four-fifths of residents of large multi-family buildings said they participate in their building's recycling program (Figure 18). Participation rates were highest among Ward 4 residents (99%), residents over age 64 (95%), and Asian residents (93%). Single parents (48%), Hispanic/Latino residents (58%), and Ward 7 residents (67%) were least likely to participate in multi-family recycling programs.

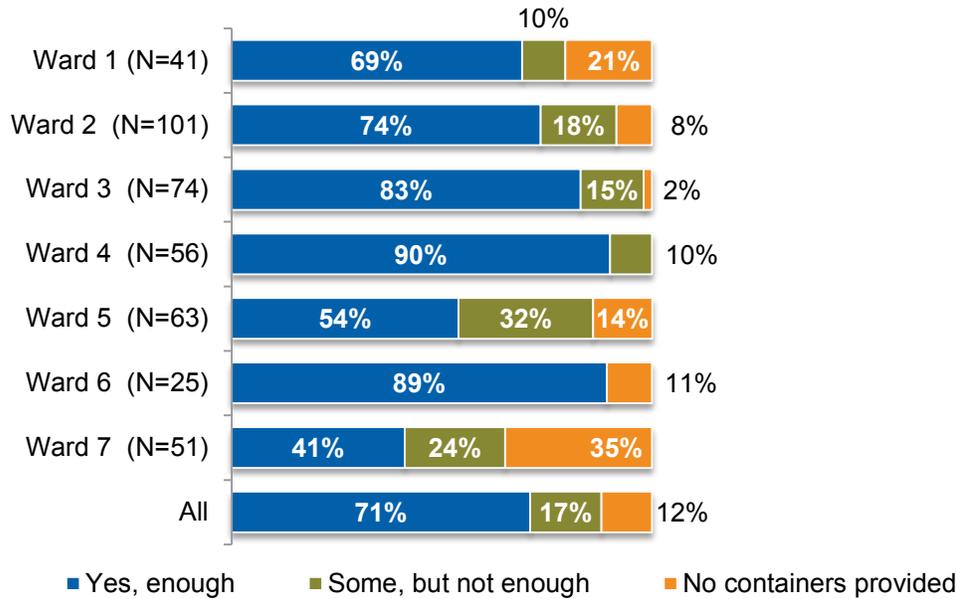
18. Multi-family recycling participation and reasons for nonparticipation (N=415)



Of the 17 percent who said they do not participate in a multi-family recycling program, many (6%) said their non-participation was a result of a lack of recycling carts or problems with carts. Cart-related barriers were especially common among residents of color and residents under age 25.

The availability of recycling carts in multi-family housing varies widely across the seven Saint Paul wards (Figure 19). While 72 percent of residents city-wide said their multi-family building has enough recycling carts, only 41 percent of Ward 7 residents and 55 percent of Ward 5 residents said their building has enough carts, compared to 90 percent of Ward 4 residents and 89 percent of Ward 6 residents.

19. Multi-family recycling cart availability (N=414)



Note: Based on responses to resident survey question 6A-6B in the appendix.

Families with children (54-59%), Hispanic/Latino residents (48%), and residents under age 25 (40%) were least likely to report that their building has enough recycling carts, while families with incomes over \$75,000 per year (92%), residents over age 64 (92%), Black/African American residents (82%), and Asian residents (80%) were most likely to report that their building has enough recycling carts.

Recycling among Somali residents living in multi-family housing

Somali focus group participants described several environmental and economic benefits of recycling, including lowered costs of producing and consuming products as well as a reduced environmental impact.

They explained that their recycling participation and understanding has grown over time as the Somali community has gotten established in Minnesota.

Participants described similar barriers to those of other residents in multi-family housing:

- Inconvenience, especially among residents with poor health or limited mobility
- Inadequate capacity in the centralized recycling bins

Somali focus group participants also emphasized the knowledge and information barrier, noting that many remain unsure of the specific recycling requirements. Somali residents also believed that trash thrown in the dumpster would be sorted and recycled as needed, a belief that would reduce the incentive to recycle.

To help Somali residents recycle, participants recommended:

- Greater recycling cart capacity
- More recycling information
- More engagement and interaction between residents and the City around recycling

When participants in the English-speaking renters focus group were asked what makes recycling difficult for them, they mentioned confusion around what is recyclable and the inconsistencies between Saint Paul and other Twin Cities communities where they have lived. They were especially confused about which plastics are recyclable, and one participant admitted to getting frustrated and throwing materials in the recycling cart without knowing whether they should:

I just quit paying attention. I'm not sure if they'll take it or not, but I'm putting it in.

Many said they had never received recycling information in the mail, and that they struggled to find online recycling information.

When asked about the convenience of recycling in their housing arrangements, a high-rise resident noted that a garbage chute is available on every floor of her building, but recycling must be carried downstairs to the carts. The distance, paired with the challenge of hauling the recycling, presents a significant barrier, said participants.

Focus group recommendations to improve recycling participation in multi-family housing

Focus group participants recommended three main strategies to increase recycling participation among residents in multi-family housing:

1. Simplify the program and educate residents about it.
2. Provide convenient access to necessary recycling tools (carts or bins).
3. Enforce and incentivize recycling.

Focus group participants generally felt that the current recycling program contains too many unknowns and sorting requirements. They recommended a single-sort system with clear instructions (represented in pictures) on the carts to simplify recycling. They also suggested educating residents about recycling through schools. As one participant noted:

You're not going to change the old people like me. You're going to change the kids and that's going to change the next generation.

Recycling cart availability among Latino households

Several Latino focus group participants confirmed that recycling cart availability has been a significant barrier to recycling for them. Many reported having no recycling carts available in their buildings, while others reported fellow residents' misuse of the recycling carts for trash, filling up the recycling carts and preventing them from using the carts for their designated purpose.

We can't recycle because we don't have containers; there's nowhere to recycle!

Most of the time people use the recycling containers to put whatever in.

Latino immigrants also noted a lack of information (especially in their language) about which materials are recyclable and how to recycle.

These children then go home and reach their diverse families in multiple languages.

Many residents in multi-family housing also lacked convenient access (and some had no access) to recycling carts or bins. Others reported inadequate cart capacity or carts that are not emptied often enough. Participants recommended making recycling carts available everywhere there are dumpsters, as well as locating carts more conveniently in hallways or next to garbage chutes in high-rises. Ideally, carts should be located conveniently enough for children to safely get to them, as children can serve as recycling captains for households.

Finally, focus group participants recommended enhanced enforcement and increased incentives for recycling. They referenced the City of Minneapolis as an example of an incentive program (a utility bill credit for recycling) and a disincentive (a warning and fine system for throwing recyclables in the trash). Paired with the incentives and disincentives, participants recommended greater monitoring and enforcement, to be consistent with enforcement of other City priorities:

They have very strict rules in St. Paul whether you can put a doormat in your front hall. They have the Fire Department rambling through the halls giving people warnings about your doormat. Don't you think they could do that for recycling?

Key stakeholder insights – Recycling

Current system strengths

Key stakeholders identified a wide variety of strengths in the current recycling system in Saint Paul. The most frequently identified strengths are the education efforts of the nonprofit that currently provides recycling service and the resulting low contamination rate of the materials collected. As a result of the current service provider's intensive education efforts (including direct feedback to residents), key stakeholders noted that the service provider's final product is very clean with low residual rates, while residents also have gained a clearer understanding of what can and cannot be recycled. Key stakeholders also referred specifically to the service provider's work with multi-family housing, and they described the service provider's work in resident education overall as unique among service providers:

It has one of the lowest contamination rates in terms of end market materials. They do a good job of educating the public. I have a major waste hauler and I get something from them once a year, comes through the city magazine. The St. Paul hauler does a great job educating the public, which is also very important to end market contamination rates.

They do a better than average job on education, sending out documentation to residents on what's accepted here, and the tagging they do, with the bins. If you're putting incorrect items in the bins, they leave the item in your bin with a flyer. To my knowledge, that's not done elsewhere.

Several key stakeholders also emphasized the current service provider's strong commitment to environmental values that align with the City of Saint Paul's zero waste goal, as well as the long history and strong relationship between the City of Saint Paul and the service provider:

What has really worked is the partnership with a nonprofit organization whose sole purpose is to do this work.

Key stakeholders noted that the city-wide nature of the program creates a consistency of service not present in many other cities, and the two-sort system is simple enough to produce a user-friendly recycling experience and a relatively high participation rate.

Key stakeholder recommendations for system improvement

Despite the strengths listed above, several key stakeholders strongly recommended something of a revival for the Saint Paul recycling system, to reignite the community's energy around a citywide goal of zero waste. They argued that a fresh, new look and dramatic change could inspire excitement rather than apprehension. They recommended a multi-dimensional system overhaul, including six main improvements, (three of which will be discussed in their respective sections later in this report):

1. Launch a major educational and promotional campaign to inform residents and reinvigorate their enthusiasm around recycling, composting, and waste reduction.
2. Expand and simplify the selection of plastics collected for recycling.
3. Transition to a single-sort recycling collection system with wheeled, lidded carts.
4. Transition to a source-separated organics (SSO) collection system (curbside or alley), paired with expanded education on food waste prevention and backyard composting (to be discussed in the sections that follow).
5. Diversify bulky waste management to offer more convenient reuse and disposal options (to be discussed in the sections that follow).
6. Coordinate trash collection to lower costs, reduce truck traffic, and design trash pricing to incentivize recycling (to be discussed in the sections that follow).

Benefits of the recommended changes

In justifying their recommendations for added plastics and single-sort collection, key stakeholders emphasized the simplicity that has been shown in other communities to increase recycling participation:

Recycling is one of the great transformations of our society, in terms of behavior change. And one of the things that has made that happen is making recycling easy. But the more people have to think, to become mini-experts, the less participation you get. I'd bet that's even more true in neighborhoods with lower participation. Whether or not it's cost-effective to accept those materials, you have to think about the broader impact of making it easier to recycle.

The easier you make it, the better the participation, and single sort is easier. The evidence says that will have a positive impact on participation. Even our relatively limited sort takes time, and I grumble about it. Two-sort made a lot of sense a decade ago, but it makes less sense now.

Key stakeholders also noted numerous benefits of the carts themselves, as compared to the current blue bins:

Wheeled carts are a huge advantage. Anybody not in good physical condition has some trouble getting the current bins to the curb every week. To wheel it out would be a huge advantage to get more participation in the program.

It's frustrating to carry material out to the curb. I've never had time to get a bin, so I carry my paper bags to the curb. If it's raining, the paper gets ruined. If it's windy, it blows all over the yard. We wait until the last minute to get it out there, and if you forget or get there too late, you end up with an extra week's recycling in a small house.

It reinforces the messages that there's more recyclables than trash in what you throw away, by giving them a larger container for recycling.

Saint Paul is also increasingly surrounded by communities that have transitioned to single-sort recycling with all numbered plastics accepted, and remaining consistent with those programs was noted as an additional benefit of this change.

Finally, key stakeholders mentioned the potential for increased efficiency of pick-up and reduced emissions as trucks could collect from both sides of the street at once (in an alley), where they must currently make two trips down a block to collect on each side. The single-sort system also paves the way for a companion program of curbside organics collection, which key stakeholders described as less feasible with a two-sort recycling system, and which studies have shown to increase recycling participation (described further in the section that follows).

Barriers to change and recommended strategies to reduce them

The expansion of acceptable plastics and transition to a single-sort collection system are related changes that have both been overlooked in the past due in part to end-market limitations and hauler technology. When asked about current barriers to these changes, key stakeholders frequently noted these historical challenges. Key stakeholders also noted that small alleys in Saint Paul may not provide adequate clearance for a truck of the necessary size to collect the materials.

In addition, several key stakeholders mentioned the current service provider's firm position on their environmental values, which they described as both a strength and a barrier:

Everyone wants to know why we can't recycle more plastics, especially because there's been press that others have added yogurt containers. When it was reported a year or so ago that [the service provider] had no intention to add #4 and #5 because they want to discourage use of plastics, that felt out of step with what's offered elsewhere. With all of the advantages of our single provider, this is probably the biggest disadvantage of them.

[The service provider]'s mission is zero waste, and from a zero waste vision standpoint, recycling #4 and #5 plastics may not be desirable.

A few key stakeholders recommended that the City carefully consider its priorities and the services available with the current service provider to determine if it might be appropriate to initiate a competitive bidding process for the City's recycling contract in the future.

The current service provider explained that these barriers are no longer a factor, and that technology and markets have evolved to allow them to run a single-sort system that remains aligned with their values:

Our past position wasn't necessarily about objecting to single stream, but more about promoting authentic recycling. We run one of the lowest residual rates for a two stream facility (at 2%) and we know now that technology and markets have evolved for single stream so that we can run a single-sort system that remains aligned with Saint Paul's values--including a low residual rate.

They said their facility could transition to the necessary technology and that the program could transition within a year after they work out the details with the City.

In a transition to a single-sort cart collection system, however, other implementation challenges remain. Most significant is the cost of the wheeled, lidded carts that most key stakeholders agree are necessary for a single-sort recycling program to be successful in the long term. That expense comes into direct conflict with other current city needs:

There are competing needs, opportunity costs, and a need for curbside composting that Minneapolis has and we don't. There's a question of how to invest scarce resources, and Saint Paul will have to look at this in a comprehensive, strategic way.

It's a capital cost for the lidded carts, and it's a question of whether the City can find the money to take that step. The central question here is where the money will come from and how much we're willing to pay. Is there a way to juggle the budget around and find new funding sources for recycling? And how does the new material revenue fit into that?

Aside from the suggestion to learn from the many surrounding examples of new single-sort programs, key stakeholders recommended two main funding sources for this program. Some suggested accessing public funds, either from the Ramsey County environmental charge or through the STAR program. Others recommended passing the additional costs on to Saint Paul residents, with a few key stakeholders mentioning the current service provider's proposal that would cost residents under \$2 more per month for the single-sort recycling and curbside organics service.

Key stakeholders also noted the implementation challenge of re-education to teach residents about the new program, as well as the increased contamination during the transition and beyond, as lidded carts and automated collection inhibit the materials inspection that is valued in the current curbside collection. Key stakeholders expressed some concern about the contamination:

The two-sort system provides very clean material to the end markets. There are several studies that show that, in the single-sort system, there are many more rejects at the processing facility.

The biggest thing is you lose the education piece. There's a closed-lid card, the driver of the truck doesn't see incorrectly placed items. That's a disadvantage and leads to higher contamination rates in the system. That's the biggest and only drawback.

To minimize contamination during the change, the current service provider proposed transitioning to single-sort recycling in the current blue bins, a strategy that would also give the City more time to secure a funding source for carts. They noted that nearby Maplewood has taken this approach in their transition to single-sort recycling.

In addition, key stakeholders were optimistic about the opportunity presented by the need for re-education:

The re-education process will be important and it will be a challenge. But it's wonderful to have an excuse to get out and talk with people again. What I find is that people's understanding of what is recyclable is a little out-of-date in Saint Paul. Even for me, it's hard to keep track. That re-education investment, and the inefficiency during that period of time, will be a bit of a challenge, but also an opportunity.

When you roll this out, it's going to be seen as new and different. With that, while you're educating about the new system, do it right, and do it from a multi-cultural standpoint. Use it as an education opportunity to tell people about something new and different.

To roll out these changes, key stakeholders recommended a strong marketing campaign emphasizing the revitalization of the Saint Paul recycling system, with improved education and special emphasis on multi-family outreach and non-English languages.

Tell people about the increased tonnage recycled; it'll motivate them. Minneapolis did a lot of pilot studies, and it was in the media. Then when they rolled it out, they showed major increases in materials collected. When the public is aware, when you get that information out to the community about where we were and where we're headed, informing them of the progress they're making is important.

Finally, to ease potential resident concerns about the change from bins to carts, one key stakeholder recommended introducing residents to their new recycling carts well before the new cart shows up on their curb:

Put the carts out in City Hall and public libraries months before [delivering them to residents], with a sign saying "meet your new recycling cart." It puts residents at ease about the change.

Early exposure to the recycling carts could also reduce resident anxiety about a transition to bi-weekly collection, after they see the lidded carts' capacity and recognize that their recycling will no longer need to occupy indoor space to protect it from the elements.

Regardless of the specific educational and promotional approaches, key stakeholders agreed that increased resident engagement and education around recycling will be crucial to the success of the new single-sort system in increasing recycling participation and tonnage.

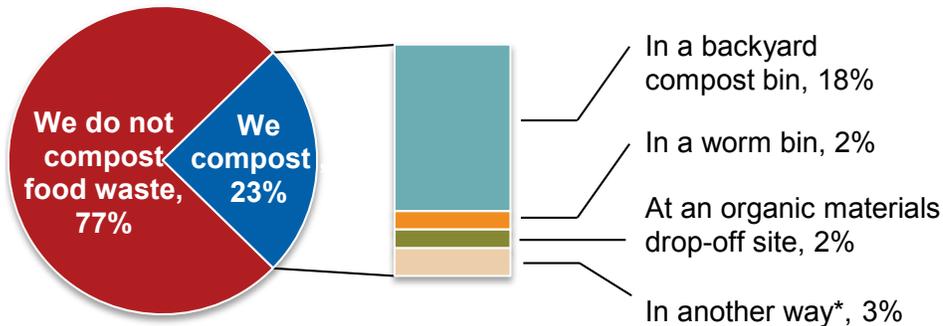
Organics

Key findings

- About one-quarter of Saint Paul residents said they compost their food waste, and most of these residents (18%) do so in a backyard compost bin.
- The most significant barriers to composting were:
 - Lack of outdoor space (especially for residents in multi-family housing)
Inconvenience and lack of time or interest
 - Limited knowledge or information about composting
 - Unpleasant perceptions of composting
- Two-thirds of residents said they are very willing (38%) or willing (29%) to separate their organic waste from the rest of their trash for an organics recycling program. One-quarter were unsure.
- Saint Paul survey findings related to organics are very consistent with Fall 2012 survey results in Ramsey County overall, which found similar rates of food waste composting and willingness to separate organic waste for a community organics recycling program.
 - 22 percent of Ramsey County residents compost food waste, including 19 percent who use a backyard compost bin
 - 76 percent of Ramsey County residents said they are willing to separate their organic waste for a community organics recycling program
- Key stakeholders recommended citywide source-separated (curbside or alley) organics collection, co-collected with trash or recycling, as the most cost-effective and efficient means of diverting organics from the waste stream. They also suggested:
 - Continued food waste reduction and backyard composting education
 - A significant educational and promotional campaign to roll out the curbside collection program

About one-quarter of Saint Paul residents said they compost their food waste, and most of these residents (18%) do so in a backyard compost bin (Figure 20). A few others said they compost in a worm bin (2%), at an organics drop-off site (2%), and in another way (3%), such as placing food waste directly into the garden or feeding it to animals.

20. In which of the following ways does your household manage food waste?
(N=1,256)



*Other composting methods include placing food waste directly in garden (17), feeding to animals or pets (15), and other (3).

A similar survey, completed in Fall 2012 by 809 residents of Saint Paul and other communities in Ramsey County, found that 25 percent of Saint Paul residents (and 22 percent of Ramsey County residents) compost their food waste.

Composting in multi-family housing

The most significant barrier to composting in multi-family housing is the lack of outdoor space.

I know how you do composting in a garden, but have no idea in my tiny one-bedroom apartment how I am going to do this. If I knew how and where to find supplies, I would be doing it.

To address this problem, focus group participants suggested:

- Composting at community gardens
- Contributing to a friend or neighbor's compost pile
- Participating in a City-sponsored compost drop-off program at a park or outdoor public space
- Participating in a City-sponsored curbside compost collection

To encourage and facilitate resident participation in these composting efforts, focus group participants recommended:

- Education about how to store food waste without odors
- Convenient location of drop-off locations or curbside collection
- Composting starter kits provided to residents (free of charge)
- Media outreach via mailings or public television

Composting food waste was most common among Asian residents (40%), two-parent families with children (33%), and Ward 5 residents (31%), while few residents under age 25 (5%) or Hispanic/Latino residents (8%) compost their food waste. Residents in single-family homes (31%) were significantly more likely than residents in multi-family homes (16%) to compost their food waste.

While few residents under age 25 compost food waste, they were more than twice as likely as others to use a worm bin (5%). Residents with incomes under \$25,000 were also more likely to use worm bins (3%, compared to 1% of residents with incomes above \$25,000). Asian residents were also more likely to use worm bins (12%) as well as organics drop-off sites (10%).

Of those households that do not compost, two-fifths (38%) said they do not compost because they have no yard or nowhere to compost (Figure 21). Many others noted a lack of time or interest (19%), the inconvenience of composting (15%), and their little need or use for compost (12%). Still others mentioned barriers that can be addressed through resident education, including a lack of knowledge or information about composting (16%) and unpleasant perceptions of composting (14%).

The relative importance of these barriers varied across different resident groups, especially between residents in single- and multi-family housing. Having nowhere to compost or no yard was especially common among residents of multi-family housing (55%), while single-family residents were more likely to mention each of the other barriers, especially the lack of time or interest (25%) and the unpleasant perceptions of composting (21%).²

Composting among Hmong homeowners

Despite the high composting rates reported by Asian residents in the survey, most Hmong focus group participants said they dispose of their food waste in the trash. A few said they bury some food waste in their yards.

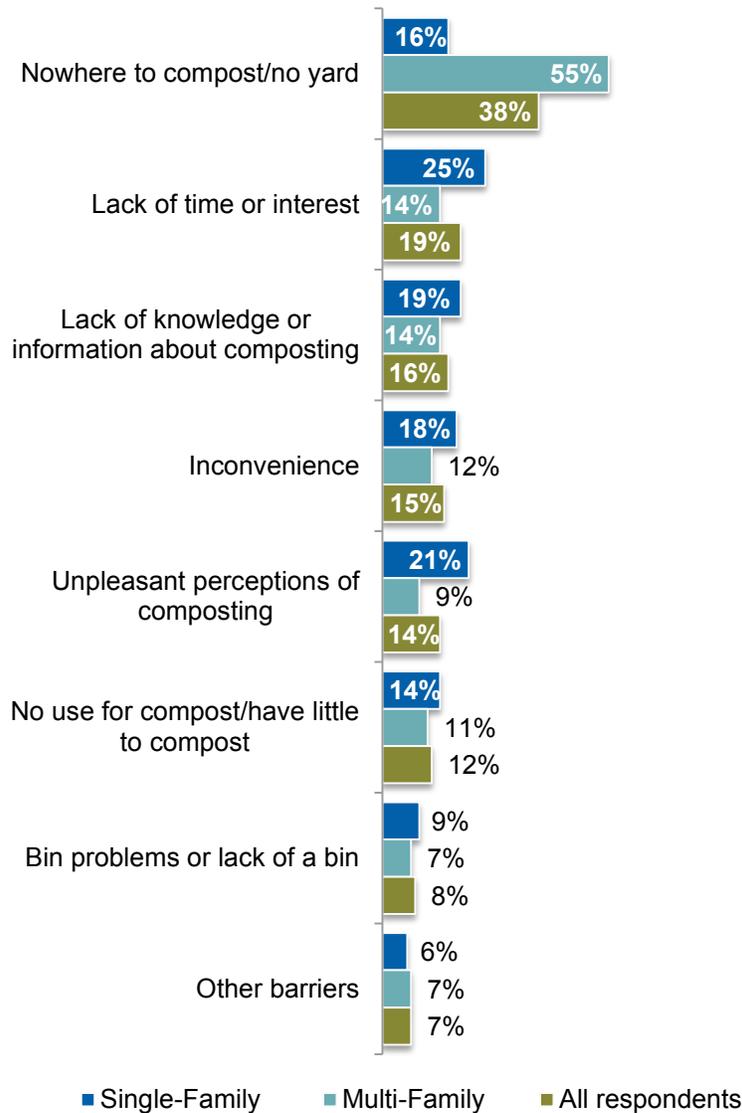
Focus group participants could not identify the benefits of composting. They identified barriers, however, related to insects and odors. They also noted that Hmong families cook more than the average American family, and so they have more food waste to manage.

Most Hmong focus group participants expressed reluctance to compost in their backyards or to participate in a compost drop site program. They said that some might participate in a curbside organics collection program, if made easy for them, but that the sorts required by the current recycling system already occupy too much time.

² While residents in multi-family housing were more likely to report space constraints as their primary barrier, it is important to note that, once the space constraint is alleviated, those residents will likely face the same barriers as residents in single-family housing. The lack of space may present the most obvious and pressing barrier to residents in multi-family housing, but time and interest, inconvenience, lack of knowledge, and unpleasant perceptions of composting are also significant barriers that would rise in relative importance after space issues were alleviated. In other words, these secondary barriers will need to be addressed not only for single-family residents, but for residents in multi-family housing as well.

The lack of knowledge or information about composting was most frequently mentioned by Hispanic/Latino residents (26%), Asian residents (24%), Black/African American residents (23%), residents under age 25 (25%), two-parent families with children (25%), residents of Ward 6 (24%), and residents of Ward 4 (22%).

21. Why doesn't your household compost food waste? (open-ended) (N=971)



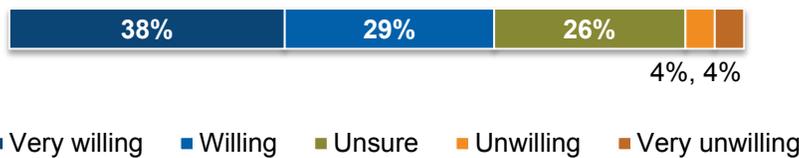
Note: Other barriers include physical inability to compost and cold/winter, as well as other miscellaneous responses.

Two-thirds of residents said they are very willing (38%) or willing (29%) to separate their organic waste from the rest of their trash if their community offered an organics recycling program (Figure 22). Eight percent said they would be unwilling to separate their organic

waste, and one-quarter were unsure of their willingness to separate their organic waste. Though they were unsure of their willingness to separate their organic waste, most of these residents also said they would like to see organics collection programs added, especially curbside or alley collection. Resident preferences among organics collection options are described in the “Resident priorities in new services” section below.

Willingness to separate organic waste was highest among residents under age 45 (74%) and residents of Ward 4 (78%). Residents over age 64 were least willing to separate their organic waste (56%).

22. In general, how willing would you be to separate organic waste from the rest of your household's trash, if your community had a program that would allow you to recycle this waste? (N=1,245)



The Ramsey County survey in Fall 2012 found similarly high rates of resident willingness to separate organic waste. In that survey, 78 percent of Saint Paul residents and 76 percent of all Ramsey County residents said they were willing to separate their organic waste for an organics recycling program.³

In their responses to the Open Saint Paul forum, residents expressed several reasons for their interest in curbside compost collection:

As a gardener and an avid backyard composter, I value having a compost collection program where residents can compost their food scraps and non-recyclable paper. Not only does this reduce my cost for trash services, it diverts the material from being burned in an incinerator, which is inefficient and affects air quality.

I already compost all food scraps and yard waste but would love to include other food waste not suitable for home composts rather than see these go in a landfill.

We strongly support a residential compost collection program. We would be able to get more items out of our trash and add some backyard kitchen wastes when we run out of time and our compost pile is neglected.

³ In the Ramsey County survey, residents were not given an “unsure” option when asked about their willingness to separate their organic waste. This difference in response options is the likely cause of the higher rates of willingness shown in the Ramsey County survey.

Key stakeholder insights – organics

Most key stakeholders agreed that the most cost-effective organics collection system for Saint Paul will be citywide curbside collection (co-collected with trash or recycling), paired with continued outreach and education for backyard composting. Several key stakeholders indicated that other approaches, like drop-off sites or subscription curbside collection, may be useful as the City transitions to citywide collection, but maintained that the City's long-term goal (capturing 15% of the waste stream for organics recycling) will be best met with citywide curbside collection, the most cost-effective strategy to divert organics from the waste stream.

Curbside collection expands organics recycling to a much larger group of people. It increases participation, which increases the amount of material recycled. And it's the only way Saint Paul will get to the volume needed (15% by 2030).

To make it cost-effective to collect organic material, you need all of it. You need to stop at every house.

Benefits of citywide curbside organics collection

Citywide curbside composting, key stakeholders noted, offers a new and convenient disposal option, and its popularity can spread quickly due to the high visibility of carts in a neighborly community like Saint Paul:

It would be convenient for residents, and visible to my neighbors if it's in a special container. People in Saint Paul get out and talk on the sidewalk. I've heard people get pointed comments when they're not recycling, and then next week, they are!

As you're thinking about what to do with a piece of waste, it's a third option, all within the scope of your home. There's no need to put it in your car and drive it somewhere.

In addition, citywide curbside collection is relatively inexpensive, as costs are distributed across all residents. It is also free at the point of disposal, so residents stand to gain financially from using the organics cart and reducing the size of their trash cart (and bill):

It saves the resident money because everybody pays for it.

It gives residents the opportunity to compost at an apparent no-cost (however you charge, it would be indirect, residents pay whether they use it or not).

You get people to pull organics out of the trash. Theoretically, I could switch to a small trash can and would only need bi-weekly collection at the smallest size. Organics and recycling would take care of almost all of our trash. That's a huge benefit that I think is understated. I think those savings could pay for the additional cost.

Key stakeholders also pointed out the opportunity to connect residents to the benefits of composting by returning the compost product to the community. In addition, centralized

organics collection presents a new use for many discarded paper and animal products that cannot be processed in backyard compost bins, which greatly expands the amount of discarded organic material that can be diverted for greater use. Key stakeholders also mentioned that organics collection has been shown to improve recycling rates and refocus resident attention on how they handle their trash and recycling as they learn about managing their trash with the new organics collection program.

Barriers and mitigation strategies for citywide curbside organics collection

Citywide curbside organics collection is not without its challenges, of course. Key stakeholders confirmed two important resident barriers identified by the resident survey: unpleasant perceptions of composting and its associated odors and pests, and limited resident understanding of composting. A few key stakeholders expressed concern about the carts attracting animals, but others responded that the material in the compost cart had previously been thrown in the trash cart, so the new organics carts should only attract animals that would otherwise have been drawn to the trash cart. Compost odors and limited resident understanding of composting, key stakeholders suggest, should be addressed by a significant educational campaign to teach Saint Paul residents how to manage their compost and why this is important to the city:

Education - not just saying "district councils, help us organize volunteers," but give them funding. Put significant dollars toward outreach, because this is a huge change in how people do food prep, how they blow their nose. It's a radical shift. Without that outreach, there will not be success.

In a lot of ways, that may take a one-on-one contact. Going back to the old days in early recycling, we had a lawn sign for block recycling coordinators. Wayzata did this with their organics program. They would tell you about what materials were acceptable, when your recycling day is, etc. City staff won't be able to do all of the necessary education. They have to get their cheerleaders out in the community, people who are close to their neighbors. Your neighbors know you and trust you, as a neighbor.

Helping to teach them why it's important is a big part of implementing it. It's going to cost you a little bit more, but it'll save you money on your trash bill if you do it right, and here are the benefits (organics are what create methane in landfills, and methane is 10 times more powerful than Co2 as a greenhouse gas

To minimize odors and pests, key stakeholders also stressed that organics must be collected weekly, at least during the summer.

Key stakeholders recommended incentives, like free compost bags, to encourage residents to participate in classes and workshops about composting. They suggested building on existing community groups and gardening clubs, and many emphasized the importance of pairing curbside collection with continued promotion and education around backyard composting and waste reduction.

Backyard composting is a very low-cost way of dealing with the problem. Low-cost bin sales, coursework. Push for backyard composting to get people doing it right, then sustain it over time with some maintenance.

There are cultural norms around backyard composting that can be worked through. Giving away bins seems to work. And education - people don't have a grasp of composting. It seems like a strange and obscure science to most people. People make it hard and technical. It's a natural process, though, so just teach people the basics about what you can and can't put in a compost bin.

Meal planning education, grocery shopping education, messaging to get people to buy what they need. Grocery stores want you to buy as much as you can. Revive a more holistic approach to living, respecting what we have and what's available to us, instead of just taking everything you want, whether you can afford it or not. And understanding the energy needed to produce those goods.

While resident barriers to curbside collection may be adequately addressed by incentives, reduced trash fees, quality soil for the community, and strong marketing and education, key stakeholders identified several systemic challenges that the City must overcome to launch a citywide curbside organics collection program. The City will face collection costs, and must purchase the high-quality, critter-resistant carts to hold the organic waste. To pay for carts and collection, key stakeholders proposed increased resident fees (which could be offset by reduced trash collection costs, especially with city-coordinated trash collection) and funds from the Ramsey County Environmental Charge.

Many key stakeholders also expressed concern about the efficiency of collection and the possible need for another truck driving down each block every week. Key stakeholders strongly recommended that organics be co-collected with trash or recycling to reduce the environmental impact of organics collection:

Co-collection allows Saint Paul to add composting to the existing recycling program without significantly increasing the number of trucks on the road. This means that composting collection can be added without increasing the amount of noise and air pollution experienced by residents, or the amount of wear and tear on city streets.⁴

Finally, a few key stakeholders noted concerns about the capacity of nearby composting sites to handle the increased volume of food waste, as current Minnesota law places so many restrictions and requirements on food waste composting facilities as to make them financially unviable. However, upcoming changes in Minnesota law, to take effect by Fall 2013, will greatly reduce these restrictions and requirements, enabling much greater capacity for food waste composting in existing and new facilities. Representatives of the Empire composting facility stated that, after the new Minnesota compost site rule takes effect,

⁴ Zero-Waste Composting: How Food Waste Can Help Conquer Climate Change and Prevent Disease: Executive Summary & Full Report. Eureka Recycling, May 2013. Available at: http://makedirtnotwaste.org/sites/default/files/eureka_zw_composting_report_full_0.pdf

their facility will have the capacity to accept any volume of food waste that Saint Paul would produce.

Because key stakeholders acknowledged the possible delays and setbacks in getting a citywide curbside organics collection program established, they recommended one or more transitional systems as intermediate steps toward citywide curbside collection. These potential intermediate steps included the two organics collection options that they described as inefficient in the long term but potentially useful as training wheels in the short term – subscription curbside organics collection, or a centralized organics drop site where residents could deliver their organic waste. Both of these programs would be relatively inefficient, due to low volume of organics collected and high miles driven to collect that volume, but the small scale of these models could work as an ideal pilot, said some key stakeholders. Furthermore, the diverse options could allow Saint Paul to tailor the approach to the needs and circumstances of each neighborhood.

Drop -off sites may still provide a good interim strategy to provide instant, citywide access to composting while curbside collection is being rolled out. This is especially relevant to serve people who live in apartments, because this gives program organizers a chance to roll out the single-family program before addressing the unique challenges of apartment-building composting.⁵

Maybe start with community drop-offs and then move toward curbside, which could start with a subscription service (with a single hauler) before moving to universal coverage. And don't just look at one approach. Saint Paul might very well need multiple approaches.

Finally, key stakeholders recommended approaching institutions and commercial interests first to process their organic waste and evaluate the hauling system and capacity of the destination site. With the lessons of these transitional and pilot approaches, paired with existing knowledge from other cities that have begun to collect organics at the curb, Saint Paul should be well-positioned to proceed with citywide curbside organics collection.

⁵ Zero-Waste Composting: How Food Waste Can Help Conquer Climate Change and Prevent Disease: Executive Summary & Full Report. Eureka Recycling, May 2013. Available at: http://makedirtnotwaste.org/sites/default/files/eureka_zw_composting_report_full_0.pdf

Litter and bulky waste

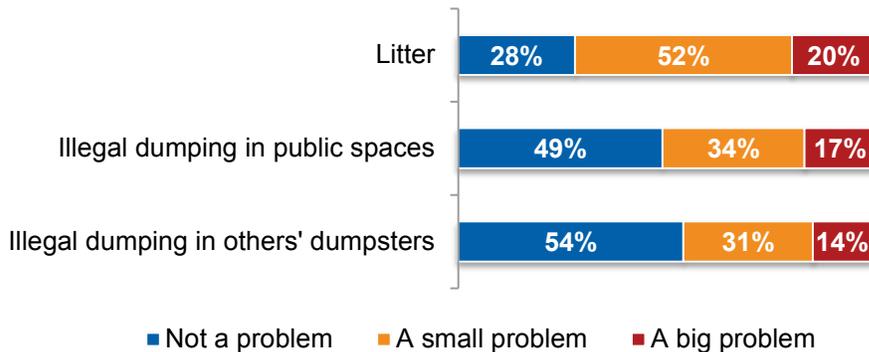
Key findings

- Most residents described litter (72%) and illegal dumping in public spaces (51%) as problems in their neighborhoods, and nearly half (46%) described illegal dumping in others' dumpsters as a problem.
- Residents typically dispose of their TVs, appliances, and electronics by either donating or selling them (57%) or taking them to disposal facilities (47%), retailers (36%), or community clean-up events (32%).
- Bulky items like furniture and construction materials were also frequently sold or donated (58%) and taken to disposal facilities (37%), but residents also arranged with their haulers for disposal of these items (31%).
- About one in ten residents said they leave their bulky items, TVs, and appliances in public places like curbs or others' property, and 15 percent said they throw their unwanted TVs, appliances, and electronics in the trash.
- One-third of residents were unaware of community clean-up events as an outlet for bulky items, while 43 percent had used this disposal option.
- 7 in 10 residents were very willing (40%) or willing (32%) to use a voucher or coupon system to dispose of their items for free at a disposal site.
- 9 in 10 residents were very willing (69%) or willing (21%) to use a curbside collection program to dispose of their unwanted bulky items.
- Key stakeholders acknowledged the limitations of Saint Paul's current bulky waste management system, and recommended a more diversified approach that includes more convenient reuse and disposal outlets for bulky items.

Litter and illegal dumping

When asked about the severity of litter and illegal dumping in Saint Paul, most residents described litter (72%) and illegal dumping in public spaces (51%) as problems, and nearly half (46%) described illegal dumping in others' dumpsters as a problem (Figure 23). Most described the litter and illegal dumping as small problems, but 1 in 5 described littering as a big problem in their neighborhoods.

23. Please rate the severity of each of the following problems related to litter and illegal dumping in your neighborhood (N=1,218-1,262)



Littering in recent immigrant communities

When three recent immigrant populations (Karen, Latino, and Somali residents) were asked for their perspective on littering in their communities, focus group participants shared their opinions that littering is wrong and creates negative environmental impacts:

Litter is ugliness for all of us. – Somali resident

I worry about littering, because until the person who is supposed to pick it up comes, it will stay there. – Somali resident

[Trash on the ground] may affect the land or soil and cause bad health. – Karen resident

It contaminates the environment. When it rains, the water carries it. It's contaminating the air that we all breathe, and the rivers, the plants. – Latino resident

Focus group participants acknowledged that trash management and norms are different in their countries of birth, but they defended their communities, noting that members of their communities who still litter are the minority who have not yet learned about waste management norms in the U.S.

Back in my hometown people throw trash in the river, because most people don't have education or don't know much about the health problems that they will get if they don't keep the area clean. – Karen resident

It is not fair for Somalis to be blamed for all bad things, we are not city born but we can learn. We are learning. – Somali resident

We're not well educated in this topic, in my opinion, in trash and recycling. The reality is that we've learned bad habits from our home countries. But it feels like the spotlight is on us, when it's not just us who are doing this. – Latino resident

continued...

Littering in recent immigrant communities (continued)

Finally, focus group participants expressed a strong interest in learning about proper waste management and changing their behaviors if needed.

Can you talk to us about how to take of our garbage? How to sort them out? It is shameful to not be able to keep our space clean. – Somali resident

I think everybody should throw in the trash cans because it is good for your health, and the city will look beautiful. We are Karen, we should be a good example to others, and if we are not good examples, other people might say Karen people are bad. – Karen resident

I'd suggest that we communicate with the people who are littering. Those of us who care should try to do something about it. And we can't just communicate in this way to other Latinos, but to other groups, too, like Somalis. – Latino resident

To reduce littering in their communities, focus group participants recommended:

- Information on proper behavior, depicted in drawings or written in their home languages
- Informing residents of the impact of littering
- Making sure trash and recycling bins are convenient and well labeled (with pictures)

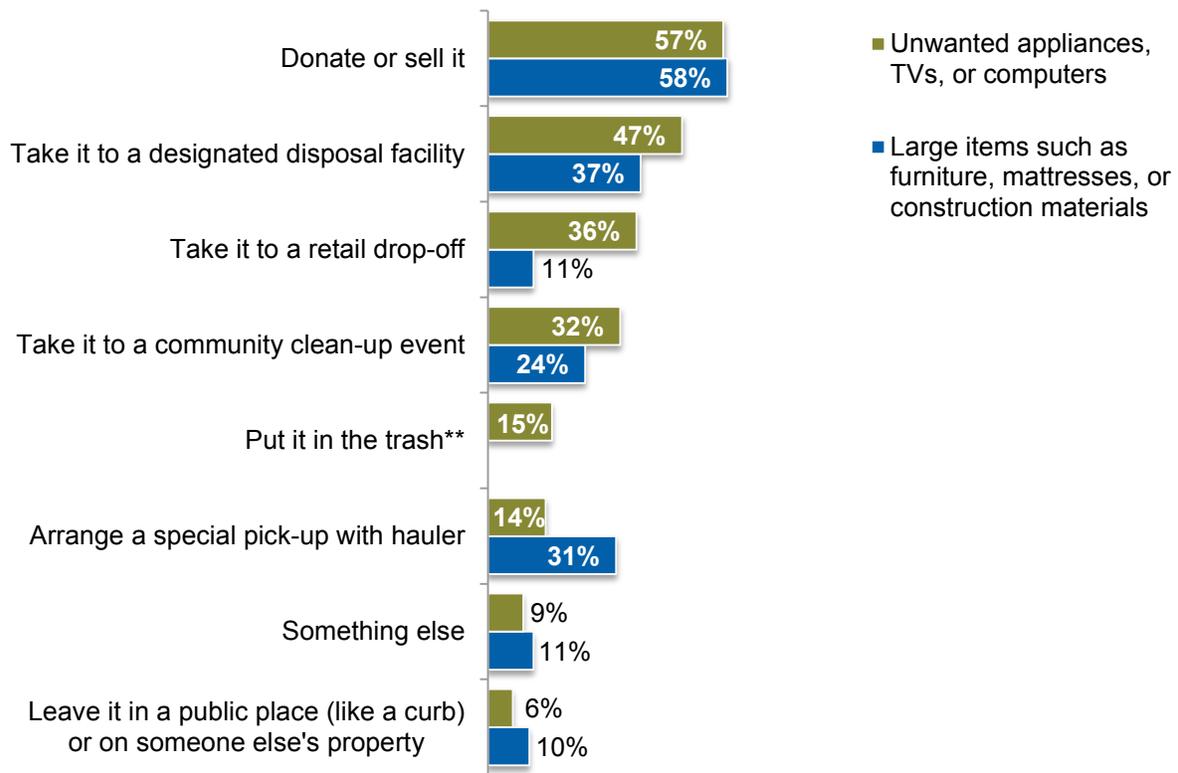
Residents of Wards 1, 6, and 7 were more likely than those in other wards to describe littering and illegal dumping (both in public spaces and in others' dumpsters) as big problems, while residents of Ward 3 were least likely to report these problems. Residents of color reported these issues as big problems more than white residents, and lower-income residents were more likely than higher-income residents to report these problems in their neighborhoods.

Current bulky waste disposal practices

When asked about their disposal methods for unwanted appliances, TVs, computers, and large items like furniture, mattresses, or construction materials, more than half of residents said they donate or sell these items (Figure 24). Residents also frequently dispose of their appliances, TVs, and computers by taking them to a designated disposal facility (47%), retail drop-off (36%), or community clean-up event (32%). Fifteen percent of residents said they throw their unwanted appliances, TVs, or computers in the trash, and 6 percent said they leave them in a public place like a curb or someone else's property.

Residents took their bulky items (furniture, mattresses, construction materials) to disposal facilities (37%) and community clean-up events (24%) as well, but also often arranged with their hauler for special pick-up of these items (31%). One in 10 said they leave their bulky items in public places like curbs or someone else's property.

24. Disposal methods for bulky items, electronics, and appliances (N=1,250-1,265)



Notes: Based on responses to resident survey questions 17A and 18A in the appendix.

** "Put in the trash" was not a response option for large items, as large items were defined as items that do not fit in the trash.

Focus group participants explained that their lack of knowledge about disposal sites, transportation limitations, inconvenient schedules of disposal sites, and fees for disposal all discouraged proper disposal of these items. They recommended a system allowing a specified number of free item disposals per year and/or the option to schedule curbside pick-up of these items.

Improper disposal methods (putting the items in the trash or leaving them in public places or somebody else's property) were most frequently reported by Ward 1 residents, Hispanic/Latino residents, and residents under age 25. Black/African American residents were less likely than others to leave items on the curb, but were more likely than others to put their unwanted appliances, TVs, and computers in the trash. Residents in multi-family housing were also more likely than single-family residents to report putting their unwanted appliances, TVs, and computers in the trash. Residents over the age of 64 were less likely than others to put their unwanted items in the trash or in public places.

The retail drop-off, disposal facility, and special hauler pick-up disposal methods tended to be reported more by older residents and residents with higher incomes. Residents in multi-family housing were less likely to arrange for special pick-up with their haulers, and were also about half as likely as single-family residents to take these items to community clean-up events. Disposal of these items at community clean-up events was also more common among higher-income and older residents. Residents of color were less likely than white residents to dispose of these items at community clean-up events.

About two-thirds of residents were aware of the community clean-up event opportunities to dispose of these unwanted items, and more than two-fifths said they have participated in one of these events (Figure 25).

25. Awareness and participation in Community Clean-Up Events (N=1,257)



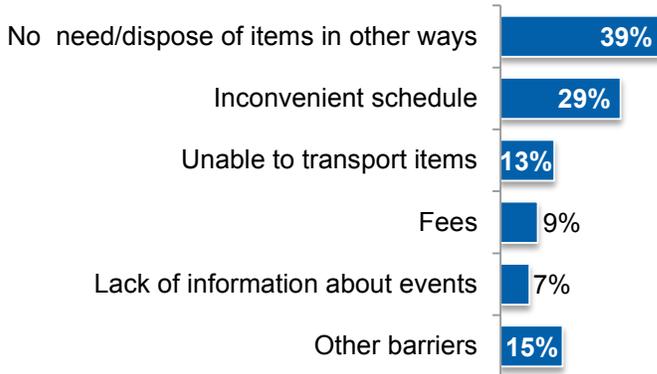
Note: Based on responses to resident survey questions 19A-19B in the appendix.

Awareness of the community clean-up events was lowest among residents under age 25 (29%), Asian residents (34%), residents in multi-family housing (54%), residents of Ward 2 (55%), and residents with incomes under \$25,000 (57%). These groups of residents were also less likely than other residents to have participated in a community clean-up event.

Awareness of the events increased with age and income, as did the participation rates among those who were aware of the events; younger residents who were aware of the events were less likely to participate than older residents who were aware of the events. In addition, once they were made aware of the events, Black/African American residents and single parents both participated at high rates.

When asked why they have never participated in a community clean-up event even though they are aware of them, residents most frequently said they had no need or nothing to dispose of (39%) and that the scheduled times of the events are inconvenient for them (29%) (Figure 26). Others mentioned their inability to transport items to the events (13%), the fees charged at the events (9%), and a lack of information about the events (7%).

26. Why haven't you participated in a Community Clean-Up event? (open-ended) (N=252)

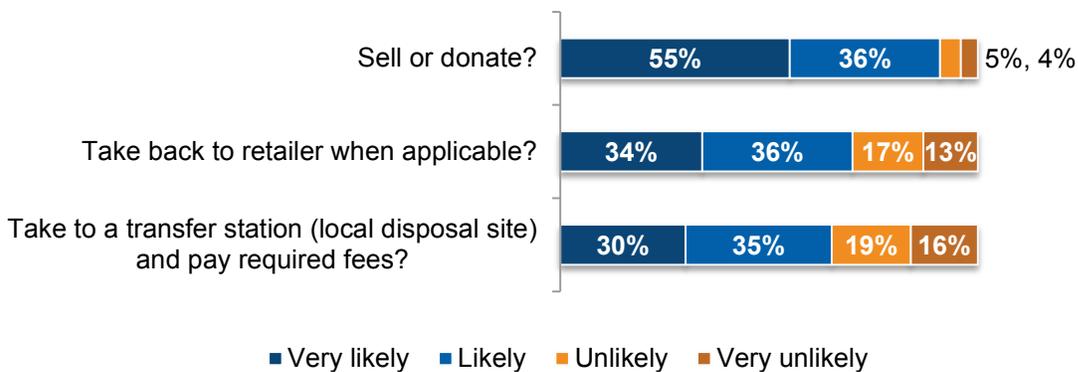


The inability to transport items was a more significant barrier for Black/African American residents (30%), residents over the age of 64 (27%), residents of Ward 6 (27%), and residents with incomes under \$25,000 (21%). Fees were mentioned most frequently by Black/African American residents (17%), and the inconvenient schedule was noted most by residents with incomes over \$100,000 (45%).

Alternative bulky waste disposal options

When asked how they would dispose of their bulky items if the community clean-up events were no longer organized, most respondents said they were likely or very likely to sell or donate the items (91%), take the item back to a retailer (70%), or take it to a transfer station and pay fees (65%) (Figure 27).

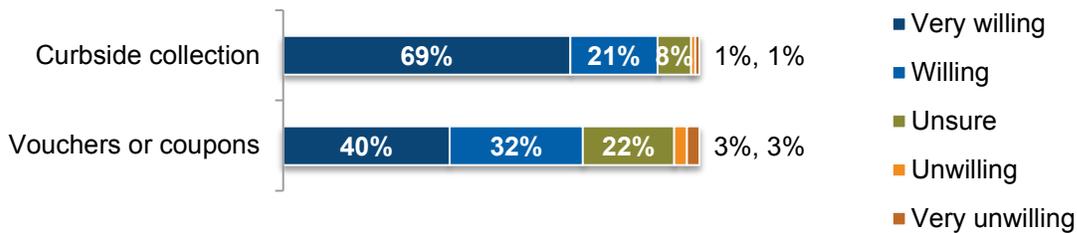
27. If the Community Clean-Up Events are no longer organized, how likely are you to dispose of bulky items (appliances, electronics, and furniture) in each of the following ways? (N=1,074-1,166)



Willingness to take their bulky items to a transfer station and pay the required fees was lowest among residents under age 25 (20%), Black/African American residents (48%), and Hispanic/Latino residents (54%), while residents with incomes over \$100,000 (80%) and residents over age 64 (76%) were most likely to say they would use this disposal method.

When asked about two potential bulky waste disposal programs, 9 in 10 residents were very willing (69%) or willing (21%) to use a curbside collection program for bulky waste, and 7 in 10 were very willing (40%) or willing (32%) to use a voucher or coupon system to dispose of their items for free at a disposal site (Figure 28). There were few differences across resident groups in their willingness to participate in these programs, but Hispanic/Latino residents were particularly willing to participate in both.

28. How willing are you to use these possible bulky waste disposal programs to dispose of your unwanted bulky items? (N=1,259-1,270)



Key stakeholder insights – bulky waste disposal

Key stakeholders generally agreed that City’s current bulky waste management system has weaknesses, as illustrated by the scattered old couches on curbs and broken televisions next to dumpsters. The City’s current primary method of handling residential bulky waste, community clean-up events, received mixed reviews and few strong opinions from key stakeholders. Most described the events as somewhat useful in helping a small segment of the population to clean out the old unwanted items that they would otherwise store:

I'd say, over the past two decades or so that communities have been doing them, that they have been successful in getting people to drag stuff out of their basement and not throw it in the alley.

Key stakeholders noted that the events are limited in their reach, however, and may not be a feasible option for residents with limited mobility, tight schedules, or low incomes (as fees vary by neighborhood).

On a scale of 1-5, five being incredibly effective, I'd put them at about a 2. My understanding is they reach the same people year after year. They're community-based, which is good, but that leads to inconsistencies in how they're managed, and in fees. There's not necessarily as much a push to get more people in, or to make it easier to understand what's going on. I don't know how effective they are, just have suspicions that they may not reach everybody in the community. And I'm not sure people can get the items from their house to the clean-up events.

Attendance has gone down city-wide. Part is people not being able to get there, not being able to drive. But there are also a lot more options for disposal if you can afford them.

A few key stakeholders, including several representatives of the District Councils, emphasized the importance of the community-building aspect of the events, where residents have the opportunity to get out and interact with their neighbors:

They're a great social event, just like the yard waste sites. A place for community to gather, help one another out, feel like they're doing the right thing. It reinforces community in some ways. If they're provided well, and are available enough, they probably have some community impact in reducing the incidence of illegal dumping.

A couple of District Councils said they also depend on the revenue from the events, so while they generally agreed that the attendance at (and need for) the events has declined over time, most indicated that they would continue to help with the events.

We used to have to send people away, but we get fewer people every year. As long as we're getting paid, I wouldn't give it up, because there are people who appreciate and need it.

Several District Council representatives agreed, however, that they would appreciate additional support from the City in the coordinating roles that are duplicated across the community clean-up events.

When asked about alternative bulky waste management strategies, some suggested a voucher system (as described above) to spread the volume of bulky waste over the whole year and better equip haulers and transfer stations to fully process the items and recycle as much of them as possible:

I think the voucher would be a good idea because you can process the items more fully, and it would save the city about one-third of their clean-up cost.

While a voucher system may reduce the monetary barrier to proper disposal, mobility challenges would still prevent proper disposal for some residents. To address this challenge, key stakeholders pointed to the City of Minneapolis as a model of an effective bulky waste system with curbside/alley collection:

In Minneapolis, you pay for it on your utility bill, you put your bulkies out, and they're managed appropriately. In Saint Paul, you don't pay the city, but you do all the work.

Minneapolis does curbside collection of bulky waste, and it's free at the point of disposal (like recycling). If I have to pay at the point of disposal to get rid of something, I'm just going to dump it.

On the other hand, some acknowledged the problems with such convenient disposal options, namely, that convenient disposal reduces the likelihood of reuse of the items and exacerbates the disconnect between the resident and the destination of his or her trash:

Residents put it in the alley and it disappears. None of it is being reused, fixed, or repaired. We're missing job creation opportunities in repairing those items. I also don't think it's very cost-effective.

It's a really slow process to get people to understand that reuse is an option for them. To them, it's just disposal when they can put it in their alley and it disappears. We need a system where reuse becomes tangible, real, and an opportunity as opposed to disposal.

Key stakeholders encouraged Saint Paul to consider creating or promoting several reuse options for unwanted bulky items, from online options like Craigslist and Twin Cities Free Market to retailer disposals and charitable donations to a harder-to-recycle center or maker space, a free shop for building materials:

A big value of the harder-to-recycle center is the one-on-one conversation that you have when you drop it off. When the government does it on behalf of citizens, you lose the citizen responsibility.

Think about ways to reuse that are innovative. A maker space with a building materials reuse area could be a huge draw and even part of the creative enterprise proposal discussed in South St. Anthony Park. This used to be a country of makers and inventors. The privately owned maker space in north Minneapolis, The Mill, is a great example of how these spaces can work. If one had a building materials reuse component, which could be a huge, huge benefit to the city.

Overall, key stakeholders recommended a diversified approach to bulky waste management, including promotion and facilitation of these reuse options, a voucher system to reduce the monetary disincentives to proper disposal, and/or a curbside collection option for residents with limited mobility. This multi-faceted approach could help to clean up Saint Paul's curbs while maintaining incentives for reuse of unwanted bulky items.

Trash collection

Key findings

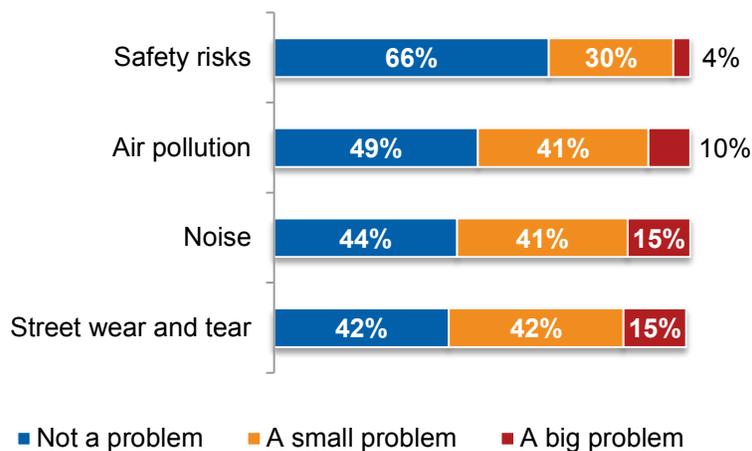
- About half of residents reported at least small problems with air pollution (51%), noise (56%), and street wear and tear (57%) related to trash and recycling truck traffic in their neighborhoods.
- 9 in 10 residents expressed satisfaction with their current trash haulers, but only about half (47%) said their trash cost is reasonable (39% were unsure).
- Half of residents were unsure whether their trash is managed in a way to best protect the environment after it leaves their house.
- Residents' highest priorities in choosing a trash hauler are cost and customer service, which are both very important to about two-thirds of residents. Half of residents also agreed that hiring a local and/or family-owned hauler is important to them.
- Residents expressed few strong opinions about the way their trash hauler is selected and how their trash billing is managed.
 - They were more likely to agree (37%) than disagree (22%) that the City should contract directly with trash haulers, but more residents were unsure (41%).
 - They were also more likely to agree (38%) than disagree (24%) that choosing and contracting directly with haulers is important to them, but more residents were unsure (39%).
- Based on a study conducted for the MPCA, the average Saint Paul household paid \$30.46 per month for recycling and trash collection with a 90-gallon cart in 2009.
- In the 2013 Minneapolis organized trash and recycling system, residents pay \$23.66 for recycling and trash collection, including single-sort recycling collection, bulky and yard waste removal, alley plowing, and other miscellaneous waste services.
- Nearly all key stakeholders stressed the inefficiencies, street wear and tear, environmental impact, and air/noise pollution associated with excessive truck traffic in the current trash collection system.
- Key stakeholders overwhelmingly recommended that the City assume a coordinating role in trash collection to secure fairer pricing, increase efficiency, and reduce truck traffic.

Problems of truck traffic

About half of residents reported at least small problems with air pollution (51%), noise (56%), and street wear and tear (57%) related to trash and recycling truck traffic in their neighborhoods (Figure 29). In addition, about one-third reported at least a small problem with safety risks posed by garbage and recycling truck traffic.

In general, these problems were reported most by white residents, single-family residents, higher-income residents, residents between the ages of 25-44, residents with children, and residents of Ward 3. These problems were reported least by residents of Wards 5 and 7, residents in multi-family housing, single adults, low-income residents, residents of color, and residents under age 25.

29. Please rate the severity of each of the following problems related to trash and recycling truck traffic in your neighborhood. (N=1,227-1,243)



Trash collection system

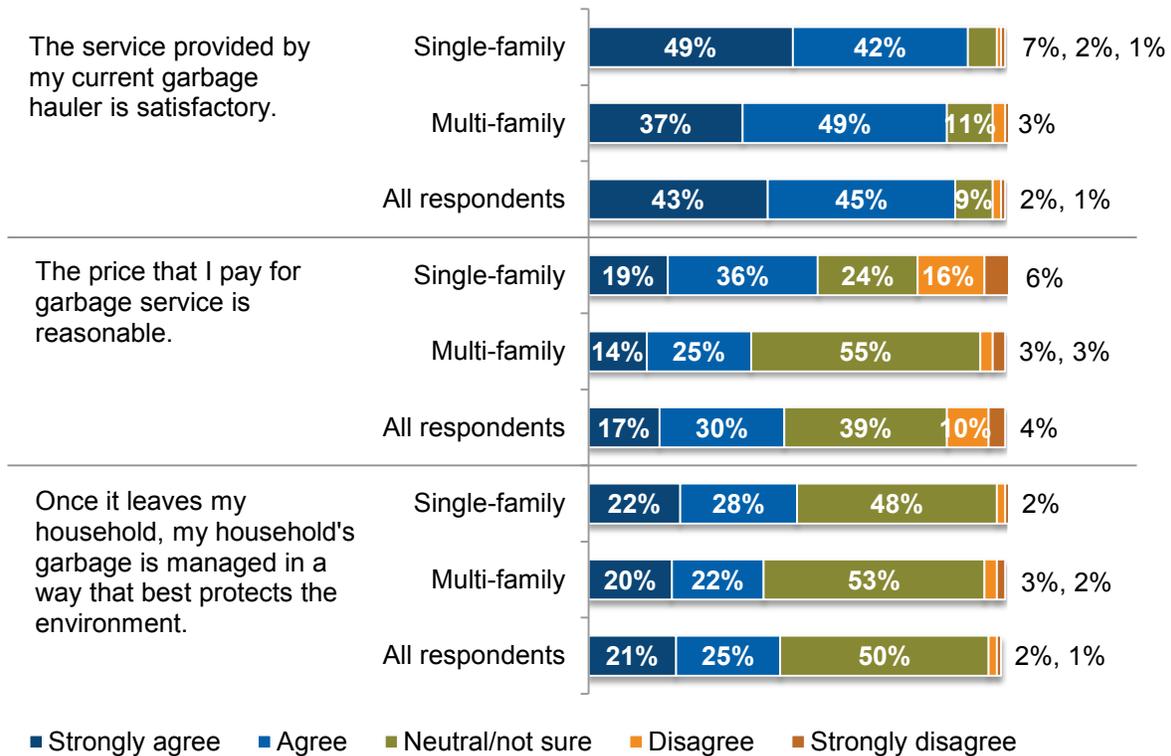
Residents expressed few strong opinions regarding the trash collection system, due in part to residents in multi-family housing having limited knowledge of their trash service (Figure 30). Residents' strongest opinions related to the quality service of their current hauler; nearly 9 in 10 said the service provided by their current hauler is satisfactory. Less than half of residents (47%) agreed that the price they pay for trash service is reasonable, but the majority of single-family residents (55%) agreed that their trash cost is reasonable. While nearly half of residents (46%) agreed or strongly agreed that their trash is managed in a way to best protect the environment, half (50%) said they were unsure.

Residents of Ward 1, Black/African American residents, and Hispanic residents were most likely to disagree that they receive satisfactory trash hauling service (10-12%

disagreed), while residents with incomes over \$100,000, residents over age 64, and residents of Ward 3 were most likely to agree (93-95%). About 1 in 5 Black/African American residents and residents of Ward 5 disagreed that their trash cost is reasonable.

30. Please tell us how much you agree or disagree with each of the following statements about your trash collection service. (N=1,202-1,243)

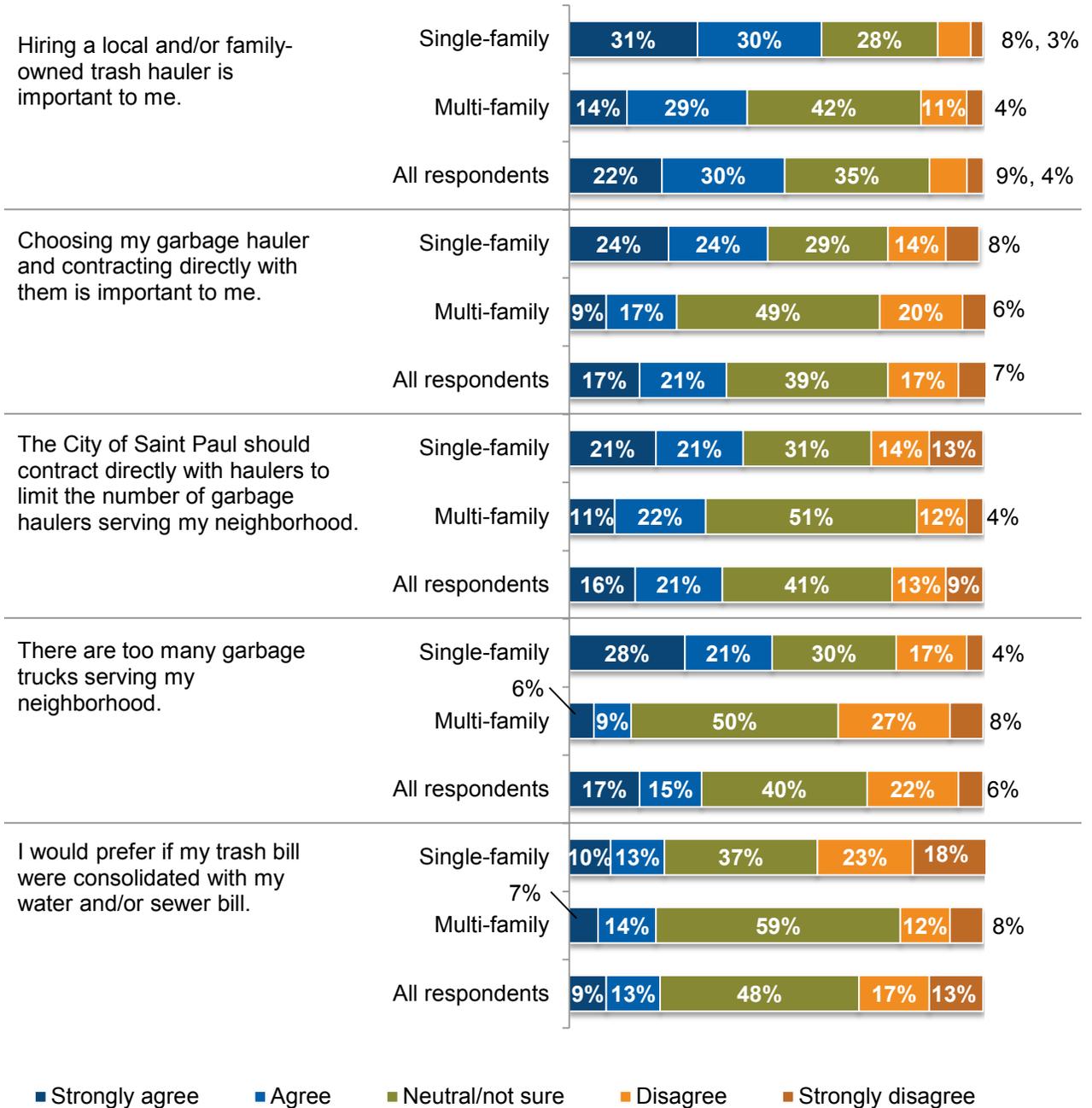
Residents were generally neutral on issues related to their neighborhood’s truck traffic



and the way their trash haulers are selected (Figure 31). Two-fifths of residents (about 3 in 10 single-family residents and half of residents in multi-family housing) were unsure if there are too many garbage trucks serving their neighborhoods (40%), if choosing and contracting directly with their own trash hauler is important to them (39%), and if the City should contract directly with haulers to limit garbage truck traffic (41%). About one-third of residents agreed or strongly agreed with each of these statements, while about one-quarter disagreed or strongly disagreed with each.

Almost half (48%) were unsure if they prefer to have their trash bill consolidated with their water and/or sewer bill, but 3 in 10 indicated that they would not prefer this change. Residents’ strongest preference in hauler selection was related to their choice of local and/or family-owned haulers; half (52%) agreed or strongly agreed that hiring a local and/or family-owned trash hauler is important to them.

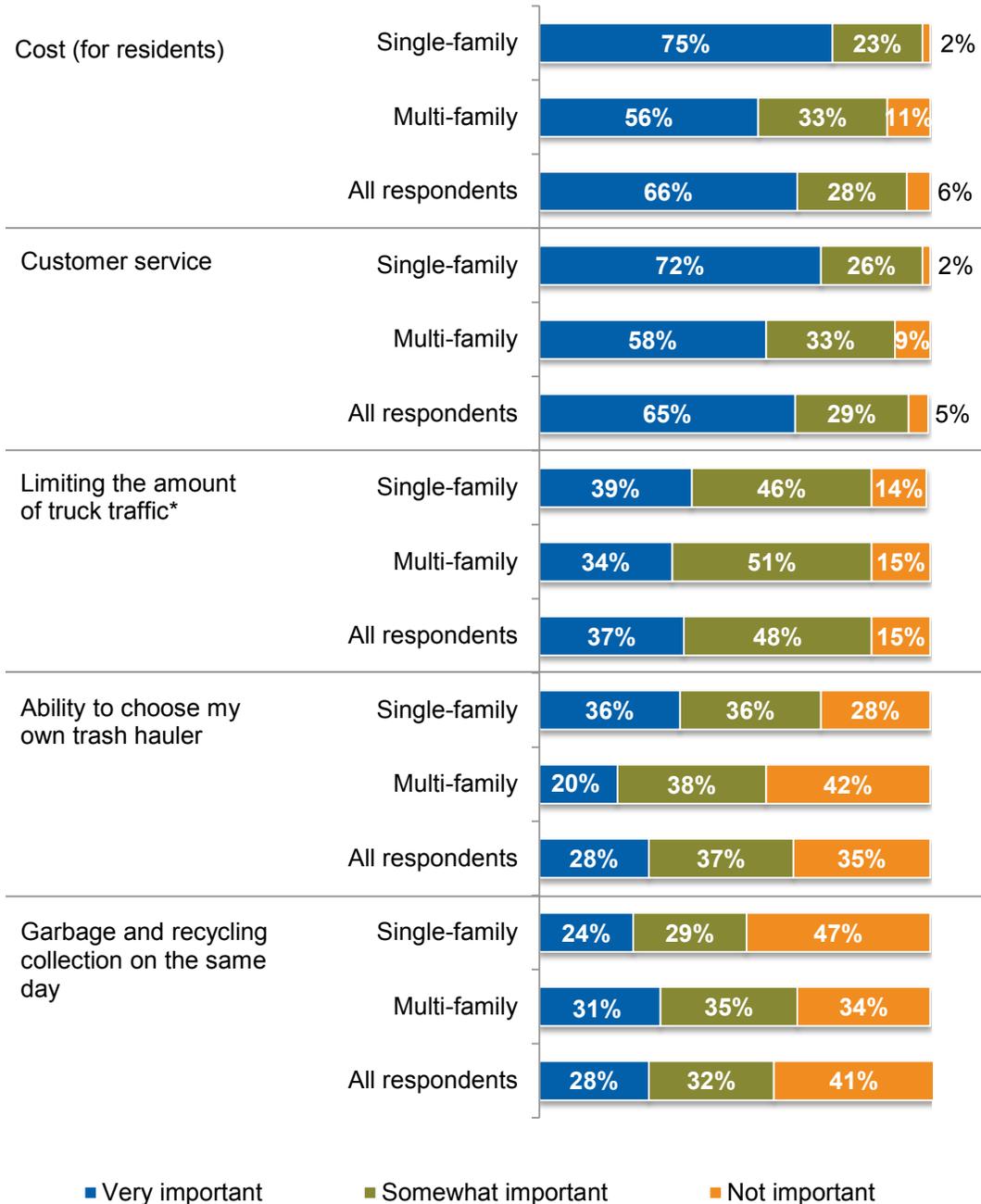
31. Please tell us how much you agree or disagree with each of the following statements about your trash collection service. (N=1,180-1,236)



Residents' top priorities in their trash collection system appear to be cost and customer service, both considered very important to two-thirds of residents and somewhat important to 3 in 10 residents (Figure 32). Most residents also prioritized limiting the amount of truck traffic in their neighborhoods, with 85 percent describing this as at least

somewhat important. About two-thirds said that choosing their own hauler is important, and three-fifths said that same-day trash and recycling collection is important.

32. Priorities in trash collection (N=1,230-1,246)



Notes: Based on responses to resident survey questions 25A-25E in the appendix.

*Full prompt reads: Limiting the amount of truck traffic (in relation to safety, air and/or noise pollution, or street maintenance concerns).

Cost was an especially important factor to Hispanic/Latino residents (92% rated cost as very important), single parents (77%), and single-family residents (75%).

2009 MPCA waste collection report

In 2009, Foth Infrastructure & Environment conducted a statewide study of trash collection systems on behalf of the Minnesota Pollution Control Agency. The study, which aimed to explore the differences in efficiency, pricing, and environmental impacts between open and organized trash collection systems, illustrated that open trash collection systems were characterized by reduced collection efficiency, increased truck traffic, and higher and more variable collection fees.

The average cost per household per month for organized MSW collection service is less than open MSW collection service for all levels of service (30, 60 and 90 gallon containers). The average difference between the organized system charges to residents for each service level (30, 60 and 90 gallons) and the open system charges is 19% to 53% higher in open systems for each service level.⁶

In Saint Paul's open trash collection system, single family homes were served by 15 trash haulers in 2012 (the most current data available from Regional Waste Hauler Licenses). About two-thirds of households are served by three large national firms and one regional multi-state firm, and about one-third by firms that collect waste in the metropolitan area. Based on the 2009 study conducted for the MPCA, the average Saint Paul household paid between \$24.63 (for a 30-gallon trash cart) and \$30.46 (90-gallon trash cart) for trash and recycling collection in 2009, including taxes and the \$2.25 per household recycling fee, but not including bulky or yard waste removal. In metropolitan area communities with organized trash collection, the average ranged from \$14.76 (30-gallon) to \$23.83 (90-gallon) for these services.⁷

As of 2013, solid waste management fees in Minneapolis's organized system ranged from \$20.37 for a 30-gallon trash cart to \$23.66 for a 90-gallon trash cart, including all taxes, single-sort recycling collection, bulky and yard waste removal, alley plowing, graffiti removal, and other miscellaneous solid waste services.⁸ A comparison of the trash and recycling fees and services in Saint Paul and Minneapolis is shown in Figure 33.

⁶ Analysis of Waste Collection Service Arrangements. Minnesota Pollution Control Agency, June 2009 (Foth Infrastructure & Environment). Available at: <http://www.pca.state.mn.us/index.php/view-document.html?gid=4514>.

⁷ *ibid.*

⁸ Solid Waste & Recycling Fees and Charges. City of Minneapolis website, accessed 6/10/13. Available at: http://www.minneapolismn.gov/solid-waste/customer/solid-waste_billing.

33. Twin Cities trash and recycling collection systems

	Saint Paul, 2009 ⁹	Maplewood, 2013 ¹⁰	Minneapolis, 2013 ¹¹
Total monthly fee	\$30.46 (average)	\$15.73	\$23.66
Trash system type	Open	Organized	Organized
Trash service	90-gal cart	95-gal cart	94-gal cart
Recycling sorts	2	1	1
Recycling freq.	Weekly	Weekly	Biweekly
Recycling bin	14- to 18-gallon bin	18-gallon bin	90-gallon wheeled, lidded cart
Other services included in fee	Recycling drop-off site	N/A	Yard waste removal Bulky waste removal Alley plowing Graffiti removal

Key stakeholder insights – trash collection

Key stakeholders generally struggled to identify strengths of the current trash collection system. A few acknowledged the system’s original principle of competition and resident choice, which they said was designed to keep costs down and protect residents’ freedom to choose the hauler that best suits them.

Nearly all key stakeholders stressed the inefficiencies, street wear and tear, environmental impact, and air/noise pollution associated with excessive truck traffic in the current trash collection system, as multiple haulers serve each block daily. Several key stakeholders also noted the higher costs paid by Saint Paul residents (on average) for trash collection compared to Minneapolis.

I've heard many complaints about noise, wear and tear, etc. Complaints are well documented. There's a fair amount of inefficiency there. And I think people are overpaying for the service that they get. The county did a big study on this, back in 2000-01. Two houses, same hauler, same service, next door, one paying twice what the other paid. Perception is that the rates are competitive and consistent from hauler to hauler, but even within one company, they're very different. Further research since has shown that. The market isn't working, this free market system of choice only works if you're a very aggressive consumer. People who aren't trained to be aggressive consumers aren't getting the best deal.

⁹ Analysis of Waste Collection Service Arrangements. Minnesota Pollution Control Agency, June 2009 (Foth Infrastructure & Environment). Available at: <http://www.pca.state.mn.us/index.php/view-document.html?gid=4514>.

¹⁰ Trash and yard waste information for Maplewood residents. City of Maplewood and Allied Waste. Accessed 8/5/13. Available at: <http://www.ci.maplewood.mn.us/DocumentCenter/View/9017>.

¹¹ Solid Waste & Recycling Fees and Charges. City of Minneapolis website, accessed 6/10/13. Available at: http://www.minneapolismn.gov/solid-waste/customer/solid-waste_billing.

Finally, several mentioned that the current decentralization prevents the City from setting trash prices to reduce waste and incentivize recycling and composting, as the City has no control over trash pricing structures. A thoughtfully designed trash pricing system could make a significant contribution to residential recycling.

Key stakeholders overwhelmingly recommended that the City assume a coordinating role in trash collection to secure fairer pricing, increase efficiency, and reduce truck traffic.

The City needs to take control of this system, from an economic and environmental stewardship perspective, whatever control means. As diverse as the city is becoming, and with the challenges it faces, it needs to look for all opportunities to be more efficient.

One key stakeholder noted that most trash haulers – who have generally been assumed to oppose this coordinating role for the City – are now on board with such a change.

I'd like us to think about organized collection.... The industry has come far, and Saint Paul should catch up. I know it's been a political hot potato, but the industry has changed its attitude on this.

Most key stakeholders proposed zoning the City and selecting one hauler to serve each zone, though one suggested that a single city-wide hauler would be more efficient and a few expressed no opinion on the number of haulers that should be involved.

Organizing the city by district or ward, awarding those hauling contracts to smaller haulers, seems like a win-win. Fewer trucks, more efficient, standardized pricing, supporting small haulers.

If we can't have a contract for the entire city, I'd at least have zones so everyone collects on one day in a neighborhood. Makes no difference to me whether we have one hauler or several, as long as it's one per zone and we're getting the price down. I think the city would save a lot of money.

Of those who preferred zoning up the city, most were motivated by an interest in continuing to support small, local, and/or family-owned haulers (a priority shared by the majority of residents, as shown in Figure 31).

It's not a problem that we have so many small, independent haulers. They're actually a blessing. As we characterize the need to reduce waste, it comes off as a need to reduce waste haulers. There's a lot of entrepreneurial spirit in those companies, and I think they should be supported.

A few key stakeholders noted that City involvement in the trash collection system would enable other efficiencies in trash collection as well. For example, the City could design the pricing structure to better incentivize waste reduction, recycling, and composting. Trash and recycling collection could also be coordinated for the same day of the week,

simplifying the process for residents. A few suggested that, if a curbside organics recycling program were implemented, a City role in the trash collection system could enable a move to bi-weekly trash collection in the future, for individual residents or citywide, if that becomes a feasible and efficient choice.

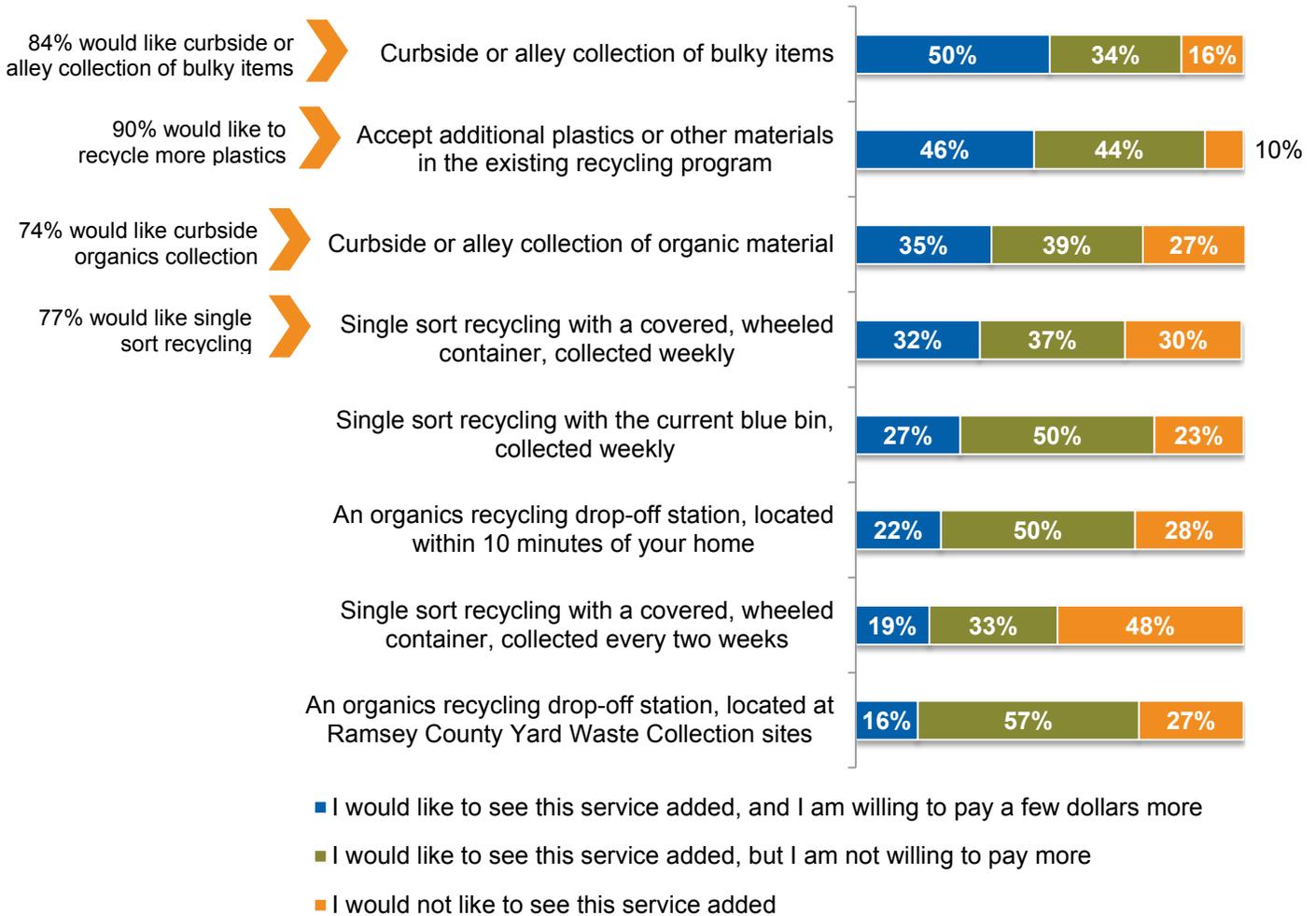
Resident priorities in new services

Residents expressed high levels of interest in several new service options that were presented to them. Residents' top priorities in service options were the integration of additional plastics into the existing recycling program (90% would like this service added), curbside or alley collection of bulky items (84%), single sort recycling with the current blue bins (77%), and curbside organics collection (74%) (Figure 34). Residents were most willing to pay more for curbside collection of bulky items (50%) and additional plastics in the existing recycling program (46%).

Residents also expressed interest in single sort recycling with a covered, wheeled container and weekly collection (69%) and one-third of residents were willing to pay more for this service (compared to one-quarter who are willing to pay more for single sort in the current blue bin). Residents expressed interest in organics drop-off stations as well, but were less willing to pay for those options (16-22%) than for curbside organics collection (35%).

The Fall 2012 Ramsey County survey also found high resident interest in and willingness to pay for curbside collection of organic waste. Nine in 10 Ramsey County residents said they would participate in a curbside collection program for no additional cost, and 57 percent said they would participate if they were charged \$2-4 per month for the service. When asked about their willingness to participate in an organics drop site located within 10 minutes of their home, 70 percent of Ramsey County residents said they would participate if there were no additional charge, and 31 percent said they would participate if charged \$2-4 per month for the service.

34. New service priorities (N=1,130-1,196)



Note: Based on responses to resident survey questions 26A-26H in the appendix.

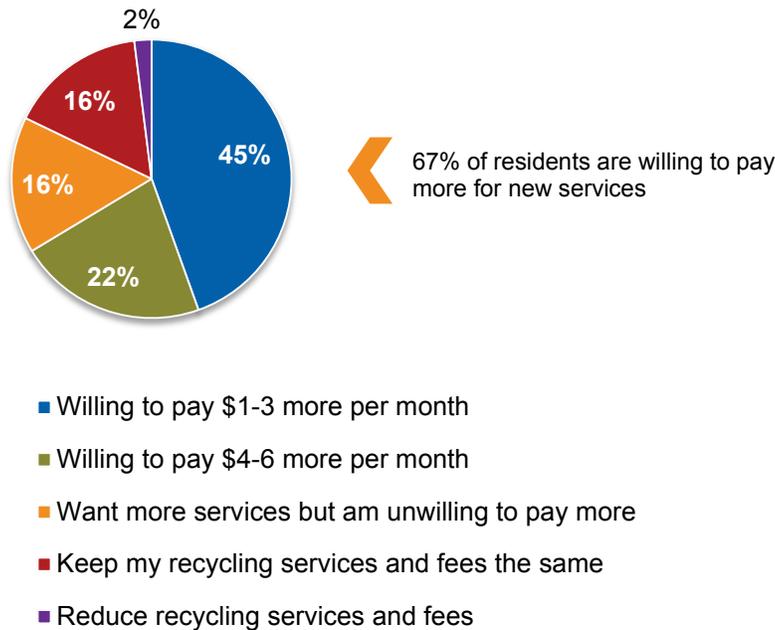
Low-income residents and single parents are most willing to pay more for single-sort recycling in the current blue bin, but are among the least willing to pay more for single-sort recycling in a cart. Black/African American residents and Asian residents were more willing than white residents to pay more for single-sort recycling in the current bin, but were less willing to pay more for any of the other services listed.

Residents over age 64 were less likely than all other groups to want curbside or alley collection of bulky items (32% would not like to see the service added) or organics (42% would not like to see the service added). Residents under age 25, meanwhile, were most willing to pay for curbside organics collection (48%).

Two-thirds of residents said they are willing to pay at least an additional \$1-3 per month for the services they selected in Figure 34, and one-fifth said they would pay \$4-6 more

per month for these services (Figure 35). Residents with higher incomes were more willing to pay \$4-6 per month (34% of residents with incomes over \$100,000), while about half of residents with incomes over \$25,000 were willing to pay \$1-3 per month. Most families with incomes under \$25,000 per year would like their recycling fees to stay the same, and about one-quarter would like to see additional recycling services without paying more. Residents over age 64 were more likely than other groups to prefer recycling fees and services to stay the same (34%), as were residents of Ward 7 (29%).

35. Willingness to pay for new services (N=1,184)



Note: Based on responses to resident survey question 27A in the appendix.

Issues to Consider

The results of this study make a clear case for a revival of Saint Paul’s recycling and waste management system to return the City to its historical position as a regional and national environmental leader. This study found strong evidence of readiness for change in the City, and represents a unique opportunity for the City to reshape its waste management programs and services to best meet the needs and tap into the strengths of Saint Paul. As many key stakeholders noted, this study is an essential step in the revitalization of Saint Paul’s recycling and waste management system; the next step is to develop a vision for where the City is going and map out how to get there.

With support from residents and key stakeholders, we recommend the following vision: a three-cart system designed to prioritize recycling and composting to help residents reduce their trash volume (and trash bill).



Key stakeholders also articulated this vision:

I think ultimately, you’re going to have collection of trash and recycling each bi-weekly, alternating, and you’ll have organics collected weekly. Once you take the organics out of the trash, your trash stops stinking, and it can sit forever.

One resident echoed this vision in a comment on Open Saint Paul:

St. Paul needs a comprehensive, zero-waste approach for dealing with waste which includes: curbside compost collection, single-sort recycling (to simplify the recycling program) and adding additional materials, such as plastics, to the recycling program.

Study findings point to the following recommendations to move Saint Paul toward this vision:

1. Launch a major educational and promotional campaign to inform residents and reinvigorate their enthusiasm around recycling, composting, and waste reduction:



- Saint Paul is well-known for its strong recycling education and outreach, but focus groups and survey results indicate that these efforts have largely missed multi-family housing, immigrant communities, and other communities of color.
- Proposed program changes will not only demand recycling reeducation to help residents adjust, but will be most successful with promotional outreach that sparks resident enthusiasm and engagement around the new program.

2. Expand and simplify the selection of plastics collected for recycling:



- 9 in 10 residents want to recycle more plastics, and nearly half of residents are willing to pay more for this service.
- Accepting more plastics was residents' top recommendation when asked what improvements they would make to their curbside recycling program.

3. Transition to a single-sort recycling collection system with wheeled, lidded carts:



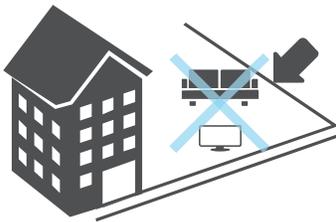
- 3 in 4 residents say they want single-sort recycling.
- Residents' top suggestions for bin improvement were increased availability, greater capacity, and lids.
- Simplifying the system promotes equity and more universal recycling; the current bins, sorting system, and distinctions between plastics create significant barriers for low-income residents, residents of color, and immigrant communities.

4. Transition to a source-separated organics (SSO) collection system (curbside or alley), paired with expanded education on food waste prevention and backyard composting:



- 2 in 3 residents are willing to separate organic waste for a recycling program.
- 3 in 4 residents want curbside organics collection.

5. Diversify bulky waste management to offer more convenient reuse and disposal options:



- 7 in 10 residents would use a voucher system to dispose of bulky items.
- 9 in 10 residents would use a curbside collection service for bulky items and half are willing to pay more for it.
- Key stakeholders noted that existing reuse options are limited, insufficiently promoted, and underused.

6. Coordinate trash collection to lower costs, reduce truck traffic, and design trash pricing to incentivize recycling:



- More than half of residents report problems with street wear and tear, air pollution, and noise related to trash and recycling truck traffic.
- 9 in 10 residents expressed satisfaction with their current trash haulers, but only about half (47%) said their trash cost is reasonable.
- Residents' top priorities in choosing a trash hauler are cost and customer service (but they also value supporting local/family-owned haulers).

While each of these recommendations can individually result in a tremendous reduction in Saint Paul's landfilled waste, the interactions that would be created by framing and implementing this as a whole package will produce a much greater impact than the sum of its parts. Key stakeholders emphasized that the full package – a holistic, system-wide overhaul – is key to meeting the City's ambitious waste reduction and diversion goals

(60 percent of waste recycled and 15 percent of waste diverted for organics recycling by 2030). Organized trash collection allows trash pricing to incentivize waste reduction, recycling, and composting, while the resulting increases in recycling and organics tonnage improve the efficiency and cost-effectiveness of those collection systems.

The recommended educational and promotional campaign offers an opportunity to not only teach residents about new program services and features, but to grab their attention and remind/reeducate them about current services and features that they may never have learned about. The promotional aspect – reigniting Saint Paul residents’ excitement and engagement around recycling, composting, and waste reduction – is what will ultimately allow Saint Paul to reach its ambitious waste reduction and diversion goals. And, of course, this educational and promotional campaign will be most cost-effective if the program is designed and (to the extent possible) implemented as a package.

These recommendations may also be more palatable to residents and key stakeholders when presented as a package. Resident excitement about any one new service or feature will spill over and inspire their participation in other services, and with a variety of new services offered, the package includes something for everyone.

- Recycling is simplified and expanded, enabling increased participation among current recyclers and new participation among residents who are confused by the current system or who are reached by the educational and promotional campaign.
- Residents who thought composting was too much of a hassle will find it is now convenient and cost-effective to turn their organic waste into soil and reduce the size of their trash cart.
- Residents who have struggled to get rid of unwanted bulky items will have a list of reuse and disposal options that allow them to keep the items off the curbs and out of the dumpsters, and in many cases, will get those items to other residents who want them.
- Residents value low prices and supporting local and family-owned trash haulers. Therefore, they will be thrilled to see their trash fees declining (even for the same size cart they have now) and will be supportive of the City of Saint Paul providing greater market shares to the local and family-owned haulers that they want to support.

In addition, the costs of new services will likely be offset by reduced trash fees when trash collection is organized, leading to minimal (if any) additional cost to residents for the new package. In fact, many families could see their overall waste management costs decline, as recycling and composting enables the use of smaller trash carts and/or less frequent trash collection. On the other hand, offering new services without organizing trash collection creates a need for additional revenue to fund the services. While two-thirds of residents are willing to pay \$1-3 more per month for new services, additional

fees could make the new services less palatable to cost-conscious residents. Furthermore, if Saint Paul offers the new services now and opts later to organize trash collection to reduce costs and improve collection efficiency, the change will likely face greater resident resistance without the new services sweetening the deal.

Of course, while the City may adopt this full package as its vision, logistical challenges will likely prevent the launch of the full system simultaneously. Staggered implementation, over time and/or across neighborhoods, is more realistic and has been the approach of other communities.¹² The benefits of adopting the full package as a vision do not demand that the entire package be implemented simultaneously, only that the *vision* be presented to residents as a package, with a concrete plan for implementation.

As the City of Saint Paul considers its vision for a recycling and waste management system, they could benefit from additional research to enhance their understanding of two main areas: resident preferences in organized trash collection, and effective strategies for implementing this program of services for residents in multi-family housing.

While residents clearly identified their priorities (cost and customer service) in selecting a trash hauler, they were more likely to be unsure than to have a stance on many questions about their preferences in trash collection. Their reasons for being unsure, factors that might cause them to have stronger preferences, and nuances behind their responses could all be relevant questions in additional qualitative research on the subject. Focus groups with residents would be an ideal format to help the City improve their understanding of resident preferences in trash collection.

The limitations in multi-family access to services for recycling, composting, and bulky waste disposal are well-documented, but little is known about effective strategies to improve multi-family access to these services. Saint Paul-Ramsey County Public Health has begun to work with landlords and property managers to learn more about the ways they might improve resident access to and participation in waste management services, but there is much yet to learn, both from landlords/ property managers and from peer cities like Portland, OR, that have begun to address these issues.

While the City could benefit from further exploration of these remaining questions, this assessment has revealed many concrete resident preferences and recommendations for a vision of Saint Paul's future waste management system. Resident and key stakeholder input indicate that City of Saint Paul, with its strong history of environmental stewardship and resident engagement, is well-positioned to bring this vision to life, contributing greatly to the Minnesota's waste reduction goals, and paving the path toward a Zero Waste Saint Paul.

¹² In fact, organizing trash collection and restructuring trash pricing could be more easily accomplished after additional plastics and organics have been diverted for recycling, as residents will have a better understanding of their significantly reduced trash volume.

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For more information about recycling and waste management in Saint Paul, visit:

www.stpaul.gov/recycleitforward

Appendix

Resident survey

Key informant interview

District Council focus group protocol

Somali renters focus group protocol

Hmong homeowners focus group protocol

Recent Latino immigrant focus group protocol

Recent Karen immigrant focus group protocol

English-speaking renters focus group protocol

To help the City of Saint Paul fully understand residents' current recycling, composting, and waste management habits, please answer all questions as completely and honestly as you can.

RECYCLING AND WASTE REDUCTION

First, we would like to learn about how your household participates in two primary methods of reducing our community's volume of trash: waste reduction and recycling.

1a. In the City of Saint Paul, residents may recycle a wide variety of items including paper, cardboard, glass bottles/jars, plastic bottles, metal food and beverage cans, juice boxes, and milk cartons. Thinking of these materials, what proportion of your household's recyclable waste do you recycle?

- ¹ All of your recyclable materials
- ² Most of your recyclable materials
- ³ Some of your recyclable materials

⁴ None of your recyclable materials → 1b. Why doesn't your household recycle?

2. How often does your household recycle the following items?

	Always	Sometimes	Never →	3. If never, why don't you recycle this item?		
				Did not know this item was recyclable	Choose not to recycle this item	Never have this item
a. Newspaper	<input type="checkbox"/> ¹	<input type="checkbox"/> ²	<input type="checkbox"/> ³ →	<input type="checkbox"/> ¹	<input type="checkbox"/> ²	<input type="checkbox"/> ³
b. Magazines and junk mail	<input type="checkbox"/> ¹	<input type="checkbox"/> ²	<input type="checkbox"/> ³ →	<input type="checkbox"/> ¹	<input type="checkbox"/> ²	<input type="checkbox"/> ³
c. Office and school papers	<input type="checkbox"/> ¹	<input type="checkbox"/> ²	<input type="checkbox"/> ³ →	<input type="checkbox"/> ¹	<input type="checkbox"/> ²	<input type="checkbox"/> ³
d. Paper/paperboard packaging (including boxes from cereal, cake, beer/pop, etc.)	<input type="checkbox"/> ¹	<input type="checkbox"/> ²	<input type="checkbox"/> ³ →	<input type="checkbox"/> ¹	<input type="checkbox"/> ²	<input type="checkbox"/> ³
e. Cardboard boxes	<input type="checkbox"/> ¹	<input type="checkbox"/> ²	<input type="checkbox"/> ³ →	<input type="checkbox"/> ¹	<input type="checkbox"/> ²	<input type="checkbox"/> ³
f. Juice boxes and milk cartons	<input type="checkbox"/> ¹	<input type="checkbox"/> ²	<input type="checkbox"/> ³ →	<input type="checkbox"/> ¹	<input type="checkbox"/> ²	<input type="checkbox"/> ³
g. Glass bottles and jars	<input type="checkbox"/> ¹	<input type="checkbox"/> ²	<input type="checkbox"/> ³ →	<input type="checkbox"/> ¹	<input type="checkbox"/> ²	<input type="checkbox"/> ³
h. Plastic bottles	<input type="checkbox"/> ¹	<input type="checkbox"/> ²	<input type="checkbox"/> ³ →	<input type="checkbox"/> ¹	<input type="checkbox"/> ²	<input type="checkbox"/> ³
i. Metal food and beverage cans	<input type="checkbox"/> ¹	<input type="checkbox"/> ²	<input type="checkbox"/> ³ →	<input type="checkbox"/> ¹	<input type="checkbox"/> ²	<input type="checkbox"/> ³
j. Clothing and linens	<input type="checkbox"/> ¹	<input type="checkbox"/> ²	<input type="checkbox"/> ³ →	<input type="checkbox"/> ¹	<input type="checkbox"/> ²	<input type="checkbox"/> ³
k. Pizza boxes (take-out or delivery)	<input type="checkbox"/> ¹	<input type="checkbox"/> ²	<input type="checkbox"/> ³ →	<input type="checkbox"/> ¹	<input type="checkbox"/> ²	<input type="checkbox"/> ³

4a. Are you aware of the free recycling drop-off center located at 309 Como Avenue?

¹ Yes (GO TO QUESTION 5)

² No → 4b. Now that you know there is a drop-off opportunity available, will you use the service as needed?

- ¹ Yes
- ² No

The next set of questions is for residents who live in buildings with 12 or more residential units.

5. Do you live in a building or townhome complex with 12 or more residential units (including apartments, condominiums, and townhome complexes)?
¹ Yes (GO TO QUESTION 6) ² No (SKIP TO QUESTION 7a)

6. FOR RESIDENTS OF MULTI-UNIT BUILDINGS OR COMPLEXES ONLY.	Yes	No
a. Does your building or complex provide ANY centralized recycling containers for residents?	<input type="checkbox"/> ¹	<input type="checkbox"/> ²
b. Does your building or complex provide ENOUGH centralized recycling containers for residents?	<input type="checkbox"/> ¹	<input type="checkbox"/> ²
c. Does your household put your recyclable materials in the centralized containers?	<input type="checkbox"/> ¹	<input type="checkbox"/> ²
d. If your household does not put your recyclable materials in the centralized containers, why not?		

RESIDENTS OF BUILDINGS OR COMPLEXES WITH 12 OR MORE UNITS, SKIP TO QUESTION 12a ON PAGE 3.

The next set of questions is for residents who are serviced by the curbside recycling program, including residents of single family homes and smaller apartment or condominium buildings with fewer than 12 residential units. Residences serviced by the curbside program can put recyclable materials in a blue bin on the curb for weekly pick-up.

- 7a. How often does your household place your recyclable materials on the curb for pick-up?
¹ Every week or almost every week
² About once every two weeks
³ About once a month
⁴ Occasionally, but less than once a month
⁵ My household does not participate in the curbside recycling program → 7b. Why not?

- 8a. Does the City-provided blue recycling bin meet your household's recycling needs?
¹ Yes

² No → 8b. Please describe the features of a recycling bin that would better meet your recycling needs.

9. Overall, how would you rate the curbside recycling service that your household receives?
¹ Excellent ² Good ³ Fair ⁴ Poor

10. The City of Saint Paul is interested in improving the curbside recycling program to best meet residents' needs. Thinking of all aspects of the program, including the materials accepted, the recycling bin, the timing of pick-up, the hauler, the informational materials and your access to them, and any other aspects, **what one or two changes would you suggest to improve the City's curbside recycling program?**

11. Would you prefer to have your recycling picked up from your alley or your curbside?

- ¹ Alley ² Curbside ³ No preference

12a. How do you get information about recycling services in your neighborhood or building?
(CHECK ALL THAT APPLY)

- ¹ Annual Saint Paul Guide to Recycling (from Eureka Recycling)
² Annual Going Green Guide (from Ramsey County)
³ Websites
⁴ 633-EASY or 222-SORT telephone hotlines
⁵ Friends and neighbors
⁶ Eureka Recycling or another recycling company
⁷ Building management (caretaker, landlord, management company, etc.)
⁸ Social media (Facebook, Twitter, etc.)
⁹ Other (12b. Please specify: _____)

13a. The City of Saint Paul is working to expand public space recycling opportunities. In which two of the following locations in the city would you most like to see additional recycling bins?

(PLEASE SELECT YOUR TOP TWO FROM THE FOLLOWING LIST)

- ¹ Public walkways, sidewalks, and streets
² Restaurants and bars
³ Schools
⁴ Community events and festivals
⁵ Parks, trails, and athletic fields
⁶ Hotels, meeting facilities, and other public venues
⁷ Shopping centers and stores
⁸ Gas stations
⁹ Other (13b. Please specify: _____)
¹⁰ I do not want to see recycling bins added in any of these places

14a. Next, we would like to ask about your household's waste reduction practices. For our purposes, waste reduction means eliminating the need to produce the item in the first place. In which of the following waste reduction practices do you and others in your household participate? (CHECK ALL THAT APPLY)

- ¹ Take a reusable shopping bag to store or do not take a bag if making a small purchase
² Use refillable water bottle or coffee mug
³ Rent or borrow items that are used infrequently, like equipment or tools, instead of purchasing them
⁴ Exchange or buy used items on Twin Cities Free Market, Craigslist, or other online exchange program, rather than purchasing new items
⁵ Purchase used items at thrift stores or consignment shops, rather than purchasing new items
⁶ Choose products that use less packaging or buy products in bulk
⁷ Package and refrigerate/freeze leftovers to reduce food waste
⁸ Repair items instead of replacing them
⁹ Shop for durable items that are likely to last longer
¹⁰ Other waste reduction practice(s) (not including recycling) → 14b. Please specify:

- ¹¹ My household does not participate in any waste reduction practices

DISPOSAL OF ORGANIC MATERIALS

15a. Now we would like to ask you about how your household manages food waste (such as banana peels, coffee grounds, and kitchen scraps). In which of the following ways does your household manage food waste? **(CHECK ALL THAT APPLY)**

- ¹ My household does not compost food waste **(GO TO QUESTION 15c)**
- ² My household composts food waste in a backyard compost bin **(GO TO QUESTION 16)**
- ³ My household composts food waste in a worm bin **(GO TO QUESTION 16)**
- ⁴ My household composts food waste at an organic materials drop-off site **(GO TO QUESTION 16)**

<input type="checkbox"/> ⁵ My household composts food waste in another way →	15b. How? _____ _____ _____
	(GO TO QUESTION 16)

15c. If your household does not compost food waste, why not?

16. There are a variety of methods to manage household organic materials, such as food waste and non-recyclable paper products like napkins and paper towels. In general, how willing would you be to separate organic waste from the rest of your household’s trash, if your community had a program that would allow you to recycle this waste?

- ¹ Very willing ² Willing ³ Unsure ⁴ Unwilling ⁵ Very unwilling

DISPOSAL OF BULKY ITEMS AND ELECTRONICS

Next, we would like to ask about how your household disposes of your unwanted appliances, electronics, furniture, and other bulky items. Remember, your responses are confidential, and your honest answers are important to us.

17a. How do you generally dispose of unwanted appliances, TVs, or computers? **(CHECK ALL THAT APPLY)**

- ¹ Put it in the trash
- ² Take it to a retail drop-off
- ³ Take it to a designated disposal facility
- ⁴ Take it to a community clean-up event
- ⁵ Arrange a special pick-up with hauler
- ⁶ Donate or sell it
- ⁷ Leave it in a public place (like a curb) or on someone else’s property
- ⁸ Something else (17b. Please specify: _____)

18a. How do you generally dispose of large items such as furniture, mattresses, or construction materials that are too large for your garbage bin? **(CHECK ALL THAT APPLY)**

- ¹ Take it to a retail drop-off
- ² Take it to a designated disposal facility
- ³ Take it to a community clean-up event
- ⁴ Arrange a special pick-up with hauler
- ⁵ Donate or sell it
- ⁶ Leave it in a public place (like a curb) or on someone else’s property
- ⁷ Something else (18b. Please specify: _____)

The City of Saint Paul partners with local District Councils to organize annual Community Clean-Up Events. These events are an opportunity for residents to properly dispose of large refuse items and recycle materials not collected in the curbside program, and to share usable goods with others. Clean-Up Events are scheduled May through October each year.

19a. Are you aware of the Community Clean-Up Event opportunities?

<input type="checkbox"/> ¹ Yes →	19b. Have you ever participated in a Community Clean-Up Event?
<input type="checkbox"/> ² No	<input type="checkbox"/> ¹ Yes
	<input type="checkbox"/> ² No → 19c. Why not? _____

20. If the Community Clean-Up Events are no longer organized, how likely are you to dispose of bulky items (appliances, electronics, and furniture) in each of the following ways?

	Very likely	Likely	Unlikely	Very unlikely
a. Take to a transfer station (local disposal site) and pay required fees	<input type="checkbox"/> ¹	<input type="checkbox"/> ²	<input type="checkbox"/> ³	<input type="checkbox"/> ⁴
b. Take back to retailer when applicable	<input type="checkbox"/> ¹	<input type="checkbox"/> ²	<input type="checkbox"/> ³	<input type="checkbox"/> ⁴
c. Sell or donate	<input type="checkbox"/> ¹	<input type="checkbox"/> ²	<input type="checkbox"/> ³	<input type="checkbox"/> ⁴

Other communities have implemented programs to help offset the cost for residents to properly dispose of their unwanted bulky items. Please tell us your willingness to participate in each of the options below.

21a. One option is to provide residents with a limited number of coupons each year to reduce the disposal fees charged at a transfer station or disposal facility. Residents delivering their bulky items to these facilities could use these coupons to pay a reduced disposal fee for a limited number of items each year. How willing are you to use this program to dispose of your unwanted bulky items?

- ¹ Very willing
- ² Willing
- ³ Unsure
- ⁴ Unwilling
- ⁵ Very unwilling

21b. Another option is a curbside program, that would allow for 1-3 free curbside pick-ups of unwanted bulky items per year. How willing are you to use this program to dispose of your unwanted bulky items?

- ¹ Very willing
- ² Willing
- ³ Unsure
- ⁴ Unwilling
- ⁵ Very unwilling

22. Next, we would like to ask you about some possible waste disposal problems in your neighborhood. Please rate the severity of each of the following problems in your neighborhood.

	Not a problem	A small problem	A big problem
a. Litter	<input type="checkbox"/> ¹	<input type="checkbox"/> ²	<input type="checkbox"/> ³
b. Illegal dumping of appliances, electronics, and bulky items like furniture in dumpsters or public spaces	<input type="checkbox"/> ¹	<input type="checkbox"/> ²	<input type="checkbox"/> ³
c. Illegal dumping of trash in someone else's dumpsters or bins	<input type="checkbox"/> ¹	<input type="checkbox"/> ²	<input type="checkbox"/> ³

WASTE DISPOSAL

23. This next set of questions asks about your experiences and opinions regarding garbage collection in your neighborhood, including the service you receive from your garbage hauler. Your input is very important, even if you live in a building where you do not choose your own hauler. Please tell us how much you agree or disagree with each of the following statements.

	Strongly agree	Agree	Neutral/ Not sure	Disagree	Strongly disagree
a. The service provided by my current garbage hauler is satisfactory.	<input type="checkbox"/> ¹	<input type="checkbox"/> ²	<input type="checkbox"/> ³	<input type="checkbox"/> ⁴	<input type="checkbox"/> ⁵
b. There are too many garbage trucks serving my neighborhood.	<input type="checkbox"/> ¹	<input type="checkbox"/> ²	<input type="checkbox"/> ³	<input type="checkbox"/> ⁴	<input type="checkbox"/> ⁵
c. The price that I pay for garbage service is reasonable.	<input type="checkbox"/> ¹	<input type="checkbox"/> ²	<input type="checkbox"/> ³	<input type="checkbox"/> ⁴	<input type="checkbox"/> ⁵
d. I would prefer if my trash bill were consolidated with my water and/or sewer bill.	<input type="checkbox"/> ¹	<input type="checkbox"/> ²	<input type="checkbox"/> ³	<input type="checkbox"/> ⁴	<input type="checkbox"/> ⁵
e. Choosing my garbage hauler and contracting directly with them is important to me.	<input type="checkbox"/> ¹	<input type="checkbox"/> ²	<input type="checkbox"/> ³	<input type="checkbox"/> ⁴	<input type="checkbox"/> ⁵
f. The City of Saint Paul should contract directly with haulers to limit the number of garbage haulers serving my neighborhood.	<input type="checkbox"/> ¹	<input type="checkbox"/> ²	<input type="checkbox"/> ³	<input type="checkbox"/> ⁴	<input type="checkbox"/> ⁵
g. Hiring a local and/or family-owned trash hauler is important to me.	<input type="checkbox"/> ¹	<input type="checkbox"/> ²	<input type="checkbox"/> ³	<input type="checkbox"/> ⁴	<input type="checkbox"/> ⁵
h. Once it leaves my household, my household's garbage is managed in a way that best protects the environment.	<input type="checkbox"/> ¹	<input type="checkbox"/> ²	<input type="checkbox"/> ³	<input type="checkbox"/> ⁴	<input type="checkbox"/> ⁵

24. Next, we would like to ask you about some possible concerns about truck traffic in your neighborhood. Please rate the severity of each of the following problems in your neighborhood.

	Not a problem	A small problem	A big problem
a. Safety risks posed by garbage and recycling truck traffic	<input type="checkbox"/> ¹	<input type="checkbox"/> ²	<input type="checkbox"/> ³
b. Air pollution caused by garbage and recycling truck traffic	<input type="checkbox"/> ¹	<input type="checkbox"/> ²	<input type="checkbox"/> ³
c. Noise caused by garbage and recycling truck traffic	<input type="checkbox"/> ¹	<input type="checkbox"/> ²	<input type="checkbox"/> ³
d. Street wear and tear caused by garbage and recycling truck traffic	<input type="checkbox"/> ¹	<input type="checkbox"/> ²	<input type="checkbox"/> ³

25. Thinking about the system of residential garbage collection in your neighborhood, please tell us whether each of the following aspects is very important, somewhat important, or not important to your household.

	Very important	Somewhat important	Not important
a. Cost (for residents)	<input type="checkbox"/> ¹	<input type="checkbox"/> ²	<input type="checkbox"/> ³
b. Customer service	<input type="checkbox"/> ¹	<input type="checkbox"/> ²	<input type="checkbox"/> ³
c. Ability to choose my own trash hauler	<input type="checkbox"/> ¹	<input type="checkbox"/> ²	<input type="checkbox"/> ³
d. Limiting the amount of truck traffic (in relation to safety, air and/or noise pollution, or street maintenance concerns)	<input type="checkbox"/> ¹	<input type="checkbox"/> ²	<input type="checkbox"/> ³
e. Garbage and recycling collection on the same day	<input type="checkbox"/> ¹	<input type="checkbox"/> ²	<input type="checkbox"/> ³

NEW PROGRAMS AND SERVICES

The City of Saint Paul is considering a variety of recycling, composting, and waste management program changes in an effort to increase the amount of recyclable and compostable materials utilized to their highest and best value. The current City recycling service fee for multi-unit dwellings and single family homes ranges from \$2.03 - \$3.22 per month or \$24.36 - \$38.60 annually. Some program changes may require an increase in these fees. Your input will help the City understand resident preferences to prioritize these service improvements.

26. For each of the following new service options, please tell us whether you would like to see this service added to the existing recycling service in the City of Saint Paul, and if so, whether you would be willing to pay a few dollars more for this service. Then, in question 27, you'll have the opportunity to tell us how much you are willing to pay for the total package of services that you would like to see.

		I would like to see this service added...		
		and I am willing to pay a few dollars more	but I am <u>not</u> willing to pay more	I would <u>not</u> like to see this service added
Options for recycling collection	a. Single sort recycling (all recyclable materials go into one bin) with the current blue bin, collected weekly	<input type="checkbox"/> ¹	<input type="checkbox"/> ²	<input type="checkbox"/> ³
	b. Single sort recycling with a covered, wheeled container, collected weekly	<input type="checkbox"/> ¹	<input type="checkbox"/> ²	<input type="checkbox"/> ³
	c. Single sort recycling with a covered, wheeled container, collected every two weeks	<input type="checkbox"/> ¹	<input type="checkbox"/> ²	<input type="checkbox"/> ³
	d. Accept additional plastics or other materials in the existing recycling program	<input type="checkbox"/> ¹	<input type="checkbox"/> ²	<input type="checkbox"/> ³
Collection of bulky items	e. Curbside or alley collection of bulky items (like appliances, furniture, tires, etc.)	<input type="checkbox"/> ¹	<input type="checkbox"/> ²	<input type="checkbox"/> ³
Options for collection of organic material	f. Curbside or alley collection of organic material (like food waste and non-recyclable paper products)	<input type="checkbox"/> ¹	<input type="checkbox"/> ²	<input type="checkbox"/> ³
	g. An organics recycling station where residents can drop off their organic material (like food waste and non-recyclable paper products), located within 10 minutes of your home	<input type="checkbox"/> ¹	<input type="checkbox"/> ²	<input type="checkbox"/> ³
	h. An organics recycling station where residents can drop off their organic material, located at Ramsey County Yard Waste Collection sites	<input type="checkbox"/> ¹	<input type="checkbox"/> ²	<input type="checkbox"/> ³

27a. In general, which of the following is most true for you? Please check only one.

- ¹ I am willing to pay **\$4-6** more per month (total) for the services I selected above
- ² I am willing to pay **\$1-3** more per month (total) for the services I selected above
- ³ I would like to see additional services added, but I am not willing to pay more for them
- ⁴ I would like my recycling services and fees to stay the same as they are now (no changes are necessary)
- ⁵ I would like the City to reduce the level of recycling services and fees. ➔ 27b. Please specify which recycling services the City should reduce: _____

DEMOGRAPHICS

These last questions are to make sure we have gathered opinions from a variety of people. As with all of your other responses, they will be kept private.

28. Do you own or rent your current home?
¹ Own ² Rent
29. In what year did you move to your current home?
_____ (Year)
- 30a. What type of home do you live in? **(CHECK ONE)**
¹ Detached single family home
² Condominium or townhome
³ Apartment, including duplex, triplex, and larger multi-unit housing
⁴ Mobile home / Manufactured home
⁵ Other (30b. Please specify: _____)
31. Including yourself, how many adults (age 18 or older) live in your household?
_____ Number of adults in household
32. How many children (age 17 or younger) live in your household?
_____ Number of children in household
33. In what year were you born?
_____ (Year)
34. Do you have a cell phone or other mobile device that you use to access the Internet?
¹ Yes ² No
35. What is your gender?
¹ Male ² Female ³ Other
36. What is the highest year or grade of school you have completed? **(CHECK ONE)**
¹ Less than high school
² High school graduate or GED
³ Some college
⁴ Vocational/Technical graduate (associate's degree)
⁵ College graduate (bachelor's degree)
⁶ Some graduate school or more
37. Are you of Hispanic, Latino, or Spanish origin?
¹ Yes ² No
- 38a. Which of the following describes your race? **(CHECK ALL THAT APPLY)**
¹ White or Caucasian
² Black or African American
³ Asian or Pacific Islander
⁴ American Indian or Alaska Native
⁵ Some other race (38b. Please specify: _____)
- 39a. What language do you speak most at home?
¹ English
² Spanish
³ Hmong
⁴ Somali
⁵ Other language (39b. Please specify: _____)
40. What was your household's annual household income in 2012 from all earners and all sources, before taxes?
¹ Under \$15,000
² \$15,000 - \$24,999
³ \$25,000 - \$34,999
⁴ \$35,000 - \$49,999
⁵ \$50,000 - \$74,999
⁶ \$75,000 - \$99,999
⁷ \$100,000 - \$149,999
⁸ \$150,000 or over

City of Saint Paul

Recycling and Waste Management Key Informant Interviews

Recruiting script

Hi! My name is _____, and I am calling on behalf of the City of Saint Paul. Wilder Research is conducting this study to learn how the City can improve the system of recycling and waste disposal to reduce the volume of trash sent to landfills and incinerators. Staff at the City of Saint Paul identified you as an expert in this topic, and they're very interested in your experiences and ideas.

Because the interview contains both closed-ended and open-ended questions, the length of the interview will be controlled by what you choose to say – we estimate the interview will generally take about 30 – 45 minutes.

Can we set up a convenient time to complete the phone interview?

NOW – Continue.

SCHEDULE A TIME – Set appointment.

REFUSED - For our records, can you tell me why you're not willing to complete the interview?

Introduction:

As you may know, the City of Saint Paul has been charged with assisting the State of Minnesota reach its goal of reducing the amount of trash headed to landfills by 75 percent by 2030. To help meet these goals, the City has embarked on a comprehensive assessment of the recycling, composting, bulky waste, litter and other waste management programs and services offered in the community. The City of Saint Paul is reaching out to experts in the field for insight into the effectiveness of existing programs and services, potential improvements to these programs and services, and current or coming changes in the industry that they should be aware of.

We're going to ask you questions about recycling, organics recycling, and trash and bulky waste collection. Depending on your experience, you may not be in a position to answer some of the questions. If that happens, just let me know, and we'll skip to the next question or section.

Recycling

We'd like to begin our conversation talking about recycling and the residential recycling collection system in Saint Paul.

1. Based on what you know of the recycling system in Saint Paul and in other similar cities, what are the greatest strengths of Saint Paul's current recycling collection system?
2. Which materials, if any, do you think should be added to Saint Paul's recycling collection system?

3. As far as you know, what are the 1 or 2 most significant barriers to adding these materials to Saint Paul's recycling collection system?
4. What strategies would you recommend to help the City of Saint Paul overcome these barriers?
5. As a part of this study, we have gathered input from residents about the current recycling collection system, and we are aware of the resident perspective on a single sort, cart collection system. Thinking from a more systemic perspective, including anything you may know of the efficiency, budgetary, or logistical implications of such a change, what are the potential advantages of switching to a single sort recycling collection system in Saint Paul?
 6. Again, thinking from a systemic perspective, including any efficiency, budgetary, or logistical implications, what challenges might be associated with a switch to a single sort recycling system in Saint Paul?
8. Thinking now of the many aspects of a recycling collection system, what 1 or 2 improvements to the existing recycling collection system would you say have the greatest potential to increase the amount of materials collected and the number of people who recycle?
 9. What do you see as the 1 or 2 most significant barriers to making these improvements to the recycling collection system in Saint Paul?
 10. What strategies would you recommend to help the City of Saint Paul overcome these barriers?

Organics

Next, we'd like to talk to you about organics focusing on household organics not including yard waste.

11. Do you have any experience with the pilot programs of organics drop-off sites, either in Saint Paul or elsewhere?
 12. (If yes) What has worked well in the organics drop-off site program?
 13. What are the drawbacks of the organics drop-off site program?
 14. (If no) Some communities have launched systems of centralized collection stations, where residents can drop off their organic waste. In your opinion, would this work well in Saint Paul?
 15. What would be the drawbacks of a centralized organic waste system like this?
16. Another organic waste collection system is curbside pick-up, similar to the way trash and recycling are handled. What would be the benefits of a curbside organic waste collection system in Saint Paul?

17. What would be the challenges of implementing a curbside organic waste collection system in Saint Paul?
18. What strategies would you recommend to help the City of Saint Paul overcome these challenges?
19. Would the benefits, challenges, or strategies be any different for a subscription curbside organic waste collection program, where residents could choose to sign up and pay for the service? How so?
20. Other than organics drop-off sites and curbside collection, can you think of any other strategies to reduce the volume of food waste thrown in the trash in Saint Paul?

Trash

Now we'd like to talk about the collection system for non-recyclable or compostable trash, including bulky and hard to dispose of items.

22. Are the community clean-up events effective in improving rates of proper disposal of bulky items? Why or why not?
 - 22a. Are there additional benefits of offering these community clean-up events?
23. Beyond community clean up events, do you have experience with or ideas about other ways to manage bulky items from the residential sector?
24. In your experience, what works well in the current trash collection system, in which residents choose and contract directly with their own trash haulers?
25. What are the drawbacks of the current trash collection system, in which residents choose and contract directly with their own trash haulers?
26. Are there any changes you would suggest to the trash collection system in Saint Paul?

Other

27. Have you done any of your own research on patterns, trends, or innovations in recycling, composting, or waste management that you're willing to share with us?
28. Is it alright with you if we list you as a key stakeholder that was interviewed for this study? We won't connect your name with your responses, but we'd like to list who we've interviewed, if that's alright with you.

(Add individualized questions for each respondent.)

City of Saint Paul
District Councils Focus Group

A. *Welcome (5 minutes)*

1. Background: As you may know, this focus group is a part of the City of Saint Paul's community-wide assessment project called *Recycle it Forward*. The City has contracted with Wilder Research to gather input from the community and key stakeholders regarding waste management programs and services (including recycling, composting, bulky wastes, litter, and garbage issues). The information gathered through this assessment process will guide the development of future recycling and waste management programs and services.
2. Ground Rules (*list on flip chart*)
 - a) Please participate actively and allow others to do so as well.
 - b) Be respectful.
 - c) We'll keep your opinions and ideas confidential. Please do the same for each other.
 - d) Eating during the discussion is fine.
 - e) Others?
3. Describe purpose of note taker and recorder (*to use as back-up in case we miss anything in the notes – we want to record your thoughts accurately*) and ask everyone's permission to turn it on.
4. Agenda (*Summarize the discussion and activities*)

B. *Introductions – First name and where you live (neighborhood) (5 minutes)*

Before we start, we want to note that, in this focus group, we'd like to focus on residential recycling and waste management issues; we'll save our discussion of business issues for another time. Also, in the course of this discussion, we'll ask for your input both about your neighborhood specifically and about the city as a whole. When you respond to a question, please note whether you're speaking about Saint Paul as a whole, your neighborhood, or a specific part of your neighborhood.

C. *Recycling Questions (30 minutes)* We'd like to begin our conversation by talking about recycling and the residential recycling collection system in Saint Paul.

- a. Based on what you know of the recycling system in Saint Paul and in other similar cities, what are the greatest strengths of Saint Paul's current recycling collection system?
- b. In what ways is the current recycling system in need of improvement? How would you improve these aspects of the recycling system? *Record on flip chart or large post-it notes.*
- c. *Distribute two sticky dots to each participant.* Of all of the potential improvements we have on the board, which 2 improvements to the existing recycling collection system would you say would **most** help residents in your neighborhood to recycle more?

D. *Organics Questions (30 minutes)* Now let's talk about organics recycling.

- a. Drop-off site
 - i. First, we'd like to talk about the drop-off site option, as implemented in Mac Groveland. Lauren, could you give us a short (2-minute) description of the drop-off site option and how you've implemented it?
 - ii. What would be the drawbacks or challenges of implementing the organics drop-off site program in other Saint Paul neighborhoods? Do you think the organics drop-off site would work well in other neighborhoods? Why/why not?
- b. Curbside collection
 - i. An alternative organic waste collection system is curbside pick-up, similar to the way trash and recycling are handled. This could operate either as a city-wide service or a subscription (opt-in) service. What would be the benefits of a curbside organic waste collection system in Saint Paul?
 - ii. What would be the challenges of implementing a curbside organic waste collection system in Saint Paul?
 - iii. What strategies would you recommend to help the City of Saint Paul overcome these challenges?
 - iv. Thinking of the benefits and challenges that we've discussed, do you think a city-wide or subscription (opt-in) curbside program would work better in your neighborhood?
- c. Other than organics drop-off sites and curbside collection, can you think of any other strategies that the City could use to reduce the volume of food waste thrown in the trash in Saint Paul?
- d. Thinking of all the organics recycling strategies that we've discussed, which do you think would work best in your neighborhood? In the city as a whole?

E. *Bulky Waste Questions (10 minutes)*

- a. Is the improper disposal of bulky items (like furniture and appliances) a problem in Saint Paul? Why or why not? (IF NEEDED: from the residential sector)
- b. Are the community clean-up events a cost-effective strategy to encourage residents to properly dispose of their bulky waste? Why or why not?
- c. Beyond community clean up events, do you have experience with or ideas about other ways to encourage and support proper disposal of bulky items? (IF NEEDED: from the residential sector)

F. *Wrapping up (10 minutes)*

- a. *(If time permits)* Can you suggest any effective strategies for implementing and informing residents about future changes to the trash and recycling system in your neighborhood?
- b. Is there anything else that we haven't covered yet that you'd like to discuss with us?

City of Saint Paul Recycle it Forward
Somali Focus Group
(Facilitated in Somali by a native Somali speaker)

A. Welcome (5 minutes)

1. Background: This focus group is a part of the City of Saint Paul's community-wide assessment project called *Recycle it Forward*. The City has contracted with Wilder Research to gather input from the community and key stakeholders regarding waste management programs and services (including recycling, composting, bulky wastes, litter, and garbage issues). The information gathered through this assessment process will guide the development of future recycling and waste management programs and services. This focus group in particular aims to identify the barriers to recycling and proper trash disposal among Somali households in Saint Paul.
2. Ground Rules
 - a) Please participate actively and allow others to do so as well.
 - b) Be respectful.
 - c) We'll keep your opinions and ideas confidential. Please do the same for each other.
 - d) Eating during the discussion is fine.
 - e) Others?
3. *Describe purpose of note taker and recorder (to use as back-up in case we miss anything in the notes – we want to record your thoughts accurately) and ask everyone's permission to turn it on.*
4. Agenda for the evening (*Summarize the discussion and activities*)

B. Introductions – First name and where you live (neighborhood) (5 minutes)

C. Warm-up Questions (5 minutes)

1. When you think of "trash", what images come to mind?
2. What does the word "litter" mean to you? (*If definitions vary: For our purposes, we'll define litter as trash, such as paper, cans, and bottles, that is left lying in an open or public place.*)

D. Proper Trash Disposal Questions (20 minutes) First let's talk a bit about trash.

1. When you put trash into a trash can or dumpster, do you know where it goes after that? Where?
2. What about when you put it on the ground? What happens to it then?
3. Does it matter whether people throw their trash in trash cans and dumpsters or on the ground? Why does/doesn't it matter?
4. In general, how common is littering among people in the Somali community who have recently moved to Saint Paul?
5. If the City of Saint Paul wanted to encourage Saint Paul residents to stop littering and to instead put all their trash into trash or recycling cans and dumpsters, what would be the

best way to help people in the Somali community understand and follow these instructions?

E. Now let's talk about recycling. (50 minutes)

1. When you hear the word "recycling", what images come to mind?
2. How does your household get information about the recycling services available in Saint Paul? (After responses, distribute recycling guide.)
3. Does your household take your recyclable items to the recycling bins here at Skyline Tower?
4. What are the benefits of recycling? (Why do you recycle?)
5. Is recycling a commonly accepted and encouraged behavior in the Somali community? Are there any reasons why people in the Somali community in particular might not want to recycle or might not make it a priority?
6. What, if anything, makes recycling difficult for you or your family? *Record barriers on large post-it notes or flip charts.*
 - a) Are the rules clear for what you can and cannot recycle? Are there any materials you are unsure about if you can recycle them, or how to recycle them?
 - b) How convenient is it for you to recycle in your current housing arrangement?
 - c) Are there any other things that make it difficult for you to recycle all recyclable materials, at home, at work, or when you are on the go in Saint Paul?
7. *Distribute two sticky dots to each participant.* We've noted several barriers to recycling. I'm going to give you two sticky dots, and I want you to use them to indicate which are the most significant barriers for your household.
8. *Select two or three most commonly selected barriers.* For each of these most significant barriers, what could the City of Saint Paul do to reduce these barriers and help members of the Somali community to recycle more? (Ask the following only if participants don't bring up these themes. Note that we still want to ask about these options even if they do not relate to the top two or three barriers.)
 - a) Do you need better or more convenient access to recycling bins? Where?
 - b) Do you need more information about what you can and cannot recycle and how to recycle?
 - c) Would it be helpful if the recycling program accepted more materials, such as different kinds of plastics?
 - d) Would it be helpful if you were given a reusable recycling bag to collect and bring materials to your recycling containers?
 - e) Are there any other strategies that might be particularly effective in encouraging members of the Somali community to recycle more?

F. Survey and Incentives (5 minutes)

- a) *Distribute survey*
- b) Please fill out this survey and then turn it in. Once you've turned in your survey and signed out your gift card, you may leave. Thank you for coming!

City of Saint Paul
Hmong Homeowners Focus Group
(Facilitated in Hmong by a native Hmong speaker)

A. *Welcome (5 minutes)*

1. Background: This focus group is a part of the City of Saint Paul's community-wide assessment project called *Recycle it Forward*. The City has contracted with Wilder Research to gather input from the community and key stakeholders regarding waste management programs and services (including recycling, composting, bulky wastes, litter, and garbage issues). The information gathered through this assessment process will guide the development of future recycling and waste management programs and services. This focus group in particular aims to identify the barriers to recycling and composting among Hmong households in Saint Paul.
2. Ground Rules (*list on flip chart*)
 - a) Please participate actively and allow others to do so as well.
 - b) Be respectful.
 - c) We'll keep your opinions and ideas confidential. Please do the same for each other.
 - d) Eating during the discussion is fine.
 - e) Others?
3. Describe purpose of note taker and recorder (*to use as back-up in case we miss anything in the notes – we want to record your thoughts accurately*) and ask everyone's permission to turn it on.
4. Agenda for the evening (*Summarize the discussion and activities*)

B. *Introductions – First name and where you live (neighborhood) (5 minutes)*

C. *Warm-up Questions (5 minutes)*

1. When you think of "trash", what images come to mind?
2. When you hear the word "recycling", what images come to mind?

D. *Recycling Questions (50 minutes)*

1. How does your household get information about the recycling services available in Saint Paul? (*After responses, pass out recycling guide(s)*)
2. What are the benefits of recycling? (Why do you recycle?)
3. Is recycling a commonly accepted and encouraged behavior in the Hmong community? Are there any reasons why people in the Hmong community in particular might not want to recycle or might not make it a priority?
4. What, if anything, makes recycling difficult for you or your family? (*As needed: For those who recycle all recyclable materials, try to consider the perspective of a friend, neighbor, or family member who does not recycle all recyclable materials.*) *Record main themes of barriers on flip charts or large post-it notes on the wall.*
 - a) Are the rules clear for what you can and cannot recycle? Are there any materials you are unsure about if you can recycle them, or how to recycle them?
 - b) How convenient is it for you to recycle in your current housing arrangement?

- c) Are there any other things that make it difficult for you to recycle all recyclable materials, at home, at work, or when you are on the go in Saint Paul?
- 5. *Distribute two sticky dots to each participant.* We've noted several barriers to recycling. I'm going to give you each two sticky dots, and I want you to use them to indicate which of them are the most significant barriers for your household.
- 6. *Select two or three most commonly selected barriers.* For each of these most significant barriers, what could the City of Saint Paul do to reduce these barriers and help members of the Hmong community to recycle more? (*Ask the following questions only if participants do not bring up these themes themselves. Note that we still want to ask about these options even if they do not relate to the top two or three barriers.*)
 - a) Do you need better or more convenient access to recycling bins? Where?
 - b) Do you need more information about what you can/cannot recycle or how to recycle?
 - c) Would it be helpful if you could put all recyclable materials into one larger, covered cart?
 - d) Would it be helpful if the recycling program accepted more materials, such as different kinds of plastics?
 - e) Is there anything else that the City of Saint Paul could do to help your household recycle more?

E. Composting Questions (20 minutes) Now let's talk about composting for a few minutes.

- 1. What does composting mean to you?
- 2. How do you dispose of your household's food waste (banana or apple cores, unwanted leftover food, etc.)?
- 3. As far as you know, what are the benefits of composting?
- 4. What, if anything, makes composting difficult for your family?
- 5. What would encourage or help your household to compost or recycle your family's organic waste?
 - a) What if you had a low-odor compost bucket to keep in your kitchen?
 - b) What if you received informational materials or could take a short class on composting?
 - c) What if there was a neighborhood organic waste collection site nearby, like at a community garden or other central location? Would you take your organic waste to this site? Note that organic waste collected in this way would be taken to a high-heat composting facility, which allows the program to accept materials that are more difficult to compost in a backyard bin (such as meat, dairy, or non-recyclable paper products). This could save money on your trash bill if you can use a smaller trash bin.
 - d) What if organic waste was collected weekly at the curb by your trash or recycling hauler? Again, you would be able to recycle all food scraps (including meat and dairy products), as well as non-recyclable paper products.

F. Survey and Incentives (5 minutes)

- c) *Distribute survey*
- d) Please fill out this survey and then turn it in to me. Once you've turned in your survey and signed out your gift card from me, you're free to leave. Thank you very much for coming!

City of Saint Paul Recycle it Forward
Latino Focus Group
(Facilitated in Spanish by a native Spanish speaker)

A. Welcome (5 minutes)

1. Background: This focus group is a part of the City of Saint Paul's community-wide assessment project called *Recycle it Forward*. The City has contracted with Wilder Research to gather input from the community and key stakeholders regarding waste management programs and services (including recycling, composting, bulky wastes, litter, and garbage issues). The information gathered through this assessment process will guide the development of future recycling and waste management programs and services. This focus group in particular aims to identify the barriers to recycling and proper trash disposal among Latino households in Saint Paul.
2. Ground Rules
 - a) Please participate actively and allow others to do so as well.
 - b) Be respectful.
 - c) We'll keep your opinions and ideas confidential. Please do the same for each other.
 - d) Eating during the discussion is fine.
 - e) Others?
3. *Describe purpose of note taker and recorder (to use as back-up in case we miss anything in the notes – we want to record your thoughts accurately) and ask everyone's permission to turn it on.*
4. Agenda for the evening (*Summarize the discussion and activities*)

B. Introductions – First name and where you live (neighborhood) (5 minutes)

C. Warm-up Questions (5 minutes)

1. When you think of "trash", what images come to mind?
2. What does the word "litter" mean to you? (*If definitions vary: For our purposes, we'll define litter as trash, such as paper, cans, and bottles, that is left lying in an open or public place.*)

D. Proper Trash Disposal Questions (20 minutes) First let's talk a bit about trash.

1. When you put trash into a trash can or dumpster, do you know where it goes after that? Where?
2. What about when you put it on the ground? What happens to it then?
3. Does it matter whether people throw their trash in trash cans and dumpsters or on the ground? Why does/doesn't it matter?
4. In general, how common is littering among people in the Latino community who have recently moved to Saint Paul?
5. If the City of Saint Paul wanted to encourage Saint Paul residents to stop littering and to instead put all their trash into trash or recycling cans and dumpsters, what would be the

best way to help people in the Latino community understand and follow these instructions?

E. Now let's talk about recycling. (50 minutes)

1. When you hear the word "recycling", what images come to mind?
2. How does your household get information about the recycling services available in Saint Paul? (*After responses, distribute recycling guide.*)
3. Does your household recycle, either in the curbside recycling collection program or in an apartment building's recycling program?
4. What are the benefits of recycling? (Why do you recycle?)
5. Is recycling a commonly accepted and encouraged behavior in the Latino community? Are there any reasons why people in the Latino community in particular might not want to recycle or might not make it a priority?
6. What, if anything, makes recycling difficult for you or your family? *Record barriers on large post-it notes or flip charts.*
 - a) Are the rules clear for what you can and cannot recycle? Are there any materials you are unsure about if you can recycle them, or how to recycle them?
 - b) How convenient is it for you to recycle in your current housing arrangement?
 - c) Are there any other things that make it difficult for you to recycle all recyclable materials, at home, at work, or when you are on the go in Saint Paul?
7. *Distribute two sticky dots to each participant.* We've noted several barriers to recycling. I'm going to give you two sticky dots, and I want you to use them to indicate which are the most significant barriers for your household.
8. *Select two or three most commonly selected barriers.* For each of these most significant barriers, what could the City of Saint Paul do to reduce these barriers and help members of the Latino community to recycle more? (*Ask the following only if participants don't bring up these themes. Note that we still want to ask about these options even if they do not relate to the top two or three barriers.*)
 - a) Do you need better or more convenient access to recycling bins? Where?
 - b) Do you need more information about what you can and cannot recycle and how to recycle?
 - c) Would it be helpful if the recycling program accepted more materials, such as different kinds of plastics?
 - d) Would it be helpful if you were given a reusable recycling bag to collect and bring materials to your recycling containers?
 - e) Are there any other strategies that might be particularly effective in encouraging members of the Latino community to recycle more?

F. Survey and Incentives (5 minutes)

- a) *Distribute survey*
- b) Please fill out this survey and then turn it in. Once you've turned in your survey and signed out your gift card, you may leave. Thank you for coming!

City of Saint Paul Recycle it Forward
Karen Focus Group
(Facilitated in Karen by a native Karen speaker)

A. Welcome (5 minutes)

1. Background: This focus group is a part of the City of Saint Paul's community-wide assessment project called *Recycle it Forward*. The City has contracted with Wilder Research to gather input from the community and key stakeholders regarding waste management programs and services (including recycling, composting, bulky wastes, litter, and garbage issues). The information gathered through this assessment process will guide the development of future recycling and waste management programs and services. This focus group in particular aims to identify the barriers to recycling and proper trash disposal among Latino households in Saint Paul.
2. Ground Rules
 - a) Please participate actively and allow others to do so as well.
 - b) Be respectful.
 - c) We'll keep your opinions and ideas confidential. Please do the same for each other.
 - d) Eating during the discussion is fine.
 - e) Others?
3. *Describe purpose of note taker and recorder (to use as back-up in case we miss anything in the notes – we want to record your thoughts accurately) and ask everyone's permission to turn it on.*
4. Agenda for the evening (*Summarize the discussion and activities*)

B. Introductions – First name and where you live (neighborhood) (5 minutes)

C. Warm-up Questions (5 minutes)

1. When you think of "trash", what images come to mind?
2. What does the word "litter" mean to you? (*If definitions vary: For our purposes, we'll define litter as trash, such as paper, cans, and bottles, that is left lying in an open or public place.*)

D. Proper Trash Disposal Questions (20 minutes) First let's talk a bit about trash.

1. When you put trash into a trash can or dumpster, do you know where it goes after that? Where?
2. What about when you put it on the ground? What happens to it then?
3. Does it matter whether people throw their trash in trash cans and dumpsters or on the ground? Why does/doesn't it matter?
4. In general, how common is littering among people in the Latino community who have recently moved to Saint Paul?
5. If the City of Saint Paul wanted to encourage Saint Paul residents to stop littering and to instead put all their trash into trash or recycling cans and dumpsters, what would be the

best way to help people in the Latino community understand and follow these instructions?

E. Now let's talk about recycling. (50 minutes)

1. When you hear the word "recycling", what images come to mind?
2. How does your household get information about the recycling services available in Saint Paul? (*After responses, distribute recycling guide.*)
3. Does your household recycle, either in the curbside recycling collection program or in an apartment building's recycling program?
4. What are the benefits of recycling? (Why do you recycle?)
5. Is recycling a commonly accepted and encouraged behavior in the Latino community? Are there any reasons why people in the Latino community in particular might not want to recycle or might not make it a priority?
6. What, if anything, makes recycling difficult for you or your family? *Record barriers on large post-it notes or flip charts.*
 - a) Are the rules clear for what you can and cannot recycle? Are there any materials you are unsure about if you can recycle them, or how to recycle them?
 - b) How convenient is it for you to recycle in your current housing arrangement?
 - c) Are there any other things that make it difficult for you to recycle all recyclable materials, at home, at work, or when you are on the go in Saint Paul?
7. *Distribute two sticky dots to each participant.* We've noted several barriers to recycling. I'm going to give you two sticky dots, and I want you to use them to indicate which are the most significant barriers for your household.
8. *Select two or three most commonly selected barriers.* For each of these most significant barriers, what could the City of Saint Paul do to reduce these barriers and help members of the Latino community to recycle more? (*Ask the following only if participants don't bring up these themes. Note that we still want to ask about these options even if they do not relate to the top two or three barriers.*)
 - a) Do you need better or more convenient access to recycling bins? Where?
 - b) Do you need more information about what you can and cannot recycle and how to recycle?
 - c) Would it be helpful if the recycling program accepted more materials, such as different kinds of plastics?
 - d) Would it be helpful if you were given a reusable recycling bag to collect and bring materials to your recycling containers?
 - e) Are there any other strategies that might be particularly effective in encouraging members of the Latino community to recycle more?

F. Survey and Incentives (5 minutes)

- a) *Distribute survey*
- b) Please fill out this survey and then turn it in. Once you've turned in your survey and signed out your gift card, you may leave. Thank you for coming!

City of Saint Paul
English-Speaking Renters Focus Group

A. Welcome (5 minutes)

1. Background: This focus group is a part of the City of Saint Paul's community-wide assessment project called *Recycle it Forward*. The City has contracted with Wilder Research to gather input from the community and key stakeholders regarding waste management programs and services (including recycling, composting, bulky wastes, litter, and garbage issues). The information gathered through this assessment process will guide the development of future recycling and waste management programs and services. This focus group in particular aims to identify the barriers to recycling and proper disposal of hazardous waste among renters in Saint Paul.
2. Ground Rules (*list on flip chart*)
 - a) Please participate actively and allow others to do so as well.
 - b) Be respectful.
 - c) We'll keep your opinions and ideas confidential. Please do the same for each other.
 - d) Eating during the discussion is fine.
 - e) Others?
3. Describe purpose of note taker and recorder (*to use as back-up in case we miss anything in the notes – we want to record your thoughts accurately*) and ask everyone's permission to turn it on.
4. Agenda for the evening (*Summarize the discussion and activities*)

B. Introductions – First name and where you live (neighborhood) (5 minutes)

C. Warm-up Questions (5 minutes)

1. When you think of “trash”, what images come to mind?
2. When you hear the word “recycling”, what images come to mind?
(*After responses, pass out Eureka recycling guide and/or Going Green Guide.*)

D. Recycling Questions (35 minutes)

1. What are the benefits of recycling? (Why do you recycle?)
2. What, if anything, makes recycling difficult for your household? (*As needed: For those who recycle all recyclable materials, try to consider the perspective of a friend, neighbor, or family member who does not recycle all recyclable materials.*) *Use these probes only if participants do not bring up these themes themselves.*
 - a) Are the rules clear for what you can and cannot recycle? Are there any materials you are unsure about if you can recycle them, or how to recycle them?
 - b) How convenient is it for you to recycle in your current housing arrangement?

3. What could the City of Saint Paul do to encourage or help your household to recycle more? (*As needed: If you recycle as much as you can, what would encourage other people in your building or neighborhood to recycle more?*) *Only ask these follow-up questions if respondents do not identify them on their own. Note that we still want to ask about these options even if they do not relate to the top two or three barriers.*
 - a) Do you need better or more convenient access to recycling bins? Where?
 - b) Do you need more information about what you can and cannot recycle and how to recycle?
 - c) Would it be helpful if the recycling program accepted more materials, such as different kinds of plastics?
 - d) Would it be helpful if you were given a reusable recycling bag to collect and bring materials to your recycling containers? *Show bag.*

- E. *Composting Questions (15 minutes)* We would like to ask a few questions related to managing organic waste in your home, including food waste such as kitchen scraps, meat, dairy products, and leftovers, as well as non-recyclable paper products.
1. If you live in an apartment, you may not have access to convenient ways of composting these materials. In what ways could you compost your household's organic waste in your current living arrangement?
 2. What could the City of Saint Paul do to encourage or help you to compost your household's organic waste?

- F. *Bulky Waste Questions (20 minutes)* Next, we'd like to talk about bulky items like old mattresses, electronics, and furniture.
1. What do you usually do with these items when you no longer want them?
 2. As you might know, these items should not be thrown in or around dumpsters; residents should make special arrangements to get them to a disposal site. Is it difficult for you to properly dispose of these larger items? What makes it difficult to get rid of these large items? *Record main themes of barriers on large post-it notes on the wall.*
 3. *Distribute two sticky dots to each participant.* We've discussed that these bulky items cannot be thrown in the regular trash, and we've made note of several barriers to disposing of them properly. I'm going to give you each two sticky dots, and I want you to use them to indicate which of them are the most significant barriers for your household.
 4. *Select two or three most commonly selected barriers.* For each of these most significant barriers, what could the City of Saint Paul do to reduce these barriers and help renters to properly dispose of these hazardous and bulky materials?

- G. *Survey and Incentives (5 minutes)*
- a) *Distribute survey*
 - b) Please fill out this survey and then turn it in to me. Once you've turned in your survey and signed out your gift card from me, you're free to leave. Thank you very much for coming!