

# City of Saint Paul *Recycle it Forward*

## *A comprehensive assessment of recycling and waste management*

### Executive summary

Most Saint Paul residents would like a single-sort recycling system that accepts more plastics, a curbside or alley collection system for organic waste, and more convenient disposal options for their unwanted bulky items like furniture and appliances. Two-thirds of residents are willing to pay more for these new services. These are some of the key findings of a recent assessment conducted by Wilder Research for the City of Saint Paul to better understand resident perceptions, needs, and preferences related to recycling, trash, organics, and bulky waste. The City is working to significantly reduce landfilled waste as the state of Minnesota aims to recycle 60% of waste and divert 15% of waste for organics recycling by 2030.

Findings point to 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.

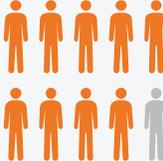
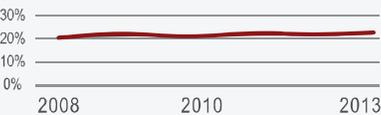
The recommendations for new services echo the expressed preferences of residents, most of whom would like to see additional plastics collected (90%), curbside/alley collection of bulky items (84%), single-sort recycling (77%), and curbside/alley collection of organics (73%). Key stakeholder insights also strongly support these recommendations.

While each recommendation carries significant potential to help Saint Paul residents to reduce landfilled waste in Saint Paul, these recommendations are best adopted as a full package – a holistic, system-wide overhaul. The synergy and complementary efficiencies in the recommended system are key to meeting the City's ambitious long-term waste reduction and diversion goals.



*This assessment included a mailed survey of 1,285 Saint Paul residents, six resident focus groups, and interviews with 13 experts in the field.*

# City of Saint Paul Recycle it Forward

CURRENT STATUS	RESIDENT RESPONSE	RECOMMENDATION
<p><b>35%</b> of residents in Saint Paul are unclear about the recycling program<sup>1</sup></p> 	<p>Current recycling education materials are informative, clear, and translated into many languages but many residents never see them</p> 	<p>Launch an educational campaign to inform and reinvigorate enthusiasm for recycling, composting, and waste reduction</p> 
<p>Saint Paul currently only accepts #1 and #2 plastic bottles with necks and many residents are confused about which plastics can be recycled</p> 	<p><b>9 in 10</b> residents want to recycle more plastics</p> 	<p>Expand and simplify the selection of plastics collected for recycling</p> 
<p>2010 Twin Cities waste<sup>2</sup></p> <p><b>60%</b> of waste not recycled</p>  <p><b>40%</b> of recycled waste was recycled</p>	<p>Sorting requirements, lack of bins, and bin capacity present significant barriers to recycling</p>  <p><b>3 in 4</b> residents want single-sort recycling</p>	<p>Transition to a single-sort recycling collection system with wheeled, lidded carts</p> 
<p>Backyard composting rates have remained stagnant in Ramsey County and many residents do not have this option<sup>1</sup></p> 	<p><b>Three-quarters</b> of residents want curbside or alley collection of organic waste</p> 	<p>Transition to a source-separated organics collection system (with curbside or alley pick-up)</p> 
<p>Improper disposal of bulky items is common in Saint Paul</p> 	<p><b>9 in 10</b> residents are willing to use a curbside or alley collection service for bulky items and half are willing to pay more for it</p> 	<p>Offer more convenient reuse and disposal options for bulky waste</p> 
<p>Saint Paul residents pay more for trash than residents in neighboring communities with coordinated collection<sup>3</sup></p> 	<p><b>More than half of residents</b></p> <ul style="list-style-type: none"> <li>think they pay too much for their trash hauling services</li> <li>report problems with street wear and tear, noise, and air pollution from garbage trucks</li> </ul> 	<p>Coordinate trash collection to lower costs, reduce truck traffic, and incentivize recycling</p> 

All statistics are based on the 2013 Saint Paul resident survey unless noted otherwise.

1 Solid waste management in Ramsey County: a report for Saint Paul – Ramsey County Public Health. Wilder Research, March 2013.

2 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>.

3 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>.

# Service priorities

Residents' top priorities for new services are recycling additional plastics, curbside/alley collection of bulky items, single-sort recycling, and curbside/alley collection of source-separated organics.

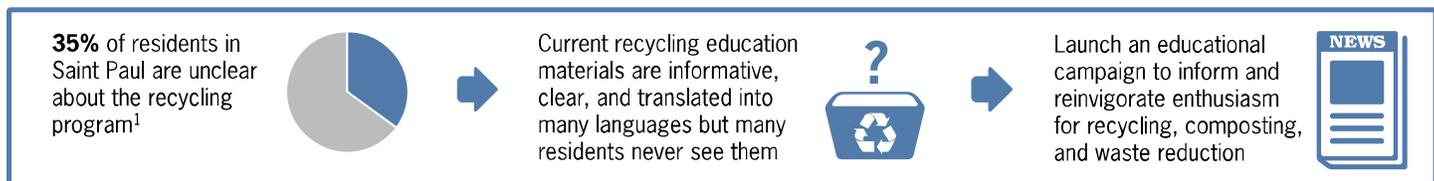
Two-thirds of residents are willing to pay more for these new services, including 22 percent who say they will pay \$4-6 more per month for them and 45 percent who say they will pay \$1-3 more per month for them.

# Education and communication

Key stakeholders emphasized the strength of Saint Paul's current recycling education, with clear, high-quality recycling guides printed in multiple languages. Most residents say those guides are their primary source of information about recycling. Still, study findings indicate some key shortfalls in recycling education:

- Residents in immigrant communities express significant confusion about recycling, and most have not seen written recycling guides in their home languages.
- Knowledge and information about recycling presents a significant and frequently cited barrier to recycling for Saint Paul residents, especially residents in multi-family housing.
- 3 in 10 residents do not know that they can recycle linens and pizza boxes in Saint Paul, and 1 in 10 do not know they can recycle juice boxes and milk cartons, suggesting that newer additions to the recycling program have not been communicated effectively to all residents.

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



<sup>1</sup> Solid waste management in Ramsey County: a report for Saint Paul – Ramsey County Public Health. Wilder Research, March 2013.

A time of program change represents a significant opportunity to excite residents about the new program vision and inform them about new and existing waste management programs and services. A dedicated educational campaign, launched within the strong educational infrastructure already established in Saint Paul's recycling program, could greatly improve participation in these programs and services.

## Interest in, and willingness to pay more for, new services

Accept additional plastics or other materials in the existing recycling program



Curbside or alley collection of bulky items



Single sort recycling with the current blue bin, collected weekly



Curbside or alley collection of organic material



Single sort recycling with a covered, wheeled container, collected weekly



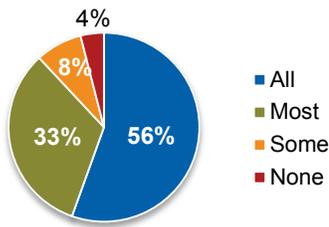
- I would like to see this service added, and I am willing to pay a few dollars more
- I would like to see this service added, but I am not willing to pay more
- I would not like to see this service added

# Recycling

## Current system strengths

Nearly all Saint Paul residents surveyed (96%) said they recycle at least some of their household's recyclable waste.

**What proportion of your household's recyclable waste do you recycle?**

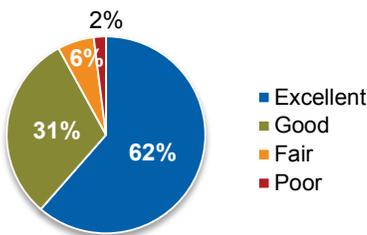


Key stakeholders say the greatest strengths of Saint Paul's recycling system are:

- A uniquely effective recycling education program (compared to other communities) that reaches many residents with high-quality educational materials.
- A historically strong partnership with the hauler toward a shared zero waste goal.

More than 9 in 10 residents rated their curbside recycling service as excellent (62%) or good (31%).

**Overall, how would you rate the curbside recycling service that your household receives?**

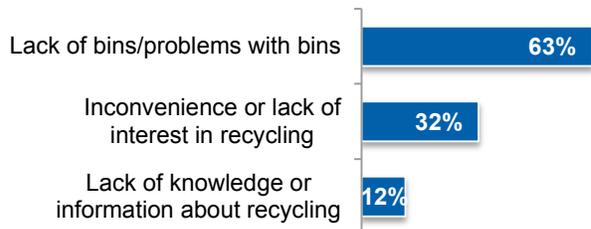


## Barriers to recycling

Problems with recycling bins present the most significant barriers to recycling for residents in both single- and multi-family housing. Residents noted:

- Limited bin capacity
- Difficulty acquiring bins
- Usability challenges, such as the exposure to wind and rain and the difficulty of carrying them
- Particularly significant problems accessing and using bins for residents in small multi-family buildings without their own recycling services

## Barriers to recycling (open-ended)

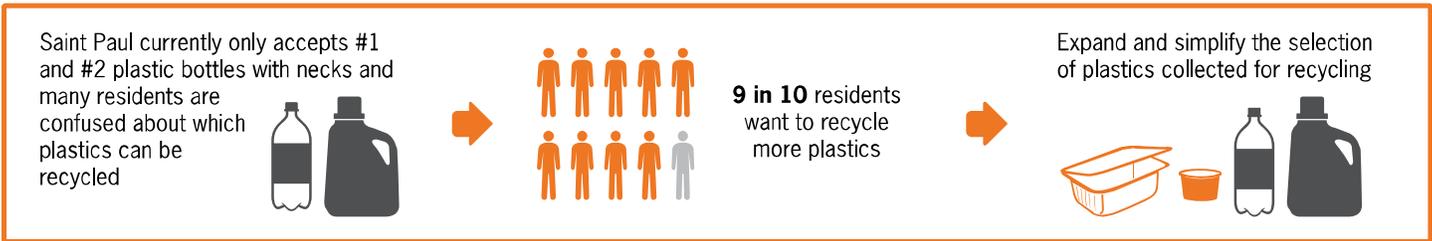


Seventy-one percent of residents in multi-family housing said their buildings have enough recycling carts, but recycling cart availability and adequacy varies across the city.

Some residents also noted that recycling is inconvenient and that they do not know enough about how to recycle. Residents found the two-sort system to be inconvenient and were confused about the distinctions between recyclable and non-recyclable plastics. These challenges are particularly significant for residents in immigrant communities.

Problems with bins, sorting challenges, and distinctions between recyclable and non-recyclable plastics are particularly significant barriers for low-income residents, residents of color, and immigrant communities.

**Recommendation** Expand and simplify the selection of plastics collected for recycling.



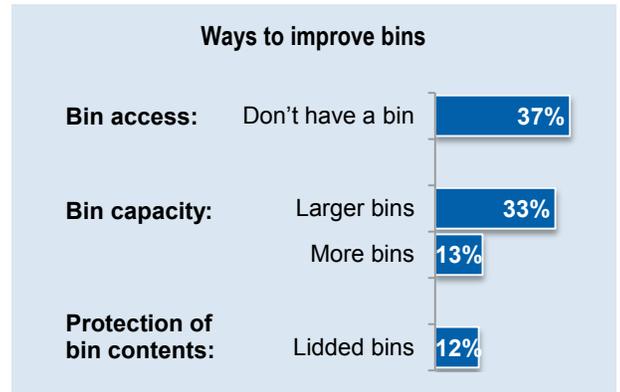
**Recommendation** Transition to a single-sort recycling collection system with wheeled, lidded carts.



<sup>2</sup> 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?qid=15714>.

**Residents' top suggestions to improve the curbside recycling program**

- **Accept more plastics:** 9 in 10 residents would like to recycle more types of plastics, and almost half (46%) are willing to pay more to do so.
- **Single-sort recycling:** 3 in 4 residents would like single-sort recycling, and 1 in 3 are willing to pay more for single-sort recycling in wheeled, lidded carts.
- **Improve recycling bin:** Residents suggested several improvements, shown at right.



Residents' suggestions to improve bins align well with a recommendation for wheeled, lidded recycling carts (with greater capacity than the current blue bins) that are distributed to all households.

Single-sort recycling and expanded and simplified plastics collection make recycling easier for all residents. Focus group participants from diverse communities suggest that these changes would be particularly effective in promoting equity and more universal recycling in Saint Paul.

# Recycling in a diverse Saint Paul

To increase our understanding of recycling and waste management needs, preferences, and barriers among Saint Paul's diverse communities, the study included four culturally specific focus groups with residents (in their native languages): recent Karen immigrants, Hmong homeowners, recent Latino immigrants, and Somali renters.

## Unique barriers in immigrant communities

Focus group participants from each of these immigrant communities expressed concern for the environment and interest in recycling and proper waste disposal, but said they do not have the information or tools to recycle properly. While these barriers are also faced by some residents who speak English as a first language, many residents in immigrant communities lack the connections and English skills needed to gain access to the necessary resources.

### *Theme: Recycling is confusing*

- Focus group participants reported significant confusion about which items are recyclable, especially milk containers, pizza boxes, and different plastics.
- Many focus group participants believed that all trash is sorted for recycling at the disposal facility, i.e., they had a misconception that the recyclable items they throw in the trash get recycled.



### *Theme: Recycling is inconvenient*

- Recycling bins and carts are not easily accessible, especially to immigrant communities:
  - In multi-family housing, 12 percent of residents live in buildings with no recycling carts, and immigrant communities face language barriers to requesting carts from landlords.
  - In single-family housing, residents must pick up bins and this process can be confusing or difficult for residents with limited English skills.

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

- Curbside recycling bins are too small for the volume of recycling produced by large families.
- Recycling sorts increase both the inconvenience and the confusion of recycling. Residents in immigrant communities say they are less willing to sort out their organics because they already manage two recycling sorts.

## To improve recycling participation in immigrant communities:

### *Communicate clearly and creatively*

- Use pictures on bins and in all written materials to illustrate which items are recyclable.
- Conduct community classes or workshops in multiple languages, with incentives for attendance.
- Communicate with diverse residents through employers, landlords, and children in schools.

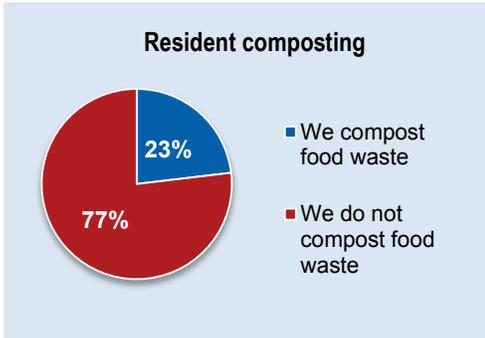
### *Make recycling easy*

- Bins must be easily accessible and large enough to accommodate the amount of recyclable waste from large families.
- Single-sort recycling improves convenience and may increase willingness of residents to also sort out their organic waste.

# Organics

## Current barriers to composting

About one-quarter of Saint Paul residents compost their food waste. The most popular composting method is with a backyard bin, and some use worm bins and drop-off sites.



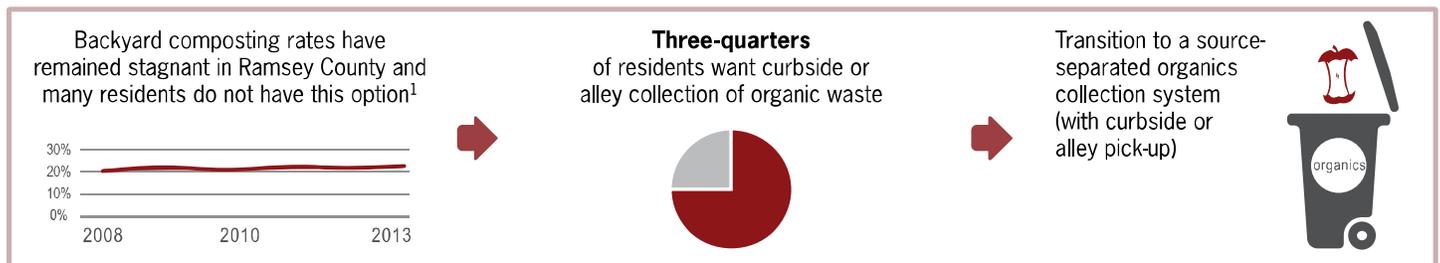
The most significant barriers to composting were:

- Lack of outdoor space (especially residents in multi-family housing) – 38%
- Lack of time or interest – 19%
- Limited knowledge/information about composting – 16%

- Inconvenience – 15%
- Unpleasant perceptions of composting – 14%

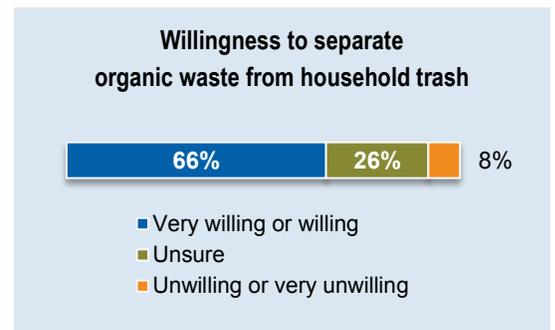
To alleviate these barriers, organics recycling must be simple, convenient, and clearly explained to residents.

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



## Collection of source-separated organics

- Though only 1 in 4 residents currently compost, 2 in 3 residents are willing to separate their organic waste from their household's trash.
- Though many residents (26%) said they were unsure of their willingness to separate their households' organic waste, most of these residents said they would like curbside or alley collection of organics.
- Overall, 3 in 4 residents said they want curbside or alley collection of organics, and 1 in 3 are willing to pay more for it.



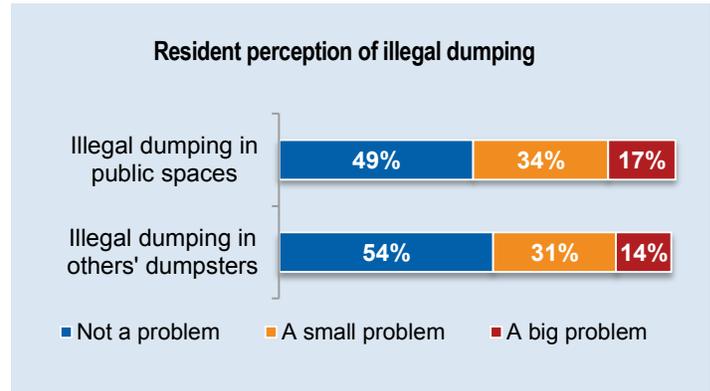
Key stakeholders recommended citywide source-separated (curbside or alley) organics collection, co-collected with trash or recycling, as the most cost-effective and efficient way to divert organics from the waste stream.

# Bulky waste

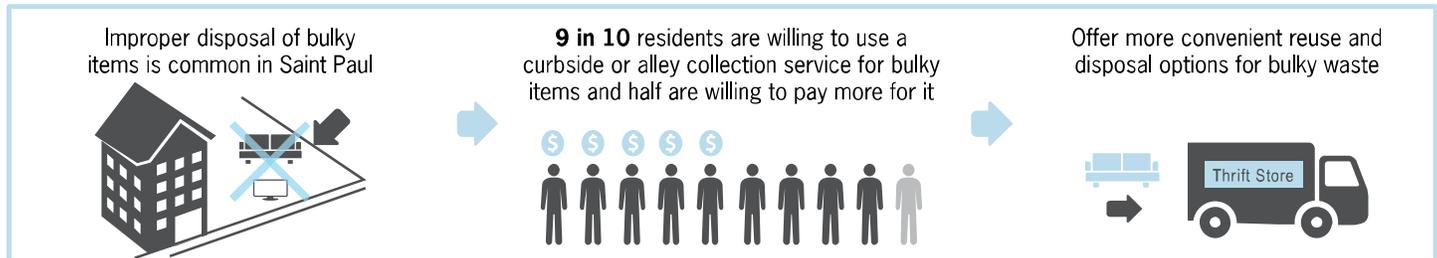
## Current bulky waste disposal methods

Most residents properly dispose of their bulky items, TVs, and appliances by selling them, donating them, or taking them to disposal facilities. However:

- About half of residents described illegal dumping as a problem in their neighborhood, both in public spaces and in others' dumpsters.
- About 1 in 10 residents admit (on this self-administered survey) leaving 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 (improper disposal).
- 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.



## Recommendation Diversify bulky waste management to offer more convenient reuse and disposal options.



- 7 in 10 residents were very willing (40%) or willing (32%) to use a voucher or coupon system to dispose of their items without paying fees 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 believe existing reuse options are limited, insufficiently promoted, and underused.



# Trash collection

Saint Paul residents are served by 15 trash haulers in an open hauling system without zoned collection days, and each household must select and contract with their hauler independently. Key stakeholders described the system as inefficient, leading to high trash collection fees and excessive truck traffic.

About half of residents reported problems with air pollution (51%), noise (56%), and street wear and tear (58%) related to trash and recycling truck traffic in their neighborhoods. Less than half (47%) of residents said their trash cost is reasonable (39% were unsure). Residents in Minneapolis (which has organized trash collection coordinated by the City) pay less for more services than the average Saint Paul resident.

**Twin Cities trash and recycling collection fees and services**

	Saint Paul, 2009	Maplewood, 2013	Minneapolis, 2013
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 fees	Recycling drop-off site	N/A	<ul style="list-style-type: none"> <li>• Yard waste removal</li> <li>• Alley plowing</li> <li>• Bulky waste removal</li> <li>• Graffiti removal</li> </ul>

**Notes:** Saint Paul fees and services based on the MPCA's 2009 "Analysis of Waste Collection Service Arrangements," completed by Foth Infrastructure & Environment. Minneapolis information from the Minneapolis Public Works website, accessed 6/10/13. Maplewood information from the Maplewood City website, accessed 8/5/13

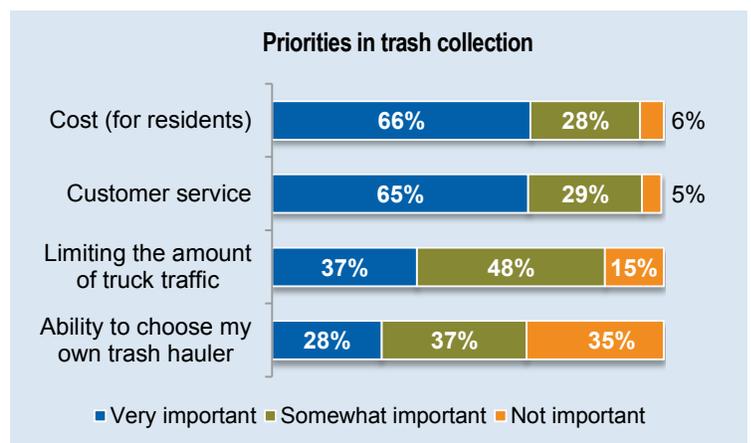
**Recommendation** Coordinate trash collection to lower costs, reduce truck traffic, and design trash pricing to incentivize recycling.



<sup>3</sup>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?qid=4514>.

Residents' highest priorities in choosing a trash hauler are cost and customer service. Limiting truck traffic is important to more residents than choosing their own hauler.

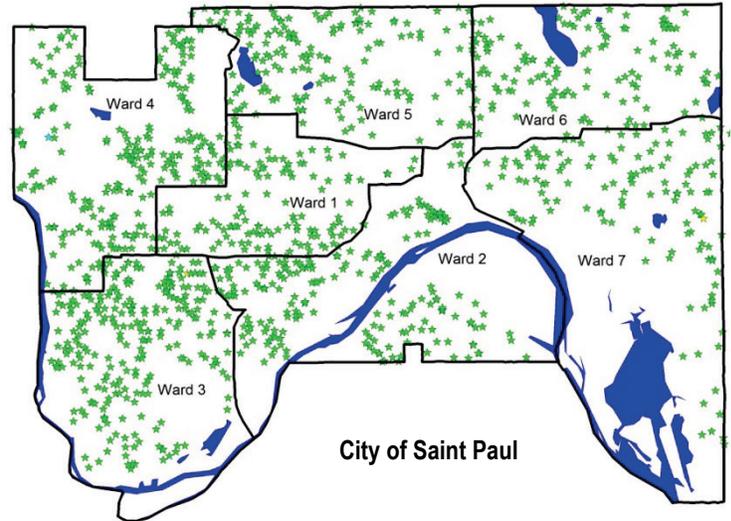
Key stakeholders recommended that the City of Saint Paul assume a coordinating role in trash collection to secure fairer pricing, increase efficiency, and reduce truck traffic.



# Methods

## Resident survey

In February-March 2013, self-administered surveys were completed and returned by 1,285 residents across Saint Paul's seven City Council wards (see map at right). To ensure that the survey data are representative of the Saint Paul population, the data were adjusted using post-stratification and design weighting.



### Survey respondent demographics

	Survey respondents (weighted)	City population
<b>Housing type</b>		
Single-Family	49%	50%
Multi-Family	51%	50%
<b>Household income</b>		
Under \$25,000	31%	28%
\$25,000 – \$74,999	43%	44%
\$75,000 or more	27%	28%
<b>Race/ethnicity</b>		
White or Caucasian (non-Hispanic)	80%	68%
All people of color	20%	32%
<b>Age</b>		
18-44	41%	50%
45-64	40%	35%
65+	19%	15%
<b>All households</b>	<b>1,285</b>	<b>111,882</b>

## Key stakeholder interviews

To gather the perspectives of experienced professionals in the fields of recycling, composting, bulky waste, and trash collection, Wilder Research conducted 13 semi-structured key informant interviews with a variety of key stakeholders that were identified by the City of Saint Paul. In addition to being highly knowledgeable in their field, half of these key stakeholders are also residents of Saint Paul.

## Focus groups

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

### For more information

This summary presents highlights of the *City of Saint Paul Recycle it Forward: A comprehensive assessment of recycling and waste management*. For more information about this report, contact Cael Warren at Wilder Research, 651-280-2066 or cael.warren@wilder.org.

Author: Cael Warren August 2013

This study was made possible by a Ramsey County Public Entity Innovation grant.

**Wilder Research**  
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