



# Residents' and business representatives' views about recycling and solid waste management

*A report for Saint Paul-Ramsey County  
Public Health*

**AUGUST 2011**

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# Summary

In June 2011, Saint Paul-Ramsey County Public Health (Ramsey County) contracted with Wilder Research to conduct focus groups and interviews to gather input from Ramsey County residents and business representatives and inform the development of the Ramsey County Solid Waste Master Plan. With the overall objective of environmental protection/conservation and a desire to prevent recyclable materials from ending up in landfills, the State of Minnesota has asked the Twin Cities metropolitan region to recycle 60 percent of all waste and recover 15 percent of organic waste from the waste stream by 2030. Currently, the region recycles 44 percent of all waste and recovers just 2 percent of organic waste from the waste stream. With these goals in mind, Wilder Research examined the range of potential policy and programming options to improve recycling rates among residents and businesses in Ramsey County.

## *Methods*

This project evaluates the waste management practices, barriers and benefits to recycling, and potential policy and programming solutions to increase recycling among residents and businesses in Ramsey County. Data collection involved a series of four focus groups with residents, one small focus group and a set of interviews with small business representatives, and in-depth key informant interviews with large business representatives. The 137 study participants included 36 residents (22 homeowners and 14 renters), 31 small business owners/managers, and 70 representatives of large businesses, property management companies, and institutions.

## *Findings*

### **Residents**

- Residents who participated in this study identified themselves as avid recyclers, but fewer residents understood and regularly practiced backyard composting. Homeowners exhibited higher rates of recycling and composting than renters.
- Residents were personally invested in and enthusiastic about recycling and composting due largely to the environmental benefits, but expressed concerns that these practices are not a priority for many people because they bring few practical benefits.
- Logistical challenges and a lack of education were the most commonly identified barriers to recycling and composting among residents.

- Popular resident recommendations to reduce the barriers and increase the benefits of recycling and composting for residents were:
  - Convenience and logistics – curbside composting pick-up and uniform recycling standards county-wide
  - Education and advertising – increased availability and publicity of resources detailing proper waste disposal and public promotion of composting techniques and benefits through a clever logo character
  - Financial incentives – cash, coupons, or discounts to reward recycling and composting, especially among those who are not sufficiently motivated by social and environmental concerns

### **Small businesses**

- All small businesses that participated in this study reported generating at least one kind of recyclable waste, and most small businesses recycle at least some of the recyclable waste that they produce. The vast majority of small businesses that participated in this study do not recycle their food and organic waste.
- Like residents, small businesses are not motivated to recycle by external factors, but rather by their desire to “do the right thing” for the environment.
- As tenants, these small businesses hold little control over their recycling and waste hauling services, and many said that they struggle with the inadequacy of recycling services provided by their property manager or corporate office.
- Attitudes toward suggested policy and programming options:
  - Existing trash hauling taxes have gone largely unnoticed by small businesses who lease their space because their property managers bear those costs. Tax-based incentives to recycle must more directly impact small businesses to be effective in encouraging recycling among them.
  - The majority of small business representatives said they would use informational materials and financial incentives to improve their recycling, but many maintained that their ability to improve was limited by the control of property managers over their waste disposal systems.
  - Reactions to a proposed recycling ordinance (banning improper disposal of recyclable materials) were mixed, but more representatives were in favor than opposed to the idea.

## **Large businesses**

- Current recycling practices:
  - Nearly all large businesses produce paper waste (99%) and aluminum, plastic, or glass waste (97%), and three-quarters (73%) produce food or other organic waste.
  - Recycling rates are highest for paper products (97% recycle all or some) and aluminum, plastic, and glass (89% recycle all or some).
  - The majority (82%) do not recycle any of their food and organic waste.
- Most large business representatives said that there is interest among their organization's leadership in recycling, especially for paper products and aluminum, plastic, and glass. More than half said that their organizational leadership is also interested in organic waste recycling.
- The most common barriers to recycling among large businesses were a lack of motivation toward and knowledge about recycling among staff, sorting challenges, and inadequate or inconveniently located bins.
- Attitudes toward suggested policy and programming options include:
  - Nearly three-quarters (72%) of large businesses would be very likely to use informational resources provided by Ramsey County, and most of these prefer electronic information distribution through email and websites.
  - Financial incentives were very popular among large business representatives, 94% of whom said their organization would react positively to financial incentives for recycling.
  - Though most large business representatives said that taxes and ordinances would be effective in increasing their recycling, many also expressed negative reactions to taxes and mandates, favoring positive incentives instead.



# Introduction

Saint Paul-Ramsey County Public Health (Ramsey County) was interested in learning more from residents and businesses in Ramsey County about their current recycling practices, their motivations for recycling, and the barriers to recycling. They were also interested in learning more about residents' and business representatives' reactions to possible strategies, programs, and policy options that Ramsey County might consider using to encourage recycling.

In June 2011, Ramsey County contracted with Wilder Research to conduct focus groups with residents, and focus groups and interviews with business representatives in Ramsey County to study these topics. The purpose of this project is to inform the development of the Ramsey County Solid Waste Master Plan.

With the overall objective of environmental protection/conservation and a desire to prevent recyclable materials from ending up in landfills, the State of Minnesota has asked the Twin Cities metropolitan region (Anoka, Carver, Dakota, Hennepin, Ramsey, Scott, and Washington counties) to recycle 60 percent of all waste and recover 15 percent of organic waste from the waste stream by 2030. Currently, the region recycles 44 percent of all waste and recovers just 2 percent of organic waste from the waste stream. Organic waste is important to consider both in terms of the organic-specific goals set for the region, and also because organic waste is typically heavier than other types of waste and the overall amount of waste produced by the counties is evaluated based on weight, not volume.

Therefore, this project focused on all types of recyclable materials that might be placed in the waste stream going to landfills, with a special emphasis on how to promote more recycling of organic waste. This project prompted residents and business representatives to consider possible programming and policy solutions that have been used in other places, and invited them to offer their opinions on and suggestions for improving these options. Possible solutions we suggested to respondents included ordinances mandating recycling of all recyclable materials, financial incentives to promote recycling, and information distribution to address knowledge barriers to recycling. Residents and businesses were also invited to share their own suggestions for policy and programming solutions.

This report presents the results of these interviews and focus groups, and offers suggestions for how Ramsey County might proceed in developing their Master Plan based on the findings.

# Methods

This study aims to provide insight into how residents, businesses, and institutions in Ramsey County think and feel about recycling in general, and possible programs and policy options that could improve recycling in the solid waste management system.

The study focused on three populations:

- Residents, including homeowners and renters
- Small businesses (with 5-19 employees) who lease their business space
- Large businesses (with 20 or more employees), including institutions and property managers

## *Research questions*

The primary research questions are:

- How much (and which materials) do residents and businesses currently recycle?
- What factors motivate residents and businesses to recycle?
- What barriers make recycling difficult or prevent recycling among residents and businesses?
- What county-level policy and programming solutions could enhance the benefits or reduce the barriers to recycling for residents and businesses?

## *Data collection approach*

To accommodate the different circumstances and needs of the three populations targeted in this study, we used several data collection methods, including focus groups and a short post-survey with residents, a small focus group or a telephone survey with small business owners/managers, and a more in-depth key informant interview with representatives of large businesses, property managers, and institutions.

We conducted a series of four focus groups with Ramsey County residents, two each with renters and homeowners. Within each category of residents, one group focused on recycling (protocol shown in the Appendix) and the other on organic waste disposal (see Appendix). Residents were asked about their experiences and opinions related to the

benefits and barriers of recycling and composting, and they shared and prioritized ideas for improving recycling and composting rates in Ramsey County. At the conclusion of the focus group, residents were asked to complete a short post-survey (see Appendix) and were given a \$25 Target gift card to thank them for their participation.

Due to the busy and varying schedules of small business owners and large business representatives, the most effective means of gathering input from business representatives was a telephone interview. While we completed a very small focus group with two small business owners/managers (protocol shown in the Appendix), the majority of small business input came from telephone interviews (see Appendix). A more extensive interview was conducted with representatives of large businesses (see Appendix), which includes property management companies and institutions.

## *Participants*

Thirty-six Ramsey County residents participated in the resident focus groups. Resident participants were drawn largely from a group of residents who agreed to participate in a focus group when they completed a residential recycling survey with ISG (a Minnesota-based market research firm) in August 2010. Because this group included few renters and because these renters were often difficult to reach, 6 of the 14 renter participants were selected from a random sample of multi-unit residential housing in Ramsey County. (Wilder purchased this list from a sampling vendor, Marketing System Group.) In addition to the 14 participants of the two renters' focus groups, 22 homeowners participated in the two homeowners' focus groups.

A total of 31 small businesses representatives (owners or general managers) participated in the small business survey and/or focus group. Small business participants were recruited from the population of Ramsey County businesses who lease their business space and employ between 5 and 19 employees. (Wilder purchased the list of small businesses in Ramsey County from a sampling vendor, Marketing System Group.) Twenty-nine small business representatives completed telephone interviews and two representatives participated in a small focus group discussion.

Representatives of 70 large businesses with 20 or more employees, including eight institutions and 12 property managers, completed telephone interviews for this study. Large business participants were drawn from a list of large business representatives who agreed to further contact after completing a large business recycling survey with ISG in June 2011. Due to the shutdown of the state of Minnesota during data collection, institutional representatives of the state of Minnesota could not be included in the study.

It is important to note that, because most resident participants and all large business participants were drawn from lists of individuals who completed prior recycling surveys and agreed to further contact on this topic, the findings from this study are not statistically representative of all residents and large businesses in Ramsey County. It is particularly important to note that the recycling practices of study participants are likely better than the general population, and no conclusions can be drawn from this study about the actual proportion of residents or businesses in Ramsey County that use various recycling practices. However, this study does offer an in-depth understanding of the barriers to recycling and will help Ramsey County to understand how to fine-tune various programming and policy options.

## *Analysis*

Quantitative data were compiled and analyzed using Microsoft Excel and the Statistical Package for the Social Sciences (SPSS). Frequencies were used to develop the tables contained in this report. These frequencies, as well as relevant cross-tabulations, are available upon request.

Qualitative data were analyzed using a technique known as “open coding,” meaning that we reviewed the respondents’ answers and used their own ideas and words to develop the themes to be used as codes. Proportions of responses that were assigned to each of these codes are reported, with representative quotes provided to illustrate the primary themes. Lists of open-ended responses from the interview questions and detailed notes of each focus group are available upon request.

Due to the distinct circumstances faced by each group of participants, analysis was conducted separately for each of the three groups. The “Findings” section that follows includes subsections that address each of the research questions for each group of participants, and unifying themes are presented in the “Issues to consider” section.

# Findings

## *Current recycling and composting practices*

### **Residents**

The vast majority of focus group participants said they recycle, both at home and away from home (Table 1). Twenty of 36 participants (56%) said they always recycle, and 12 (33%) said they usually recycle. Rates of recycling when away from home were also high (92%). Compared to the county-wide 2010 Residential Recycling Survey of 500 residents conducted by ISG in August 2010, focus group participants were less likely to say they always or never recycle, but more likely to say they usually or sometimes recycle.

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#### **1. Frequency of recycling among residents**

	<b>Focus group participants (n=36)</b>	<b>Ramsey County residents (n=500)</b>
Always	56%	74%
Usually	33%	12%
Sometimes	8%	N/A
Rarely	3%	3%
Never	-	9%

**Sources:** Focus group participant data sourced from the focus group post-survey. Ramsey County resident data sourced from the 2010 Residential Recycling survey conducted by ISG.

**Note:** Response options for focus group participants were Always, Usually, Sometimes, Rarely, or Never, while the 2010 Residential Recycling Survey response options excluded “Sometimes.”

Nearly half (47%) of residents said they compost in their backyard or through a neighborhood composting site, though some may compost yard waste but not food waste. Of those who compost, the majority (59%) do so year-round. Focus group participants were more likely to compost than respondents to the 2010 Residential Recycling Survey, of whom only 25 percent reported composting.

Renters are less likely than homeowners to recycle regularly; while 78 percent of renters said they recycle usually or always, 95 percent of homeowners reported recycling usually or always (though this difference is not statistically significant). Renters are also less likely to compost, with only 21 percent reporting that they compost compared to 64 percent of homeowners. The results of both the focus group participant survey and the 2010 Residential Recycling Survey indicate that, while most residents could reduce their

trash volume by recycling and composting more, there may be more room for improvement in recycling and composting among renters.

In the focus group discussion, residents briefly described their recycling and food waste disposal habits, revealing that their commitment to and understanding of recycling were stronger than for composting. Residents (especially homeowners) tended to categorize themselves as avid recyclers, identifying a long list of materials that they recycle regularly and a longer list of items that they cannot recycle but would like to. The discussion emphasized their active participation in recycling efforts, though some participants also acknowledged the exceptions to their commitment to recycling, based on logistical challenges and inconveniences that are described in detail in the “Barriers to recycling and composting” section below.

While some residents have a sophisticated understanding of composting and dedicate themselves to turning their food and yard waste into soil for their gardens, others (especially renters with no yards) explained that they have never known of an outlet for organic waste other than throwing it in the trash. Only one renter described a system of organic waste disposal that does not involve a dumpster – a compost pile provided by his apartment complex. Several homeowners also expressed their lack of knowledge and the challenges of composting (described below) to explain why they regularly throw their organic waste in the trash. Overall, residents described recycling as a habit that has become second nature, but composting is much less frequently used as a disposal method.

### **Small businesses**

All small businesses said they produce at least one kind of recyclable waste. Nearly all small business representatives (97%) said their business produces paper or cardboard waste and most (83%) said their business produces aluminum, plastic, or glass waste (Table 2). About a quarter of small businesses produce food or other organic waste and a third produce another kind of waste not mentioned, including items like toner cartridges, wood, and clothing.

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## **2. Percentage of small businesses that generate recyclable waste (n=29)**

	<b>Percent</b>
Paper products including cardboard	97%
Aluminum, plastic, and glass	83%
Food or other organic waste	34%
Something else not mentioned	28%

**Note:** “Something else not mentioned” includes: computers, toner cartridges, metal (copper, steel, and aluminum), pallets and wood, clothes, plastic cups, and plastic bags.

Table 3 indicates that most small businesses recycle at least some of their paper products and aluminum, plastic, and glass, and more than three-quarters recycle all of the specified “other” waste that their business produces. Nonetheless, there is room for improvement – about one in five small businesses that participated in this study recycle none of their paper waste or aluminum, plastic, and glass waste. Nearly all of the small businesses said they recycle none of their food and organic waste.

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### 3. Amount of waste recycled by small businesses (n=29)

	Recycle all	Recycle some	Recycle none
Paper products including cardboard	52%	26%	22%
Aluminum, plastic, and glass	43%	39%	17%
Food or other organic waste	9%	-	91%
Something else not mentioned	78%	-	22%

**Note:** “Something else not mentioned” includes: computers, toner cartridges, metal (copper, steel, and aluminum), pallets and wood, clothes, plastic cups, and plastic bags.

These recycling rates might be explained in part by comparable rates of recycling among small business employees. Over half of small businesses (55%) said that all of their employees recycle, but 19 percent said that only some of their employees recycle and 26 percent said that none of their employees recycle.

Many small business representatives reported that they have attempted to increase recycling rates among staff by encouraging recycling. Sixty-two percent of small business representatives said they encourage their employees to recycle, and the majority (61%) of those reported encouraging employees primarily by providing bins and disseminating information about recycling. Another 28 percent of small businesses who encourage recycling said they do so through leading by example and telling employees that recycling is important or mandatory in their business. Less than one-third of small businesses said they have someone on staff who is specifically assigned to manage the business’s recycling program.

### Large businesses

Overall, interviews with large business representatives revealed that they are currently most equipped to recycle paper products and least equipped to recycle food and organic waste. They use a wide variety of trash and recycling haulers, and most of them renegotiate their trash and recycling hauling contracts once per year or less often. The most commonly cited factor that makes recycling possible for large businesses is the availability of dedicated

recycling bins. These and other findings related to large businesses' current recycling and composting practices are detailed in the following paragraphs.

### **Waste generation and recycling rates**

Nearly all large businesses produce paper, aluminum, plastic, and glass waste (Table 4). Three-quarters of large businesses also produce food or other organic waste (73%). When asked if they produce other types of waste, nearly half of large businesses responded in the affirmative (46%). The most commonly mentioned other types of waste include electronic or machinery waste, hazardous waste, metals, and wood.

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#### **4. Percentage of large businesses that generate recyclable waste (n=70)**

	<b>Percent</b>
Paper products including cardboard	99%
Aluminum, plastic, and glass	94%
Food or other organic waste	73%
Something else not mentioned	46%

**Note:** "Something else not mentioned" includes: computers, toner cartridges, electronics, metals (copper, steel, and aluminum), CFLs, paint cans, oil, vehicle batteries, chemicals, bio-hazardous waste, other hazardous waste, tires, pallets, scrap wood, construction debris, production waste (polystyrene, polycarbonate, PVC, etc.), old furniture and household goods, Styrofoam.

Large business representatives reported generally recycling at least some of the waste they produce, except for food or organic waste, which very few businesses recycle (Table 5). When landlords were asked to think about their tenants who produce a lot of food waste and what these tenants are currently doing to dispose of that waste, all landlords answered that their tenants are putting the food waste in the garbage.

Nearly half of large businesses (47%) recycle only some of their paper products and aluminum, plastic, and glass, although only 3 percent do not recycle at all. These businesses, which have adequate facilities to recycle but do not recycle as much as they could, are optimal targets for outreach strategies and incentives to recycle.



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## 5. Amount of waste recycled by large businesses

	Recycle all	Recycle some	Recycle none
Paper products including cardboard (n=68)	50%	47%	3%
Aluminum, plastic, and glass (n=66)	42%	47%	11%
Food or other organic waste (n=51)	6%	12%	82%
Something else not mentioned (n=32)	53%	31%	16%

**Note:** "Something else not mentioned" includes: computers, toner cartridges, electronics, metals (copper, steel, and aluminum), CFLs, paint cans, oil, vehicle batteries, chemicals, bio-hazardous waste, other hazardous waste, tires, pallets, scrap wood, construction debris, production waste (polystyrene, polycarbonate, PVC, etc.), old furniture and household goods, Styrofoam.

Of those who recycle some or none of their recyclable waste, most large businesses representatives (85%) said they are knowledgeable about recycling paper products and aluminum, plastic, and glass (76%), but fewer knew how to recycle food and organic waste (24%) (Table 6). Large businesses were also least likely to provide recycling bins for organic waste, with only 4 percent of large businesses providing organic waste recycling bins compared to 68 percent for paper products and 63 percent for aluminum, plastic, and glass. Staff were also more likely to use the available paper and aluminum, plastic, and glass recycling bins than organic waste recycling bins.

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## 6. Additional waste management practices of large businesses

	Knowledge of how or what to recycle	Recycling bins conveniently located	Staff or tenants use of available recycling bins
Paper products including cardboard (n=34)	85%	68%	65%
Aluminum, plastic, and glass (n=38)	76%	63%	63%
Food or other organic waste (n=48)	24%	4%	2%

### Waste hauling service

The three most frequently used trash and recycling haulers are Waste Management, Allied Waste Services of Minnesota, and Veolia Environmental Services (Table 7). About one-fifth (18%) of large businesses use the same hauler for both their trash and recycling needs. Two large businesses use multiple haulers for their trash needs and five large businesses use multiple haulers for their recycling needs.

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**7. Current trash and recycling haulers of large businesses (n=60)**

	<b>Trash</b>	<b>Recycling</b>
Waste Management	25%	20%
Allied Waste Services of Minnesota	18%	13%
Veolia Environmental Services	17%	17%
Aspen Waste Systems	12%	10%
Walters Recycling and Refuse	10%	7%
Eureka Recycling	N/A	7%
VEIT Specialty Contracting and Waste Management	-	2%
Other	13%	12%
No hauler – business responsible	1%	3%
Do not know	5%	3%

Well over half of large business representatives reported that someone at the organization checks once a year or less often to make sure the trash and recycling contracts are renegotiated to determine if dumpsters are the right size. A quarter of representatives said they never renegotiate the contracts, and 16 percent said that someone at the organization checks the contracts more than once per year (Table 8).

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**8. Frequency of hauling contract renegotiation among large businesses (n=62)**

	<b>Percent</b>
Never	24%
Once a year or less often	60%
A few times per year	13%
About once a month or more	3%

**What makes recycling possible**

When asked what makes recycling possible for each specific kind of waste produced, the most common theme large business representatives mentioned across all kinds of waste was the convenience of dedicated recycling bins for all users. Other common themes include the availability of dedicated staff to collect recycled materials, the existence of recycling bins at individual workspaces, recycling haulers, government entities, or building owners providing materials (such as bins), single sort recycling, and having dumpsters dedicated specifically to recycling.

Individual employee initiative was more frequently mentioned for the recycling of aluminum, plastic, and glass than for paper products. Other themes include references to recycling policies and education programs. Only a couple of large business representatives mentioned using incentives or rewards to encourage recycling because it saves money.

A number of large business representatives reported using strategies across multiple themes; one-fifth use multiple strategies to recycle paper products and one-quarter use multiple strategies to recycle aluminum, plastic, and glass. Following are a few examples:

Our public health department bought us bins. We fill the bins. We have a dumpster in the yard and the janitor has as his duty to get the paper out to the dumpster.

We have the designated containers in the kitchen and lunchroom areas. And we have a Green Committee and we provide education and visuals around the office to encourage and remind people. We inform from a new employee standpoint as part of their orientation, what the expectations are of the employee and their responsibility, and for external groups. We do have outside groups who come in and use our space. So we educate them to follow our recycling practices.

The organic waste, like yard waste, is in the contract with the vendor who does our yard. And we have a large yard, so it isn't a problem to have a compost bin. We don't do food. That isn't a big waste stream.

For the 18 percent of businesses that recycle all or some of their food or organic waste, dedicated and conveniently located bins are the most frequently mentioned thing that makes food or organic waste recycling possible. Representatives of these businesses also mentioned the importance of single sort recycling, individual employee initiative, having the space to accommodate needed materials, and receiving a discount to participate.

Half of large business representatives reported that they have a “recycling champion” who is responsible for the organization’s recycling efforts. Those without a recycling champion most frequently reported they did not have one because of a lack of interest or priority, lack of time or staff, or they had not thought of the concept before. A few mentioned they had no need for a recycling champion because all of their staff are already engaged with recycling. A couple of others did not have the authority to introduce a “recycling champion,” mentioned it was too costly, or that the organization itself was too large.

Of those businesses that have one, about two-thirds of recycling champions are owners or managers, or upper administration at the organization. Other champions are non-management employees at the organization (21%). The most frequently reported impact of having a recycling champion on the overall effectiveness of recycling efforts is the helpfulness of having a designated responsible person to push efforts forward:

You can have one person who disseminates the information, someone who can actively lead the efforts... kind of like a point person.

I think, if you don't have somebody, you are going to have a mediocre product. You always need to have someone pushing it or you will have a poor effort.

Other common themes include how a recycling champion is able to:

**Educate others at the organization:** “I think it is good because it is a source of communication to our employees about what we are able to recycle. And it helps to have someone oversee that area, so they understand what is recyclable and what is not.”

**Remind everyone to participate:** “It helps to reinforce what the recycling rules are, reminding people where things are to go, and what can be recycled, and when there are lapses.”

**Improve attitudes to increase participation:** “I think everybody at work feels good that plastics don't get in the trash, that cans and paper can be recycled. Everybody has pride in that, I believe.”

**Provide a better understanding of legal requirements or available support:** “Be aware of the requirements on recycling on a county and state level.”

A couple of large business representatives also mentioned that having a recycling champion helps keep recycling a part of business operations and helps to influence other organizations to recycle as well. The few who mentioned that a recycling champion had little impact on recycling efforts attributed this to lack of enforcement, a small staff, and low staff buy-in.

## *Attitudes about recycling and composting*

### **Residents**

When asked about the words or images that came to mind when they heard the word “trash,” residents generally described smelly junk that cannot be reused and ends up in garbage bags on their way to landfills. On the other hand, they thought of “recycling” as a group of materials that they knew as recyclable (aluminum, plastic, paper, grass clippings, etc.), and recalled blue bins and the reduce, reuse, recycle logo. Residents also associated “compost” with a set of generally positive and accurate characteristics like rich soil, gardening, waiting and turning it, and one person referred to composting as “the ideal.” Compared to their descriptors of trash, they used more positive words like “saving the Earth” when referring to recycling and composting.

Residents' positive images of recycling and composting seem to be attributable largely to their moral sense of doing the right thing for the environment and for the future rather than to any practical benefits for them. When asked what the benefits of recycling and composting were, responses revolved almost entirely around the individuals' moral sense: minimizing pollution, keeping waste out of landfills, and maintaining the planet for our children and grandchildren. These responses suggest that practical benefits of recycling and composting are limited for residents, or at least that these types of benefits do not immediately occur to residents who are active recyclers.

Though participants generally expressed positive impressions of and enthusiasm for recycling and composting, they noted the negative impact of disinterest and careless noncompliance among others. Other tenants in the building or even other members of the household might not cooperate, disposing of materials incorrectly and contaminating the recycling or compost. Some do not believe in recycling and others have formed waste disposal habits that do not involve recycling or composting. These habits, participants said, are hard to break. Finally, as one participant observed, "it's also a lack of acceptance of ownership; this world is my world, and I have to own that and take responsibility."

While most participants said that they reduce their own trash output through recycling and/or composting, they argued that disinterest and failure to assume "ownership" of the waste problem has kept many from using proper waste disposal methods. Participants suggested the introduction of practical benefits of recycling and composting (described in the "Discussion of programming and policy options") that might encourage these less extrinsically motivated individuals to recycle more.

### **Small businesses**

As with residents, the primary motivation for recycling among small businesses relates to the business representative's desire to "do the right thing." When asked about the benefit of recycling for a small business, 61 percent of representatives explained the importance of the psychological or social benefit of reducing landfill waste and protecting the environment.

We do it because we know it is the right thing to do.

We have a strong green initiative in our company.

Only 10 percent said they receive any kind of tangible business benefits, which included a tax credit and a boost to the company's "green" image. Like residents, small businesses seem to reap few external benefits from recycling, but many of them embrace what they believe is their responsibility to reduce landfill waste by recycling.

## Large businesses

The motivation for recycling among large businesses was not explicitly addressed in the key informant interviews. In general, representatives described company-wide recycling policies and practices that are driven by cost, even though many large business representatives commented on the environmental interests of staff who lead recycling efforts.

Though many large businesses do not recycle all of their recyclable waste, representatives say their organizations' leaders are interested in recycling. Four out of five large business leaders who only recycle some or none of their aluminum, plastic, and glass said that their organizational leadership is interested in recycling these products (Table 9). They are slightly less interested in recycling paper products, and about half are interested in food or other organic waste recycling.

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### 9. Interest in recycling among large business organizational leadership

	Percent
Paper products (n=24)	71%
Aluminum, plastic, and glass (n=29)	79%
Food or other organic waste (n=34)	53%

The disconnect between the high interest in recycling and the failure to recycle all recyclable materials might be indicative of the prioritization that is a necessary part of running a large business. Though organizational leadership currently focuses staff time and efforts on other aspects of the business, their favorable attitudes toward recycling suggest that policy and programming solutions would be well received and effective if they provide large businesses with incentives to prioritize recycling.

## *Barriers to recycling and composting*

### **Residents**

The two most important themes of residential barriers to recycling and composting were a lack of knowledge and logistical challenges of recycling and composting. Multiple individuals in every group mentioned their confusion about which materials can be composted or recycled and how the recycling restrictions vary by neighborhood. Questions about the changing recycling restrictions on accepted types of cardboard, plastics, and glass, both over time and across neighborhoods, were asked in each group, despite the relatively informed nature of the participants (assumed based on their relatively high recycling behaviors). Participants said that they struggle to keep up with

the changing slate of materials accepted for recycling over time, and that educational outreach from their recycling haulers is inadequate to properly inform them despite their interest in the topic.

Lack of knowledge about composting was the most commonly cited reason for throwing organic waste in the trash. Some participants expressed interest in a more environmentally friendly outlet for their organic waste but did not know what composting is, how to compost, or which materials can be composted. Others said they tried composting and ended up with a stinky, slimy mess that caused them to give up. It is likely that insufficient education on composting led to the unsuccessful outcomes (odor and slime) that have deterred many of these participants from composting their organic waste.

Logistical challenges and inconvenience were also frequently cited, with all groups noting their struggle to meet the space requirements of recycling and composting, and with participants in three of four groups noting that public recycling bins and recycling and composting sites are inconveniently located for them. Most renters said they have no yard available for backyard composting and knew of no other outlet for their organic waste. A few knew of yard waste collection sites, but said that transporting their food waste is logistically challenging and impractical due to their distance from organic waste sites, the inconvenience of the sites' hours. These renters were also unsure whether food waste is accepted at those sites. Homeowners described fewer barriers, and those that were mentioned were generally related to pests and odors, which can be greatly reduced with education on proper composting methods.

Participants said that sorting recyclables requires them to devote substantial amounts of space to their household waste stream, especially in neighborhoods that require two or more sorts. Renters said that their buildings' recycling bins (if available) are sometimes inconveniently located and contain trash from noncompliant tenants. Other renters said that they struggle to find outlets for their recyclable materials since their buildings have no recycling bins and public recycling bins are unavailable or inaccessible for them. Most participants said that they recycle regularly despite these barriers, going out of their way to carry their recycling to public bins, but that they know of others who do not recycle due to the logistical challenges and inconvenience of recycling.

### **Small businesses**

Small business representatives' responses indicated that they have little authority over their trash and recycling services because all of these participants lease their business space from property managers who usually provide the waste disposal services for the buildings. Fewer than half of the respondents (42%) said they know who their trash and recycling haulers are, and only 7 percent (two small business representatives) reported

that someone at their business checks to make sure the trash and recycling contracts are renegotiated at least once per year to ensure proper dumpster size and appropriateness of the contract. The rest said they checked once a year or less or had nobody in charge of their recycling to perform this task.

When asked what makes recycling difficult for their business, 39 percent of representatives referenced concerns about the inadequacy of their recycling collection and hauling services. Most of these said that the services provided by their building manager or corporate office either fail to provide recycling bins or contract with unfamiliar cleaning and maintenance staff that representatives worried would throw the sorted recyclables into the trash dumpster. One representative said, when asked about their waste haulers, “Hard to answer as we lease the space; the cleaning people take away our paper every night. We don’t know where it goes from there.”

Other representatives said that, because recycling hauling services are unavailable and curbside pick-up is not an option, they have to take recyclables home if they want to honor their commitment to recycling. Only 30 percent of representatives said their landlords provide them with recycling bins or encourage recycling. As one representative said of the building’s hauling service, “it does not exist; we are it.”

Furthermore, all of the small businesses said it is not currently an option for them to leverage a residential recycling contract, and many representatives explained that the volume of their recyclable waste output is too small for them to pay for a contract with a recycling hauler. As a result, many reported that they take their business recycling home on a regular basis to put it out with their residential recycling, and others said that they just elect not to recycle due to the cost and inconvenience of the options available.

### **Large businesses**

When asked generally about what prevents large businesses from recycling paper products or aluminum, plastic, and glass, the most common themes were the lack of motivation from individuals at the organization and the lack of communication about recyclables and other kinds of education or training to help individuals.

The most common external difficulties in recycling paper products relate to the difficulty in separating items or issues with recycling bins such as not having enough bins and not having a convenient location or any space for bins. A couple of key informants also mentioned they process confidential items that cannot be recycled (e.g., medical records).

The most common external difficulties in recycling aluminum, plastic, and glass also relate to aforementioned issues with recycling bins. Other issues include not having a



hauler who will recycle these items, difficulty separating items, and having to clean the products before they are suitable for recycling.

Some large business representatives report that their trash haulers present a barrier to recycling. A substantial minority of large business leaders who currently recycle only some or none of their recyclable products reported that there are features of their trash hauler or their trash hauling contract that prevent recycling or make recycling difficult. These barriers occur most frequently in regards to aluminum, plastic, and glass recycling and least frequently in regards to food or other organic waste recycling (Table 10).

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**10. Large businesses with trash haulers whose features make recycling difficult**

	<b>Percent</b>
Paper products (n=25)	16%
Aluminum, plastic, and glass (n=30)	20%
Food or other organic waste (n=31)	10%

Only a few large business representatives provided more in-depth responses about which features of their hauler or hauling contract make recycling these products difficult, and all referred to characteristics of the hauler, not the contract. Nearly all of these representatives, across all recyclable products, said that the hauler does not provide recycling bins or recycling service for these products.

## *Discussion of programming and policy options*

### **Residential options for improving recycling and composting**

In the residential focus groups, participants were asked to generate a set of policy and programming ideas to improve recycling and composting rates among residents. After discussing these ideas and grouping them into categories, residents were given a set of two green sticky dots and two red sticky dots. They were asked to place the green dots on the ideas or categories that they believed would be most effective in increasing recycling and composting among households in Ramsey County, and to place the red dots on the ideas or categories that they believed would be least effective. Table 11 summarizes the results of the green dot “voting” in the focus groups. The following subsections explore the details of these suggestions.

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## 11. Popular residential programming and policy solutions

	Percent of all green dots (n=72)	Percent of composting groups' green dots (n=36)	Percent of recycling groups' green dots (n=36)
Convenience and logistics	40%	31%	49%
Education and advertising	29%	50%	8%
Financial incentives	10%	11%	8%
Hazardous waste disposal options	10%	-	19%
Supply side and business involvement	7%	6%	8%
Recycling ordinance	4%	-	8%
Research more uses for organic waste	1%	3%	-

### Convenience and logistics

Reflecting the prominence of the logistical barriers to recycling and composting, “convenience and logistics” was the most popular solution category among residents who participated in the recycling groups and the second most popular category among residents who participated in the composting groups. This category of recommendations (summed up by one group as “make it easy”) received nearly half of green dot votes in the recycling groups and nearly one-third in the composting groups.

The most popular theme within this category was uniformity in recycling policies and practices county-wide. Residents said that differing standards of which materials are accepted and how they must be sorted has led to unnecessary confusion, and that the standardization of recycling county-wide (or preferably state-wide) would make recycling much easier. Other popular suggestions to make recycling more convenient included all-in-one recycling (with recyclables sorted in a central location) and accepting more plastics (especially margarine/yogurt tubs and plastic bags). In addition, some participants recommended simplifying recycling by working toward a consistent color coding system for recycling bins county-wide so the color of a bin can tell residents immediately what its intended contents are.

With regard to convenient composting, a very popular suggestion (arising, unprompted, in all composting *and* recycling groups) was curbside collection of organic waste. In the focus group post-survey, 100 percent of participants who do not currently compost said they would be willing to sort their organic waste for curbside pick-up, and several participants who already compost said they would like the option of curbside pick-up when their compost bin is full. Three-quarters of residents said they would be willing to

pay for curbside pick-up of organic waste, with 42 percent saying they would pay for it only if their trash bill was reduced by a corresponding amount and 33 percent saying they would pay extra in addition to what they normally pay for trash collection.

Community composting sites were also fairly popular among participants, in the event that curbside pick-up is infeasible or only possible in the longer term. Suggested sites for community composting included garden centers, community gardens, and (to be most accessible) grocery stores, where contracted trucks could pick up the waste and haul it to a composting site. Some said that they would go out of their way to take their organic waste to a neighborhood collection site, but these appeared to be only the most committed residents (and many of those have already begun composting in their yards). Ultimately, enhanced availability of community composting sites could cause some interested individuals to begin composting, but residents felt that participation would be much higher with curbside pick-up.

When asked if having compost bins or indoor low-odor compost buckets delivered to them for little or no cost would inspire them to recycle more, residents generally said that these tools would be helpful but insufficient. Homeowners said the composting tools would enable them to compost, but they insisted that education to encourage and inform composting efforts would be a critical component of any organic waste reduction program that relies heavily on backyard composting. Renters said that a low-odor compost bucket would be helpful in encouraging them to separate their organic waste, but that they would also need: 1) education on which materials can be composted and the reasons why they should add another sort to their household waste disposal, and 2) curbside pick-up or another outlet for organic waste, since many renters have no yard.

When asked if being delivered a free recycling bin would increase the amount that they recycle, homeowners said they already had recycling bins. Most renters said their buildings had recycling bins available, and the group prioritized other solutions to increase recycling.

### **Education and advertising**

Due to the importance of informational barriers to recycling and especially composting, “education and advertising” was the most popular solution category in the composting groups and was a key theme in the recycling groups. Residents in the composting groups said that “education and advertising,” which received half of their green dot votes, was the most important step toward keeping organic waste out of dumpsters and landfills because many residents do not understand the process, benefits, or importance of separating organic waste from their trash. They recommended promoting public awareness of composting and other outlets for organic waste, emphasizing both the

reasons to compost (as one resident said, publicly defining it as “the right thing to do”) and information on the composting process.

The most popular advertising suggestion, presented in the homeowners' composting group and receiving nearly a fifth of that group's green dot votes, was the creation of a clever logo character (like Smokey the Bear or the Geico Gecko) to represent composting in print, television, and online advertising. This character could appeal to adults by educating on the public benefits of composting and the taxpayer cost of organic waste that enters landfills, but would be primarily targeted at children. The importance of educating children was a popular theme as residents stressed that children have played a crucial role in the rise of recycling over time and could do the same for composting.

When asked for their opinions on the three educational options of informational materials, recycling captains for every block, and informational community meetings, residents expressed little enthusiasm for the meetings and recycling captains, saying that interest in these community-driven activities would vary widely depending on the block or neighborhood's sense of community. Among these educational options, distributing informational materials directly to residents was most popular.

Residents suggested that these educational outreach measures should be frequent and come in a variety of formats, from pamphlets detailing all aspects of household waste management (with a concise summary on the first page) to television advertising referring people to the Ramsey County Waste Management website. They recommended distributing informational materials frequently and upon move-in to keep residents updated on the changing slate of recyclable materials, and suggested distributing the Ramsey County Waste Management URL at grocery stores. Participants also proposed that public recycling bins should be equipped with more detailed signage indicating their intended contents, and that informational materials could be available near bins as well.

### **Financial incentives**

With limited external motivation to recycle and compost, and with many barriers making recycling and composting difficult, it is unsurprising that financial incentives were well received by participants. Residents said that financial incentives would be the best way to increase recycling among residents and businesses because they introduce a practical benefit to encourage the desired behavior among those who are not environmentally motivated. Still, this category received only 10 percent of green dot votes, reflecting skepticism that this solution could be financially feasible for Ramsey County.

Opinions about the best financial incentive varied, but positive and neutral incentives (cash or coupon bonuses or a deposit/refund system for bottles) were more popular than

negative incentives (increased fees for larger dumpsters). One resident gave an example of an effective, low-budget recycling incentive program in White Bear Township, where they offer discounts at area businesses to reward improvements in neighborhood recycling yields.

Recognizing the need to pay for positive financial incentives, one participant proposed increasing fees for producers of large amounts of waste to provide bonuses or hauling fee reductions for recycling and composting among residents. Participants argued that financial incentives could be the necessary inspiration for residents to change how they dispose of their food waste. When combined with curbside pick-up, financial incentives could help build a critical mass of residents who separate their food waste, moving toward a culture where such behavior is the norm (as with recycling).

### **Recycling ordinance**

A law against throwing recyclable materials or organic waste in the trash was the least popular programming and policy solution proposed, receiving two-thirds of all red dots and sparking mild outrage in the conversation. The negative reactions reflected a current political climate that tends to reject government mandates. Participants said that it would be political suicide to pass the ordinance and that enforcing the law would be expensive and intrusive (if it involved monitoring household trash). As one resident said, “you catch more flies with honey than vinegar,” an indication of the popular view that taxpayer dollars would be more effective if spent on positive financial incentives. Participants acknowledged, though, that the ordinance would increase recycling and composting if properly enforced and if political backlash did not prevent or destroy it.<sup>1</sup>

### **Other solutions**

In the homeowners’ recycling group, participants emphasized the importance of convenient and free disposal options for hazardous wastes like paint, unused prescription medications, and batteries. This category, which includes free recycling of oil, paint, and other hazardous materials, more frequent curbside pick-up of hazardous materials, and more local battery collection sites, received nearly a third of the green dot votes in this group. The renters’ recycling group also brought up the availability of battery and light bulb recycling sites, but their green dot voting did not prioritize this issue.

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<sup>1</sup> When informed that other cities have implemented such ordinances, participants’ objections to a recycling ordinance seemed to soften a bit, suggesting that the implementation of such an ordinance should involve a great deal of education about other communities’ success stories.

Similar suggestions were proposed in the category of “supply side and business involvement,” which contains a number of solutions focusing on the products that business provide to consumers and the requirements they face in doing so. Participants suggested that businesses should make more of their products from recyclable or recycled materials and that stores that sell batteries, electronics, and light bulbs should be required to host free recycling collection sites for these items.

### **Small business options for improving recycling**

The current method of encouraging recycling among businesses revolves primarily around the County Environmental Charge and the State Solid Waste Management Tax, which are assessed at 53 percent and 17 percent (respectively) of the business’s trash hauling bill. Recycling services are exempt from these fees, thereby reducing the cost of recycling relative to trash disposal. Among small businesses who lease their business space, these costs are largely unknown because the small businesses do not directly bear the costs of trash removal. Only one-third of small business representatives said they know of these state and county trash removal fees, and the vast majority (90%) said these fees have no impact on their recycling and waste disposal decisions.

Because the county and state fees have had little impact on recycling and waste management decisions among small businesses, representatives were asked their opinions on three other policy and programming solutions to improve recycling rates among businesses: information and technical assistance, financial incentives, and a recycling ordinance mandating proper disposal of all recyclable materials.

### **Information and technical assistance**

The majority of representatives (61%) said they would read and make use of informational materials and technical assistance if they were available. As one representative said, “I am always open to suggestions about how to get employees more involved and spread the word to the community.”

Of those who said they would not or could not use information and technical assistance, 16 percent said they would be unable to use these resources to recycle more without the help of their building managers or corporate offices whose policies limit their recycling. “I’d read it, but we are tenants and don’t have much control over what happens in the building,” said one representative.

The remaining 13 percent said that there is no point in providing the information, because they are already putting in the effort to recycle as much as possible. “We are all so used to recycling, we don’t need it,” explained one representative. “There is no benefit to us,

and it is not necessary to spend the money [to provide information about recycling to small businesses].”

Only 7 percent of businesses said they would be willing to pay for technical assistance to improve their recycling efforts, but 76 percent shared ideas of incentives that would effectively encourage them to pursue additional information or technical assistance on recycling.

Financial incentives were the most popular suggestion, mentioned by 28 percent of representatives. Twenty-one percent recommended an easy-to-use, comprehensive, and well promoted website to provide free answers to businesses’ recycling questions. Others requested free or low-cost recycling hauling services and recommended that the incentives be directed at building managers and corporate offices that make the waste disposal decisions for these small businesses.

When asked about the barriers to using information and technical assistance to improve their recycling efforts, representatives expressed concerns about their limited control over their waste management and about the time and cost required to use these resources. The most common barrier, cited by 34 percent of representatives, is a lack of purpose to seek out information or technical assistance because the business either: 1) has no control over the building’s recycling, or 2) already makes a full effort to recycle all of the recyclable waste that they produce. “What would I be seeking?” one representative asked. “I don’t know [what technical assistance they would be] talking about because we already do so much.”

Another 28 percent said the cost and time required to seek out information and technical assistance would be prohibitive for their small, often understaffed businesses. “If it costs to do that, we’re just a small company and we don’t have time and money to devote to this,” another representative said.

When asked what other policy and programming solutions would be necessary to enable small businesses to overcome these barriers and recycle more, representatives presented a variety of suggestions for programming to accompany the distribution of informational materials and technical assistance. A quarter of representatives (24%) proposed offering financial incentives (both positive and negative) for recycling and another quarter (24%) suggested making recycling mandatory and monitoring it. It “comes down to the dollar,” as one representative said.

Another 17 percent pointed out that recycling must be made easy, with recycling bins available and conveniently located at limited or no cost. A representative asserted that it is important to offer “options to recycle for small businesses; make the service available like you do to residents.”

## **Financial incentives**

The majority (66%) of small business representatives said they would react positively to financial incentives for recycling. “That would be the one that might make a difference,” one representative said. Others (14%) said that the incentive would be unnecessary because they already recycle as much as they can. “That could motivate some businesses that are not yet recycling, but it would not make a change for me,” said another representative.” Still others (14%) thought that the incentive would not impact them or their behavior because it would go to the landlord or corporate office. “We wouldn’t see it [the financial incentive] here because it goes through corporate,” one said.

The reported barriers to participation in a financial incentives program tell a similar story. While almost half (48%) of small business representatives said they would face no barriers to participation in a program that provides financial incentives for recycling, almost one-quarter (24%) of representatives said that landlord and corporate control over waste management services would prevent them from taking advantage of incentives for recycling. They said that the financial incentives would be ineffective unless tenants, landlords, and corporate offices were all targeted by the program.

The other main barrier, also noted by about a quarter (24%) of the representatives, was the cost and time investment required to participate in the incentive program. A representative worried that their business would face a “lack of time for learning the program and implementing the program.”

When asked for their input on the necessary accompanying policy and programming solutions to make a financial incentives program effective, representatives suggested similar solutions to those recommended to accompany informational materials. Twenty-eight percent said businesses would need to be monitored to ensure compliance. Another 21 percent said that it would need to be easy to recycle and that property managers “would have to get the word to tenants and get bins out.” Finally, 14 percent called for education and outreach to the public about how to recycle and participate in the program.

## **Recycling ordinance**

Small business representatives had mixed reactions to the idea of a recycling ordinance, whereby throwing recyclable materials in the trash would be made illegal. While 45 percent said they would react positively and comply, 38 percent said they would react negatively to what they believed was government infringement upon personal freedom with a very high cost of enforcement.

I don’t believe it would be an issue. It would be a fair law for our business and we would be compliant. Ones that aren’t should be fined.



I would not be happy; we have enough government in our lives. I don't want any more cost or government in our lives.

About one-quarter (24%) of businesses said that the ordinance would increase the amount that their business recycles, but 66 percent said it would have no impact. Nearly three-quarters (74%) of those who said the ordinance would have no impact gave this answer because they are already recycling as much as they can. Only 26 percent said the recycling ordinance would be ineffective due to flaws in the concept or because they believe there are better solutions available.

When asked why a solution like this might not be effective, about half (48%) of representatives expressed concerns about enforcement challenges. "You can only be as effective as the verification, and that could be costly," said one representative. Twenty-one percent said the ordinance would be ineffective due to animosity against additional government intervention, but 28 percent could think of no reasons why the ordinance would not be effective.

### **Large business options for improving recycling**

As with small businesses, large business representatives were asked their opinions on the current trash hauling taxes along with three policy and programming solutions to improve their recycling rates: information and technical assistance, financial incentives, and a recycling ordinance mandating proper disposal of all recyclable materials. This section details their reactions to current policy and the other potential policy and programming solutions.

#### **Information and technical assistance**

Nearly three-quarters (72%) of large business representatives reported that they would be very likely to use recycling resources, such as information or technical assistance, provided by Ramsey County, and nearly half (44%) are willing to pay for it. Most representatives would prefer the information be sent virtually either through e-mail (77%) or websites (72%) (Table 12).

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## 12. Large business preferred formats for recycling information (n=64)

	Percent
Resources sent via email	77%
Websites	72%
Printed resources	53%
In-person seminar	50%
Webinar	47%
One-on-one technical assistance	44%
Other	11%

A number of these representatives added that they would be most likely to use this kind of resource if it was easy to use, saved them additional money, provided new information, or offered additional materials (such as bins) to help them recycle. One respondent mentioned concerns about the stability and longevity of Ramsey County's ability to provide such a resource:

The problem is if it is a continuing funding source. If it is just for one year and then it doesn't continue, it is a yo-yo effect – going up and down. It needs to be sure of having a minimum of a few years funding and then also be renewable.

Others were not sure, less likely to use the resource, or not interested in the county providing such a resource. A few mentioned they were already knowledgeable about recycling and that resources like this already exist, particularly through county partnerships with recycling haulers like Eureka or online. These visitors comment:

I think most resources that are offered by the county are underutilized already, so the only people who would use it would be those who are already proactive. And the people who could use it to reduce their waste the most would not use it.

I probably would use it, but it's not like I own a local factory and could use it and give the information to all my employees or anything like that.

I probably would not use it. Being the bean counter around here, as little savings as we would generate around here, it wouldn't be worth it. If we had some shipment that brought a lot of material in here, we would call someone to haul it. But otherwise, it is easier for me to just take paper home to recycle it.”

When probed further about why they would or would not use the information provided by Ramsey County to improve their recycling efforts, about half (52%) of large business representatives talked about how useful it would be to gather new ideas or information for their organization to implement better recycling practices. The remainder of representatives

whose business would use the resource elaborated on the potential impacts of improved recycling in their business. Ten percent said that increased recycling may help lower their business costs or improve operations, and another 10 percent said they would be better equipped to help the environment. A few even mentioned that they are already trying to pursue LEED certification, so Ramsey County's help would be particularly useful.<sup>2</sup> Those who would not use the resource emphasized that they already know about recycling and do not need such a resource (10%) or that recycling is not a priority for their business (3%).

Most large business representatives had no suggestions for what Ramsey County could do to help develop recycling champions for their organization. The most frequently mentioned suggestions include training or literature on recycling program best practices, directly providing education to individuals at the organization, and other literature on recycling advocacy and implementation tips. A couple of representatives also mentioned posters, provision of material resources like bins, information on food or organic waste recycling, making single sort more easily available, and providing incentives for recycling.

Large business representatives also expressed concerns about logistics such as whether individuals within their organization are willing to participate or whether they will have the space to recycle. In particular, they are concerned with:

**How to measure the impact:** I think the barrier would be to be able to show the proof. And what I mean is... in a building with 35 tenants, you may be doing everything the right way, but how would you know?

**Working with haulers:** The biggest barrier is we would have to work with the owner/manager of our building and with our recycling haulers. They are a big management company, so what would they care about you?

**Too much paperwork:** If it were heavily laden with paperwork, whether actual or virtual, that would be a problem.

## Financial incentives

Nearly all large businesses (94%) would react positively to financial incentives. Asked directly about what incentives would effectively encourage large businesses to seek out information or technical assistance, 4 out of 10 (42%) large business representatives reported that financial incentives are the best way to promote more recycling. One representative proposed an effective model of financial incentives for recycling:

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<sup>2</sup> LEED, or Leadership in Energy and Environmental Design, is an internationally-recognized green building certification system.

I live in a township where they require you to recycle and award points for the volume you recycle. You can go to a website to check on how many points you have. And then you can redeem them for something.

Some also specifically mentioned that reducing the cost of the CEC and State Solid Waste Management taxes would be a good incentive (14%). Others mentioned public recognition for participation (7%), a recycling rebate (3%), and offering incentives for individuals and not just large businesses (3%). The remainder reported that they do not have ideas for incentives (12%), do not need incentives to participate (12%), or do not want assistance under any circumstance (3%).

The most considerable barriers to seeking out information or technical assistance, even with financial incentives, continue to be lack of staff time, cost to implement better recycling, and being unaware that resources exist. Other barriers mentioned again include lack of incentives, not having a recycling champion to promote recycling, that resources are not easy to access, and not having the decision-making power to improve recycling.

### **Recycling ordinances and taxes**

While 6 out of 10 (59%) large business representatives said that a recycling ordinance would increase the amount their organization recycles, only 3 out of 10 (30%) said their organization would react positively to a recycling ordinance. Many representatives believed it would increase the burden on their organization and warned that, “you can’t expect small corporations like ours to do the same things that Target and Walmart and big corporations do... there can’t be a cookie cutter way to do it.”

Over half (56%) of large business representatives were aware of the County Environmental Charge (CEC) and the State Solid Waste Management Tax to encourage recycling among businesses. About half of these reported that the taxes have influenced their decisions considerably (46%) or at least a little (5%). These representatives spoke generally about how the taxes have made them more aware of the importance of recycling. A few expressed appreciation for the benefits they receive from the taxes and others mention they have changed their practices to save money:

It is unique. Because of that tax, the Public Health Department pays for our trash hauling. From that tax... paying our trash bill. If there have been any influences, it is that we make real efforts to recycle because we don’t want to lose that benefit.

It’s an incentive to increase recycling and to reduce trash. From our perspective, as far as our rental contract, if we can keep costs down as far as waste management, it’s going to keep our rental costs lower. So that is an incentive.

I believe it has made us much more active in recycling, wherever possible, just to be able to offset those additional charges for garbage disposal.

The other half of the representatives (49%) said that these taxes have no influence on their decisions about trash and recycling. Many representatives expressed frustration with the taxes, citing they have not influenced decisions because the taxes are implemented regardless of their recycling practices. For example:

It has not at all. I know it is a fee that's included in our trash bill and it's a lot. And as a non-profit, there is nothing we can do to change it.

It hasn't because I have to have the trash service for my tenants regardless if they are recycling or not... I think the environmental charges are exorbitant and it creates an unnecessary burden on property owners.

I think the charge is kind of crazy actually. I only know about that because we needed a dumpster to throw some things away and the guy quoted me \$250. I got the bill and it was \$520... I asked why it was so high. The guy told me he quoted me for the dumpster price. The rest was taxes.

### **Other suggestions from large business representatives**

Large business representatives offered a variety of additional suggestions. They stressed presenting the information as simply and specifically as possible, providing more statistics to show impact, and improving county relations with businesses in general and through events. One representative also mentioned the importance of prioritizing recycling bins over expanded staffing in recycling promotion efforts:

I would like to see them provide containers and maybe tell the district councils to tell people, have pick up dates, let people know these are the days to put stuff out. I would hate to see them spend a ton of money on hiring a big staff for this. I would rather see the money put into containers and getting them out to people.

Finally, a couple of representatives wanted to show appreciation for Ramsey County's efforts:

It is good that they are doing these surveys.

I appreciate the fact that they are questioning first before doing a mandate.

I am enthusiastic about Ramsey County's efforts and I hope the efforts go well for the environment.

Just a thank you for what Ramsey County and Public Health have doing and for the support that they have given us.

# Issues to consider

Based on our analysis of the information presented above, the following points summarize some recommended strategies to increase recycling among Ramsey County residents and businesses.

- **Provide external motivation.** Residents and businesses are motivated to recycle by an internal sense of morality, of doing “the right thing.” Though the cultural tide has increasingly flowed toward greater concern for the environment, many business leaders continue to be more motivated by the bottom line. Solutions that reduce the cost or increase the benefit of recycling relative to trash disposal could provide the necessary external motivation for those who are not internally motivated to recycle.
- **Appeal to the bottom line.** The strongest external motivator, especially among businesses, is cost. To justify the time and space costs of recycling, businesses need a waste management system that explicitly pays them for recycling or directly reduces their hauling costs. The existing taxes provide a financial incentive for those who understand the connection and for whom recycling substantially reduces their trash hauling needs, but many businesses do not fit these criteria. For these, the financial benefits of recycling must be either expanded or made more explicit through promotional outreach about the cost savings associated with recycling. This strategy would likely have the greatest impact on business recycling, but would be effective with residents as well. Cost-effective financial incentives for residents might include discounts at local business sponsors based on individual or neighborhood recycling.
- **Make recycling easy.** Inconvenience was the most commonly cited barrier to recycling for residents and businesses. Suggestions to make recycling easier included county-wide uniformity in recycling standards for residents, curbside recycling for small businesses with low waste and recycling output, and the provision of bins for large businesses. Residents and large businesses also proposed single-sort recycling as a means of simplifying the process.
- **Educate and promote existing resources.** Information and education are necessary (especially for food waste recycling) but insufficient to improve recycling rates among those who are not internally motivated to recycle. Residents and businesses are generally unaware of existing informational resources, so outreach might first use web-based methods to publicize resources that are currently available. Recycling promotion and education efforts must be specific to Ramsey County and, if uniformity in recycling standards is not imposed county-wide, the information must be neighborhood- or hauler-specific. Information and education could have the most

impact if they emphasize composting, which has the most room for improvement among both residents and businesses. For businesses, educational outreach should focus on the financial benefits of recycling, such as the potential for reduced waste management cost because of the recycling exemption to these taxes.

# Appendix

*Resident focus groups recycling protocol*

*Resident focus groups composting protocol*

*Focus group participant survey - residents*

*Small business focus groups protocol*

*Small business telephone interview*

*Large business key informant interview*





## ***Resident focus groups recycling protocol***

### **A. Welcome (5 minutes)**

1. Background: The State of Minnesota has asked the metropolitan region (Anoka, Carver, Dakota, Hennepin, Ramsey, Scott and Washington counties) to recycle 60% of waste and recover 15% of organic waste from the waste stream by 2030. Currently the region recycles 44% and recovers 2% of organics. The Saint Paul – Ramsey County Department of Public Health is looking for input from residents and businesses as they develop strategies to work toward these ambitious goals.
2. Purpose: The purpose of the focus groups is to learn what Ramsey County could do to encourage residents to recycle more than they currently do.
3. Ground Rules (*list on flip chart*)
  - Please participate actively and allow others to do so as well.
  - Be respectful.
  - We'll keep your opinions and ideas confidential. Please do the same for each other.
  - Eating during the discussion is fine.
  - Others?
4. 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.
5. Agenda for the evening (*Summarize the discussion and activities*)

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

### **C. Warm-up Questions (10 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 recycling brochure.*)
3. Which items do you recycle?
4. Which items don't you recycle?

### **D. Discussion Questions**

1. (*For homeowners only*) How does your household determine which trash hauler to use? (Which factors were most important in choosing a hauler?) (5 minutes)
2. What are the benefits of recycling? (Why do you recycle?) (5 minutes)
3. What factors prevent your household from recycling all recyclable materials? What are the barriers to recycling? (*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.*) (10 minutes)

4. What kinds of things would encourage or help your household to recycle more?  
(15 minutes)
  - a) What if you could have a recycling bin delivered to your home (for those who do not have one or need new/additional ones)?
  - b) What if you received detailed informational materials or were invited to an informational community meeting about what is recyclable and what is not?
  - c) What if your block had a designated “recycling captain” who was responsible for answering questions, providing information, and relaying questions and suggestions to Ramsey County waste management?
  - d) What if your community passed a law to make it illegal to throw recyclable materials in the trash?
  - e) What if you received a financial incentive like reduced trash hauling fees or a payment based on how much you recycle?
5. *Drafting policy solution ideas*
  - a) *Set up “blue wall” and stick our existing suggestions (from Q4) on the board*
  - b) *Give all participants pens/markers and a set of five half-sheets of paper. Make additional sheets available in case they have more ideas.*
  - c) *Split participants into groups of 2-3 people*
  - d) *We’ve given you some ideas of the sorts of solutions that can encourage residents to recycle more. If you were in charge of Ramsey County waste management, what strategies, policies, or systems would you change or enact to help Ramsey County households recycle more? The ideas that you write down can include options that we’ve already mentioned, or make refinements to our suggestions, or you may suggest things that we haven’t mentioned. Please try to write 3-5 words on each page to capture your main ideas. You’ll have about ten minutes to do this. (10 minutes)*
  - e) *Please come up and stick your ideas on the wall. (As participants are sticking their ideas on the wall, let them say briefly what each one is. After all ideas are on the wall, have discussion to group similar ideas into categories with the large group) (15 minutes)*
6. *Selecting effective policy solutions (15 minutes)*
  - a) *Give all participants two green sticky dots and two red sticky dots.*
  - b) *You each get four sticky dots, two green and two red. Please stick your green dots next to the two options that are **most** likely to encourage your household to recycle more, and stick the red dots next to the two options that are **least** likely to encourage your household to recycle more.*
  - c) *It looks like {policy option A} was the most popular choice. Those of you who placed your green stickers on this option, could you tell us why you*

believe that {description of policy option A} is most likely to encourage your household to recycle more?

- d) It looks like {policy option B} has the most red stickers. Those of you who placed your red stickers on this option, could you tell us why you believe that {description of policy option B} is least likely to encourage your household to recycle more?

7. *Survey and Incentives (10 minutes)*

1. *Distribute survey*
2. 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!

## ***Resident focus groups composting protocol***

### A. Welcome (5 minutes)

1. Background: The State of Minnesota has asked the metropolitan region (Anoka, Carver, Dakota, Hennepin, Ramsey, Scott and Washington counties) to recycle 60% of waste and recover 15% of organic waste from the waste stream by 2030. Currently the region recycles 44% and recovers 2% of organics. The Saint Paul – Ramsey County Department of Public Health is looking for input from residents and businesses as they develop strategies to work toward these ambitious goals.
2. Purpose: The purpose of the focus groups is to learn what Ramsey County could do to encourage residents to compost (and properly dispose of organic waste) more than they currently do.
3. Ground Rules (*list on flip chart*)
  - Please participate actively and allow others to do so as well.
  - Be respectful.
  - We'll keep your opinions and ideas confidential. Please do the same for each other.
  - Eating during the discussion is fine.
  - Others?
4. 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.
5. Agenda for the evening (*Summarize the discussion and activities*)

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

### C. Warm-up Questions (15 minutes)

1. When you think of “trash”, what images come to mind?
2. When you hear the word “compost”, what images come to mind?
3. How do you dispose of your household's organic waste (banana or potato peels, apple cores, unwanted leftover food, etc.)?
4. Aside from throwing it in the trash, what disposal options does your household have for organic waste?

*Before moving on to the next question, define composting: the process of converting unwanted organic waste (food scraps, grass clippings, etc.) into a nutrient-rich fertilizer.*

### D. Discussion Questions

1. What are the benefits of composting? (5 minutes)
2. What barriers keep your household from composting? What, if anything, would make composting difficult for you? (10 minutes)

3. What would encourage or help your household to compost (or compost more than you currently do)? (*15 minutes*)
  - a) What if you had a low-odor compost bucket to keep in your kitchen?
  - b) (For homeowners) What if you had a compost bin in your yard?
  - c) What if there was a neighborhood food waste collection site nearby, like at a community garden or other central location?
  - d) What if organic waste was collected weekly at the curb by your trash or recycling hauler?
  - e) What if you received informational materials or could take a short class on composting?
  - f) What if your community passed a law to make it illegal to throw organic waste in the trash?
  - g) What if you received a financial incentive like reduced trash hauling fees for composting or sorting your organic waste?
4. *Drafting policy solution ideas*
  - a) *Set up “blue wall” and stick our existing suggestions (from Q3) on the board*
  - b) *Give all participants pens/markers and a set of five half-sheets of paper. Make additional sheets available in case they have more ideas.*
  - c) *Split participants into groups of 2-3 people*
  - d) We’ve given you some ideas of the sorts of solutions that can encourage residents to compost or sort their organic waste. If you were in charge of Ramsey County waste management, what strategies, policies, or systems would you change or enact to help Ramsey County households reduce the amount of organic waste that they send to landfills and incinerators? Please write down any ideas that you think would be effective in encouraging your household to compost or sort out organic waste for separate collection. The ideas that you write down can include options that we’ve already mentioned, or make refinements to our suggestions, or you may suggest things that we haven’t mentioned. Please try to write 3-5 words on each page to capture your main ideas. You’ll have about ten minutes to do this. (*10 minutes*)
  - e) Please come up and stick your ideas on the wall. (*As participants are sticking their ideas on the wall, let them say briefly what each one is. After all ideas are on the wall, have discussion to group similar ideas into categories with the large group*) (*15 minutes*)
5. *Selecting effective policy solutions (15 minutes)*
  - a) *Give all participants two green sticky dots and two red sticky dots.*
  - b) You each get four sticky dots, two green and two red. Please stick your green dots next to the two options that are **most** likely to encourage your household to compost or recycle organic waste more, and stick the red dots next to the

two options that are **least** likely to encourage your household to compost or recycle organic waste more.

- c) It looks like {policy option A} was the most popular choice. Those of you who placed your green stickers on this option, could you tell us why you believe that {description of policy option A} is most likely to encourage your household to compost or recycle organic waste more?
  - d) It looks like {policy option B} has the most red stickers. Those of you who placed your red stickers on this option, could you tell us why you believe that {description of policy option B} is least likely to encourage your household to compost or recycle organic waste more?
6. *Survey and Incentives (10 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!

## *Focus group participant survey - residents*

1. How often do you recycle?

Never                  Rarely                  Sometimes                  Usually                  Always

2. Do you recycle when you are away from home?

Yes                  No

3. Please indicate which locations you would like to recycle when you are away from home? (Circle all that apply.)

Work                  School                  Parks, playgroups, and community centers

Stores                  Gas stations                  Public sidewalks and other public locations

Other:  
\_\_\_\_\_

4. Do you compost in your backyard or through a community composting site?

Yes                  No

5. If yes, do you compost year-round?

Yes                  No

6. If you do not currently compost, would you be willing to sort your food waste, such as banana peels, coffee grounds, and uneaten food, if these items were picked up at the curb to be composted?

Yes                  No

7. Would you pay for the collection of food waste to be composted instead of being sent to a landfill? (Circle one answer.)

Yes, but only if my trash bill was reduced by a corresponding amount

Yes, even if I had to pay extra in addition to what I currently pay for trash removal

No, I am not willing to pay for separate collection of food waste



## ***Small business focus groups protocol***

### **A. Welcome (5 minutes)**

1. Background: The State of Minnesota has asked the metropolitan region (Anoka, Carver, Dakota, Hennepin, Ramsey, Scott and Washington counties) to recycle 60% of waste and recover 15% of organic waste from the waste stream by 2030. Currently the region recycles 44% and recovers 2% of organics. The Saint Paul – Ramsey County Department of Public Health is looking for input from residents and businesses as they develop strategies to work toward these ambitious goals.
2. Purpose: The purpose of the focus groups is to learn what Ramsey County could do to encourage small businesses to recycle more than they currently do.
3. Ground Rules (*list on flip chart*)
  - Please participate actively and allow others to do so as well.
  - Be respectful.
  - We'll keep your opinions and ideas confidential. Please do the same for each other.
  - Eating during the discussion is fine.
  - Others?
4. 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.
5. Agenda for the evening (*Summarize the discussion and activities*)

### **B. Introductions – Name, neighborhood/suburb, type of business (5 minutes)**

### **C. Warm-up Questions (10 minutes)**

1. What sorts of waste does your business generate? What 2-3 items or materials are most common in your business's waste stream?
2. Does your business recycle all of the recyclable waste that it generates? Which materials does your business recycle? Which recyclable materials does your business throw in the trash?

### **D. Discussion Questions**

1. What are the benefits of recycling for a small business? Why does your business recycle (if they do)? (5 minutes)
2. What makes recycling difficult for your business or prevents your business from recycling? (20 minutes)
  - a. Does your landlord encourage recycling or provide recycling bins?
  - b. Is there anything about your waste hauling service that makes recycling easier for your business? Is there anything about your waste hauling service that makes recycling more difficult?
  - c. Is there anything about the recycling hauler in your area that makes recycling easier for your business? Is there anything about your recycling hauling service that makes recycling more difficult?

- d. Do your employees recycle? Do you do anything to encourage your employees to recycle?

E. *Policy Options (40 minutes)*

1. Ramsey County currently collects the County Environmental Charge (CEC) (53%) and the State Solid Waste Management Tax (17%) to encourage recycling among businesses. Were you aware of these taxes that are added to business trash hauling bills?
2. How has this additional cost of trash disposal influenced your decisions about trash and recycling, if at all?
3. What other things would help or encourage your business to recycle more? What would make recycling easier for you? What could eliminate the barriers that we discussed?
  - a. What if you were offered help and education to increase recycling in your business?
  - b. What if you shared in a joint trash and recycling contract with neighboring businesses?
  - c. What if you received help to set up a recycling program at your business that is like health and safety programs (with a staff champion, incentives, data tracking, etc.)?
  - d. What if your community passed a law to make recycling mandatory?
  - e. What if you received a financial incentive like reduced trash hauling fees or a payment based on how much you recycle?
  - f. What if you could advertise a county endorsement of your business's environmentally friendly practices?
  - g. What if you knew that other businesses like yours or neighboring businesses were recycling at a higher rate than your business?

F. *Selecting effective policy solutions (15 minutes)*

- a. *Write the list of policy ideas above, plus any new ideas from the discussion, on a piece of flip chart paper.*
- b. *Give all participants two green sticky dots and two red sticky dots.*
- c. You each get four stickers, two green and two red. Please stick your green dots next to the two options that are **most** likely to encourage your business to recycle more, and stick the red dots next to the two options that are **least** likely to encourage your business to recycle more.

G. *Survey (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, you're free to leave. Thank you very much for coming!

# Small business telephone interview

ID Number: \_\_\_\_\_

**Introduction:**

The survey is voluntary and confidential. Your responses will be combined with the responses from other businesses in Ramsey County and will be used by the Environmental Services Division to make recommendations on their master plan for how to reduce the total amount of solid waste that is being produced in Ramsey County. A primary way to reduce the amount of waste is to increase the proportion of recyclable materials that get recycled instead of thrown away. This survey will explore ways that Ramsey County can work with businesses to encourage and support more recycling.

**AS NEEDED, FOR MORE ON THE PURPOSE:** The State of Minnesota has asked the metropolitan region (Anoka, Carver, Dakota, Hennepin, Ramsey, Scott and Washington counties) to recycle 60% of waste and recover 15% of organic waste from the waste stream by 2030. Currently the region recycles 44% and recovers 2% of organics. The Saint Paul – Ramsey County Department of Public Health is looking for input from residents and businesses as they develop strategies to work toward these ambitious goals.

1. Who are your business's trash and recycling haulers? *[Some may not know; just write DK]*

Trash \_\_\_\_\_ Recycling \_\_\_\_\_  
 Don't know ..... 8

2. Which of the following kinds of waste does your business produce, and do you recycle it? Does your business produce...

	IF YES ASK: → →		3. Does your business recycle all, some, or none of these materials?		
	Yes	No	All	Some	None
a. paper products, including cardboard?	1	2	1	2	3
b. glass, recyclable plastic, or aluminum?	1	2	1	2	3
c. food or other organic waste?	1	2	1	2	3
d. something else we haven't mentioned? Specify _____	1	2	1	2	3

(If all responses to #3 are "no", skip to Q7)

4. (Deleted)

5. What are the benefits of recycling for a small business? Why does your business recycle?

\_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

6a. Do you have someone specific who is responsible for the recycling program in your business?

Yes ..... 1  
 No..... (GO TO Q. 7) ..... 2  
 Refused..... (GO TO Q. 7) ..... 7  
 Don't know ..... (GO TO Q. 7) ..... 8

6b. What is this person's job title? \_\_\_\_\_

- 6c. How frequently does this person check to make sure the trash and recycling hauling contracts are renegotiated, to determine if the dumpsters are the right size, etc.? Would you say...
- Never,..... 1
  - Once a year or less often,..... 2
  - A few times per year, or ..... 3
  - About once a month or more often? ..... 4
  - Refused..... 7
  - Don't know ..... 8

7. Is it an option for your business to leverage a residential recycling contract?
- Yes ..... 1
  - No..... 2
  - Don't know ..... 8

8a. What makes recycling difficult for your business or prevents your business from recycling?

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

- 8b. Does your landlord encourage recycling or provide recycling bins?
- Yes ..... 1
  - No..... 2
  - Refused..... 7
  - Don't know ..... 8

8c. Is there anything about your **waste hauling** service that makes recycling easier or more difficult for your business? If so, what?

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

8d. Is there anything about your **recycling hauling** service that makes recycling easier or more difficult for your business? If so, what?

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

9. Do your employees recycle?

- Yes, all employees recycle at work..... 1
- Yes, some employees recycle at work ..... 2
- No..... 3
  - Refused..... 7
  - Don't know ..... 8

10a. Do you do anything to encourage your employees to recycle?

- Yes..... 1
- No..... (GO TO Q. 11)..... 2
  - Refused..... (GO TO Q. 11)..... 7
  - Don't know ..... (GO TO Q. 11)..... 8

10b. What do you do?

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11. Ramsey County currently collects the County Environmental Charge (CEC) (53%) and the State Solid Waste Management Tax (17%) to encourage recycling among businesses. Were you aware of these taxes that are added to business trash hauling bills?

- Yes..... 1
- No..... 2
  - Refused..... 7
  - Don't know ..... 8

12. How has this additional cost of trash disposal influenced your decisions about trash and recycling, if at all?

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Ramsey County is considering several options for working with businesses to increase recycling. We first want to ask your opinion about each of these options in turn, and then we want to ask about your overall opinion about which options would work best to encourage YOUR business to recycle more.

13a. First, Ramsey County could provide more information and/or technical assistance to businesses to encourage more recycling. This would be an optional resource available to all businesses in Ramsey County. How do you think your business and other businesses like yours would react to a resource like this?

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13b. Would you use information from Ramsey County about how to improve your recycling efforts? Why or why not?

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- 13c. Would your organization be willing to pay for technical assistance to improve your recycling efforts?
- Yes ..... 1
  - No..... 2
  - Refused..... 7
  - Don't know ..... 8

13d. What type of incentives do you think would be most effective to encourage organizations like yours to seek out information or technical assistance?

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13e. What barriers would there be for your organization and organizations like yours to seek out information or technical assistance?

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13f. What other things would need to happen in addition to providing information and technical assistance to ensure that businesses actually implement better recycling programs?

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14a. Second, Ramsey County could create better incentives for organizations like yours to recycle more. This includes things like trash hauling discounts in exchange for more recycling, certification as a "green" company, etc. How do you think your business and other businesses like yours would react to financial incentives for recycling?

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14b. What barriers would there be for your business and other businesses like yours to participate in a program that provides financial incentives for recycling?

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14c. What other things would need to happen in addition to providing financial incentives to ensure that businesses actually implement better recycling programs?

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15a. Some local governments have passed ordinances that mandate recycling of certain items. Individuals and businesses that do not comply with these regulations face citations. How do you think your business and other businesses like yours would react to an ordinance like this?

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15b. Do you think a solution like this would increase the amount that your organization recycles?

- Yes ..... 1
- No..... 2
- Refused..... 7
- Don't know ..... 8

15c. Why or why not?

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15d. Can you think of any reasons why a solution like this might not be effective? (Explain.)

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16. Finally, do you have any other suggestions for Ramsey County regarding what they should do to encourage and support businesses like yours to recycle more?

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Thank you so much for your time and input on this topic! The results of these interviews will be used to inform the Ramsey County Environmental Services master plan, which will be published on their website later this summer. Good bye.

# Large business key informant interview

ID Number: \_\_\_\_\_

## Introduction:

Hello, may I please speak with [informant].

My name is [interviewer name] and I am calling from Wilder Research in Saint Paul. We're calling you because you recently participated in a survey about your business's recycling practices as a part of a study being conducted by Saint Paul-Ramsey County Public Health. We are calling to see if you would be willing to participate in a phone interview to follow-up on some of your survey responses. This interview will take about 20-30 minutes, depending on how much you have to say. Is now a good time to do the interview?

IF NO – When would be a better time to complete the interview? (AS NEEDED: We're wrapping up the interviewing for this study on July 13<sup>th</sup>, so we'd like to set up a time before then.)

IF YES – Great! Just so you know, everything you tell me in this interview is confidential. The results of your interview and survey will be combined with the responses from other businesses in Ramsey County and will be used by the Environmental Services Division to make recommendations on their master plan for how to reduce the total amount of solid waste that is being produced in Ramsey County.

AS NEEDED, FOR MORE ON THE PURPOSE: The State of Minnesota has asked the metropolitan region (Anoka, Carver, Dakota, Hennepin, Ramsey, Scott and Washington counties) to recycle 60% of waste and recover 15% of organic waste from the waste stream by 2030. Currently the region recycles 44% and recovers 2% of organics. The Saint Paul – Ramsey County Department of Public Health is looking for input from residents and businesses as they develop strategies to work toward these ambitious goals.

AS NEEDED, IF RESPONDENT IS UNCLEAR ABOUT HOW THIS IS DIFFERENT FROM THE SURVEY: This is different from the survey you just participated in because in this interview we will ask open-ended questions to get your opinion on these issues. I will be typing your detailed responses and sharing them, along with the responses of other business representatives, with Ramsey County. In addition, this interview focuses on recycling whereas the previous survey was more generally about trash removal.

## Message Script:

Hello, I am calling from Wilder Research in Saint Paul. We're calling you because you recently participated in a survey about your business's recycling practices as a part of a study being conducted by Saint Paul-Ramsey County Public Health. We would like to invite you to participate in a phone interview to follow-up on some of your survey responses. Please call Cael at 651-280-2066 to complete the interview or to schedule an appointment to do the interview. Thank you!

1. Who are your organization's trash and recycling haulers? [Some may not know; just write DK]

Trash \_\_\_\_\_ Recycling \_\_\_\_\_  
Don't know ..... 8



2. Which of the following kinds of waste {does your organization/do your tenants} produce? What about...

	IF YES ASK: → →		3. {Does your organization/do your tenants} recycle all, some, or none of these materials?		
	Yes	No	All	Some	None
a. paper products, including cardboard?	1	2	1	2	3
b. aluminum, plastic, or glass?	1	2	1	2	3
c. food or other organic waste?	1	2	1	2	3
d. something else we haven't mentioned? Specify _____	1	2	1	2	3

4a. (IF 3A = 1[ALL] OR 2[SOME]) What makes recycling paper products possible for your {organization/tenants}?

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4b. (IF 3A = 1[ALL] OR 2[SOME]) Does your trash hauler require recycling of paper products or separation of paper products from the rest of the trash?

- Yes ..... 1
- No..... 2
- Refused..... 7
- Don't know ..... 8

4c. (IF 3A = 2[SOME] OR 3[NONE]) What prevents your {organization/tenants} from recycling paper products or makes recycling paper products difficult?

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4d. (IF 3A = 2[SOME] OR 3[NONE]) Do you know which paper products can be recycled? Would you say...

- Yes ..... 1
- No..... 2
- Refused..... 7
- Don't know ..... 8

4e. (IF 3A = 2[SOME] OR 3[NONE]) Do you have paper recycling bins conveniently located for {staff/tenants} to use?

- Yes ..... 1
- No..... 2
- Refused..... 7
- Don't know ..... 8

4f. (IF 4E = 1[YES]) Do {staff/tenants} use the paper recycling bins that are available?

- Yes ..... 1
- No..... 2
- Refused..... 7
- Don't know ..... 8

4g. **(IF 3A = 2[SOME] OR 3[NONE])** Are there any features of your trash hauler or your trash hauling contract that prevent recycling of paper products or make recycling of paper products difficult? Would you say...

Yes ..... (GO TO Q. 4h) ..... 1

No..... (GO TO Q. 4i) ..... 2

Refused..... (GO TO Q. 4i) ..... 7

Don't know..... (GO TO Q. 4i) ..... 8

4h. **(IF 4G = 1[YES])** Which features of your trash hauler or your trash hauling contract prevent recycling of paper products or make recycling of paper products difficult?

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4i. **(IF 3A = 2[SOME] OR 3[NONE] AND TYPE = 1[BUSINESS OR INSTITUTION])** Is there interest among leadership of your organization in recycling paper products?

Yes ..... 1

No..... 2

Refused..... 7

Don't know ..... 8

5a. **(IF 3B = 1[ALL] OR 2[SOME])** What makes recycling aluminum, plastic, and glass possible for your {organization/tenants}?

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5b. **(IF 3B = 1[ALL] OR 2[SOME])** Does your trash hauler require recycling of aluminum, plastic, and glass or separation of these products from the rest of the trash?

Yes ..... 1

No..... 2

Refused..... 7

Don't know ..... 8

5c. **(IF 3B = 2[SOME] OR 3[NONE])** What prevents your {organization/tenants} from recycling aluminum, plastic, and glass or makes recycling these products difficult?

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5d. **(IF 3B = 2[SOME] OR 3[NONE])** Do you know which aluminum, plastic, and glass products can be recycled? Would you say...

Yes ..... 1

No..... 2

Refused..... 7

Don't know ..... 8

- 5e. **(IF 3B = 2[SOME] OR 3[NONE])** Do you have aluminum, plastic, and glass recycling bins conveniently located for {staff/tenants} to use?
- Yes ..... 1
- No..... 2
- Refused..... 7
- Don't know ..... 8
- 
- 5f. **(IF 5E = 1[YES])** Do {staff/tenants} use the aluminum, plastic, and glass recycling bins that are available?
- Yes ..... 1
- No..... 2
- Refused..... 7
- Don't know ..... 8
- 
- 5g. **(IF 3B = 2[SOME] OR 3[NONE])** Are there any features of your trash hauler or your trash hauling contract that prevent recycling of aluminum, plastic, and glass or make recycling of these products difficult?
- Yes ..... (GO TO Q. 5h) ..... 1
- No..... (GO TO Q. 5i) ..... 2
- Refused..... (GO TO Q. 5i) ..... 7
- Don't know..... (GO TO Q. 5i) ..... 8
- 
- 5h. **(IF 5G = 1[YES])** Which features of your trash hauler or your trash hauling contract prevent recycling of aluminum, plastic, and glass or make recycling of these products difficult?
- \_\_\_\_\_
- \_\_\_\_\_
- \_\_\_\_\_
- 
- 5i. **(IF 3B = 2[SOME] OR 3[NONE] AND TYPE = 1[BUSINESS OR INSTITUTION])** Is there interest among leadership of your organization in recycling aluminum, plastic, and glass?
- Yes ..... 1
- No..... 2
- Refused..... 7
- Don't know ..... 8

- 6a. **(IF 3C = 1[ALL] OR 2[SOME])** What makes recycling food and organic waste possible for your {organization/tenants}?
- 
- 
- 
- 6b. **(IF 3C = 1[ALL] OR 2[SOME])** Does your trash hauler require recycling of food and organic waste or separation of these products from the rest of the trash?
- Yes ..... 1
- No..... 2
- Refused..... 7
- Don't know ..... 8
- 6c. **(IF 3C = 2[SOME] OR 3[NONE])** What prevents your {organization/tenants} from recycling food and organic waste or makes recycling these products difficult?
- 
- 
- 
- 6d. **(IF 3C = 3[NONE])** Do you know how your {organization/tenants} could recycle food waste and other organic materials? Would you say...
- Yes ..... 1
- No..... 2
- Refused..... 7
- Don't know ..... 8
- 6e. **(IF 3C = 2[SOME] OR 3[NONE])** Do you provide food and organic waste recycling options for {staff/tenants}?
- Yes ..... 1
- No..... 2
- Refused..... 7
- Don't know ..... 8
- 6f. **(IF 6E = 1[YES])** Do {staff/tenants} use the food and organic waste recycling options that are available?
- Yes ..... 1
- No..... 2
- Refused..... 7
- Don't know ..... 8
- 6g. **(IF 3C = 2[SOME] OR 3[NONE])** Are there any features of your trash hauler or your trash hauling contract that prevent recycling of food and organic waste or make recycling of these products difficult?
- Yes ..... (GO TO Q. 6h) ..... 1
- No..... (GO TO Q. 6i) ..... 2
- Refused..... (GO TO Q. 6i) ..... 7
- Don't know..... (GO TO Q. 6i) ..... 8

6h. **(IF 6G = 1[YES])** Which features of your trash hauler or your trash hauling contract prevent recycling of food and organic waste or make recycling of these products difficult?

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6i. **(IF 3C = 2[SOME] OR 3[NONE] AND TYPE = 1[BUSINESS OR INSTITUTION])** Is there interest among leadership of your organization in recycling food and organic waste?

- Yes ..... 1
- No..... 2
- Refused..... 7
- Don't know ..... 8

6j. **(IF 2C= 1[YES] AND IF TYPE = 2[LANDLORD])** Thinking of your tenants who produce a lot of food waste, what are they currently doing to dispose of that food waste?

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7a. **(FOR ALL)** Does your organization have a recycling “champion”? By “champion”, we mean somebody who is responsible for your organization’s recycling efforts.

- Yes ..... (GO TO Q. 7b) ..... 1
- No..... (GO TO Q. 7e) ..... 2
- Refused..... (GO TO Q. 7e) ..... 7
- Don't know..... (GO TO Q. 7e) ..... 8

7b. (IF YES TO 7A) What is this person’s title? \_\_\_\_\_

7c. deleted

7d. (IF YES TO 7A) What do you feel is the impact of having a recycling “champion” on the overall effectiveness of your organization’s recycling efforts?

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7e. (IF NO TO 7A) Why do you think that this role does not exist at your organization?

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7f. (IF **NO** TO 7A) What could Ramsey County do to help your organization develop an internal recycling champion?

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7g. (ASK ALL) How frequently does someone at your organization check to make sure the trash and recycling hauling contracts are renegotiated, to determine if the dumpsters are the right size, etc.? Would you say...

- Never,..... 1
- Once a year or less often,..... 2
- A few times per year, or ..... 3
- About once a month or more? ..... 4
- Refused..... (GO TO Q. 8a) ..... 7
- Don't know..... (GO TO Q. 8a) ..... 8

8a. **(8a-f are for landlords who do not offer recycling services to their tenants):** You indicated in the previous survey that you do not offer recycling services to your tenants or that your tenants provide recycling services for themselves. What are the main reasons you do not offer recycling services to your tenants?

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8b. Do your tenants know how to recycle?

- Yes..... 1
- No..... 2
- Refused..... 7
- Don't know ..... 8

8c. Do you think your tenants would recycle (or recycle more) if you offered this service to them?

- Yes..... 1
- No..... 2
- Refused..... 7
- Don't know ..... 8

8d. Have you offered recycling services in the past?

- Yes..... 1
- No..... 2
- Refused..... 7
- Don't know ..... 8

8e. **(IF 8d = 1[YES])** How well did that work?

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8f. What concerns do you have about offering recycling services to your tenants?

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9. Ramsey County currently collects the County Environmental Charge (CEC) of 53% and the State Solid Waste Management Tax of 17% to encourage recycling among businesses. Were you aware of these taxes that are added to business trash hauling bills?

- Yes ..... 1
- No..... 2
- Refused..... 7
- Don't know ..... 8

10. **(IF 9 = 1[YES])** How has this additional cost of trash disposal influenced your decisions about trash and recycling, if at all?

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Ramsey County is considering several options for working with businesses to increase recycling.

11a. One option is that Ramsey County could provide more information and/or technical assistance to encourage more recycling. This would be an optional resource available to all businesses and organizations in Ramsey County. How do you think your organization, and other organizations like yours, would react to a resource like this?

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11b. Would you use information from Ramsey County about how to improve your recycling efforts?

- Yes ..... 1
- No..... 2
- Refused..... 7
- Don't know ..... 8

11c. Why or why not?

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11d. **(IF 11B = 1[YES])** In which of the following format(s) would you prefer to receive this information? (Select all that apply.) How about...

- Printed resources ..... 1
- Websites ..... 2
- Resources sent via email..... 3
- In-person seminar ..... 4
- One-on-one technical assistance ..... 5
- Webinar ..... 6
- Other (specify \_\_\_\_\_) ..... 7

11e. Would your organization be willing to pay for technical assistance to improve your recycling efforts?

- Yes ..... 1
- No..... 2
- Refused..... 7
- Don't know ..... 8

11f. What type of incentives do you think would be most effective to encourage organizations like yours to seek out information or technical assistance?

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11g. What barriers would there be for your organization, and organizations like yours, to seek out information or technical assistance?

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12a. Another option is that Ramsey County could create better incentives for organizations like yours to recycle more. This includes things like trash hauling discounts in exchange for more recycling, certification as a "green" company, etc. How do you think your organization and other organizations like yours would react to financial incentives for recycling?

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12b. What barriers would there be for your organization and other organizations like yours to participate in a program that provides financial incentives for recycling?

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13a. As a third option, some local governments have passed ordinances that mandate recycling of certain items. Individuals and businesses that do not comply with these regulations face citations. How do you think your organization, and other organizations like yours, would react to an ordinance like this?

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13b. Do you think a recycling ordinance would increase the amount that your {organization recycles/tenants recycle}?

- Yes ..... 1
- No ..... 2
- Refused ..... 7
- Don't know ..... 8

13c. Why or why not?

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13d. Can you think of any reasons why a recycling ordinance might not be effective?

- Yes ..... 1
- No ..... 2
- Refused ..... 7
- Don't know ..... 8

13e. **(IF 13D = 1[YES])** Please explain.

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14. In addition to the options already discussed, do you have any other suggestions for Ramsey County regarding what they should do to encourage and support organizations like yours to recycle more?

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15. Is there anything you would like to add?

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Thank you so much for your time and input on this topic! The results of these interviews will be used to inform the Ramsey County Environmental Services master plan, which will be published on their website later this summer. Good bye.