

# Solid Waste Management Master Plan 2018 – 2038



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## INTRODUCTION

The Ramsey County Solid Waste Management Master Plan (Master Plan) is a policy-based community “blueprint” for the solid waste system that supports healthy people, a healthy economy and a healthy environment. Per Minnesota statute, county master plans and revisions to the plans are to be submitted to the Minnesota Pollution Control Agency (MPCA) for approval in response to the MPCA’s Solid Waste Management Policy Plan (Policy Plan) direction.

Ramsey County’s policies for the solid waste system should not be viewed only through the narrow lens of the MPCA’s Policy Plan but are designed to align with the Ramsey County Board’s goals of wellbeing, prosperity, opportunity and accountability, and its vision for a vibrant community where all are valued and thrive. Additionally, solid waste planning for Ramsey County is embedded within the Saint Paul – Ramsey County Public Health Department and also aligns with the department’s values that focus on prevention, building relationships and health in all policies. Finally, Ramsey and Washington Counties are committed to working together through the Ramsey/Washington Recycling & Energy Board, which has led the view of waste as a resource, and the master plans together frame the future for waste and resource management within the two counties.

These lenses, or viewpoints, have led Ramsey County to be a national leader in solid waste planning and program development. The strategies and policies identified in this Master Plan are designed to prevent waste, reduce risk to human health and the environment, and meet the specific needs of Ramsey County’s residents and businesses.

Ramsey County is geographically the smallest yet most densely populated county in Minnesota. Although Minnesota is one of the top states for positive health outcomes, several communities within Ramsey County face glaring disparities in health outcomes. The focus of Ramsey County’s public health work, including this plan, is to address inequity in social determinants of health as a means to improve the health and wellbeing of all people in Ramsey County.

Ramsey County is the most racially and ethnically diverse county in the state. The city of Saint Paul, the largest city in the county, is home to a very diverse set of residents, with 126 languages and dialects spoken in Saint Paul Public Schools; the most frequently spoken languages other than English are Hmong, Somali and Spanish. More specifically, African Americans make up 11% of the population in Ramsey County and 15.5% of Saint Paul’s population. 23% of Saint Paul residents live in poverty and in 2015, 12.7% of the population in Ramsey County were food insecure.

Because this plan is viewed through these lenses, the strategies within it:

- Incorporate values identified and ideas from residents, businesses and local leaders;
- Leverage the collaborative power of partnerships; and
- Directly integrate health, racial and economic equity into all areas of solid waste programming.

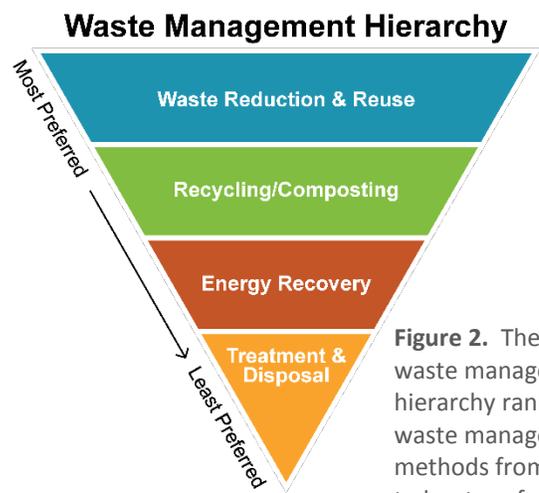


**Figure 1.** Environmental justice, waste as a resource and risk reduction are three important lenses of this Master Plan. Look for these icons throughout the Master Plan to see highlighted program areas featuring these concepts.

### Metropolitan Solid Waste Management Policy Plan 2016-2036 Key Themes

The Policy Plan is neither law nor rule, but is established in Minnesota Statute to guide solid waste system development. Within the Policy Plan are a number of requirements that master plans must meet. Some key themes that underlie all elements of the Policy Plan include:

- **Accountability.** All generators (a person or entity that produces waste) must hold themselves accountable. This includes, but is not limited to: state and local governments, private waste and recycling businesses, citizens, manufacturers of products, retailers and other businesses, and environmental groups.
- **Solid waste management hierarchy.** The solid waste management hierarchy, with its associated goals of protecting the state’s air, land, water, other natural resources and the public health, is central to attain the twin objectives of sustainability and solid waste management. Both Minnesota and Ramsey County’s solid waste management objectives emphasize the upper end of the hierarchy by promoting waste reduction, utilization of the reuse/rental/repair industries, recycling, recovering organic material and resource recovery to minimize land disposal.



**Figure 2.** The solid waste management hierarchy ranks waste management methods from most to least preferred.

- **Product stewardship.** Product stewardship means all parties involved in designing, manufacturing, selling and using a product take responsibility for environmental impacts at every stage of that product’s life. In particular, product stewardship requires manufacturers to share in the financial and physical responsibility for collecting and recycling products at the end of their useful lives.

- **Waste-to-energy.** It is important to support new and emerging technologies that are able to produce energy and/or recover fuels from waste. Waste can be considered a resource, saving money and energy and reducing pollution.
- **Government as a leader.** Government, in all its functions, generates waste and should serve as a leader in properly handling waste.
- **Environmental benefits.** Solid waste has an important role to play in reducing environmental impacts, such as greenhouse gas emissions, toxicity, energy consumption and water usage. Moving materials to its highest and best use and finding alternative disposal options beyond landfilling at a product’s end of life maximizes environmental benefits.

The Policy Plan sets specific quantifiable objectives to reduce land disposal of waste through 2036. The objectives are provided in five-year increments beginning in 2015 and include objectives for waste reduction, recycling, organics recovery, resource recovery and landfilling.

Management Method	Metropolitan Area MSW Management Objectives				
	2015	2020	2025	2030	2036
WASTE REDUCTION <sup>1</sup>	-	1.5%	3%	4%	5%
RECYCLING <sup>1</sup>	45-48%	51%	54%	60%	60%
ORGANICS RECOVERY <sup>1</sup>	3-6%	12%	14%	15%	15%
RESOURCE RECOVERY <sup>2</sup>	32-34%	35%	31%	24%	24%
MAXIMUM LANDFILL <sup>3</sup>	20%	2%	1%	1%	1%

**Table 1.** The MPCA sets objectives to reduce land disposal to 1% by 2025.

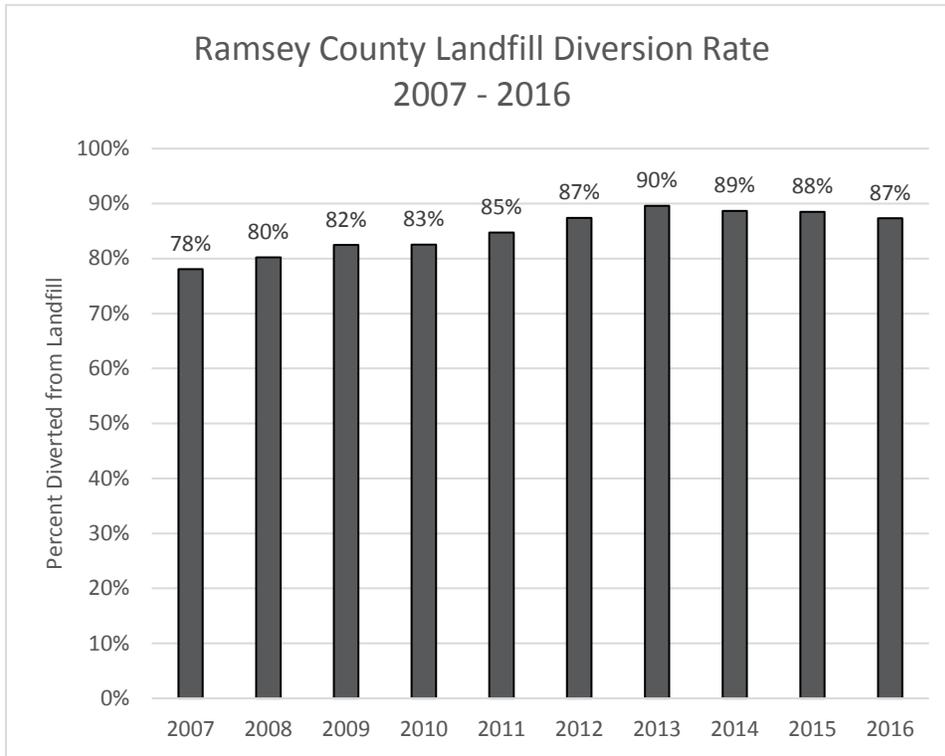
1. The *minimum* amount of MSW that must be managed by this method.
2. The amount of resource recovery expected to occur after maximizing reduction, recycling and organics recovery.
3. The *maximum* amount of land disposal allowed. Does not include ash or residual from other processes.

### Successful System

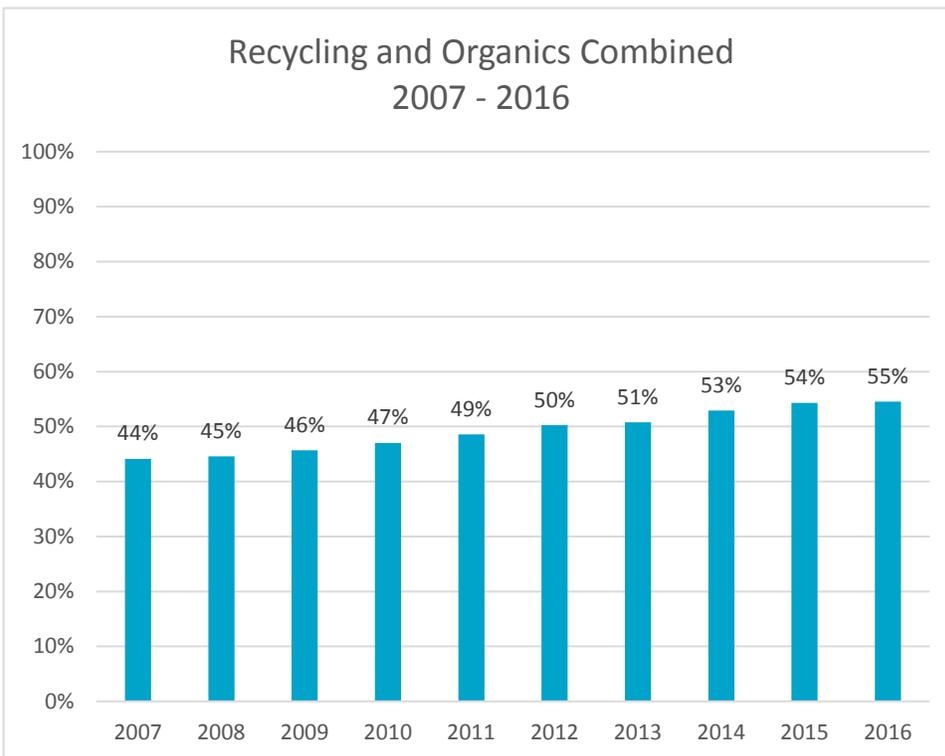
There is a successful system in place to manage solid waste in Ramsey County.

In 2016, when measured by weight, 87% of discarded material was diverted from landfills through a recycling rate of 54% and an additional 33% used to generate electricity. Ramsey County is committed to a continual effort to move materials up the waste hierarchy to be managed in the most environmentally preferable manner. The county also understands two realities: first, there is a cost to collect, gather, process and deliver materials to end markets. Second, stable end markets need to be available for use of the diverted materials. A successful system of resource use depends on a strong network of industries to use materials as well as end markets for the end products. The strategies within the Master Plan identify where Ramsey County can influence, regulate and support waste being used to its highest value.

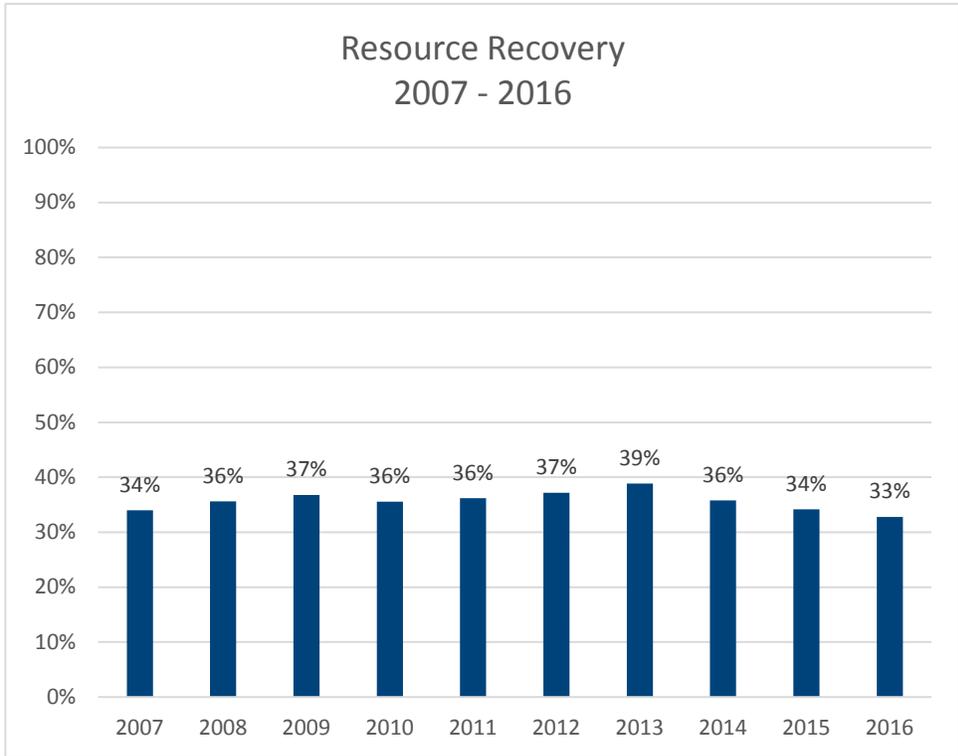
The following charts show the percentages of waste diverted, recycled, recovered for waste-to-energy and landfilled in Ramsey County over the past ten years.



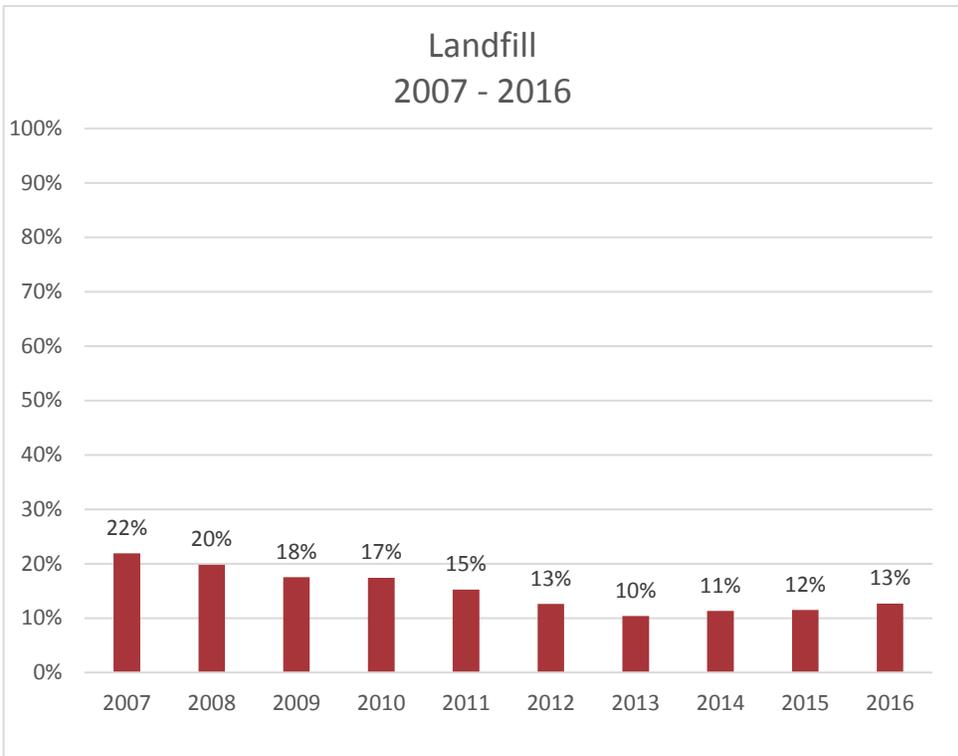
**Figure 3.** Ramsey County diverted 87% of discarded material from landfills in 2016. Acknowledging that land disposal is the least preferred method of waste management, the county is committed to managing waste higher on the waste management hierarchy.



**Figure 4.** Over the past ten years, the percentage of discarded waste managed as recycling or organics has risen steadily, largely due to increased organics management (e.g., residential drop-offs, food to hogs, yard waste, etc.)



**Figure 5.** In 2016, 33% of discarded material was used for resource recovery. Resource recovery refers to the recovery of energy and usable materials during the processing of mixed municipal solid waste.



**Figure 6.** Ramsey County emphasizes the upper end of the waste management hierarchy to minimize land disposal. In 2016, 13% of discarded material was disposed of in landfills.

## Moving Forward

Revisions to the Master Plan build on work conducted continuously since the approval of the previous Master Plan in 2012. The overall objectives for the county in this revised Master Plan include the continued commitment to reduce reliance on landfills, prevent pollution, reduce the hazardous character of waste, conserve natural resources and energy, improve public health, support the economy, and reduce greenhouse gases. Areas of continual improvement include:

- Waste reduction, reuse and conservation;
- Recycling for residential, non-residential and internal applications;
- Organics collection for residential, non-residential and internal applications;
- Construction and demolition waste, salvage and recycling;
- Emergency debris management;
- Health and environmental risk reduction;
- Evaluation and measurement;
- Engagement; and
- Product stewardship, markets for recyclables and end market products.

The county will base future decisions aimed at meeting or exceeding State objectives identified in the Policy Plan on sound science, good judgment, best practices, consultation with State and local partners and review of relevant data. As a result, Ramsey County operates one of the highest performing waste management systems in the nation.

Effective strategies from previous plans are continued, either as is or in an enhanced fashion, along with new strategies that have been developed to move us forward. To highlight this, new strategies are marked with an **[N]** and enhanced strategies are marked with an **[E]**.

The following symbols are used to highlight new and enhanced strategies:

- [N]**      **New strategy**
- [E]**      **Enhanced strategy**

In addition, some strategies are quite specific, while others are general. This reflects the value in leaving room for flexibility to ensure effectiveness in an ever-changing world. Detailed strategies pertain to areas in which the county has work plans in place and/or is committed to existing contractual language.

## Areas of Emphasis

Three areas are emphasized in this revision of the Master Plan. While they have always been important, these areas are underscored in this Master Plan to receive greater attention and focus in solid waste planning and program areas.

1. Environmental Justice;
2. Stakeholder Engagement; and
3. Ramsey/Washington County Relationship.

### Environmental Justice



Environmental justice is the fair treatment and meaningful involvement of all people regardless of race, color, national origin or income with respect to the development, implementation and enforcement of environmental laws, regulations and policies. The environment is the physical and natural world and the indoor and outdoor places where we live, work, play and learn. Environmental

justice incorporates the principle of the right of all individuals and communities to be protected from environmental degradation or environmental policies that put them at a disadvantage. It adopts a public health model of prevention and rests on the precautionary principle in protecting people, their communities and the natural environment. The environmental justice framework in this master plan offers a model for addressing environmental justice and attempts to uncover the underlying assumptions and subsequent actions that contribute to and produce unequal protection of people in their interaction with the environment.

Previous Master Plans and the resulting solid waste programs have increasingly focused on equity, but they have not formally addressed environmental justice beyond the siting of disposal facilities. This Master Plan addresses environmental justice head-on by establishing a framework and set of tools to consider environmental justice throughout all program areas and establish a baseline upon which to evaluate and continuously improve. Connecting environmental justice to solid waste beyond facility siting is not traditionally done and Ramsey County aims to become a leader in this area.

#### Stakeholder Engagement

Ramsey County has moved beyond traditional education about recycling and waste reduction to a community engagement model that partners with others to build momentum for system change. Shifting our approach from community education to community engagement is necessary not only to achieve the recycling and waste diversion goals set forth in the Policy Plan but also critical to ensure the community has the needed training, education and understanding to make decisions about its environment and wellbeing (a critical element of environmental justice programming).

The Master Plan contains strategies to reach communities where they are at and includes training and workforce development and a focus on technical assistance. Engagement strategies are identified for every audience and for every segment of the solid waste system from elementary-aged schoolchildren to business leaders. For more details on stakeholders see Appendix V: Master Plan Background, History and Development.

#### Ramsey/Washington County Partnership

Partnerships and collaborations remain critical for success in achieving the goals set forth in the Policy Plan. Ramsey and Washington Counties have been working together successfully since the early 1980's on solid waste management. Their relationship has been strengthened in the past few years through the extensive evaluation of the future of processing, resulting in the purchase of the Recycling & Energy Center (R&E Center), a refuse derived fuel (RDF) facility, and the future possibilities this means for waste processing. Through this partnership, the counties are pursuing the use of emerging technologies to extract additional recyclables from the trash, thus helping the East Metro move closer to its 75% recycling goal, as well as seeking to move from combustion of RDF to the use of other technologies to produce bio-based fuels or chemicals. These alternative technologies have moved from pilot to commercial scale operations in North America; the counties continue to monitor these technologies, including the evaluation of environmental, economic and social impacts, and hope to move forward with technology decisions during the next two years.

### Programs with Greater Focus

Three program areas included in this Master Plan receive greater focus than previous plans:

1. Waste Reduction and Reuse
2. Food Waste
3. Construction and Demolition Waste

#### Waste Reduction and Reuse

Waste reduction is the act of preventing waste by not producing discarded items that need disposal or other management. Reuse is the act of extending a product’s useful lifespan. The waste reduction goal for the Twin Cities area is 1.5% by 2020 and 5% by 2036 (although challenges remain in measuring waste reduction).

Waste reduction results from decisions made in the production, purchase and use of materials. While some waste reduction results from personal choices by residents in the products they consume, major waste reduction is the result of systemic change, such as when manufacturers, distributors or retailers change packaging for products or make products in a manner that extends their lives. Programs that promote product stewardship or pricing of disposal are examples of systemic changes that favor reduced waste. Ramsey County supports actions to reduce waste within internal operations in order to conserve natural resources and energy, reduce or eliminate hazardous waste, support recycling markets, and reduce the need for landfilling.

#### Food Waste

Food, a basic human need, is easily taken for granted in a society of abundance. Food remains the largest source of waste in Ramsey County, making up 26% of the total trash sent for disposal each year. This represents a loss of not only the needed food for nutrition, but also the embedded resources it took to grow/produce, manufacture, distribute and prepare. There is a need to reduce wasted food across all sectors of the food system – from producer to consumer – through policy, education and collaboration. This is, in fact, a national priority receiving attention from all levels of government, as well as major non-profit institutions.

Ramsey County adopted the US EPA’s Food Recovery Hierarchy in its 2012 Master Plan as the standard protocol for managing food waste in the county’s plans, climate action plans and other planning frameworks. The county continues to use this hierarchy in policy and operational decisions,

recognizing the MPCA is evaluating the role of anaerobic digestion of food waste in Minnesota.



**Figure 7.** The US EPA’s Food Recovery Hierarchy ranks actions that organizations can take to prevent and divert wasted food from most to least preferred. Ramsey County adopted the Food Recovery Hierarchy in its prior Master Plan.

### Construction and Demolition Waste



Construction and demolition (C&D) waste is generated during the construction, renovation and demolition of buildings and other structures. This waste includes concrete, bricks, wood and lumber, roofing, drywall, metals, plastics, landscape materials and other items. According to the MPCA, the Twin Cities Metro Area landfills 1.78 million tons of C&D waste each year. However, there are active programs and facilities in the Twin Cities metro area that are actively working to recover the waste.

Ramsey County is a fully developed county, so almost all new construction in the county is preceded by demolition. The county's Pre-Demolition Inspection Program identifies hazardous materials prior to building demolition and works with contractors to ensure these materials are properly managed or reused. The program provides building owners and contractors with resources to encourage deconstruction and building material salvage and recycling. This program has put Ramsey County on the map as a nationally recognized leader in demolition waste management.

## RAMSEY COUNTY POLICIES AND STRATEGIES

### CHAPTER 1: OVERARCHING POLICIES

#### Overarching Policy 1: Product Stewardship



Ramsey County strongly supports a product stewardship framework, also known as extended producer responsibility, which creates effective producer-led reduction, reuse and recycling programs to address a product's lifecycle impacts from design through end-of-life management, without relying solely on state and local governments. Product stewardship has historically focused on products with a toxic or hazardous character, but should be focused broadly on other products, such as packaging and bulky items including mattresses. Such an approach can reduce the need for government programs to ensure proper end-of-life management of discarded items. Ramsey County believes the objectives in the Policy Plan are more likely to be met and sustained in an affordable manner only if a product stewardship framework is implemented in Minnesota.

#### Overarching Policy 2: Waste Hierarchy (Landfill Diversion) Goal

Minnesota spends a considerable amount of time and money measuring progress in solid waste management. Ramsey County believes strongly in measuring performance of the system in a meaningful manner. Ramsey County urges the Minnesota Pollution Control Agency (MPCA) to implement changes in data gathering and evaluation that are more efficient and that will focus on meeting policy objectives and not solely on measuring every ton of material. The MPCA should move to a measurement system that focuses on a goal of diversion from landfill and at the same time assures that waste is moved up the hierarchy. This waste hierarchy goal would more accurately focus on the goals of the Waste Management Act and would be a more sensible approach to performance measurement. The waste hierarchy goal aimed at driving waste to the best management method ensures public and environmental health and reduces risks.

#### Overarching Policy 3: Market Development



Minnesota needs a comprehensive, long-range plan for market development in order to pivot our thinking from "waste" to "resource." When a material is discarded by someone, it is a waste. When that material is used by someone else, it is a resource. Recycling and waste processing harvest resources by accumulating discarded materials and processing them into new products. Recycling and processing activity in Minnesota captures these resources and generates economic activity in the State.

Recycling is important in local economies. We currently have a good recycling economy in Minnesota, which includes export of some materials to other parts of the United States and overseas. Although we have a good recycling economy in Minnesota, the market for products from organics management has been largely non-existent. The region will rely significantly on



**Figure 8.** Minnesota has a strong recycling economy. However, end markets for organics have been lacking.

managing organics to meet State goals. Ramsey County will continue to explore the role of needed organics transfer capacity in the development of a strong organics recycling market.

*Market development is more than just State government.* Importantly, the private sector handles most recyclables and organics – they have a significant stake in strong markets. The State of Minnesota has a primary role, but local governments also have had a role (e.g., in continued development of supply and procurement of recycled content products). Any new initiative should have local government representation in scoping and implementation.

Ramsey County supports the MPCA leading organics market development through local government usage and policy development but strongly disagrees with government becoming the only market for organic products. Ramsey County supports the MPCA leading market development research and investment on a local level to pilot and incentivize new material processing, ensure markets for problem materials, such as glass, and build needed capacity. Ramsey County will work to develop staff expertise in recycling markets and support MPCA-led market development projects.

*\*Ramsey County strongly supports the need for resilient recycling markets regionally and, thereby, encourages the MPCA to complete the Policy Plan strategies identified regarding recycling market development, including:*

1. *Researching best practice for MRF optimization;*
2. *Investing in new technologies and equipment for sorting; and*
3. *Expanding the capacity for existing markets, specifically for glass, paper and film.*

#### Overarching Policy 4: Timely and Consistent Policy Decisions

The State has set aggressive goals in its Policy Plan. Reaching them depends on innovation in technology and service delivery. Minnesota should ensure it is receptive to viable technologies that can improve recovery of resources from waste. Ramsey and Washington Counties are exploring new technologies to improve processing operations at the Ramsey/Washington Recycling & Energy Center (R&E Center). These new technologies can produce energy, fuels and compost and/or recover recyclables. At the same time, they can help us reduce greenhouse gas emissions. The county supports the MPCA’s plans to make timely and consistent policy decisions, especially regarding new technology. However, to be effective, the MPCA needs to work with other State departments with an interest in these technologies and needs to ensure there is a clear and efficient regulatory pathway for new technology to develop at the end of its process.

#### Overarching Policy 5: Environmental Justice



Ramsey County will conduct its programs and activities in a manner that ensures the fair treatment and meaningful involvement of all people regardless of age, race, ability, gender, color, sexual orientation, national origin or income with respect to the development, implementation and enforcement of environmental laws, regulations and policies.

### Ramsey County Environmental Health: Key Principles of Environmental Justice (EJ)

1. EJ demands that environmental health policy is based on mutual respect and justice for all people, free from any form of discrimination or bias.
2. EJ mandates the right to ethical, balanced and responsible uses of land and renewable resources in the interest of a sustainable planet for humans and other living things.
3. EJ demands the right to participate as equal partners at every level of decision-making, including needs assessment, planning, implementation, enforcement and evaluation.
4. EJ affirms the need for ecological policies to clean up and rebuild our cities and rural areas in balance with nature, honoring the cultural integrity of all our communities, and providing fair access to all to the full range of resources.
5. EJ calls for the education of present and future generations to emphasize social and environmental issues based on our experience and an appreciation of our diverse cultural perspectives.

Our environmental justice framework attempts to uncover the underlying assumptions and subsequent actions that contribute to and produce unequal protection of people in their interaction with the environment. Environmental justice incorporates the principle of the right of all individuals and communities to be protected from environmental degradation or environmental policies that put them at a disadvantage. It adopts a public health model of prevention and rests on the precautionary principle in protecting people, their communities and the natural environment.

Previous Master Plans and resulting solid waste programs have increasingly focused on equity, but they have not formally addressed environmental justice beyond the siting of disposal facilities. This Master Plan establishes a framework and set of tools to consider environmental justice throughout all program areas and establishes a baseline upon which Ramsey County can evaluate and continuously improve. Ramsey County aims to become a leader in establishing environmental justice policies in solid waste management.

## CHAPTER 2: GOVERNANCE

### Ramsey County and Washington County Partnership

Ramsey and Washington Counties have worked together since the early 1980's on solid waste management. The counties envision this relationship continuing and strengthening through their respective 2018-2038 solid waste management master plans. This will include work through the Ramsey/Washington Recycling & Energy Board (R&E Board) as well as coordination between the counties.



*Vision:* Ramsey and Washington Counties are working together to find new technologies to use in the coming 20 to 30 years to process what is left in our trash from homes and businesses and get the most value out of what we throw away even as we work to increase recycling and reduce the amount thrown away. Additionally, these new technologies can help us continue to increase good jobs locally and protect taxpayers and our environment.

Commissioners in both counties recognize we can do better and move trash from being a drain to being a resource with value. We want to extract more recyclables from our trash. We want to use trash to make energy more efficiently. We want to use trash to make materials that can be used by others to manufacture consumer goods.

### Ramsey County and Washington County Partnership Policies

1. Shared principles for joint administration of waste management programs and activities should:
  - a. Be designed and communicated in a manner that focuses on seamless services that are not confusing to the public;
  - b. Be consistent with both counties' vision, mission and goals;
  - c. Enhance, not diminish, the quality and effectiveness of the individual county programs;
  - d. Ensure accountability of the two counties and be consistent with their respective Master Plans;
  - e. Provide general efficiencies in the use of county resources; and
  - f. Be flexible so the program can serve urban, suburban and rural areas.
2. The counties will continue to seek opportunities to work together on waste management programming through multiple ways:
  - a. As joint activities formally delegated to the R&E Board (such as BizRecycling);
  - b. Through operational agreements outside the R&E Board (such as joint procurement of products and services);
  - c. Through reciprocal use for independently operated programs (such as household hazardous waste); or
  - d. Through a purchase of service agreement.

The counties will develop a process for identifying, analyzing, and deciding on program alignment and joint activities.

3. Ramsey and Washington Counties will continue to work together through the R&E Board to promote and implement the vision for waste management in the two counties that was established during the purchase of the Recycling & Energy Center (R&E Center).
4. The R&E Board will continue to own, operate and improve the R&E Center as outlined in the Ramsey and Washington Counties Joint Waste Designation Plan.
5. The R&E Board will continue its shared programming for those programs in place in 2017.
6. Ramsey County will continue to assess the structure and size of the R&E Board to ensure effective governance.



**Figure 9.** The Ramsey/Washington Recycling & Energy Board owns the Recycling & Energy Center, a refuse derived fuel processing facility in Newport, Minnesota.

### Regional Focus

Ramsey County participated in the Solid Waste Management Coordinating Board (SWMCB) from its inception in the early 1990's to its ending in 2017. At the time of the Master Plan's development, new mechanisms for working together have been emerging, and opportunities will continue to develop over time. Ramsey County will work with other metropolitan counties on solid waste issues when joint efforts further the county's interests in waste management. Two joint efforts that the county is committed to include:

1. A regional hauler licensing program; and
2. Reciprocal use for household hazardous waste facilities.

Furthermore, new opportunities are being evaluated among Ramsey, Washington and Hennepin Counties as owners and operators of waste-to-energy facilities.

### CHAPTER 3: COMMUNITY ENGAGEMENT (WASTE-RELATED)

Ramsey County places a high value on community engagement. The primary goals of the county's waste-related community engagement program are to raise awareness and influence behavior change to reduce waste, increase recycling and properly manage waste. Ongoing communication is needed to engage the public, and a variety of approaches are utilized to reach multiple audiences and involve community partners. The county's goal is to move from unidirectional communications to a greater level of community-initiated dialogue and joint development of strategies, resources and tools.

#### Ramsey County Waste-Related Community Engagement Policies



1. Ramsey County supports the meaningful involvement of all people regardless of age, ability, gender, race, color, sexual orientation, national origin or income with respect to the development and implementation of environmental regulations and policies.
2. Ramsey County will use multiple levels of community engagement as a key strategy to reach solid and hazardous waste goals.
3. Ramsey County will deliver robust outreach, promotion and education campaigns that address barriers and motivate behavior change by individuals, organizations, communities and businesses.
4. Ramsey County will strengthen partnerships with municipalities, community groups, ethnic organizations, the waste and recycling industry and others to promote management of solid waste in accordance with this plan.
5. Ramsey County's waste management engagement strategies will recognize the value of community expertise in the development and dissemination of campaign messages and will use a wide variety of communication tools, including traditional methods and emerging technologies.
6. Ramsey County and Washington County take a broad environmental view to engage stakeholders about the solid waste management system's relationship to resource conservation and the quality of air, water, land and indoor environments.
7. Ramsey County will engage, procure and partner with private advertising, marketing, communications, graphic design, advertising placement, media arrangements, video production and others as needed to continue its professional community engagement campaigns and material development.



**Figure 10.** The Ramsey Recycles public engagement campaign began in 2014 and uses a variety of marketing and advertising methods to engage residents on recycling and disposal topics.

## Ramsey County Waste-Related Community Engagement Strategies

### A. Communication and Education

1. Ramsey County will use interactive communication strategies, such as social media, focus groups, surveys and engaging community partners as active contributors in the process of increasing broad understanding of a socially desirable, environmentally sound and cost-effective solid waste management system.
2. Ramsey County will develop and deliver culturally specific and appropriate marketing and education on waste management for both residential and non-residential generators and may need to engage, procure and partner with community cultural experts, translators and/or other communication experts. The county will use appropriate expertise to bridge cultural and language communication needs related to understanding and accessing the waste management system.
3. Ramsey County and Washington County will participate with regional messaging forums when appropriate to ensure messages are compatible and consistent with each county's efforts and the R&E Board programs.
-  4. Ramsey County will provide the resources necessary to ensure its communication programs are appropriately designed, accountable, effective and evaluated. The county will develop a range of outreach tools for residential and non-residential generators to use when seeking information and assistance on waste management issues. Communication with non-residential generators will be focused on actions that can be taken to increase waste reduction and recycling.
5. **[E]** Ramsey County with Washington County and the R&E Board will conduct outreach, technical assistance, consultation and education for joint programs and services to enhance understanding of the integrated waste system, including waste processing.
6. Ramsey County will gather and use information to design improvements to solid waste programs, such as information gathered through tools, including, but not limited to, focus groups and surveys aimed at residential and non-residential generators, as well as data on the access and use of telephone and web-based information available to residential and non-residential generators.
7. Ramsey County will engage private firms to provide services, including, but not limited to, advertising, marketing, graphic design and media arrangements for the purpose of professional engagement opportunities.
8. **[N]** Ramsey County with Washington County and the R&E Board will communicate and coordinate with local haulers on R&E Center activities.
9. Ramsey County will engage entities that it regulates through its public health department to encourage activities that achieve higher waste diversion goals.

10. **[N]** Ramsey County will work with Washington County to explore opportunities to develop volunteer programs to assist with outreach and education.
11. Ramsey County will continue to contract with University of Minnesota Extension to work with the Master Gardener program for education, outreach and technical assistance on proper yard management, tree and shrub management, organics collection, proper handling of yard waste and certain aspects of household hazardous waste management.
12. **[N]** In order to develop skills important in future waste management and environmental and public health workers, Ramsey County will partner with others to support the growth and development of science, technology, engineering and math (STEM) skills in disadvantaged children and youth through funding, internships, training opportunities and other methods.
13. **[N]** Ramsey County will develop a fellowship program that recruits people of color from Ramsey County and emphasizes skills appropriate for future careers in waste management or environmental health. The Ramsey County fellows will engage with municipalities and community partners to support areas where there is a lack of expertise or staff resources to meet solid waste management system needs.



14. **[E]** Ramsey County will support community-based social marketing campaigns, including, but not limited to, the Ad Council/Natural Resources Defense Council's Save the Food campaign that educates residents on ways to reduce the amount of food that is wasted. The county will place an emphasis on campaigns that focus on cultural, ethnic or unique partnerships.

15. **[E]** Ramsey County will provide health and environmental risk reduction education through targeted training opportunities.



16. **[E]** Ramsey County will actively promote pollution prevention programs and services of local technical assistance providers to the regulated community.

17. Ramsey County will engage the community on environmental issues related to waste management, such as air and water quality and healthy homes.



18. **[N]** Ramsey County will hold focus groups, interviews or other events to seek input from the Ramsey County community to identify concerns about solid waste and its intersections with the Master Plan, what residents need to engage in policy and planning discussions, and determine various pathways for continuous dialogue. This information will be used as a baseline upon which to build and improve relationships.



**Figure 11.** Ramsey County is a local partner supporting the National Ad Council and the Natural Resources Defense Council's Save the Food campaign. The campaign, launched in 2016, aims to educate the public on ways to reduce food waste.



19. **[N]** Ramsey County will work with its community to jointly establish a framework and set of tools for strengthening consideration of environmental justice concerns to be used throughout the county's solid waste program areas, establish baseline measures upon which to evaluate, and create a methodology for ongoing reporting and communication of findings.



20. **[N]** Ramsey County will research and evaluate how to continue to foster empowered relationships in traditional command and control (regulatory) relationships to find mutually beneficial environmental, health and equity outcomes.

### **B. Internal Ramsey County**

1. Ramsey County will increase employee awareness of and commitment to environmentally sustainable practices in the workplace on the part of county employees, including, but not limited to, internal recycling practices and opportunities, environmentally preferable purchasing practices and sustainable products available on state contracts.

2. **[E]** Ramsey County may test employee engagement concepts, ideas, verbiage and/or communications on its own employees before deploying them in its business engagement program.



3. **[N]** Ramsey County will work to develop environmental justice and cultural understanding of its staff through ongoing workforce training.

### **C. Public Entities**

1. Ramsey County will work with public entities to share innovative public information messages and technical assistance to further waste management goals. In addition, the county will work with public and private entities, including schools, businesses, institutions, government agencies, non-profit organizations and the waste and recycling industry to develop coordinated communication messages that minimize confusion related to traditional recycling and other solid waste management methods.

2. Municipalities are responsible for providing information specific to their programs to their residents. As a condition of receiving SCORE (Select Committee on Recycling and the Environment) funds, municipalities will be required to use elements of county outreach, education and promotional program materials. Ramsey County will continue to work jointly with municipalities in the development of messages and tools, including consistent promotion of Ramsey County communication campaigns.

3. Ramsey County will work with public entities, providing resources as appropriate to increase education and awareness of away-from-home recycling opportunities in places, such as parks, athletic fields and arenas and for special events, such as festivals, family reunions and parades.

## CHAPTER 4: HEALTH AND ENVIRONMENTAL RISK REDUCTION

Reducing risk to health and the environment is a key element of the solid waste management system. This chapter addresses Ramsey County’s health and environmental risk reduction policies and strategies, including toxicity reduction and hazardous waste management. Minnesota’s regulation of hazardous waste generated by commercial entities is among the strictest in the nation, and Ramsey County’s hazardous waste program is a national leader, with a focus on ensuring compliance and encouraging pollution prevention. For chemical waste generated by households, Ramsey County has one of the most convenient household hazardous waste (HHW) collection programs in Minnesota, and results show that the HHW program is effective.

### Ramsey County Health and Environmental Risk Reduction Policies

1. Ramsey County will regulate the generation and management of hazardous waste as required by Minnesota Statutes in a manner that uses a variety of methods to ensure compliance and focus on risk.



2. Ramsey County will prevent, mitigate and manage risks to public health and the environment in a manner that upholds Ramsey County’s environmental justice and equity values.



**Figure 12.** Ramsey County is committed to reducing risk by ensuring compliance regarding the proper management and disposal of hazardous waste.

3. Ramsey County supports a product stewardship approach in which products with a hazardous character or that pose an increased risk to human or environmental health are best managed through shared responsibility by manufacturers, distributors, retailers and consumers. The county will implement residential collection systems until product stewardship collection systems are reliably in place for consumer materials that have a hazardous character or are problematic to manage. The county will accept reimbursement for management of toxic and hazardous consumer materials when product stewardship programs do not directly provide convenient collection opportunities for those materials.
4. To encourage proper management, Ramsey County will provide household hazardous waste (HHW) management services at a level of convenience and financial accessibility. Services will be compatible and consistent with other programs in the region. Services will also encourage reducing the amount of HHW generated.
5. The Ramsey County HHW collection program will manage HHW in a cost-effective manner that minimizes risks to public health, occupational health, property and the environment. The county will continue to share with the State of Minnesota the potential liability associated with managing HHW.
6. Ramsey County will contract with the private sector for a portion of or all HHW collection services, provided that doing so will protect public health and the environment and that cost

and risk factors are similar to or more favorable than public operation of part or all of HHW collection services.

7. Ramsey County will operate a Very Small Quantity Generator (VSQG) collection program to protect public health and the environment by providing a convenient and cost-effective disposal option for eligible hazardous waste generators.
8. Ramsey County will participate in reciprocal use agreements with other counties to provide a greater level of convenience for residents to dispose of HHW.
9. Ramsey County supports the use of less hazardous products and materials and will work to encourage their use in both residential and commercial settings.

### Ramsey County Health and Environmental Risk Reduction Strategies

1. Ramsey County will provide and promote convenient collection of HHW at both a year-round facility and at collection events held at various sites throughout the year.
2. Ramsey County will review how it provides HHW services to residents during the term of this Master Plan. The county will specifically examine the efficacy of using one or more additional year-round collection sites in lieu of mobile collection events, as well as possibly coordinating services with Washington County.



**Figure 13.** Residents can drop off household hazardous waste at Ramsey County’s year-round facility and at various mobile locations.

3. Ramsey County will periodically review the list of items currently or potentially acceptable at HHW sites, determine how these items should be collected and managed, and determine how management of specific materials should be paid for with particular attention to:
  - a. Wastes that pose hazards for residential waste collectors or processors;
  - b. Products that are banned from sale or use;
  - c. Hazardous or problem materials for which there are no convenient private sector collection options; and
  - d. Wastes identified in statutory disposal restrictions.
4. Through its HHW program, Ramsey County will allow for the management of HHW inappropriately dumped at municipal or county facilities and properties or that is recovered during the abatement of nuisance properties or public health nuisances.
5. Ramsey County will manage its HHW and yard waste sites in accordance with the Ramsey County Storm Water Management Plan.

6. Ramsey County will continue its product reuse center at its year-round HHW facility.
7. Working with law enforcement, Ramsey County will collect pharmaceutical waste through its HHW program until the implementation of a statewide product stewardship approach.
8. Recognizing healthy homes are a key element in reducing risk to health and the environment, Ramsey County will implement programs that focus on healthy homes and target various environmental hazards, including but not limited to, hoarding behavior, lead, household chemicals and radon.
9. Ramsey County will continually improve its risk-based approach to solid and hazardous waste compliance to ensure an appropriate level of oversight.
10. [E] Ramsey County will use electronic systems to provide more efficient licensing, reporting and inspection interactions with the regulated community.
11. Ramsey County will continue to focus on education, consultation and technical assistance in its regulation of solid and hazardous waste ensuring all businesses are equitably treated.
12. Ramsey County, partnering with other organizations, will evaluate its regulatory programs to address health and environmental risks posed by air, water and land pollution.
13. [N] Ramsey County, along with Washington County, will work with the MPCA as the agency facilitates development of a product stewardship reporting system and will submit reports as required for materials collected and managed through county owned and operated facilities.
14. [N] Ramsey County will support regional efforts for product stewardship advancement and will send a representative, as appropriate, to the regional product stewardship committee formed by the MPCA.

*Strategies for the management of HHW recovered from residential homes during pre-demolition inspections or demolition are addressed in the Construction, Demolition and Industrial Waste Management chapter.*

## CHAPTER 5: WASTE REDUCTION, REUSE AND CONSERVATION

Waste reduction (also known as source reduction) is the most preferred waste management method in Minnesota's Waste Management Hierarchy. Waste reduction, reuse and conservation all are important aspects of the Ramsey County solid waste management system. This chapter outlines Ramsey County's approach for promoting waste reduction, reuse and conservation.

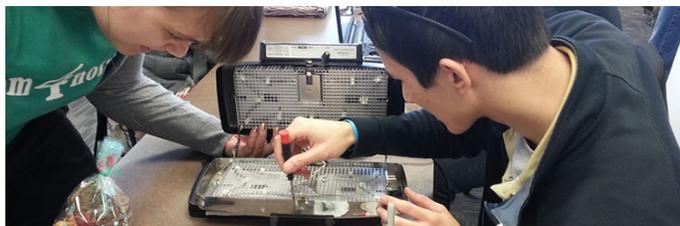
### Ramsey County Waste Reduction, Reuse and Conservation Policies

1. Recognizing waste reduction results from systemic change, such as product stewardship initiatives, sustainable materials management (SMM) or price signals that favor reduced waste, Ramsey County believes the Minnesota Pollution Control Agency (MPCA) must lead public sector waste reduction innovations and measurement.
2. Ramsey County will support actions to reduce waste in its own operations in order to conserve natural resources and energy, reduce or eliminate hazardous waste, support recycling markets and reduce the need for landfilling.
3. In order to reduce risks to the environment and public health and to conserve natural resources, Ramsey County will plan for, promote and take actions that conserve energy, reduce greenhouse gas emissions and adapt to a changing climate, through planning and implementation of those plans.
4. Ramsey County will encourage the use of renewable energy, including the recovery of energy and fuels from waste.
5. Ramsey County will engage in environmentally preferable purchasing practices and procurement established by state and federal guidelines, including, but not limited to, full cost accounting and waste reduction principles.
6. Ramsey County will use its purchasing power to help advance the county's goals of economic prosperity and enhanced access to opportunities by supporting the development of businesses that foster reuse, salvage and needed materials exchange opportunities for residential and non-residential sectors.
7. Ramsey County supports efforts to ensure reuse and materials exchange communications, promotions and programs are available to all of its residents and businesses.
8. Ramsey County will work with Washington County through the R&E Board to explore possible joint waste reduction and reuse opportunities.

### Ramsey County Waste Reduction, Reuse and Conservation Strategies

1. Ramsey County will encourage residential and non-residential generators to produce less waste by promoting a variety of reuse, repair and materials exchange opportunities to residential and non-residential generators.
2. **[N]** Recognizing the MPCA has the capacity to effect changes in waste behavior on a statewide basis, Ramsey County will participate with the MPCA in the development and implementation of strategies to reduce waste, as well as cooperate with the MPCA in measuring waste reduction on a statewide basis.
3. **[N]** Ramsey County with Washington County support the MPCA taking the lead to facilitate and develop a sustainable materials management (SMM) approach to waste management.

4. **[N]** Ramsey County will contract with one or more materials exchange programs that best serve Ramsey County’s residents and the commercial sector, which may include, but are not limited to, the Minnesota Materials Exchange Program and ReUseMN.



**Figure 14.** Ramsey County hosts monthly Fix-it Clinics in which residents can bring broken household items, such as small appliances, electronics and clothing. Volunteers work with the residents to repair the items free of charge.

5. **[E]** Ramsey County will implement the following active programs that focus on reuse:
  - a. Ramsey County will continue to host, promote and track usage of its Fix-it Clinics, including working with other Metro counties on volunteer recruitment, training and scheduling. The county will also support, encourage and promote other local and regional Fix-it Clinic events open to Ramsey County residents.
  - b. Ramsey County will continue to operate, promote and track usage of its Product Reuse Center at its Household Hazardous Waste Collection Site in Saint Paul.
  - c. Ramsey County will work to identify partners to create a multi-county reuse guide.
  - d. Ramsey County with Washington County will work with public K-12 schools to explore and implement reuse opportunities, such as, but not limited to, end-of-year seasonal school cleanouts to capture materials for reuse.

6. Ramsey County will share information and technical expertise with municipalities to promote innovative and effective ways to reduce waste generated by residents and businesses.
7. Ramsey County will work with municipalities and community partners to identify innovative ways to reduce waste generated at public events and venues under the Green Gatherings model.
8. In support of the stated environmentally preferable purchasing policy, Ramsey County will explore the option of adding a system to track environmentally preferable purchases in the county procurement system.
9. [E] Ramsey County will work with Washington County to explore reuse opportunities, such as incentive grants, development of a business-to-business materials reuse brokerage, promotion of the Minnesota Technical Assistance Program (MnTAP) or similar business outreach and assistance program for businesses, institutions, public and private K-12 schools, and private colleges and universities.
10. [E] Ramsey County will continue to work with partners to explore methods for reuse and waste reduction metrics and monitoring.



**Figure 15.** At its year round Household Hazardous Waste Collection Site in Saint Paul, residents can visit the Product Reuse Center to find free products, such as paints, cleaners, automotive fluids and pesticides.

*Reuse strategies related to construction and demolition are included in the Construction, Demolition and Industrial Waste Management Chapter.*

*Reduction strategies related to food waste are included in the Community Engagement and the Recycling and Organics Chapters.*

## CHAPTER 6: RECYCLING AND ORGANICS (INCLUDING YARD WASTE)

### A. Residential Recycling and Organics

Ramsey County embraces the 75% recycling goal established in State law and will work to achieve that goal. Residential recycling is an important part of reaching that goal.

Recycling is an essential component of waste management in Ramsey County. The county took the lead in developing curbside recycling programs and recycling processing/marketing in the early 1990's. Since that time, the recycling industry has grown considerably, curbside recycling has become a regular municipal service, and residents are routinely recycling. Challenges remain as valuable resources continue to be discarded in the trash and as new products emerge that are difficult to recycle. The county expects residents, businesses and institutions to incorporate recycling in the handling of discarded materials and recognizes it is the responsibility of everyone in Ramsey County to help achieve State recycling goals.



**Figure 16.** Seven free yard waste sites provide a needed service to the community. Services offered at the sites were expanded starting in 2015 to add drop-off organics collection.

Traditional recycling along with organics and yard waste management are important components to the Ramsey County solid waste management system. This section addresses Ramsey County's policies and strategies for residential recycling and for the management of organics (including yard waste).

### Residential Recycling (Traditional Materials)

#### Ramsey County Residential Recycling Policies for Traditional Materials



1. Ramsey County requires municipalities to ensure that recycling service for traditional recyclables is available to all residents at their place of residence, including multi-unit dwellings with four or fewer units and townhome dwellings.\* By 2020, municipalities shall ensure effective, efficient and verifiable recycling services are available to all multi-unit dwellings.
2. Recycling is a necessary component of waste management in Ramsey County. Ramsey County expects residents to incorporate recycling in the handling of discarded materials and recognizes that it is the responsibility of everyone in Ramsey County to achieve State recycling goals.
3. Ramsey County will work with municipalities, waste and recycling industries and other public entities to ensure recycling opportunities are maximized. The county will use outreach and education, planning and evaluation, regulation, financial incentives, technical assistance and consultation to accomplish recycling objectives.
4. Ramsey County will provide financial support to municipalities using State SCORE (Select Committee on Recycling and the Environment) funds, when those funds are available, to support municipal recycling and related programs, subject to SCORE grant requirements.

5. Ramsey County expects municipalities to continue to implement best management practices in contracting for residential recycling. By December 31, 2023, all municipalities shall have organized recycling services in place. Municipalities should seek to continually improve services, especially in regards to contracting efficiency, implementation ease for residents and other practices that will improve residential recycling rates and participation.

### Ramsey County Residential Recycling Strategies for Traditional Materials

1. Ramsey County requires each municipality to be responsible for developing a long-term financing mechanism to fund its residential recycling program.
2. Through joint powers agreements with the county, Ramsey County allows municipalities to use the county's statutory service charge authority to collect a municipal recycling fee for the municipality.
3. **[N]** By December 31, 2020, municipalities shall ensure recycling service is available to all multi-unit dwellings (more than four units) on an ongoing basis either by contracting for such service or by an enforced ordinance (ordinances can be found in Appendix II). Failure to ensure this service will result in the county providing the service and withholding SCORE funds from the municipality's SCORE grant to pay for the service.\*

*\*Strategies for multi-unit dwellings are found under Residential Recycling, as well as Non-Residential Recycling and Organics, as it depends on the audience for each strategy. Residential recycling strategies address those living in the multi-unit dwellings. Non-residential strategies address property managers and owners, as they are classified as commercial accounts by haulers.*

4. Municipalities must provide the following minimum levels of service: weekly or every-other-week collection and collection of at least the following materials at curbside and multi-unit dwelling properties:
  - a. Paper;
  - b. Cardboard;
  - c. Glass bottles;
  - d. Metal cans;
  - e. Cartons;
  - f. Plastic beverage and food containers; and
  - g. Organics when present.



**Figure 17.** Municipalities must provide weekly or every-other-week collection for a variety of materials, including corrugated cardboard.

5. Ramsey County expects municipalities to add materials to their collection streams as markets become available.

6. **[N]** By December 31, 2019, municipalities shall ensure that collection of textiles for recycling is available to residents through curbside collection and to multi-unit dwellings through special collection or drop-off.
7. **[E]** Ramsey County will annually pass through a portion of SCORE funds received by the county to municipalities on a per capita basis to provide partial support of municipal recycling and related programs, subject to SCORE grant requirements, according to the following schedule:
  - In 2018, the county will allocate 84% of the total received SCORE funds to municipalities. This funding amount will be known as the base SCORE funding. [The 84% allocation was established and has been maintained since 2004.]
  - From 2019 through 2023, the county will allocate the total received SCORE funds to municipalities, subject to any restrictions imposed on the funding by the state. Each municipality will receive the base SCORE funding and, in addition, will have the option of receiving incentive funding for implementing up to two of the activities listed below.

**Table 2.** SCORE funding potential for each municipality.

<b>BASE</b>		<b>Incentive #1</b>		<b>Incentive #2</b>		<b>TOTAL</b>
84% of SCORE funds	+	8% of SCORE funds	+	8% of SCORE funds	=	Total annual SCORE funding

Each municipality will be eligible for up to two incentive payments each year on a per capita basis. To receive incentive payments, the municipality must plan for and implement from the following activities at a level established by the county.

1. Establish an efficient and effective program to provide collection of bulky waste items from single family homes at no cost or a discounted price and that also prioritizes recycling and/or reuse.
2. Include small businesses in curbside recycling services and actively engage those businesses to participate in the service.
3. Co-sponsor an organics drop-off site with the county (for suburban cities only).
4. Actively work with and promote BizRecycling to businesses and institutions in collaboration with the R&E Board for organics recycling and food waste reduction programs.

Additional qualifying activities may be added throughout the duration of the Master Plan as opportunities arise.

To receive an incentive payment for the same element in a subsequent year, the municipality will need to demonstrate how the program will be enhanced or expanded. A program must have verifiable enhancements to be eligible for additional incentive payments.

*\*Note: A portion of SCORE funds must be spent on organics management as stated in Minnesota Statutes, section 115A.557, subdivision 2b. If expenditures by the municipalities do not meet this*

*threshold, the county will expend the portion of SCORE funds necessary on organics related activities and will not pass that amount on to the municipalities.*

8. Ramsey County will continue the mutual development and use of a performance work plan for cities, including performance measures to plan their progress toward achieving recycling outcomes. Municipalities will work with Ramsey County to monitor annual progress in meeting recycling outcomes. Failure to meet stated outcomes will result in intensive collaboration with the county to identify and remedy gaps and, as a least-preferred consequence, will result in the county withholding SCORE grant funds.
9. Municipalities shall make their best effort to maximize collection and marketing of residential recyclable materials. Municipalities shall strive to avoid disruptions in established municipal recycling programs due to temporary difficulties in marketing specific materials.
10. Ramsey County will continue to maintain the existing County Recycling Markets Support Fund, including the current guidelines.
11. Ramsey County will continue to provide technical assistance to municipalities for recycling services and contracts through a consultant retained and paid for by the county.

12. If a municipality fails to demonstrate existing recycling service on an ongoing basis to all residents at their place of residence, including multi-unit buildings, the county will step in and ensure provision of such service. In that event, the county will retain any portion of the municipality’s SCORE grant sufficient to cover the county’s cost to provide for that service and will charge the appropriate party in the municipality for costs not covered by the municipality’s SCORE grant.



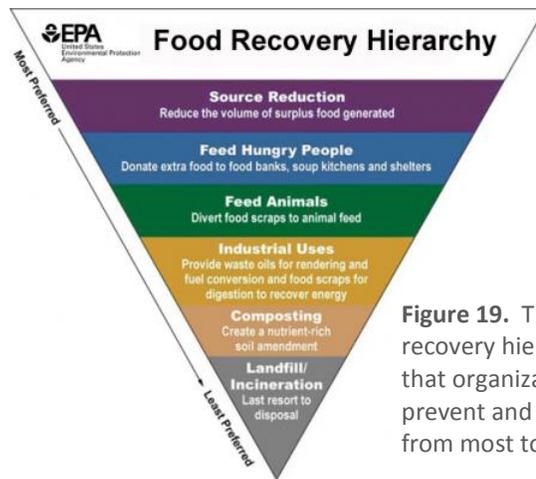
**Figure 18.** The county supports away from home recycling opportunities, such as at the Ramsey County Fair.

13. Ramsey County will support municipalities and other entities, including the Ramsey County Fair Board, in creating away-from-home recycling opportunities at locations, such as fairs, parks, athletic fields, arenas and recreation centers, as well as municipally-sponsored events.
14. **[N]** Ramsey County will work to identify and use a processor/recycler for mattresses and potentially other bulky waste items.

## Residential Organics

### Ramsey County Residential Organics Policies

1. Ramsey County will work with local partners, private haulers and recyclers, the Recycling & Energy Board (R&E Board) and other counties to divert organic materials from the residential waste stream using a variety of organics management methods. This will be done in a manner that ensures equity in the provision of service and that all residents paying for service are aware of and have access to the service.



**Figure 19.** The US EPA’s food recovery hierarchy ranks actions that organizations can take to prevent and divert wasted food from most to least preferred.

2. Recognizing food waste makes up the greatest proportion of organic waste, Ramsey County will use the Environmental Protection Agency’s food recovery hierarchy as guidance in making policy decisions about organic waste and, as such, will focus first on the food waste component of organic waste to be targeted for reduction and recycling.
3. Separate management of organics is a necessary component of waste management in Ramsey County. Ramsey County expects residents to make progress during the term of this plan to incorporate the separate management of organics, recognizing that this is the responsibility of everyone in Ramsey County.
4. Ramsey County will encourage the development of a market-driven approach to organics management, with strong participation by the private sector. If the market-driven approach fails to meet objectives, Ramsey County will consider regulatory approaches that will be determined based on up-to-date research, as well as the political and economic climate.
5. Ramsey County will use its resources in a strategic manner to ensure that residents optimize organic waste management opportunities using outreach and education, planning and evaluation, regulation, financial incentives, technical assistance and consultation as necessary to accomplish organic waste management objectives.
6. Ramsey County supports reduction of soft-bodied yard waste through onsite management and reduction of tree and shrub waste through proper urban forestry practices.
7. Ramsey County will operate a system of yard waste and organic waste recycling sites that are convenient, are provided at no charge to site users, and are only for residents of Ramsey County. Commercial yard waste haulers, lawn services and tree services are prohibited from using county yard waste sites.

8. Ramsey County will continue to provide free organics drop-off services for residents at all seven yard waste sites and will continue to support drop-off sites for residents at other locations in partnership with others. Saint Paul – Ramsey County Public Health will determine the appropriate level of convenience.
9. Ramsey County is committed to ensuring yard waste is not managed in residential MSW and is managed according to State law.

### Ramsey County Residential Organics Strategies

1. **[N]** Ramsey County municipalities shall ensure single family households, multi-unit housing with four or fewer units and townhome dwellings have organics collection service available (commonly known as “curbside collection”) by December 31, 2025.
2. **[N]** Ramsey County will evaluate progress in meeting the State’s policy plan objectives for organic waste management, as well as the level of service availability and the status of the market for organic waste management. Should the evaluation show there is not significant progress towards enhancing organics collection by 2025, the county will explore the use of regulatory tools.
3. **[N]** Throughout the term of this Master Plan, Ramsey County, in partnership with municipalities and other public entities, will continue to co-develop and fund service for unstaffed residential organics drop-off sites with a goal of placing a site in each municipality or within a 15-minute drive from each household in Ramsey County. All sites will be available to residents, and small businesses with permission from Saint Paul – Ramsey County Public Health, on a no-cost basis. The county will provide compostable bags without charge to county residents.
4. **[N]** As part of an evaluation of effective ways to collect organics, Ramsey County, working with Washington County, the R&E Board and private haulers and transfer stations, will evaluate residential collection methods, such as the use of durable compostable bags co-collected with MSW as a means to collect source separated organics.
5. **[N]** If collection of residential organics begins during the term of this Master Plan, whether through a pilot or full scale residential organics collection program (commonly known as “curbside collection”), the county will provide funding for or will purchase durable compostable bags for co-collection with MSW needed for the program as an incentive to begin the program and offset costs for early adopters.
6. **[E]** Ramsey County will provide technical assistance to municipalities to understand, research and test the organics collection method that best meets its local needs. Evaluation shall include examination of economic, efficiency, effectiveness and equity (environmental justice) factors.

7. Ramsey County will continue to operate its system of seven yard waste sites. The county will continue to accept soft-bodied yard waste and organic waste at all sites, as well as tree and shrub waste at four of the sites.
8. **[E]** Two of the county's yard waste sites are located within county parkland: Poplar Lake and Tony Schmidt. These sites shall continue to operate as an allowable use of parkland and shall be designed and operated to fit into park activities. Should either site need to be relocated, Saint Paul – Ramsey County Public Health and the Department of Parks and Recreation shall identify alternate space to locate the displaced service.
9. **[E]** The county will periodically review aspects of its yard waste management system, which could lead to improvements in operation.
10. Ramsey County will provide compost and wood mulch, when available, at the yard waste sites at no charge to county residents. Ramsey County will provide access to compost and wood mulch, when available, to government agencies and other public entities, including community gardens. Saint Paul – Ramsey County Public Health will maintain criteria to manage requests for finished compost and mulch from government agencies, community gardens and public entities.
11. Ramsey County will work with other entities to promote availability of products, such as backyard composting bins and rain barrels, that provide sustainable approaches to managing organic waste and storm water. In addition, the county may provide discounts for backyard compost bins to residents.
12. Ramsey County will provide access to its property at the Frank and Sims yard waste site, called the "Big Urban Woods", through joint powers agreements with participating schools for use as a School Forest. Ramsey County will work with the schools, the Department of Natural Resources, University of Minnesota Extension and community groups to develop and maintain the property as a School Forest.
13. Ramsey County will allow community groups to use the yard waste sites to provide public service and fundraising that enhances public service, improves quality of service to county residents, promotes civic engagement and encourages physical activity.
14. **[N]** Ramsey County will explore how to promote reduction of wasted, unwanted or surplus food grown in community gardens or backyard gardens that can be safely collected and shared to meet local hunger and food security needs.
15. **[N]** Ramsey County supports the expanded and preferred use of compost, derived from food scraps and yard waste, in Minnesota Department of Transportation (MnDOT) and local transportation projects.
16. **[N]** Ramsey County will work with watershed districts within Ramsey County to educate on the benefits of compost and explore methods of increasing its usage within the districts' programs and its member projects and programs.

## B. Non-Residential Recycling and Organics

Achieving a 75% recycling goal will depend heavily on increased recovery and recycling of traditional materials and organics from non-residential entities. Non-residential entities include businesses, institutions, not-for-profit organizations and schools. BizRecycling, an umbrella term for the joint Ramsey and Washington County effort to engage non-residential entities to recycle traditional materials and organics, is an important vehicle to maintain and increase non-residential recycling. State law mandates recycling in most businesses, which is another important factor.



**Figure 20.** BizRecycling is a program that helps businesses and institutions start or enhance recycling and organic waste management programs.

### Ramsey County Non-Residential Recycling and Organics Policies

1. Recycling is a necessary component of waste management in Ramsey County. Ramsey County expects non-residential entities to incorporate recycling into the handling of discarded materials and recognizes it is the responsibility of everyone in Ramsey County to achieve State recycling goals.
2. Ramsey County will use the County Environmental Charge (CEC) as an incentive for non-residential recycling and will promote the financial benefits of non-residential recycling.
3. Ramsey County will work with Washington County to evaluate progress in meeting the State's policy plan objectives for non-residential diversion from trash, as well as the level of service availability. Ramsey and Washington Counties support efforts to work collaboratively to develop a standard non-residential recycling data collection program.
4. Ramsey County supports the State law that mandates recycling in businesses (Minnesota Statutes, section 115a.551, subdivision 2a) and will continue to make businesses aware of the law. Should evaluation of non-residential recycling show there is not significant progress towards enhancing non-residential recycling collection by 2023, Ramsey County and Washington County will jointly explore the local use of regulatory tools to enhance business recycling.
5. Ramsey County will focus first on the food waste component of organic waste to be targeted for reduction and recycling.
6. Ramsey County will work with Washington County, local partners and consultants to divert organic materials from non-residential waste streams using a variety of organics management methods.
7. Separate management of organics by non-residential entities is a necessary component of waste management in Ramsey County in order to reach a 75% recycling goal. Ramsey County expects non-residential entities to make progress during the term of this plan to incorporate the separate management of organics.

8. Ramsey and Washington Counties will continue to use outreach and education, planning and evaluation, regulation, financial incentives, technical assistance and consultation in a strategic manner to ensure non-residential entities take full advantage of organic waste reduction and recycling opportunities.
9. **[N]** Ramsey County has a goal of having robust and stable recycling and organics programs at all public K-12 schools in the county by 2023.

### Ramsey County Non-Residential Recycling and Organics Strategies

1. **[N]** Ramsey County will collaborate with municipalities and others to perform a review of non-residential recycling services to determine if small businesses could participate in municipal organized recycling services and other methods to increase collection of non-residential recyclables.
2. **[N]** Ramsey County will engage non-residential entities that it regulates to inform them about opportunities to reduce and recycle waste. Ramsey County will review plans submitted by licensed food and beverage establishments and will ensure licensees meet recycling requirements in Ramsey County’s Food Protection Ordinance. Ramsey County encourages the Minnesota Department of Health (who inspects Saint Paul food establishments) and the City of Maplewood (who inspects Maplewood food establishments) to do likewise.
3. **[E]** Ramsey County will revise its Public Entities Innovation Grant program and will continue to provide grants to stimulate collection and marketing of recyclables from public entities.
4. **[E]** Ramsey County will continue to refine its understanding of best practices for implementation of recycling and organics programs in public and private K-12 school district operations.
5. **[E]** Ramsey County will offer grants to public K-12 school districts as well as technical assistance and consultation to increase recycling and organics diversion, support food waste prevention and donation program participation, launch targeted reuse campaigns, and ensure consistent communication with Ramsey County, regional standards and other mutually determined programs.
6. **[N]** Ramsey County will participate with partners to engage the State Building Code Revisions Committee for code enforcement when retrofitting existing commercial and multi-unit dwelling



**Figure 21.** Ramsey County is working towards providing equal access to recycling opportunities and education at all of its public schools.

buildings and will encourage the Committee to establish minimum enclosure and signage requirements in the next update of the code.

7. **[E]** Ramsey County will work with Washington County to continue its non-residential recycling outreach, technical assistance and grant program through the R&E Board, called BizRecycling. BizRecycling will continue to:



**Figure 22.** The Saint Paul Saints received a BizRecycling grant to help integrate recycling and organics collection at their new facility, CHS Field.

- a. Use outreach and education to increase awareness about reduction, recycling and organics management, targeting non-residential generators;
- b. Provide business-to-business technical assistance and consultation through the use of one or more professional consultants to assist non-residential generators in making decisions that maximize recycling (including organics), reduce food waste and implement other best management practices for waste management;
- c. Provide a targeted grants and label program for non-residential recycling;
- d. Provide grant funding for private K-12 schools, colleges and universities in Ramsey County and public and private K-12 schools, colleges and universities in Washington County;
- e. Develop culturally relevant educational materials, website content, images, technical assistance support and programs to engage cultural, minority and/or traditionally underserved non-residential generators; and
- f. Research and implement, as appropriate, innovative opportunities in the East Metro non-residential generator community, including, but not limited to:
  - i. Investigating how best to modify BizRecycling resources, including grants and technical assistance for small businesses;
  - ii. Researching the establishment of a purchasing cooperative for compostable materials for business use as a method to reduce costs and ensure certified compostable products are used;
  - iii. Understanding the support and technical assistance needed at private, technical and community colleges in the East Metro to ensure campus-wide recycling, food waste prevention, and donation and/or reuse programs, so that they are established before 2025;
  - iv. Establishing a business recognition program to promote BizRecycling and recognize successful engagement by businesses that manage their waste higher on the hierarchy;
  - v. Investigating how BizRecycling could help implement and/or enhance recycling and organics diversion, including food waste prevention and food donation, in public entity facilities and large event venues by 2025;

- vi. Evaluating the effectiveness of the Business Organics Reward Grant to determine if there are more effective incentives to enhance organics recycling;
  - vii. Researching and developing strategies to increase employee engagement in workplace programs in order to increase recycling rates and institutionalize recycling programs.
8. **[E]** Ramsey County will work with Washington County to continue its non-residential recycling partnership engagement program through BizAware. BizAware will continue to support a targeted grants program to engage business organizations and to promote BizRecycling resources, including recycling education and business partnerships, such as with the Saint Paul Saints, and partner with organizations that represent cultural, ethnic and/or traditionally underserved businesses.
9. **[E]** Ramsey County will work with Washington County to continue to support food-to-people partnerships through the R&E Board's campaign by:
  - a. Following the EPA's food recovery hierarchy when engaging businesses in organic material disposal and prevention conversations;
  - b. Developing an engagement strategy for businesses to promote their involvement in food donation programs and their contribution to solve local hunger; and
  - c. Continuing to support Second Harvest Heartland's mission to recover fresh food from businesses to distribute to local food shelves and its agency partners.
10. **[E]** Ramsey and Washington Counties will explore ways to measure materials not diverted from landfills, such as waste composition studies at the R&E Center, and will share that information to assist in targeting materials for management higher on the hierarchy and for guiding campaigns and communications programming.
11. **[N]** Ramsey County will evaluate the need for workforce development to support reuse/deconstruction and other higher on the hierarchy careers with non-traditional career paths.
12. **[N]** Ramsey County will work with its municipalities and Washington County to identify how best to reach new businesses earlier in the construction permitting processes to raise awareness of needs for waste and recycling service space.
13. **[N]** Ramsey County will explore, through the R&E Board's business recycling program, expanding the organics recycling drop-off service (currently limited to residents) to very small businesses, including very small K-12 public, charter and private schools within the county, that do not generate the volume of organic material to justify separate collection. The exploration will include, but is not limited to, the identification of who could participate, how a business could participate, and how much material they could bring to a drop-off site.
14. **[N]** Ramsey County will work with Washington County to develop appropriate engagement strategies and explore resources and assistance to improve recycling for residents living in multi-

unit dwellings, property managers and building owners to ensure residents have access to recycling and improved management of other wastes, such as bulky waste, by December 31, 2019.

15. **[N]** Ramsey and Washington Counties, working with municipalities, will develop standards and explore a certification program to be a part of BizRecycling for multi-unit dwellings based on best management practices for recycling services.
16. **[N]** Ramsey and Washington Counties will continue to look for partnership opportunities and professional organizations as possible BizAware partners as a way to ensure all multi-unit dwellings are reached and served.

## C. Internal County Recycling and Organics

### Ramsey County Recycling and Organics Policies (County-specific)

1. Ramsey County will lead by example, ensuring that county-occupied property is designed for recycling and organics management, that employees and users of county property have the opportunity to recycle, and that the county recycling and organics management operations implement infrastructure and communications best management practices.

### Ramsey County Recycling and Organics Strategies (County-specific)

1. Ramsey County will ensure all county-occupied property is designed or remodeled to include sufficient space for the collection of recycling, organics (as appropriate) and waste collection. In addition, Ramsey County will ensure all county-occupied properties offer employees and visitors the opportunity to recycle and dispose of waste.
2. Ramsey County will ensure that all county-occupied spaces have recycling programs and that all recycling bins are labeled so all visitors and staff can easily participate in the program. The recycling program will include, at a minimum:
  - a. Paper;
  - b. Cardboard;
  - c. Glass bottles;
  - d. Metal cans;
  - e. Cartons;
  - f. Plastic beverage and food containers; and
  - g. Organics when present.
3. **[E]** Ramsey County will ensure its parks have adequate infrastructure for recycling, organics (as appropriate) and waste collection for everyday use and during special events.

## CHAPTER 7: PROCESSING

The Ramsey County Board of Commissioners approved the following processing policies and strategies on August 16, 2016 in preparation for the Ramsey and Washington Counties' Joint Waste Designation Plan. These policies and strategies have been modified only when necessary. Information regarding the Joint Waste Designation Plan and the 2016 Amendment to the previous Solid Waste Management Master Plan is included in Appendices VII and VIII, respectively.

### Ramsey County Processing Policies



1. Consistent with the State's waste management hierarchy, Ramsey County affirms processing of waste for the purpose of recovering energy, recyclables and other beneficial materials as the preferred MSW and non-MSW management method over landfilling for waste that is not reduced, reused or separately recycled or composted. This policy applies both to waste generated throughout the county and specifically to MSW generated by public entities, including contracts for organized collection of solid waste. Pursuant to State law, public entities in Ramsey County will ensure MSW that they generate or contract for is processed rather than land disposed.
2. Ramsey County supports the processing of waste in a manner that encourages waste reduction, reuse or recycling, including the separate management of organics.
3. Through the R&E Board, Ramsey County shall jointly own with Washington County the R&E Center in Newport, MN.
4. In making decisions under public ownership of the R&E Center, Ramsey County will apply the following guiding principles:
  - a. Plan for a 20-30 year horizon;
  - b. Build on the current system and allow changes in processing to emerge over time;
  - c. Ensure flexibility;
  - d. Manage risks; and
  - e. Pivot the view from "waste" to "resources" that add value to the local economy and environment.
5. Ramsey County will implement a waste designation ordinance ensuring all acceptable waste generated in Ramsey County is delivered to the R&E Center.



**Figure 23.** The Recycling & Energy Center in Newport, Minnesota shreds trash collected from homes and businesses to create fuel for energy as well as extracts metals for recycling.

### Ramsey County Processing Strategies

1. Ramsey and Washington Counties will coordinate resource recovery activities through the R&E Board.
2. Ramsey and Washington Counties will continue to work cooperatively on specific waste management issues through a joint powers agreement to enhance the efficiency of waste management services and assist in achieving regional processing goals in the East Metro.
3. Ramsey County will inform and work with municipalities, waste generators and haulers regarding methods to reduce delivery of unacceptable or non-processible materials to the R&E Center.
4. Ramsey County will work cooperatively with the Minnesota Pollution Control Agency (MPCA) as the State enforces provisions found in Minnesota Statutes, section 473.848, requiring waste to be processed before land disposal. Ramsey County adopts the MPCA criterion for determining when MSW is unprocessable. That criterion, as described in Appendix D of the Policy Plan, states that waste will be certified as unprocessable only when there is no reasonably available capacity in the Twin Cities Metro Area system that could be used to process solid waste generated in the county.
5. Ramsey County will continue to identify, evaluate and explore new processing opportunities, including technologies to enhance recycling.
6. Ramsey County will work with public entities (as defined by Minnesota Statutes, section 115A.471) and the MPCA to ensure MSW is delivered to the R&E Center and to evaluate the amount of MSW generated by public entities and the volume delivered for processing.
7. Ramsey County shall prepare a Joint Waste Designation Plan with Washington County and shall follow the process set forth in State law to plan for and implement designation of solid waste.

## A. Emerging Technologies

New technology plays a critical role in our future. The R&E Board has been exploring new technologies to complement its processing operations at the R&E Center. These new technologies extract more value out of trash even as we work to increase recycling and reduce the amount of trash thrown away. These new technologies can help produce energy and fuels, make compost or harvest materials that then can be used in the creation of consumer products. New technologies can help reduce the amount of carbon and methane gas produced, thereby reducing harmful contributions to climate change.

### Ramsey County and Washington County Emerging Technologies Policies

1. Ramsey and Washington Counties will continue work as identified in its Scope for Resource Management, an integrated vision of recycling, organics and processing. The Scope strongly supports the waste hierarchy and the food waste hierarchy in managing waste higher on the hierarchy. As described in Ramsey County Amendment Number 1 to the Solid Waste Master Plan (approved by the MPCA in August, 2016), the Scope for Resource Management includes:
  - a. Increased source separation efforts for recycling and organics from residential and non-residential waste generators;
  - b. The use of mixed waste processing to recover some recyclables and organics that remain in mixed municipal solid waste;
  - c. Organic waste being used as a feedstock for anaerobic digestion; and
  - d. A transition from using refuse derived fuel (RDF) for electrical generation to using RDF for gasification to produce transportation fuels and other products.
2. Ramsey and Washington Counties will continue evaluation of various mixed waste processing technology solutions as well as procure and install them at the R&E Center if they deem the projects environmentally and financially feasible.
3. Ramsey and Washington Counties will share resources, learnings and research on emerging and alternative technologies with the MPCA and other interested parties to help raise understanding, address concerns and prevent regulatory roadblocks.
4. Ramsey and Washington Counties support the use of anaerobic digestion (AD) for the processing of organic waste separated at the source and through mixed waste processing and for the MPCA to quickly develop clear regulatory pathways for its implementation. AD implementation in the Twin Cities region will be critical for ensuring sufficient capacity exists for organics processing.
5. Ramsey County will evaluate the feasibility of creating small scale decentralized districts focused on community or locally based composting and/or anaerobic digestion with the MPCA, Washington County and other interested entities.

## CHAPTER 8: REGULATION

Ramsey County ensures protection of public health and the environment through a well-established solid and hazardous waste compliance program. The county ensures compliance with applicable laws, rules and ordinances related to the management of solid and hazardous waste as required by Minnesota Statutes, section 473.811. Ramsey County implements its solid and hazardous waste compliance program focused on risk.

### Ramsey County Regulation Policies

1. Ramsey County will ensure compliance with applicable laws, rules and ordinances related to the management of solid and hazardous waste as required by Minnesota Statutes, section 473.811.
2. Ramsey County will hold solid waste haulers and facilities regulated by the county accountable for managing waste according to this plan.
3. Ramsey County will review and revise its Solid and Hazardous Waste Ordinances as needed to ensure an appropriate level of oversight.

### Ramsey County Regulation Strategies



1. Ramsey County will implement its solid and hazardous waste compliance program based on risk. Fees charged for regulated activities will be based on risk factors previously used by the county.
2. Ramsey County will require, as a condition of licensure, all waste haulers and transfer stations operating in the county to remove and properly manage any hazardous materials or wastes.
3. Ramsey County and, where applicable, with Washington County, will provide training, education and information to regulated entities about:
  - a. Hazardous waste collection and disposal options;
  - b. Information and technical assistance available to waste generators and facilities regarding the proper management of hazardous wastes;
  - c. Pollution prevention through waste and toxicity reduction and the use of alternative products; and
  - d. Opportunities to reduce air, land and water pollution by changing business practices related to hazardous materials or products.
4. **[N]** Ramsey County will work with Washington County to explore strategies to reduce air and water pollutant emissions, such as volatile organic compounds (VOCs), with the regulated business community as part of its overall business recycling and pollution prevention portfolio of services.
5. Ramsey County will continue to participate in the Regional Hauler Licensing program with other metropolitan counties.

- Ramsey County will continue to regulate the recovery of hazardous materials and wastes from structures slated for demolition through its pre-demolition inspection program.



**Figure 24.** Ramsey County's pre-demolition inspection program ensures the proper recycling or disposal of appliances, asbestos, electronics and any other hazardous waste.

## CHAPTER 9: LAND DISPOSAL

Policies and strategies for the land disposal of waste are well-established in Ramsey County. The county is committed to managing waste consistent with the waste management hierarchy and affirms waste reduction, recycling and processing of waste as preferred methods over landfilling.

### Ramsey County Land Disposal Policies

1. Ramsey County will use responsible waste management principles and careful risk analysis when arranging for land disposal of waste from its operations. Public entities in Ramsey County are expected to do the same. County contracts for managing mixed municipal solid waste shall require processing. County contracts for managing construction and demolition waste shall maximize recycling and processing when feasible.
2. Old dumps and landfills pose a variety of potential public health, safety and property risks. To mitigate these risks, Ramsey County will invest resources to inventory, monitor and, when necessary, take action.

### Ramsey County Land Disposal Strategies

1. Ramsey County will work with other entities to promote proper, convenient and financially accessible management of bulky materials in order to reduce illegal dumping and burning and to improve neighborhoods by reducing nuisance situations. With regard to bulky waste, Ramsey County:
  - a. Supports a product stewardship approach in which some bulky items are best managed through shared responsibility by manufacturers, distributors, retailers and consumers;
  - b. **[N]** Will continue processing bulky waste items that can be processed by equipment at the R&E Center;
  - c. Expects municipalities that provide clean-up events or separate waste collection programs for residents ensure bulky waste items are separated and managed appropriately and in accordance with the waste management hierarchy;
  - d. Will work with municipalities regarding optimum methods for collection and proper disposal of major appliances, electronics, tires and other bulky waste items;
  - e. **[N]** Partnering with Washington County, will work with the mattress industry, including manufacturers, wholesalers and retailers, as well as non-profit entities to foster implementation of a mattress recycling program; and
  - f. **[N]** Will work with the MPCA, generators, retailers and recyclers of carpet to foster carpet recycling programs, while continuing to support a product stewardship approach for carpet.



**Figure 25.** Bulky waste is not typically collected as part of regular trash and recycling programs. Bulky waste includes furniture, carpeting and mattresses. It excludes major appliances and electronic waste.

2. Ramsey County will maintain its inventory of old dumps and periodically review the status of those sites.
3. Ramsey County will work with other agencies if environmental or public health issues related to old dumps arise. The county will take appropriate action to evaluate or mitigate health and environmental risks.
4. As Ramsey County develops or redevelops land, it will maximize recovery of materials that result from that work through reuse, recycling or energy recovery and will minimize land disposal.

## CHAPTER 10: CONSTRUCTION, DEMOLITION AND INDUSTRIAL WASTE MANAGEMENT

Ramsey County has well-established policies and strategies for solid waste management of materials not classified as mixed municipal solid waste (non-MSW). The policies and strategies below restate Ramsey County’s commitment to ensuring the responsible management of these materials, as well as outline new strategies to create a more robust system.

### Ramsey County Construction, Demolition and Industrial Waste Management Policies

1. Ramsey County will give special attention to construction and demolition waste generated within the county. As the county is fully developed, most new development is associated with demolition of old structures.
2. Ramsey County supports the management of construction and demolition waste according to the State hierarchy of waste management. The county will work with others to develop strategies, regulations and programs that promote the management of non-MSW higher on the hierarchy and reduce health, safety and property risks associated with construction and demolition waste.
3. Ramsey County supports landfill diversion as the preferred measurement method for monitoring the management of materials from construction, demolition and industrial waste.

### Ramsey County Construction, Demolition and Industrial Waste Management Strategies

1. Ramsey County will continue to regulate demolition activities, including the use of its Pre-Demolition Checklist, through a pre-demolition inspection program, ensuring hazardous building materials and wastes, as well as contents of a hazardous character, including asbestos, are properly identified, removed and managed from structures slated for renovation or demolition. Ramsey County will continue to partner with municipalities in the implementation of this program.
2. Ramsey County will continue to provide technical assistance and consultation on topics, including collection, contracting, deconstruction, management and regulation to municipalities and other entities to encourage appropriate management of demolition, construction and deconstruction materials.
3. Ramsey County will continue the Reuse, Recycle and Renovate for Reinvestment (“4R”) Program on County Tax Forfeited structures, promoting deconstruction, building material salvage and recycling in renovation and demolition projects.
4. **[E]** Ramsey County will provide technical assistance and consultation supporting public entity procurement practices that encourage incorporation of deconstruction, building material salvage and recycling practices in government-led contracts. The county will explore the inclusion of a 75% diversion goal in contracts for projects, such that projects achieve a minimum 75% diversion rate based on what can reasonably be recovered.



**Figure 26.** Deconstruction is the process of dismantling buildings in a manner that allows for materials to be reused.

5. Ramsey County will specify the use of tear-off shingle scrap in paving projects and encourage other public entities to do the same and will include use of tear-off shingle scrap as an alternative bid opportunity for paving projects.
6. **[E]** Ramsey County will work with the MPCA to expand markets for materials associated with construction, demolition, industrial and bulky waste.
7. **[E]** Ramsey County will encourage municipalities to consider the adoption of deconstruction ordinances with the goal of reusing as many building materials as possible while also taking into consideration environmental risks.
8. **[N]** Ramsey County will explore, along with community partners, the development of workshops for the purpose of:
  - a. Education and outreach to municipal officials related to deconstruction and recovery of materials; and
  - b. Architects, designers and general contractors to inform about available reuse markets for building materials.
9. **[N]** Ramsey County, along with community partners, will explore and provide funding for opportunities related to workforce development and training in the deconstruction of buildings in order to increase skilled workers in the county while minimizing demolition waste and maximizing material reuse, recycling and toxicity reduction.
10. **[N]** Ramsey County will take a comprehensive, sustainable approach to building design, construction and remodeling (including materials selection), as well as daily operating practices, taking into consideration energy efficiency, conservation and environmental impacts.
11. Ramsey County will continue to promote healthy homes through the reduction of health and environmental hazards associated with asbestos, lead, mercury, radon, pesticides and other contaminants, as well as the proper management and abatement of public health nuisances. In addition, Ramsey County will continue to offer a window replacement program that aims to reduce lead poisoning in children and also provides more energy-efficient housing.
12. **[E]** Household hazardous waste (HHW) recovered during the demolition of residential structures will remain classified as residential and be managed through the county's HHW collection program.
13. **[N]** As part of the R&E Center's waste composition studies, Ramsey County along with Washington County will measure the amount of construction, demolition, industrial and bulky waste and possible other non-MSW materials.

*For overarching policies and strategies related to reuse, refer to the Waste Reduction, Reuse and Conservation chapter.*

## CHAPTER 11: PERFORMANCE MEASUREMENT

Ramsey County is committed to identifying performance measures to monitor and evaluate policies and strategies identified in the Master Plan. These metrics apply to all aspects of the solid waste management system described throughout this plan. The performance measures are important to ensure ongoing quality improvement of programs and to evaluate Ramsey County’s progress in meeting Master Plan goals and objectives.

### Ramsey County Performance Measurement Policies

1. Ramsey County and Washington County support moving away from measuring performance of the solid waste system using tonnage-based metrics to using landfill diversion measures (also known as waste hierarchy measures) as an indicator of progress in meeting statutory goals. Ramsey County will adopt such measures as the primary means of measuring system progress.



2. Ramsey County and Washington County will jointly explore and evaluate alternative metrics to measure broader solid waste management policy goals, including, but not limited to, environmental justice, resource value and toxicity reduction. The counties support the use of an agreed upon performance measurement to make continuous and ongoing improvements in existing systems and programs.

3. Ramsey County will continually improve its waste system data integrity, ensure transparency of the data, and share appropriate data through the county’s open and accessible public data portal.

4. Ramsey County will provide required data to the State of Minnesota for the purpose of measuring progress toward achieving the objectives set forth in the MPCA’s Policy Plan. Ramsey County will depend on reliable data collected by the MPCA for portions of the reporting and will encourage recyclers and haulers to report to the MPCA. Should reliable data not be available from the MPCA, the county will use calculated tonnages in reporting as appropriate.



Figure 27. Ramsey County has made it a Strategic Priority to provide data online in a meaningful and accessible format. The initiative is currently undergoing beta testing.

5. Ramsey County supports the collection of relevant data and supports more efficient methods to collect solid waste data. The county will work with the MPCA and other entities to create data gathering and evaluation methods that are efficient, consistent and accurate.
6. Ramsey and Washington Counties, through the R&E Board, will conduct waste composition studies at the R&E Center to inform program improvements.
7. As required by the MPCA’s Policy Plan, Ramsey County will use the system objectives as targets as it carries out the policies and strategies in this Master Plan.

Management Method	Metropolitan Area MSW Management Objectives				
	2015	2020	2025	2030	2036
WASTE REDUCTION <sup>1</sup>	-	1.5%	3%	4%	5%
RECYCLING <sup>1</sup>	45-48%	51%	54%	60%	60%
ORGANICS RECOVERY <sup>1</sup>	3-6%	12%	14%	15%	15%
RESOURCE RECOVERY <sup>2</sup>	32-34%	35%	31%	24%	24%
MAXIMUM LANDFILL <sup>3</sup>	20%	2%	1%	1%	1%

**Table 2.** The MPCA sets objectives to reduce land disposal to 1% by 2025.

1. The *minimum* amount of MSW that must be managed by this method.
2. The amount of resource recovery expected to occur after maximizing reduction, recycling and organics recovery.
3. The *maximum* amount of land disposal allowed.

### Ramsey County Performance Measurement Strategies

1. **[N]** Ramsey County will work jointly with Washington County and other willing metropolitan counties to ensure consistent data collection and reporting.
2. Ramsey County will continue to use, and will expect its municipalities to enter data into, a software system identified by the county to record recycling program, contract and financial data.
3. Ramsey County will continue to use a recycling performance work plan for municipalities to measure progress toward achieving recycling objectives.
4. Ramsey County will prepare periodic progress updates on waste management activities within the county and provide it to the public.
5. Ramsey County will continue to work with municipalities and the waste and recycling industry to identify better performance measures beyond tonnage-based metrics to indicate recycling and organics management performance.
6. **[N]** Ramsey and Washington Counties will align elements of their solid waste data collection programs and initially use a common vendor, Emerge Knowledge, and their software, Re-TRAC Connect. An umbrella contract through the R&E Board will provide access to data collection and analysis tools to both counties.

*Additional performance measurement strategies are identified by the Master Plan as part of specific programs and/or policies.*

## CHAPTER 12: COST AND FINANCE

Ramsey County cost and finance policies and strategies are well-established. The policies and strategies below restate Ramsey County’s commitment to ensure funding of its solid waste management programs and services.

### Ramsey County Cost and Finance Policies

1. Ramsey County will continue to use the County Environmental Charge (CEC) as a funding tool that also serves as an incentive to manage waste higher on the waste management hierarchy. The CEC applies to mixed municipal solid waste (MSW) and the county has the authority, by ordinance, to apply it to non-MSW waste.
2. Amendments to the Solid Waste Ordinance that change the CEC rates will include a notice period of 90 days from the time the ordinance is approved by the County Board for generators and haulers. This will give them the opportunity to adjust billing systems before the rate change becomes effective.
3. The policy related to the use of solid waste fund balance is as follows:
  - a. Pursuant to State law, solid waste fund balance may be used for purposes only described in the Master Plan.
  - b. Maintain the commitment of \$1,000,000 of fund balance for liability associated with waste management activities.
  - c. Maintain the commitment of \$500,000 of fund balance for a recyclable market support fund.
  - d. Establish the following priorities for use of solid waste fund balance by Ramsey County, in this order:
    - i. Provide an Operating Reserve Fund for the Ramsey/Washington Recycling & Energy Center (R&E Center);
    - ii. One-time waste management related expenses, such as purchase or development of fixed assets or capital equipment, including purchases for the R&E Center;
    - iii. Maintenance of waste-related capital equipment/sites;
    - iv. Financial incentives, such as grant programs, for the purpose of achieving solid waste goals; and
    - v. Operating expenses that present significant opportunities for meeting environmental goals.
  - e. Saint Paul – Ramsey County Public Health, in consultation with the County Manager and the Finance Department, will bring requests forward for new funding commitments

**Figure 28.** The CEC is a percentage of the cost of trash collection and disposal services. Ramsey County’s CEC rate is 28% for residential customers and 53% for non-residential customers. It does not apply to construction and demolition waste, recyclables, medical and infectious waste, organic materials collected for composting or certain types of industrial waste.



through the Capital Improvement Program process and/or through the Requests for County Board Action process.

4. Ramsey County will consider the opportunity to redirect the CEC used for resource recovery purposes to the county's efforts to shift resources and effort to higher levels of the waste management hierarchy, including waste and toxicity reduction, recycling and reuse, organic waste management, toxicity reduction and other issues, such as illegal dumping and innovative processing opportunities.
5. Ramsey County supports consistent, clear billing by the waste industry for residential and non-residential customers.
6. Ramsey County supports increased SCORE funding for recycling programs and encourages the State to fully use the Solid Waste Management Tax dollars for SCORE and related recycling purposes.

#### Ramsey County Cost and Finance Strategies

1. Ramsey County requires each municipality to develop a long-term financing mechanism to fund its residential recycling and organics programs.
2. Ramsey County allows municipalities to use the county's statutory service charge authority through joint powers agreements with the county in order to collect a municipal recycling fee or solid waste fee for the municipality that includes services for the management of recyclables and organics or costs associated with proper management of mixed municipal solid waste.
3. **[E]** Ramsey County will continue a grants program to provide funds to schools and other local public entities (excluding the University of Minnesota, Metropolitan Council and the State of Minnesota) for the purpose of starting and/or improving recycling and organics management programs.
4. Ramsey County will fund its internal waste management operations using the CEC, employing best management practices and demonstrating leadership in waste management.
5. **[E]** Ramsey County will pass through its SCORE funding from the State to municipalities in a manner that supports and encourages the growth of waste reduction, recycling and organics management results.
6. Ramsey County will use its Local Recycling Development Grant Funds to support its yard waste and organics management programs.

## CHAPTER 13: EMERGENCY DEBRIS MANAGEMENT

Proper management of waste that results from emergency situations, such as natural or human-caused disasters, is important to protect health and the environment. These policies and strategies serve as an addendum to the Environmental Health Annex to the Public Health All Hazards Plan, as well as other Ramsey County emergency management plans. The following policies and strategies are intended to interpret and complement those plans.

### Ramsey County Emergency Debris Management Policies

1. Ramsey County will ensure that the clearance, removal and proper management of debris resulting from natural and human-caused disasters, such as trees, sand, gravel, building components, wreckage, vehicles, hazardous waste and other personal property is carried out to reduce risks to public health, public safety and the environment.



**Figure 29.** The management of emergency debris, such as trees, building components and hazardous waste, is important when building capacity to respond to natural or human-caused disasters.

2. During an emergency, reduction of risks to public health and safety are a priority. To that end, waste of a toxic or hazardous character should be managed separately and safely. Once that is ensured, Ramsey County encourages as much recycling of emergency debris as is technologically and economically feasible in any given response scenario. This is consistent with requirements of the Federal Emergency Management Agency (FEMA) and Minnesota Homeland Security and Emergency Management (HSEM).
3. Ramsey County departments will work collaboratively and proactively to plan and prepare for emergency debris management that eliminates immediate threats to public health and safety, removes obstructions to emergency response activities, disposes of the debris in the most environmentally responsible manner as possible, and unifies the efforts of city, county, state and federal organizations for a comprehensive and effective response.
4. As part of its contract for household hazardous waste (HHW) collection services, Ramsey County will include a provision allowing temporary collection of HHW generated from emergencies, such as flooding and other storm damage.

### Ramsey County Emergency Debris Management Strategies

1. In an emergency, Ramsey County may temporarily waive restrictions prohibiting Construction & Demolition haulers from transporting mixed municipal solid waste (MSW) in an effort to enhance regional capacity to move materials as quickly as possible.
2. **[E]** Ramsey County will assist municipalities in planning for management of emergency debris.

3. Ramsey County will provide, to the extent possible, technical assistance and other resources regarding hazardous waste and yard waste management to municipalities in support of emergency debris management.
4. **[E]** Ramsey County will provide resources to convene municipalities to create coordinated plans for the clearance, removal and proper management of debris caused by a major debris-generating event, including the management of special wastes, such as hazardous waste, household hazardous waste, major appliances, electronic waste, infectious wastes and other problem materials.
5. **[E]** In the event municipalities are managing recovery of material through contracted vendors, the county may temporarily waive restrictions prohibiting commercial service vehicles from delivering tree and shrub waste to county yard waste sites during and following an emergency.
6. Ramsey County will coordinate or perform environmental assessments as needed to establish, identify or analyze risk and to make debris management decisions.
7. Ramsey County may utilize its existing contract services for removal of tree and shrub waste from county yard waste sites at other locations in the event that an emergency warrants creation of additional marshalling yards for the debris.
8. Ramsey County will prepare and update an environmental health annex to its all-hazard response and recovery plan.
9. Ramsey County will work with other agencies and entities to identify and monitor current and emerging diseases and insect threats to the urban forest, including Emerald Ash Borer, which may affect the volume of yard waste managed at county yard waste sites, and will respond as appropriate.
10. **[N]** Ramsey County will continue to prioritize its public health vulnerability assessment related to a changing climate, share the results, and advocate for strategies to address identified vulnerabilities.

## APPENDIX I: SOLID WASTE MANAGEMENT SYSTEM DESCRIPTION

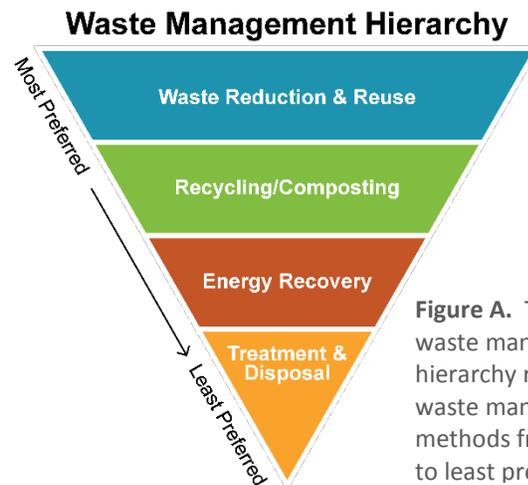
This section describes the existing system of solid waste generation, collection, processing and disposal within the county. It begins with an overview of the State’s approach to waste management and then provides a general geographical and population description as a framework before detailing the specific programs and activities of the county’s solid waste management system.

### Overview

Since 1980, Minnesota has taken a systems approach to waste management, built on the public health model of prevention. This approach intends to prevent pollution, conserve resources, protect health and the environment and prevent passing costs onto future generations. Minnesota law includes a hierarchy of preferred methods to manage waste, emphasizing prevention of environmental problems and protection of public health.

The Waste Management Act of 1980, as amended (Minnesota Statutes, section 115A), identifies in order of preference, the State priorities for the following waste management practices (Minnesota Statutes, section 115A.02(b)):

1. Waste reduction and reuse;
2. Waste recycling;
3. Composting of source-separated compostable materials, including but not limited to yard waste and food waste;
4. Resource recovery through mixed municipal solid waste (MSW) composting or incineration;
5. Land disposal which produces no measurable methane gas or which involves the retrieval of methane gas as a fuel for the production of energy to be used onsite or for sale; and
6. Land disposal which produces measurable methane and which does not involve the retrieval of methane gas as a fuel for the production of energy to be used onsite or for sale.



**Figure A.** The solid waste management hierarchy ranks waste management methods from most to least preferred.

The Minnesota Pollution Control Agency (MPCA) has primary responsibility for waste management in Minnesota. Counties are the units of government charged with planning for waste management and being accountable for a number of responsibilities under the guidance of the MPCA. Metropolitan counties are held to a different standard than non-metropolitan counties and are required to develop plans that implement the MPCA’s Metropolitan Solid Waste Management Policy Plan.

Ramsey County carries out waste management responsibilities according to the following principles:

- **Developing sound policy** at the State, regional and local level by leading to develop legislation on product stewardship and system funding, developing solid waste management master plans that guide the system, and working with cities and towns;
- **Partnering** with cities and towns, school districts, and private and non-profit entities, recognizing the system is operated by a wide variety of entities;

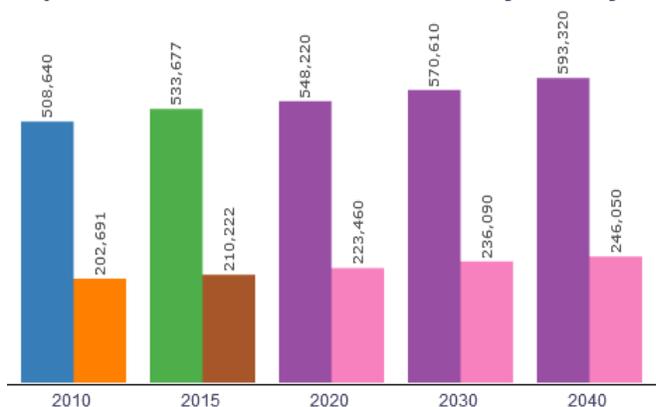
- **Financing the system** using the County Environmental Charge (CEC), designed to reflect the volume of waste generated by users of the system;
- **Providing grants** to cities, school districts, businesses and institutions;
- **Regulation:** Adopting ordinances to establish standards, licensing of hazardous waste generators, waste haulers, solid waste facilities; ensuring compliance through training and consultation; and taking enforcement action when necessary;
- **Direct services:** Collecting and managing certain materials, such as yard waste, brush and organics; collecting household hazardous waste (HHW) at the county’s facilities; providing very small quantity generator (VSQG) hazardous waste collection; and pharmaceutical collections in association with law enforcement;
- **Contracting for services** with other counties for reciprocal use of HHW facilities, providers of services for recycling, hazardous waste management and organics management, and with haulers and transfer stations for delivery of waste;
- **Providing education and outreach** broadly and deeply into the county, using a wide variety of methods and tools, with emphasis on reaching all people in the county; and
- **Consulting with and providing technical assistance** to municipalities, school districts, businesses, regulated entities and institutions, through staff and consultants to emphasize pollution prevention, reduction, recycling and wise waste management.

This comprehensive approach, taken over three decades, has resulted in an effective and accountable system in the county.

### General Description of the County

Ramsey County is the smallest county geographically and the most densely populated in Minnesota. The population has grown from 508,640 people in 2010 to 533,677 people in 2015. The number of households has increased from 202,691 in 2010 to 210,222 in 2015. According to Metropolitan Council population forecasts, Ramsey County is the slowest growing of the metropolitan counties. While pockets of developable land remain, the vast majority of Ramsey County is fully developed. Redevelopment continues to occur throughout the county.

### Population and Households in Ramsey County

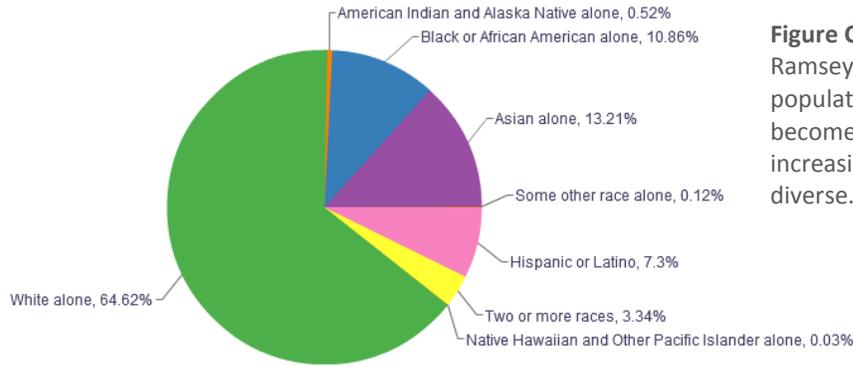


**Figure B.** Ramsey County is the slowest growing of the metropolitan counties.

Sources: U.S. Census Bureau Decennial Census, Metropolitan Council Annual Estimates and Metropolitan Council Forecasts.

Ramsey County’s population has become increasingly diverse in terms of race, ethnicity, culture, and language. Graph 2 shows the population breakdown by race and ethnicity from the 2011-2015 American Community Survey. Notably, people of color have increased from less than 25% in 2000 to over 35% in 2015.

**Population by Race and Ethnicity in Ramsey County**



**Figure C.** Ramsey County’s population has become increasingly diverse.

Sources: U.S. Census Bureau Decennial Census or American Community Survey.

Ramsey County includes all or part of 19 communities, the largest of which is the city of Saint Paul. The 2015 Census population for the Ramsey County portion of all communities is shown below. (Note: The Ramsey County Solid Waste Management Master Plan focuses on 17 communities. The cities of Blaine and Spring Lake Park, with almost all of their populations in Anoka County, are addressed in Anoka County’s plan.)

Municipality	Population
Arden Hills	9,847
Blaine (part)	0
Falcon Heights	5,384
Gem Lake	417
Lauderdale	2,503
Little Canada	9,941
Maplewood	39,742
Mounds View	13,007
New Brighton	22,170
North Oaks	5,015
North St. Paul	12,104
Roseville	35,244
St. Anthony (part)	3,744
Saint Paul	300,353
Shoreview	26,092
Spring Lake Park (part)	187
Vadnais Heights	12,490
White Bear Township	11,013
White Bear Lake (part)	24,424
<b>Ramsey County Total</b>	<b>533,677</b>

**Table I.** Ramsey County includes all or part of 19 communities, the largest of which is the city of Saint Paul. Source: Metropolitan Council, 2015.

## Waste Generation

### Current Waste Generation

Ramsey County managed 762,506 tons of mixed municipal solid waste (MSW) in 2016, as reported to the MPCA. Of the total:

- 54% was recovered for recycling. The number includes traditional recyclables and organics, including yard waste.
- 33% was delivered to the Ramsey/Washington Recycling & Energy Center (R&E Center) waste processing facility. The majority of the MSW delivered was converted to refuse derived fuel (RDF) after metals were removed for recycling.
- 13% was delivered directly to landfills in Minnesota or Wisconsin by the haulers and landfilled as unprocessed waste.

### Historic Waste Generation

Since the resource recovery facility in Newport (now known as the Ramsey/Washington Recycling & Energy Center, or R&E Center) began operations in 1988, an integrated solid waste and recycling system has developed in the East Metro area, guided by county solid waste master plans, policies and programs, and with a significant environmental impact, as evidenced by:

- A recycling rate increasing from a small amount to over 50% in 2015;
- Recovery of organic waste increasing from zero to almost 8% in 2015;
- The percentage of trash produced that is not recycled and is delivered to the R&E Center increasing from zero to nearly 40%; and
- A decrease in the amount of waste sent directly to landfills from nearly 100% to less than 15%.



**Figure D.** Over time, an integrated solid waste and recycling system has developed in the East Metro area.

### Waste Generation Projections

On behalf of Ramsey and Washington Counties, the joint powers board named the Ramsey/Washington Recycling & Energy Board (R&E Board) has conducted extensive analyses of waste generation and recycling. Over the past several years the R&E Board examined the generation rates of MSW in the East Metro and identified a high growth rate of 3.1% per year (this is the average rate for MSW generation increase from 2010 through 2015 – post Great Recession) and a low growth rate of 0.3% per year (this is the average rate for MSW generation increase from 2005 through 2015 – which includes the negative-growth years of the Great Recession). Projections for MSW generation were prepared for those growth rates, as well as an average of the two rates, 1.7% per year. These projections were corroborated by the MPCA, and approved in the *Ramsey and Washington County Joint Waste Designation Plan*.

### Waste Reduction and Reuse

Ramsey County engages in a variety of outreach activities and programs to encourage and promote reuse. These activities include Fix-It Clinics, which launched in July 2015. The clinics are held monthly in locations rotating throughout the county. At the clinics, residents bring in small household appliances, clothing and electronics and receive free guided assistance from volunteers with repair skills. The clinics are very popular, with 10 to 20 volunteers and 20 to 40 residents attending each clinic. Since its inception, over 1010 items totaling 6,073 pounds have been fixed.



**Figure E.** Monthly Fix-it Clinics promote reuse and repair.

Residents have other opportunities for reuse as well, including the Product Reuse Center, where residents can find free products such as paints, automotive fluids and pesticides. The Reuse Center is operated year-round by Bay West, Ramsey County's household hazardous waste vendor. In 2016, 200,267 pounds worth of products were taken and reused by 9,013 residents. In addition, the county implemented a paint product stewardship program in 2015, where post-consumer paint can be collected for reuse, recycling, energy recovery or safe disposal.

Ramsey County promotes waste reduction to both residents and businesses. Residential reuse information is incorporated into the Ramsey Recycles campaign, as well as in the web based A to Z Recycling & Disposal Guide. Business material exchange information is housed in the joint Ramsey/Washington County website, BizRecycling.com, and shared with businesses as part of its technical assistance program.

Other reuse activities include:

- Providing a listing of building salvage and material reuse companies to demolition contractors and other interested parties;
- Subsidizing backyard composting bins sold through the Recycling Association of Minnesota; and
- Promoting the Minnesota Technical Assistance Program (MnTAP) materials exchange program at trainings with businesses and in the HazWaste Quarterly newsletter.

## Waste Collection

In 2016, metropolitan counties licensed 186 waste haulers to collect and transport MSW. Of these, 20 waste hauling firms are based in Ramsey County. Ramsey County issued operating licenses to an additional 70 waste haulers based in other counties.

Ramsey and Washington Counties track waste generated in both counties and delivered to the R&E Center. For waste generated in the two counties during 2016 and delivered to the R&E Center, the largest three waste hauling firms collected and delivered 46% and the ten largest haulers collected and delivered 80%.

Municipalities in Ramsey County require people who generate waste – both at home and at work – to contract for regular waste collection service. Residents in Little Canada, Maplewood, North St. Paul, St. Anthony, Vadnais Heights, White Bear Lake and White Bear Township are served by haulers through organized collection. The city of Saint Paul is in the process of organizing collection as this plan is being prepared. Organized collection means the city or township arranges for waste collection for all of its residents, or at least all single-family residential properties, by contracting with one or more waste haulers. The residents in the remaining municipalities, and all businesses, industries and institutions are served by open collection, also known as “subscription service.” This type of collection means waste generators contract directly with a waste hauler of their choice.

Through the end of 2017, waste haulers will deliver MSW directly to the R&E Center, a transfer station or a landfill. Waste generators can also haul their own waste to transfer stations in the county, the R&E Center, or to transfer stations or landfills in other counties. Beginning in 2018, the county will implement waste designation, which will require all MSW generated in the county be delivered to the R&E Center or a transfer station under contract.

## Facilities and Hauler Rates

There are several solid waste transfer stations open to the public for disposal of solid waste in Ramsey County: J&J Recycling, Inc., Keith Krupenny Transfer Station, Twin City Refuse & Recycling Transfer Station, Inc., Veit transfer station, and Advanced Vasko Solid Waste, Inc. transfer station. Information on the rates and charges for these facilities is included in annual license applications submitted to Saint Paul - Ramsey County Public Health, demonstrating they adhere to statutory volume-based fee requirements. There are two transfer stations in Ramsey County not open to the public (Berwald Roofing and Ray Anderson & Sons). As they are not open to the public, there is no schedule of rates and charges.

Ramsey County does not collect data on rates and charges for licensed waste haulers that serve residential and commercial waste generators. Several municipalities gather this information for residents within their community and the MPCA has commissioned several studies that included collecting rate data. Seven municipalities in Ramsey County contract for both residential refuse and recycling collection: Little Canada, Maplewood, North St. Paul, St. Anthony, Vadnais Heights, White Bear Lake and White Bear Township. Saint Paul contracts for recycling collection and is in the process of contracting for residential waste collection.

Table II reflects prices residents paid in 2017 for curbside collection of refuse and recycling and any other base services that all residents served under the collection contract were required to pay for. (Prices for optional services are not included.) Rates shown include all applicable services when residents choose 30-38 gallon, 60-68 gallon, or 90-96 gallon refuse collection service levels (other rates, such as for unlimited service or a senior rate, are not included). The State Waste Management Tax (9.75%) and Ramsey County Environmental Charge (28% for residential) are included. Note that rates are shown per month, but actual billing may be on a different basis.

**Table II:** 2017 Rates by Service Level for Municipalities in Ramsey County that Contract for Residential Refuse and Recycling Collection

	Total Monthly Price for Base Services			
	30-38 Gallon	60-68 Gallon	90-96 Gallon	
Little Canada	\$18.14	\$20.82	\$23.96	3 Bulky items, no yard waste
Maplewood	\$13.58	\$14.87	\$16.33	No bulky or yard waste included
North St. Paul	\$24.43	\$26.21	\$29.55	Bulky items, no yard waste
St. Anthony	\$21.45	\$24.19	\$27.42	No bulky or yard waste included
Vadnais Heights	\$21.19	\$24.24	\$28.55	1 free bulky item, no yard waste
White Bear Lake	\$12.63	\$18.55	\$25.25	No bulky or yard waste included
White Bear Township	\$21.87	\$24.55	\$31.81	Bulky items and yard waste

### Recycling and Organics Management

Recycling is an essential component of waste management in Ramsey County. The county took the lead in developing curbside recycling programs and recycling processing/marketing in the early 1990’s. The county expects residents, businesses and institutions to incorporate recycling into the handling of discarded materials and recognizes it is the responsibility of everyone in Ramsey County to help achieve State recycling goals. The county works with municipalities, school districts and other public entities to ensure recycling opportunities are maximized.

The County Environmental Charge (CEC) was developed, in part, as an incentive to increase recycling, especially for non-residential waste generators (businesses, schools, colleges). Both traditional recyclables and organic waste are exempt from the CEC when recycled. With the development of the CEC in 2003, Ramsey County, through the Ramsey/Washington Recycling & Energy Board, greatly expanded work on food waste and organics management to provide consulting, outreach services and information to entities that produce a lot of organics.

Recycling includes traditional curbside or single stream recycling, while organics management includes food waste prevention, food rescue, food-to-animal or composting. Recycling and organics management are hard to separate, as many of Ramsey County’s programs work to progress traditional recycling and organics management simultaneously. The following section is divided into residential, non-residential (such as school and businesses) and internal county operations.

Residential

*Residential Recycling and Organics Management*

The county requires municipalities to ensure recycling service is available to all residents at their place of residence, including multi-unit dwellings. Sixteen of the seventeen municipalities contract for residential recycling service for all single-family households. The county also uses outreach and education, planning and evaluation, regulation, financial incentives, technical assistance and consultation to accomplish recycling objectives. Ramsey County provides financial support to municipalities using State SCORE funds to support municipal recycling and related programs. The county provides technical assistance to municipalities for recycling contracts and program design, as well as a recycling-market support fund to cover some of the risk associated with recycling markets.

Residential recyclables are collected through municipal programs, which work with the county to monitor progress toward meeting recycling goals. Ramsey County measures municipal progress towards achieving recycling goals utilizing recycling performance work plans, developed in conjunction with each municipality.

The Ramsey County Public Entity Innovation Grant (PEIG) program was established in 2012 to provide financial assistance to public entities to create and implement innovative programs that increase waste reduction and residential recycling efforts, initiate residential organic management programs, expand public space recycling, and address bulky waste management. Eligible applicants include municipalities, Independent School Districts, park boards, watershed districts, libraries and other public entities in Ramsey County.

Nine municipalities, four school districts, three charter schools and two other public entities have used PEIG funds to improve their programs through bulky waste collection studies, to improve outreach to multi-unit properties, to pilot organics collection at municipal facilities and to purchase recycling carts. White Bear Lake won the League of Minnesota Cities 2017 City of Excellence Award for their PEIG project to build an enclosure for shared use by area businesses to collect organics.



**Figure F.** Public entities can utilize grant funding to expand public space recycling, such as adding recycling containers to parks.

In 2015, the county approved changes to the PEIG program, including additional funding for up to 50% of a municipality’s cost of purchasing recycling carts for residents. Four cities, including Arden Hills, Lauderdale, North Oaks and Saint Paul, have purchased recycling carts for their residents. In addition, thirteen communities have received, at no cost, over 17,000 public space recycling containers and event containers through the county’s Be Active! Be Green! program.

*Yard Waste and Organics Collection Sites*

State law prohibits yard waste from being put in the trash or being disposed of in a landfill or resource recovery facility. Yard waste includes leaves, grass clippings, garden waste, and tree and shrub waste. A combination of public and private systems provides generators of yard waste with several management options.

Ramsey County operates a network of seven yard waste collection sites. The sites began as neighborhood or municipal sites during the 1980s, but became exclusively operated by the county after the statutory yard waste ban



**Figure G.** Ramsey County operates seven yard waste collection sites. All sites are free and open to Ramsey County residents.

went into effect in 1990. The sites are open 38 hours per week, five days per week, from April through November (weather permitting) and are also open on weekends during the winter. Each site has a least one site monitor present, employed by the county, to direct and assist residents and to prevent illegal dumping. There are no user charges at the sites. On average the sites receive about 400,000 site visits annually and about 40,000 to 45,000 tons of yard waste and 25,000 to 30,000 tons of brush.

The county composts leaves at one site and distributes finished compost to all sites for residents to take. Compost is also made available for community gardens. Yard waste from other sites are composted by private vendors. Beginning in 2004, the county began accepting tree and shrub waste from residents at four of the seven sites. The material is processed into wood mulch, most of which is used as a biofuel at St. Paul District Energy's combined heat and power plant. Wood mulch is also provided to residents.

The county monitors the effects of Emerald Ash Borer infestation in partnership with the Minnesota Department of Agriculture and the Department of Natural Resources, providing an outlet for residents to dispose of wood infested by the Emerald Ash Borer.

The county encourages residents to reduce the amount of yard waste and brush they generate through changes in turf and tree management (e.g., leaving grass clippings on the lawn and avoiding excessive fertilization), backyard composting, and proper selection, planting, and care of trees and shrubs.

#### Source Separated Organics (SSO) Collection

Ramsey County added SSO collection services at six of the seven county yard waste sites in April 2014. The seventh site was added in July 2017. SSO collection at the sites is available to Ramsey County residents and to small organized event collections. Upon adding this service, yard waste site operations were extended to include weekends during the winter months. Residents are given free compostable bags to utilize for their home collection efforts. In 2015, the County Board approved the expansion of the county's SSO drop-off program with the addition of six more sites. One site was open in 2016 and the development of additional sites are planned for 2017.

To stimulate interest and demystify the collection of SSO for residents, Ramsey County created a starter kit. The kit consists of a kitchen caddy, two compostable bags, instruction cards and a loyalty card. In 2016, 1,000 organics starter kits were distributed at yard waste sites, city halls, district council offices, libraries, farmer's markets (Master Gardeners booth) and Union Depot.

#### Education at the Yard Waste Sites

Ramsey County contracts with the University of Minnesota Extension Service—Ramsey County to work with the Master Gardener program to educate residents on wise turf management, backyard composting and pesticide safety, as well as improving the health of trees and shrubs to minimize tree and shrub waste and to create a market for wood chips. Master Gardeners engage residents and distribute information on multiple occasions to each yard waste site. The Extension Service, primarily through Master Gardener activities, continues to make contacts through classes, clinics, telephone hotlines and Info-U. Approximately 8,000 copies of the Master Gardeners extension publication are distributed yearly to Ramsey County residents at yard waste sites. In 2016, the Master Gardeners engaged 3,686 residents, promoting key messages around topics of organics recycling, water protection (including rain gardens), reducing waste, growing food, reducing chemical use and properly disposing of leftover chemicals.

Ramsey County provides access to its property at the Frank and Sims yard waste site called the “Big Urban Woods” through joint powers agreements with participating schools for use as a School Forest. Ramsey County will work with the schools, the Department of Natural Resources, the University of Minnesota’s Extension Service and community groups to develop and maintain the property as a School Forest. Ramsey County also allows community groups to use the yard waste sites to provide public services and fundraising, which enhances public service, improves quality of service to county residents, promotes civic engagement, and encourages physical activity.

In addition, rain barrel education stations are located at all yard waste sites. Site monitors have been trained in how to educate residents on construction and maintenance of rain barrels.

#### Yard Waste Collection at Home

The vast majority of residents are served by waste haulers offering separate collection of yard waste, including tree and shrub waste. Rates vary for this service. In the communities with organized trash collection, residents are offered yard waste pickup, either as an optional cost or as part of the contracted service. Haulers typically specify preparation requirements, and some place limitations on the quantity collected per stop. Some lawn services and tree services also provide collection of yard waste.

### Business, Commercial and Institutions

#### *School Recycling*

Ramsey County has long supported increased opportunities for waste reduction, recycling and organics management in schools. The county has worked with districts to increase the opportunity to recycle through grants, technical assistance, direct assistance and training. The School Bin Grants provide funding for recycling bins and containers to increase recycling in public K-12 schools in Ramsey County. Program objectives include greater efficiency and potential cost savings for schools by developing a resource management approach to waste and recycling, and enhanced understanding and awareness of the value of recycling on the part of students, administrators, faculty, staff and visitors. In addition, schools may apply for a Public Entity Innovation Grant (PEIG) to implement a more robust recycling program.

The county provides technical assistance and grant funding to schools for the implementation of food waste recovery and recycling systems. Food waste recycling can result in cost savings when coupled with “right-sizing” of garbage collection to reduce pickup frequency and/or container size. Programs that collect food waste for delivery to hog farms operate district-wide in White Bear Lake, Saint Paul, Roseville, and at one school in Mounds View. In addition, there are private and charter schools throughout the county participating in the program.



**Figure H.** Ramsey County has long supported increased opportunities for waste reduction, recycling and organics management in schools, such as providing funding for bins and containers to increase recycling and organics collection.

*Restaurant Recycling*

Ramsey County’s Food Protection Ordinance includes recycling requirements. The county reviews plans submitted by licensed food and beverage establishments, and ensures that licensees meet these recycling requirements. The county also works with the largest cities and municipalities in the county to encourage them to take similar actions.

*Joint Activities with Washington County*

Ramsey and Washington Counties started BizRecycling to help businesses become more efficient and promoting job growth by protecting the environment. The BizRecycling program is an initiative of the Ramsey/Washington Recycling & Energy Board (R&E Board).

Prior to 2013, both counties had been working jointly on separate management of organic waste. Beginning in 2013 they launched BizRecycling, a two-county program to promote businesses and institutions starting or enhancing recycling and separate organic waste management programs. The program has evolved since 2013 to meet the unique needs of the business community in the two counties. The BizRecycling program provides free resources and assistance to businesses that want to start or enhance programs for reducing waste, recycling items such as paper, bottles, and cans, and/or diverting food and other organic waste. Many grantees have decreased their waste volumes by initiating or improving recycling and organics programs.



**Figure I.** BizRecycling is a program that promotes businesses and institutions starting or enhancing recycling and organic waste management programs.

BizRecycling program goals are to:

- Provide technical assistance to East Metro businesses and institutions to help them increase recycling rates, lower costs and manage waste higher on the hierarchy.
- Develop and promote robust communications resources for East Metro businesses and institutions to learn how to reduce costs, better manage commercial waste, and access support resources.

- Make targeted and equitable investments (through grants) to East Metro businesses and institutions to encourage the development and institutionalization of recycling and organics recovery programs.
- Provide direct service to businesses to rescue usable food for redistribution in the community and increase organic recovery rates.
- Conduct strong data analysis and performance evaluation so that all program efforts are targeted to maximize the recycling and organic material diversion rates.

The BizRecycling program expanded in 2015 to offer partner grants to Ramsey and Washington County business associations (like chambers of commerce, business leagues, economic development commissions/authorities and non-profit development corporations) to conduct outreach to member businesses and business audiences about the importance of recycling, including the free services provided by BizRecycling.

For nearly 10 years, the R&E Board contracted with Second Harvest Heartland to provide food rescue services to Ramsey and Washington County businesses including grocery stores, retail stores and restaurants. Second Harvest Heartland is the upper Midwest's largest hunger relief organization. This partnership aligned with the organization's mission to end hunger through community partnerships and provide food to hungry people through food rescue and its food bank network.

#### *Recycling & Energy Center (R&E Center)*

The Ramsey/Washington Recycling & Energy Board (R&E Board) has long provided financial support to ensure Ramsey and Washington Counties' MSW is delivered to the R&E Center where processing recovers significant amounts of metal for recycling. In 2016, over 15,466 tons of metal, including ferrous and non-ferrous metals, were recovered at the R&E Center for recycling. Single stream recycling was added to the R&E Center for employees and visitors in 2016, after the R&E Board took ownership.

#### *Internal Ramsey County Facilities*

Ramsey County ensures county-occupied property is designed for recycling, so employees and users of county property have the opportunity to recycle, and county recycling operations implement best-management practices.

Ramsey County operates food waste recycling programs at seven facilities with commercial kitchen operations. In 2016, nearly 230 tons of food waste were recycled. Ramsey County began to expand its organics diversion efforts by implementing organics recycling programs in additional facilities in 2016. So far, two facilities have been brought online to capture food scraps and non-recyclable paper. A third facility recently began capturing paper towels from restrooms and is laying plans for a pilot effort to capture food scraps as well. Evaluations are underway to determine service needs and implementation logistics for bringing additional facilities online over the course of the next two to three years.

In 2017, Ramsey County completed an upgrade to its recycling program in all of its facilities to a single-sort recycling system that also accepts more recyclable materials than in previous programs, such as plastic food cups, tubs and other containers and paper, as well as food and beverage cartons.

### Research

To more fully understand the opportunities and barriers related to the development of an organics management system, the R&E Board has commissioned a number of studies of organic waste generators:

*An Integrated Organic Waste Management System: From the Perspective of Commercial Waste Generators (May 2010)*, analyzes anaerobic digestion as a new organic waste management concept from the perspective of commercial waste generators located in the Ramsey and Washington Counties by exploring logistics of daily operations, types of upfront costs, and changes in the configuration of waste management services.

*Organic Materials from Commercial Establishments: A Supply Assessment (June 2010)*, contains preliminary estimates of quantities of commercial organic materials not currently recovered by other programs that may be available as feedstock for an anaerobic digestion facility. It also characterizes the types of commercial establishments that may be sources of targeted organic materials such as food scraps and non-recyclable paper.

*Alternative Technologies for Municipal Solid Waste (July 2013)*, provides a review of the status and application of the following technologies: gasification, pyrolysis, plasma arc, mass burn, anaerobic digestion, mixed waste processing and plastics to fuel.

*Preliminary Resource Recovery Feasibility Report (January 2014)* addresses the technologies selected for continued evaluation as part of the future of waste processing: anaerobic digestions, gasification, mass burn, mixed waste processing and plastics to fuel.

*Waste Composition Study (September 2014)* determined the composition of waste from residential and commercial generators in order to inform the planning efforts for future options for processing and disposal of waste. The data and information in the report are useful for the planning process addressing State goals for recycling and organics recovery.

*Anaerobic Digestion (AD) – Update on Technology Status (April 2015)* provides an update on the planned scope of AD; existing projects providing AD systems; and economic & marketability of AD products (i.e. biogas and compost).

*A full list of reports are available on the Ramsey/Washington Recycling & Energy Board's website:*

- [www.morevaluelesstrash.com/historical-reports-documents](http://www.morevaluelesstrash.com/historical-reports-documents)
- [www.morevaluelesstrash.com/designation-research](http://www.morevaluelesstrash.com/designation-research)

### Waste Processing

Consistent with Minnesota's Waste Management Hierarchy, the county processes waste for the purpose of recovering energy, recyclables and other beneficially useful materials at the R&E Center. Waste processing is the preferred management method over landfilling for waste that is not reduced, reused, or separately recycled or composted. Pursuant to state law, public entities in the county ensure MSW generated in the county or that the county contracts for is processed rather than landfilled. The county supports the processing of waste in a manner that encourages waste reduction, reuse or recycling, including the separate management of organic waste. In 2016, 86% of MSW generated by citizens and businesses in the county was diverted from landfills into recycling or energy production.

In late 2015, the R&E Board purchased the waste processing facility now called the Recycling & Energy Center, (R&E Center), in Newport, Minnesota. Following an extensive evaluation, the counties determined that ownership of the facility and the use of waste designation will provide greater stability to the solid waste management system in the counties, enabling the significant progress in recycling, reduced landfilling of waste and increased recovery of resources from waste.



**Figure J.** The Recycling & Energy Center is a waste processing facility in Newport, Minnesota that shreds trash collected from homes and businesses to create fuel for energy.

The R&E Center receives approximately 1,500 tons of MSW per day, predominantly from Ramsey and Washington counties. The R&E Center uses shredding, magnetic separation and density separation to convert waste received into approximately 350,000 tons of RDF per year. After being processed, the RDF is transported to two facilities owned by Xcel Energy, Inc. (in Red Wing and Mankato, MN) that use the RDF to generate electricity. These two plants provide enough electricity to power the equivalent of 20,000 homes annually. Through the processing of waste at the R&E Center since 1988, the R&E Board has prevented the need for landfill space equal to 100 acres with a depth of 40 feet.

Overall, the R&E Board's ownership and control over the R&E Center allows it to:

- Consider new technologies to increase energy produced, create fuels, make compost or provide recyclable materials for manufacturing;
- Continue to ensure waste is managed to protect the environment and public health;
- Meet Minnesota's 75% recycling goal;
- Support local jobs; and
- Work towards a more stable, predictable waste processing system that controls costs and saves taxpayers' money.

One of the principles of the joint county planning conducted by the R&E Board is to pivot the view of waste management from considering it to be a liability to regarding it as a resource. As such, the R&E Board has evaluated how to make highest and best use of this resource. Since the R&E Board acquired the R&E Center, there is a renewed opportunity to determine the downstream uses of the products that result from waste processing, and market that material toward more beneficial end uses. For example, the R&E Board is evaluating the addition of mixed waste processing equipment at the R&E Center in order to extract more recyclable materials, including organics, from the waste stream and better enable the county to meet the 75% recycling goal recently established by Minnesota Law. The R&E Board also continues to evaluate technology where some or all of the RDF could be converted into biofuels or biochemicals.

## Waste Designation

In 2016, Ramsey County, in cooperation with Washington County began the process of implementing waste designation. Waste designation will require that all solid waste generated within Ramsey and Washington Counties be delivered to the R&E Center. By implementing waste designation, the counties ensure all waste will now be processed, with metals being removed and recycled, and the remaining waste processed into RDF for production of renewable energy. The two counties anticipate the use of waste designation as a critical strategy to achieve state waste management goals. Designation is outlined in the Processing chapter of this plan, as well as the Ramsey/Washington County Joint Waste Designation Plan (See Appendix VI).

## Landfilling

There are no operating landfills in Ramsey County. Some MSW generated in the county is delivered as unprocessed waste to landfills located in Minnesota and Wisconsin. In the past, landfills in Iowa and North Dakota have also been used. Because some MSW is landfilled and some wastes from the R&E Center are delivered to landfills, the county uses responsible waste management principles and careful risk analysis when arranging for land disposal of waste. Other public entities in Ramsey County are expected to do the same.

## Dump Inventory

Since 1988 Ramsey County has maintained an inventory of old dump sites to locate, identify, describe and document active and inactive solid waste disposal facilities and dump sites in Ramsey County. The inventory includes known sites developed before regulations were in place, sites that operated under permits or other approvals and are now closed, solid waste disposal sites on the State Superfund list and illegal dump sites. There are about 300 sites in the inventory, approximately 25 of which are sites that were at some time issued a permit or license to operate by a municipality, Ramsey County or the MPCA.



**Figure K.** There are approximately 300 sites listed in Ramsey County's dump inventory.

## Bulky Waste Management

Bulky wastes are those that are difficult to manage along with regular trash and include items, such as mattresses, carpet and large pieces of furniture from residences, and furniture and certain industrial materials from commercial generators. Ramsey County works with other entities to promote proper, convenient, financially accessible management of bulky materials in order to reduce illegal dumping and burning, and to improve neighborhoods by reducing nuisance situations. The county supports a product stewardship approach in which some bulky items are best managed through shared responsibility by manufacturers, distributors, retailers and consumers. The county also encourages the processing of bulky waste items that can be processed by equipment at the R&E Center. The county also takes the proactive step of working with MPCA, generators, retailers and recyclers of carpet to foster more recycling of carpet, while continuing to support a product stewardship approach for carpet; working

with municipalities regarding optimum methods for collection and proper disposal of major appliances, electronics, tires, and other bulky waste items; and working with the mattress industry, including manufacturers, wholesalers and retailers, to foster implementation of a mattress recycling program. Finally, the county expects municipalities to provide clean-up events or separate waste collection programs for residents to ensure bulky waste items are separated and managed appropriately and in accordance with the waste hierarchy.

### Hazardous Waste Management

State law requires metropolitan counties to regulate the generation and management of hazardous waste by non-residents. To help accomplish the goals set by the MPCA and the standards set by Minnesota law, and to ensure protection of the environment, public health and safety, the county ensures compliance with laws, rules and ordinances using a variety of regulatory tools.

Ramsey County emphasizes toxicity reduction to manage risks associated with waste. Proper management of hazardous waste can reduce health, safety, environmental and property risks. Federal law requires businesses that generate wastes to analyze the waste to determine if it is hazardous. A waste is hazardous if it meets certain chemical or toxicity standards established in federal regulations. If wastes are corrosive, reactive, ignitable, toxic or lethal, or are listed for some reason, then they are required to be handled in a cradle-to-grave regulatory system. This regulatory system requires the wastes to be specially packaged, transported, handled and disposed with a paper trail that follows the waste.

Most states regulate businesses that are considered “large quantity generators” (generators of more than 2,640 gallons of waste produced per year) or “small quantity generators” (264 gallons to 2,640 gallons of waste produced per year). In those states, businesses that produce less waste are not strictly regulated, and it is more likely that hazardous waste from those businesses will end up in municipal solid waste. Minnesota, however, regulates all business generators including “very small quantity generators” (less than 264 gallons of waste produced per year) to ensure hazardous wastes does not enter MSW. Ramsey County is required by Minnesota law to license generators, inspect facilities and enforce hazardous waste regulations.

#### Hazardous Waste Generators and Facilities

In 2016, Ramsey County licensed 1,800 businesses and performed over 800 inspections of businesses that generate and manage hazardous waste. Ramsey County operates a volume-based fee system – license fees are structured to create an incentive for businesses to produce less hazardous waste.

Ramsey County provides training, education and information to businesses and waste generators about hazardous waste collection and disposal options, as well as information and technical assistance to waste generators and facilities regarding the management of hazardous wastes, reduction of the toxicity of materials, and the use of alternative products. Hazardous waste education for generators and other businesses through the Hazardous Waste Business Assistance program is a non-regulatory resource for businesses. Over 19 training sessions serving more than 558 people were held in 2016. *The HazWaste Quarterly*, a newsletter filled

with useful tips and news, was sent out to 7,912 businesses and waste generators in 2016. Staff also fielded nearly 1,500 phone calls from businesses and conducted 203 site visits in 2016.

#### Household Hazardous Waste (HHW) Collection

Ramsey County strongly encourages the reduction in household hazardous waste generation. Recognizing discarded household chemicals should be properly managed, the county also provides household hazardous waste management services at a level of convenience and financial accessibility to encourage proper management and is compatible and consistent with other programs in the region.

Ramsey County provides a year-round collection site in Saint Paul, and seasonal mobile sites that operate in spring, summer and fall at several locations. In an effort to provide the opportunity for residents to safely dispose of unwanted, expired and unused medicines, the county also provides



**Figure L.** Residents can drop off household hazardous waste at Ramsey County's year-round facility and at various mobile locations.

free public medicine collection drop boxes in cooperation with law enforcement. The county also provides collection service for household sharps. At the county's year-round collection site, residents may participate in the Product Reuse Room. Ramsey County participates in a reciprocal use agreement with five other metropolitan counties, which allows residents to use household hazardous waste services in any of the six counties.

In 2016 28,079 people brought household hazardous waste to the year-round collection site or attended a mobile collection event, bringing in 712 tons of discarded materials. Of the household hazardous waste collected, 50% was recycled, 40% was reused or recovered to produce energy, 9% was incinerated, and less than 1% was landfilled. 10,180 pounds of pharmaceutical waste were collected and properly managed. 9,013 residents collected 210,191 pounds of materials for reuse at the Product Reuse Room.

#### Non-MSW Management

"Non-MSW" encompasses solid waste materials that are not managed as mixed municipal solid waste. Non-MSW includes materials determined by the State to be problem materials (e.g., treated wood) and certain items specifically excluded from the statutory definition of MSW or otherwise managed as separate waste streams. Management of non-MSW occurs primarily through private sector services. Some materials are collected by haulers specializing in transporting particular waste materials, while others may be collected by MSW haulers or delivered by the generator directly to a collection, transfer or management facility.

Because Ramsey County is fully developed, most new development is associated with demolition of old structures. As a result, Ramsey County gives special attention to construction and demolition (C&D) waste that is generated within the county. Ramsey County applies the State hierarchy of waste management to C&D waste and develops strategies, regulations and programs to promote the

management of non-MSW higher on the hierarchy, and to reduce health, safety and property risks associated with non-MSW.

There are significant efforts by the private and public sectors to recover items and recycle materials from demolition projects in the county. One success story is at the Twin Cities Army Ammunition Plant (TCAAP) site. Twin Cities Army Ammunition Plant (TCAAP) demolition and remediation was able to recycle or reuse 93% of the removed materials. These materials included:

- 13,000 tons of steel (recycled);
- 400,000 tons of concrete and asphalt (recycled);
- 8 miles of rail road track (reused);
- 250,000 board feet of old growth Douglas Fir (reused); and
- 250 steel girders weighing 5,000 pounds each (reused).



**Figure M.** Through careful demolition and remediation of the Twin Cities Army Ammunition Plant, 93% of removed materials were recycled or reused.

Ramsey County completed soil remediation in November 2015 at the TCAAP site. The Minnesota Pollution Control Agency issued a Certificate of Completion in July 2016 through its Voluntary Investigation and Cleanup program to verify that soil had been restored to residential standards. The Environmental Protection Agency is expected to delist the site from its Superfund list in 2017.

#### Pre-Demolition Program

Ramsey County regulates demolition activities through a pre-demolition inspection program, ensuring hazardous building materials, including asbestos, are properly identified, removed and managed from structures slated for renovation or demolition and will partner with municipalities in the implementation of this program. The program, created in 2008, addresses the need to identify, remove and properly manage hazardous materials prior to building demolition. This program is the first of its kind in Minnesota. The program encourages deconstruction, salvage and recycling.

The regulatory standard for demolition contractors creates consistency, reduces the toxicity of wastes disposed, protects occupational exposure to hazards and reduces landfilling of wastes. Each municipality works with the county, and as demolition permits are issued, an inspection by the county is required before demolition work begins. Ramsey County staff work closely with local building and zoning officials and place a priority on integrating the pre-demolition program requirements within existing permitting processes. In 2015, this program documented over 107,000 pounds of hazardous waste, and 133,000 pounds of problem materials being recovered and properly managed from buildings slated for demolition that otherwise would have gone to demolition landfills. The success of the program has been rooted in the collaborative relationships between the contractors, city staff, county staff and waste managers.

Other highlighted activities include:

- Ramsey County provides technical assistance and consultation on topics including collection, contracting, management options and permit issues, to municipalities and other entities to encourage appropriate management of demolition, construction, and deconstruction materials;
- Ramsey County continues the Reuse, Recycle, and Renovate for Reinvestment (“4R”) Program on County Tax Forfeited structures, promoting deconstruction, building material salvage and recycling in renovation and demolition projects;
- Ramsey County provides technical assistance and consultation supporting public entity procurement practices that encourage incorporation of deconstruction, building material salvage and recycling practices in government-led contracts, such that projects achieve a minimum 75% diversion rate based on what can reasonably be recovered.
- Ramsey County promotes healthy homes through the reduction of health and environmental hazards associated with lead, mercury and other contaminants, as well as the proper management and abatement of public-health nuisances.



**Figure N.** Ramsey County promotes healthy homes through the reduction of health and environmental hazards, such as those associated with lead, which is commonly found in homes built before 1978.

## Ordinances

Local ordinances pertaining to garbage, recycling and other solid waste issues are found in numerous city and county codes and ordinances. A listing of local ordinances relevant to this master plan can be found in Appendix II.

## Community Engagement

Ramsey County places a high value on connecting to various communities in a variety of ways. The primary goals of the county’s engagement are to first raise awareness and then influence behavior change to reduce waste, increase recycling and properly dispose of MSW. Ongoing communication is needed to engage the public in these activities, and a variety of approaches are utilized to reach multiple audiences and engage community partners.

Over the past two decades, the county has conducted a significant amount of outreach and promotion to residential and non-residential (businesses, schools and institutions) audiences to raise awareness about waste management. Topic areas have included waste reduction, recycling, yard waste management, household hazardous waste management, separate management of organic waste, resource recovery, chemical safety and pollution prevention.

The county continually evaluates various audiences using surveys, focus groups and other forms of community engagement. Messages are tailored to a targeted audience and delivered in a manner that is

most likely to reach them. Partnerships with other entities are key in reaching people in the county. Among various tools, paid advertising has been useful to raise awareness, keep programs in front of people, and link people to other resources. Advertising is a critical tool to raise awareness of the services offered by the County, so when the public has a disposal question or concern, they know where and how to find a trusted resource.

### Residential Audiences

Social media has grown in use, with the county using a variety of social media platforms to reach various audiences. Traditional outreach efforts such as direct mail (every household in Ramsey County is reached by direct mail on waste/recycling at least twice per year), newsletters, the 24/7 Recycling and Disposal Hotline (633-EASY) and one-on-one contact are all part of the county's approach. Considerable effort is made to reach people with limited English proficiency, using modes of communication appropriate to the target audience.

In 2015, Ramsey County transitioned its advertising and marketing campaign to Ramsey Recycles, a multicultural, multifaceted campaign targeting a broad audience that reflects the dynamics of the community. Ramsey Recycles focuses its comprehensive advertising and marketing plan on four main categories: general recycling, household hazardous waste, yard waste and organics recycling. The campaign includes identifying target audiences, appropriate strategies, specific messages, and measurement and evaluation tools. The campaign can be found at RamseyRecycles.com, on billboards, and in print and radio advertising. In May 2016, the Ramsey Recycles Campaign received the Northern Lights Award from the Minnesota Association of Government Communicators in the category of Public Information Project.



**Figure O.** The Ramsey County Recycling Guide is produced annually and contains information on general recycling, household hazardous waste, yard waste and organics recycling.

To better engage its diverse communities, Ramsey County retains Hmong, Hispanic and Somali consultants to help in program design and community engagement. The consultants work as liaisons with the community, have relationships with key leaders, and can effectively build relationships with those communities. Culturally specific education is delivered through presentations, events, newspaper, radio, social media and calendars, as well as other printed materials.

Ramsey County maintains the 24/7 Recycling & Disposal hotline, which provides callers with clear and accurate information about Ramsey County's waste services. It is also staffed by interpreters for residents who have limited proficiency in English. In 2015, the hotline answered 19,973 calls from residents.

Partnerships

Municipalities are responsible for providing their residents with information specific to their programs. As a condition of receiving SCORE funds, municipalities must use elements of the county’s outreach, education and promotional program materials. Therefore, Ramsey County works jointly with municipalities in the development of messages and tools, including consistent promotion of RamseyRecycles.com, the 24/7 Recycling & Disposal hotline, the A to Z Recycling & Disposal Guide, and information on Ramsey County’s yard waste and household hazardous waste programs.

Ramsey County also works with other public and private entities, including schools, businesses, institutions, government agencies and non-profit organizations to develop coordinated communication messages that minimize confusion the public may have regarding traditional recycling and other solid waste management methods. Ramsey County works with public entities, providing resources as appropriate, to increase education and awareness of away-from-home recycling opportunities in places such as parks, athletic fields and arenas, and for special events, such as festivals, family reunions and parades.

Business and Commercial Audiences

The R&E Board began working on source separated organics management in 2003, hiring consultants to work with institutions and businesses that were high-volume generators of food waste. They quickly found engagement with businesses needed to include all waste management from food rescue, traditional recycling, organics management and trash. Business engagement is jointly conducted by Ramsey and Washington Counties through the R&E Board’s BizRecycling program.

Communications to the approximately 40,000 businesses and institution in the Ramsey and Washington Counties are designed as business-to-business communications and are carried out in several ways. The BizRecycling website ([BizRecycling.com](http://BizRecycling.com)) is specifically aimed at educating businesses in the two counties on the opportunities for and benefits of better waste management. The website includes a large volume of information, including Minnesota’s commercial recycling legislation, technical assistance available for businesses, grant guidelines and application materials, and container and label ordering forms.



Figure P. BizRecycling.com educates businesses on the opportunities for and benefits of better waste management.

The R&E Board supplements the website with a blog and social media feeds (Facebook, Twitter, Linked-In) to engage with the community on social media. The R&E Board updates the blog once a week throughout the year with posts and videos on various commercial recycling issues. The R&E Board aims to publish three social media posts per day that highlight the resources available through BizRecycling, including general recycling education, information on the R&E Board, and to acknowledge the successful work of both current and past BizRecycling grantees.

In 2015, the R&E Board entered into a partnership with the St. Paul Saints to increase the visibility of recycling opportunities and ensure state of the art recycling at CHS Field. The partnership included an on-field recycling game between innings that engaged fans, radio commercials during the Saints games, ad space in the team's annual pocket schedule distributed at all partner locations, and a rotating banner ad on the Saints' website. BizRecycling also provided the Saints with technical assistance from the project consultant, Minnesota Waste Wise Foundation, to help implement a robust recycling and organics program at their new ballpark, CHS Field. All bins throughout the park are branded with BizRecycling trash, recycling and organics labels. Now in the third year of the partnership, the recycling rate at CHS field is 64%. With up to 7,000 fans attending every game, the educational reach of the Saints' programs goes far beyond the walls of CHS Field.

## Cost and Finance

Solid waste programs and services in Ramsey County depend on a blend of public and private initiatives to manage waste.

### Revenue

Ramsey County relies on several revenue sources to pay for waste management services.

#### SCORE Grant

The State of Minnesota assesses a Solid Waste Management Tax on certain waste management activities. This tax goes into the Minnesota's general revenue fund, and a portion is provided to counties in the form of SCORE grants. Eligible expenses include waste reduction, recycling, problem materials management, public information and education, technical assistance and MSW processing.

#### Local Recycling Development Grant (LRDG)

Landfills in the metropolitan area must collect a surcharge on waste tipped at those facilities and remit those funds to the State. Per statutory formula, a portion of those proceeds becomes Local Recycling Development Grants for metropolitan counties.

#### License Fees

Ramsey County licenses waste haulers, solid waste and hazardous waste facilities, and commercial hazardous waste generators. License fees collected are used for solid and hazardous waste compliance programs administered by the County. Ramsey County Board policy states that license fees must cover the cost of operating the regulatory program, including indirect administrative costs.

#### Household Hazardous Waste Program Contracts

Ramsey County has an agreement with Xcel Energy for reimbursement of costs associated with collecting and managing fluorescent lamps through the County's HHW program. The county is also part of the region's Reciprocal Use Agreement, which entitles the county to be reimbursed by another county for costs associated with serving a resident of that county.

#### County Environmental Charge

Ramsey County implemented the County Environmental Charge (CEC) in 2003. The CEC appears on hauler bills for all customers of garbage services in Ramsey County. The CEC also applies to

residents and others bringing their own garbage to a solid waste transfer station in Ramsey County. The CEC replaced the Waste Management Service Charge that was collected on the property tax bill.

The CEC applies only to services to collect, transport, process or dispose of mixed municipal solid waste generated in Ramsey County, including equipment rental. The CEC does not apply to wastes that are separated for recycling or composting and delivered to facilities where they are recycled or composted. And, unlike the State's Solid Waste Management Tax, the CEC does not apply to waste services for construction and demolition waste, medical/infectious waste or certain types of industrial waste.

The CEC is more visible to generators than the old property tax-based service charge, especially generators who do not pay a property tax but do pay a garbage bill. The increased visibility can provide a greater incentive to look at options for managing waste differently. Generators get a better picture of how much it really costs to manage the garbage they create because costs are presented in one place, rather than some costs on the garbage bill and some costs on the property tax statement. Also, the CEC is more closely related to volume of waste than the old property tax-based service charge because haulers charge customers according to how much garbage they pick up. CEC funds are used for the Resource Recovery Project and for other solid waste programs.

#### Expenses

Ramsey County uses the proceeds from the CEC to fund its solid and hazardous waste management programs, which includes a variety of services, such as:

- Mandated planning, evaluation and reporting;
- Outreach, promotion and education;
- Direct services, such as yard waste sites and household hazardous waste services;
- Business waste assistance services;
- Technical assistance and consultation to municipalities, school districts and other public entities;
- Certain regulatory activities not funded by license fees (such as old dump inventory and evaluation, solid and hazardous waste dumping complaints, pre-demolition inspections);
- Resource recovery services;
- Sustainability programming;
- Research and evaluation, and more.

Each of these activities is related to a strategy or policy in the Master Plan.

## APPENDIX II: ORDINANCES

Ramsey County ordinances relevant to this plan include:

- Administrative Ordinance
- Food Protection Ordinance
- Hazardous Waste Management Ordinance
- Park, Recreation and Open Space Areas Ordinance
- Public Health Nuisance Ordinance
- Solid Waste Ordinance

Municipal ordinances pertaining to garbage, recycling and other solid waste issues are found in the following municipal codes and specific ordinances. (Provisions related to setting specific fees and clandestine drug labs have generally not been included.)

### Arden Hills

- Chapter 03, License and Regulations.
- Chapter 06, Nuisances and Offenses: including Section 660, Garbage, Refuse and Recycling and other provisions.
- Chapter 07, Recreation.
- Chapter 13, Zoning: Section 1320, District Provisions; Section 1325, General Regulations.
- Chapter 14, Property Maintenance Code.
- Chapter 15, Erosion and Sediment Control.

### Falcon Heights

- Chapter 14, Businesses: Article VIII, Refuse Haulers.
- Chapter 22, Environment: Article II, Blight.
- Chapter 38, Solid Waste.
- Chapter 105, Buildings and Building Regulation: Article III, Housing Code.
- Chapter 107, Stormwater Management: Section 107.8, Approval Standards.
- Chapter 113, Zoning: Section 113.240, Accessory Buildings and Structures; Section 113.370, Exterior Storage.

### Gem Lake

- Ordinance No. 43K, Zoning Ordinance Section 18.
- Ordinance No. 45, Garbage and Refuse.
- Ordinance No. 83, Housing Maintenance Code; Storage.
- Ordinance No. 86, Nuisance Ordinance.

### Lauderdale

- Title 4, Health and Sanitation: Chapter 2, Garbage and Refuse; Chapter 6, Health and Safety; Nuisances.
- Title 8, Public Works: Chapter 4, Stormwater Management; Chapter 5, Illicit Discharge Ordinance.
- Title 9, Building Regulations: Chapter 11, Rental Housing Licensing Provisions.

### Little Canada

- Chapter 600, Public Health and Welfare: 601, Nuisance Ordinance.
- Chapter 800, Regulated Activities and Businesses: 809, Mixed Municipal Solid Waste and Recyclable Materials Storage and Collection.
- Chapter 900, Zoning Code: 903, General Provisions; 928, Stormwater Management Ordinance.
- Chapter 1401, Burning Regulations.

### Maplewood

- Chapter 14, Businesses and Licensing.
- Chapter 18, Environment: Nuisances.
- Chapter 20, Fire Prevention and Protection.
- Chapter 30, Solid Waste Management.
- Chapter 44, Zoning.

### Mounds View

- Title 500, Business License Regulations.
- Title 600, Public Health and Safety: Chapter 603, Garbage and Rubbish (revised 2015); Chapter 607, Nuisances.
- Title 852, New burning regulations.
- Title 900, Public Ways and Property: Chapter 909, Parks and Recreation; Littering and Dumping.
- Title 1000, Building Regulations.
- Title 1100, Zoning Code: Chapter 1103, General Building Requirements; Chapter 1110, Mobile Home District; Chapter 1120, Planned Unit Developments.
- Title 1300, Flood Control Regulations: Chapter 1303, Construction Site and Land Disturbance Runoff Control.

### New Brighton

- Chapter 9, Fire Protection and Prevention.
- Chapter 11, Garbage and Trash.
- Chapter 13, Housing (13.166 Requires owners of multi-unit dwellings to provide recycling).
- Chapter 14, Land Excavation and Reclamation.
- Chapter 17, Nuisances.
- Chapter 19, Parks and Recreation.
- Chapter 31, Stormwater Utility.
- Zoning Code: Chapter 4, Residence Districts; Chapter 6, Industrial Districts; Chapter 7, Planned Developments.

### North Oaks

- Title IX, General Regulations: Chapter 93, Health and Safety, Nuisances.
- Title XV, Land Usage: Chapter 151, Zoning Code.

### North St. Paul

- Chapter 32, Boards and Commissions: Environmental Advisory Commission.
- Chapter 33, City Policy on Abandoned Property.
- Chapter 55, Solid Waste, Recycling and Composting (updated).
- Chapter 56, Sanitary and Storm Sewer System Utilities.
- Chapter 91, Fire Prevention and Protection.
- Chapter 92, Parks and Lakes: 92.02, Littering.
- Chapter 94, Street and Sidewalks: 94.57, Dumpsters, Roll-offs or Similar Waste Receptacles.
- Chapter 98, Nuisances.
- Chapter 130, General Offenses: 130.19, Offenses Involving Public Health and Safety.
- Chapter 152, Structures and Premises Maintenance and Occupancy Code.
- Chapter 154, Zoning Regulations.
- Ordinance 702, Establishing Regulations Concerning Unattended Collection Bins.

### Roseville

- Chapter 402, Solid Waste Collection.
- Chapter 403, Recycling.
- Chapter 404, Air Pollution Control.
- Chapter 407, Nuisances.
- Chapter 409, Residential Composting.
- Chapter 502, General Offenses.
- Chapter 701, Parks and Recreation.
- Chapter 803, Storm Water Drainage, 803.03, Storm Water Illicit Discharge and Connections.
- Zoning: Chapter 1005, Commercial and Mixed Use Districts; Chapter 1006, Employment Districts; Chapter 1008, Park and Recreation District; Chapter 1011, Property Performance; Chapter 1017, Shoreland, Wetland and Storm Water Management.

### St. Anthony

- Chapter 50, Storm Water and Sanitary Sewers.
- Chapter 92, Health and Safety, Nuisances.
- Chapter 94, Streets and Sidewalks.
- Chapter 93, Parks and Recreation.
- Chapter 97, Fire Prevention and Protection.
- Business Regulations: Chapter 111.215, Licenses, Permits and the Like: Mobile Home Parks; Haulers of Garbage, Refuse, Recyclables and Yard Waste; Licensing of Multiple Dwellings.
- Chapter 130, General Offenses: Garbage and Solid Waste Offenses.
- Land Usage: Chapter 150, Buildings, Housing and Construction; Chapter 152, Zoning Code; Chapter 153, Storm Water Management.

### Saint Paul

- Building and Housing: Chapter 32, Collection of Municipal Solid Waste for Residential Properties and User Charge; Chapter 34, Minimum Property Maintenance Standards for All Structures and Premises; Chapter 45, Nuisance Abatement.
- Zoning Code: Chapter 65, Land Use Definitions and Development Standards: 65.300, Public Services and Utilities (includes yard waste sites); 65.400, Commercial Uses (including retail sales and services; limited production, processing and storage); Industrial Uses (including infectious waste facilities; metal shredders; recycling processing centers; solid waste compost facility; solid waste transfer station); 65.900, Accessory Uses.
- Zoning Code: Chapter 66, Zoning District Uses, Density and Development Standards (e.g., yard waste sites, recycling processing centers).
- Health, Sanitation and Disease: Chapter 210, Disposing of Contaminated Articles, Prohibition.
- Garbage and Rubbish: Chapter 221, Littering by Contractors.
- Public Health, Safety and Welfare: Chapter 236, Environmental Preservation: Plastic Packaging.
- Licenses: Chapter 357, Solid Waste; Chapter 408, Recycling Collection Center/Recycling Processing Center; Chapter 429, Infectious Waste.

### Shoreview

- Chapter 200, Development Regulations: Section 205, Development Districts; Section 206, Site Development and Architectural Design Standards; Section 209, Environmental Standards; Section 210, Nuisance; Section 211, Property Maintenance Standards.
- Chapter 400, Public Property and Improvements: Section 401, Recreation Areas.
- Chapter 500, Municipal Utilities: Section 502, Municipal Sanitary Sewer System.
- Chapter 600, General Regulations: Section 602, Open Burning; Section 606, Scavenging; Section 607, Residential Recycling Service Fees.
- Chapter 700, Licensing: Section 703, Solid Waste Haulers.

### Vadnais Heights

- Building Code: Chapter 48, Apartment - Multiple Dwelling (except Duplex and Triplex); Chapter 53, Residential and Rental Housing.
- Sewers: Chapter 59, Municipal Sanitary Sewer System.
- Garbage and Rubbish: Chapter 121, Disposal of Refuse for Commercial, Industrial and Residential Property of More Than Eight Dwelling Units; Chapter 121A, Disposal of Refuse for Residential Property of up to Eight Units in a Single Building; Chapter 122, License Requirements for Collectors Under Chapter 121; Chapter 123, Dumps, Sanitary Landfills and Filling of Land; Chapter 124, Unlawful Removal of Recycling Material.
- Public Safety, Health, Morals and Welfare: Chapter 146, Burning Control; Chapter 147, Various Offenses.
- Public Nuisances: Chapter 181, Nuisances Affecting Health, Safety, Comfort or Repose; Chapter 183, Nuisances Affecting Peace and Safety.

### White Bear Lake

- Departments: Chapter 402, Municipal Sewer System.
- Public Health, Welfare and Sanitation: Chapter 501, Garbage Collection; Chapter 502, Minimum Housing Standards; Chapter 505, Curbside Recycling Scavenging; Chapter 507, Refuse and Recyclables Collectors; Chapter 509, Composting.
- Fire Regulations: Chapter 801, Fire Prevention; Chapter 806, Open Burning.
- Public Ways and Property: Chapter 905, Parks and Open Space.
- Business Regulations: Chapter 1114, Rubbish Haulers and Junk Dealers.
- Zoning: Chapter 1302, General Provisions.

### White Bear Township

- Ordinance 16, Nuisances.
- Ordinance 22, Dumping.
- Ordinance 31, Refuse.
- Ordinance 35, Zoning Code.
- Ordinance 45, Parks, Open Space and Recreational Areas.
- Ordinance 47, Housing Maintenance.
- Ordinance 66, Compost Sites.

Summary of Municipal Ordinances in Ramsey County

**Collection and Transportation of Residential Waste**

Municipality	Organized Collection	Waste Service Required	Minimum Service Frequency <sup>1</sup>	Restrictions on Times of Collection	Type of Container Specified	Hauler Must Report Amount Collected
Arden Hills	No	Yes	Yes	Yes	Yes	No
Falcon Heights	No	Yes <sup>2</sup>	Yes	Yes <sup>3</sup>	Yes	No
Gem Lake	No	No	Yes	Yes	Yes	No
Lauderdale	No	Yes	Yes	Yes	Yes	No
Little Canada	Yes <sup>4</sup>	Yes <sup>2</sup>	Yes	Yes	Yes	No
Maplewood	Yes <sup>4</sup>	Yes <sup>2</sup>	Yes	Yes	Yes	No
Mounds View	No	Yes <sup>2</sup>	Yes	Yes	Yes	No
New Brighton	No	No	Yes <sup>2</sup>	Yes	Yes	No
North Oaks	No	No	No	No	Yes	No
North St. Paul	Yes <sup>5</sup>	Yes	Yes <sup>2</sup>	Yes	Yes	Yes
Roseville	No	Yes <sup>2</sup>	Yes	Yes <sup>3</sup>	Yes	No <sup>6</sup>
St. Anthony	Yes <sup>4</sup>	No	Yes	Yes	No	No
Saint Paul	No	Yes <sup>7</sup>	Yes	Yes	Yes	Yes
Shoreview	No	Yes	Yes	Yes	Yes	No
Vadnais Heights	Yes	Yes <sup>8</sup>	Yes <sup>8</sup>	Yes <sup>8</sup>	Yes <sup>8</sup>	No <sup>8</sup>
White Bear Lake	Yes	Yes	Yes	Yes	Yes	Yes
White Bear Township	No <sup>9</sup>	Yes	Yes	Yes	Yes	No

<sup>1</sup> Minimum frequency of service is weekly unless otherwise specified.

<sup>2</sup> Exceptions are available.

<sup>3</sup> Certain zones have specified collection days.

<sup>4</sup> City has organized collection, but generators may use other methods for disposal.

<sup>5</sup> Residential buildings with four or fewer units only.

<sup>6</sup> Ordinance requires a semi-annual business summary report, the details of which are determined administratively.

<sup>7</sup> Allows abutting properties to share service.

<sup>8</sup> City code applies only to residential properties of nine or more units and commercial and industrial generators. Other governing conditions may be set in the city’s contract for organized collection of residential waste.

<sup>9</sup> Organized collection is not specified in township ordinance, but only one garbage hauler is licensed to provide residential service for the township.

Municipality	Waste Hauler/Facility Licensing				Waste Service Rates		
	Licensing of Haulers Required	Hauler Must Be Bonded	Hauler Must Be Insured	Worker's Comp. Required	Waste Facilities Licensed	Volume-Based Fees Must Be Provided	Residential Rates Must Be Filed
Arden Hills	Yes	No	Yes	No	No	No	No
Falcon Heights	Yes	No	Yes	No <sup>1</sup>	No	Yes	Yes
Gem Lake	No	No	No	No	No	No	No
Lauderdale	Yes	Yes	Yes	Yes <sup>1</sup>	No	No	Yes <sup>1</sup>
Little Canada	Yes	Yes	Yes	No <sup>2</sup>	No	No <sup>2</sup>	No <sup>2</sup>
Maplewood	Yes	No	Yes	Yes	No	Yes	No <sup>2</sup>
Mounds View	Yes	No	Yes	No	No	Yes	No
New Brighton	Yes	No	Yes	No	Yes	Yes	Yes
North Oaks	No	No	No	No	No	No	No
North St. Paul	Yes	Yes	Yes	Yes	No	No <sup>2</sup>	No <sup>2</sup>
Roseville	Yes	No	Yes	Yes	No	Yes	Yes
St. Anthony	Yes	No	Yes	No	No	Yes	Yes
Saint Paul	Yes	No	Yes	No	Yes	Yes	Yes
Shoreview	Yes	Yes	Yes	No	No	Yes	Yes
Vadnais Heights	Yes	Yes	Yes	No <sup>2</sup>	Yes	No <sup>2</sup>	No <sup>2</sup>
White Bear Lake	Yes	No	Yes	Yes	No	Yes	No <sup>2</sup>
White Bear Township	Yes	No	Yes	No <sup>2</sup>	No	Yes	No <sup>2</sup>

<sup>1</sup> State law requires local licensing authorities to secure acceptable evidence of compliance with State worker's compensation coverage requirements before issuing licenses or permits. Some municipalities rely on administrative means, rather than ordinance, to establish this condition of licensing.

<sup>2</sup> May be specified in city's contract for organized residential collection.

Municipality	Reduction	Recycling (Residential and Commercial Unless Noted)					
	Packaging Restrictions	Mandatory Recycling	Recycling Collection License Required	Waste Haulers Must Collect Recyclables	Must Collect Same Day as Garbage	Hauler Must Report Amts. Collected	Scavenging Recyclables Prohibited
Arden Hills	No	No	Yes	No	Yes	Yes	Yes
Falcon Heights	No	No	No <sup>1</sup>	No	No	No	Yes
Gem Lake	No	No	No	No	No	No	No
Lauderdale	No	No	No	No	No <sup>2</sup>	No <sup>2</sup>	No
Little Canada	No	No	Yes	Yes <sup>4</sup>	No <sup>2</sup>	Yes <sup>4</sup>	Yes
Maplewood	No	Yes	No	No	No	No <sup>2</sup>	No
Mounds View	No	Yes	Yes	Yes	Yes <sup>4</sup>	Yes	Yes
New Brighton	No	No	Yes	No	Yes <sup>4</sup>	Yes	Yes
North Oaks	No	No	No	No	No	No	No
North St. Paul	No	Yes	Yes	No	No	No <sup>3</sup>	Yes
Roseville	No	No	Yes <sup>4</sup>	No	No	Yes <sup>4</sup>	Yes
St. Anthony	No	No	Yes	Yes <sup>4</sup>	Yes <sup>4</sup>	Yes	Yes
Saint Paul	Yes	Yes <sup>5</sup>	Yes	No	No	Yes	Yes
Shoreview	No	No	No	No	Yes	No	Yes
Vadnais Heights	No	Yes <sup>6</sup>	No	Yes <sup>6</sup>	No <sup>2</sup>	Yes <sup>6</sup>	Yes
White Bear Lake	No	No	Yes	Yes <sup>4</sup>	No <sup>2</sup>	Yes	Yes
White Bear Township	No	Yes	No	Yes	No <sup>2</sup>	No <sup>2</sup>	Yes

<sup>1</sup> Licensing as a refuse/recycling hauler is required as a condition of the contract for curbside collection.

<sup>2</sup> May be specified in city’s contract for organized residential collection.

<sup>3</sup> Required as part of license.

<sup>4</sup> Only residential.

<sup>5</sup> Applies to residents and commercial generators.

<sup>6</sup> City code applies only to haulers providing service to residential properties of nine or more units and commercial and industrial generators. Reports may be required under the terms of the city’s contract for organized collection of residential waste.

Municipality	Residential Composting				Misc. Waste-Related Ordinances			
	Hauler Must Collect Yard Waste	Hauler Must Report Amts. Collected	Backyard Composting Allowed/ Regulated	Additional Materials Allowed (beyond yard waste)	Source Separated Organics	Burning and Burying Prohibited	Dumping or Littering Prohibited	Multi-Unit Enclosure Requirements
Arden Hills	No	No	No provision	No provision	No	No provision	Yes	Yes
Falcon Heights	Yes	Yes	Yes	No	No	No provision	Yes	Yes
Gem Lake	No	No	No provision	No provision	No	Yes <sup>1</sup>	Yes	Yes
Lauderdale	No	No	Yes	No provision	No	Yes	Yes	Yes
Little Canada	No <sup>2</sup>	No <sup>2</sup>	No provision	No provision	No	Yes	Yes	No
Maplewood	Yes	No	Yes	No provision	No	Yes	Yes	Yes
Mounds View	Yes	Yes	Yes	No provision	Yes	No provision	Yes	Yes
New Brighton	No	Yes	Yes	No provision	No	No provision	Yes	Yes
North Oaks	No	No	Yes	No provision	No	No provision	Yes	No
North St. Paul	Yes	Yes	Yes	Yes	No	No <sup>3</sup>	Yes	Yes
Roseville	Yes	Yes	No provision	No provision	No	Yes	Yes	Yes
St. Anthony	Yes	Yes	No provision	No provision	No	Yes	Yes	Yes
Saint Paul	Yes	Yes	Yes	No	No	Yes	Yes	Yes
Shoreview	Yes	No	Yes	No provision	No	No provision	Yes	Yes
Vadnais Heights	No <sup>2</sup>	No <sup>2</sup>	No provision	No provision	No	No <sup>4</sup>	Yes	Yes
White Bear Lake	No <sup>2</sup>	No <sup>2</sup>	Yes	Yes <sup>5</sup>	No	Yes <sup>1</sup>	Yes	Yes
White Bear Township	No <sup>2</sup>	No <sup>2</sup>	Yes (but not regulated)	No provision	No	Yes <sup>1</sup>	Yes	Yes

<sup>1</sup> Burning allowed only as permitted by MPCA.

<sup>2</sup> May be specified in city's contract for organized residential collection.

<sup>3</sup> Burying prohibited; no such prohibition on burning.

<sup>4</sup> Provisions prohibit use of garbage as fill.

<sup>5</sup> Fruit and vegetable scraps, coffee grounds and egg shells may be composted but no other non-yard waste materials.

## APPENDIX III: ACRONYMS

<b>AD</b>	Anaerobic Digestion
<b>C&amp;D</b>	Construction and Demolition Waste
<b>CEC</b>	County Environmental Charge
<b>CII</b>	Commercial/Industrial/Institutional
<b>CSI</b>	County Supporting Initiative
<b>EJ</b>	Environmental Justice
<b>EPP</b>	Environmentally Preferable Purchasing
<b>FEMA</b>	Federal Emergency Management Agency
<b>HERC</b>	Hennepin Energy Resource Company
<b>HHW</b>	Household Hazardous Waste
<b>HSEM</b>	Minnesota Homeland Security and Emergency Management
<b>ISWM</b>	Integrated Solid Waste Management
<b>LRDG</b>	Local Recycling Development Grant
<b>MRF</b>	Materials Recovery Facility
<b>MnTAP</b>	Minnesota Technical Assistance Program
<b>MPCA</b>	Minnesota Pollution Control Agency
<b>MSW</b>	Mixed Municipal Solid Waste
<b>MUD</b>	Multi-Unit Dwelling
<b>RCRA</b>	Resource Conservation and Recovery Act
<b>RDF</b>	Refuse Derived Fuel
<b>R&amp;E Board</b>	Ramsey/Washington Recycling & Energy Board
<b>R&amp;E Center</b>	Recycling & Energy Center
<b>RRT</b>	Resource Recovery Technologies
<b>RRP</b>	Resource Recovery Project
<b>SMM</b>	Sustainable Materials Management
<b>SCORE</b>	Select Committee on Recycling and the Environment
<b>SWAC</b>	Solid Waste Advisory Committee
<b>SWMCB</b>	Solid Waste Management Coordinating Board
<b>VOCs</b>	Volatile Organic Compounds
<b>VSQG</b>	Very Small Quantity Generator
<b>WMA</b>	Waste Management Act

## APPENDIX IV: DEFINITIONS

- **Acceptable Waste:** Waste that is acceptable at the Recycling & Energy Center in Newport, Minnesota. It includes any type of solid waste that has been designated by county ordinance and that is not otherwise unacceptable waste.
- **Anaerobic Digestion (AD):** A technology that uses microorganisms in the absence of oxygen to convert various types of organic wastes into renewable energy and compost or fertilizer.
- **Banned Materials:** Wastes that are statutorily banned from disposal with MSW – yard waste, electronic waste, household hazardous waste, appliances, tires, used motor oil, etc.
- **BizAware (Advocates for Waste and Recycling Education):** A program of the Recycling & Energy Board for Ramsey and Washington County business associations to develop outreach programs to member businesses about the importance of recycling.
- **BizRecycling:** A program of the Recycling & Energy Board to promote businesses and institutions starting or enhancing recycling and organic waste management programs.
- **Bulky Waste:** A subset of MSW; Household items and other discarded materials that, due to their dimension and weight, are typically not collected as part of the regular trash and recycling or for which there is a separate fee, such as furniture, carpeting and mattresses. Excludes major appliances and electronic waste.
- **Collection:** The aggregation of waste from the place at which it is generated and includes all activities up to the time the waste is delivered to a waste facility. (Minn. Stat. § 115A.03, Subd. 5)
- **C&D Waste:** Term referring to construction waste and demolition debris.
- **Commercial (as in “commercial waste” or “commercial recycling.”):** Refers to non-residential sources, including businesses, government facilities or operations, institutions, schools, non-profit organizations, community activities, etc. Interchangeable with “non-residential.”
- **Commingled Recycling:** Placing two or more source-separated recyclable materials in the same container for recycling.
- **Composting:** The controlled microbial degradation of organic waste to yield a humus-like product. (Minn. Rules § 7035.0300).
- **Conservation:** Conserving energy and natural resources through waste recycling and recovery.
- **Construction Debris:** Waste building materials, packaging and rubble resulting from construction, remodeling, repair and demolition of buildings and roads. (Minn. Stat. § 115A.03, Subd. 7)
- **County Environmental Charge (CEC):** The CEC is a percentage of the cost of service and must appear as a separate line item on a bill. Ramsey County’s CEC rate is 28% for residential customers and 53% for non-residential customers. It applies to trash collection and disposal service, fuel surcharges, account start-up or cancellation fees, and any other administrative fees. It does not apply to construction and demolition waste, recyclables, medical and infectious waste, organic materials collected for composting, and certain types of industrial waste. The CEC also does not apply to other taxes or government fees.
- **Curbside Collection:** Collection of waste (garbage, recyclables, yard waste, etc.) from residences at the point of generation.
- **Deconstruction:** The process of dismantling buildings in a manner that allows for materials to be reused.
- **Demolition Debris:** Solid waste resulting from the demolition of buildings and roads, as well as other man-made structures, including concrete, brick, bituminous concrete, untreated wood, masonry,

glass, trees and tree trimmings, rock, plastic building parts and other inert waste materials. It does not include asbestos wastes.

- **Designation:** See *Waste Flow Designation*.
- **Disposal:** The discharge, deposit, injection, dumping, spilling, leaking or placing of any waste into or on any land or water so that the waste or any other constituent thereof may enter the environment or be emitted into the air or discharged into any waters, including ground waters. (Minn. Stat. § 115A.03, Subd. 9)
- **East Metro:** Includes Ramsey and Washington counties.
- **Electronic Waste (or “e- waste”):** E-waste or electronic waste includes the following items:
  - Cathode-ray tubes - "Cathode-ray tube" or "CRT" means a vacuum tube or picture tube used to convert an electronic signal into a visual image; commonly used in televisions and computer monitors.
  - Computers - "Computer" means an electronic, magnetic, optical, electrochemical or other high-speed data processing device performing logical, arithmetic or storage functions but does not include an automated typewriter or typesetter, a portable handheld calculator or device or other similar device.
  - Computer monitors - "Computer monitor" means an electronic device that is a cathode-ray tube or flat panel display primarily intended to display information from a central processing unit or the Internet. Computer monitor includes a laptop computer.
  - Covered electronic devices - "Covered electronic device" means computers, peripherals, facsimile machines, DVD players, video cassette recorders and video display devices that are sold to a household by means of retail, wholesale or electronic commerce.
  - Peripherals - "Peripheral" means a keyboard, printer or any other device sold exclusively for external use with a computer that provides input or output into or from a computer.
  - Video display devices - "Video display device" means a television or computer monitor, including a laptop computer, that contains a cathode-ray tube or a flat panel screen with a screen size that is greater than nine inches measured diagonally and that is marketed by manufacturers for household use. Video display device does not include any of the following:
    - A video display device that is part of a motor vehicle or any component part of a motor vehicle assembled by, or for, a vehicle manufacturer or franchised dealer, including replacement parts for use in a motor vehicle;
    - A video display device, including a touch-screen display, that is functionally or physically part of a larger piece of equipment or is designed and intended for use in the following settings: industrial; commercial, including retail; library checkout; traffic control; kiosk; security other than household security; border control; medical, including diagnostic, monitoring or control equipment;
    - A video display device that is contained within a clothes washer, clothes dryer, refrigerator, refrigerator and freezer, microwave oven, conventional oven or range, dishwasher, room air conditioner, dehumidifier or air purifier; or
    - A telephone of any type unless it contains a video display area greater than nine inches measured diagonally.

- **Environmental Justice (EJ):** The fair treatment and meaningful involvement of all people regardless of race, color, national origin or income with respect to the development, implementation and enforcement of environmental laws, regulations and policies.
- **Environmentally Preferable Purchasing (EPP):** Intentionally choosing products or services that promote pollution prevention, waste reduction or reuse; purchasing products that can be easily recycled; buying recycled-content products; or making other purchasing decisions that are better for the environment when compared to traditionally purchased products or services.
- **Flow Control:** See *Waste Flow Designation*.
- **Food Recovery Hierarchy:** Prioritizes actions organizations can take to prevent and divert wasted food. Each tier of the Food Recovery Hierarchy focuses on different management strategies for wasted food with the top tier being the most preferential strategy.
- **Gasification:** An emerging technology for converting shredded trash into a synthetic gas using intense heat.
- **Generation:** The act or process of producing waste. (Minn. Stat. § 115A.03, Subd. 11)
- **Generator:** Any person who generates waste. (Minn. Stat. § 115A.03, Subd. 12)
- **Hazardous Waste:** Any refuse, sludge or other waste materials, or combinations of refuse, sludge or other waste materials or discarded materials, or a combination of refuse or discarded materials in solid, semisolid, liquid or contained gaseous form that because of the quantity, concentration, or chemical, physical or infectious characteristics may: a) cause or significantly contribute to an increase in mortality or an increase in serious irreversible or incapacitation reversible illness; or b) pose a substantial present or potential hazard to human health or the environment when improperly treated, stored, transported, disposed of, or otherwise managed. Categories of hazardous waste materials include, but are not limited to, explosives, flammables, oxidizers, poisons, irritants and corrosives. Hazardous waste does not include source, special nuclear or by-product material as defined by The Atomic Energy Act of 1954, as amended. (Minn. Stat. § 116.06, Subd. 11)
- **Hierarchy:** See *Waste Management Hierarchy* or *Food Recovery Hierarchy*.
- **Household Hazardous Waste (HHW):** Waste generated from household activity that exhibits the characteristics of or that is listed as hazardous waste under Minnesota Pollution Control Agency rules. It does not include waste from commercial activities that is generated, stored or present in a household. (Minn. Stat. § 115A.96, Subd. 1)
- **Industrial (Solid) Waste:** Solid waste resulting from an industrial process, manufacturing, service activity or commercial activity that is managed as a separate waste stream. (Minn. Stat. § 115A.03, Subd. 13a) It does not include wastes regulated as hazardous wastes.
- **Infectious Waste:** Laboratory waste, blood, regulated body fluids, sharps and research animal wastes that have not been decontaminated. (Minn. Stat. § 116.76, Subd. 12)
- **Integrated Solid Waste Management (ISWM):** A solid waste management system in which various waste management methods are used to manage waste (e.g., waste reduction, reuse, recycling, composting, resource recovery, landfilling, etc.) depending upon the characteristics of the waste and often according to a waste management hierarchy.
- **Joint Powers Agreement:** A legally binding agreement between two or more governmental entities. It is a tool for intergovernmental action on, for example, solid waste management activities.

- **Landfill (Land Disposal Facility):** A waste facility permitted by the Minnesota Pollution Control Agency that is designed or operated for disposing of waste on or in the land. (Defined as “disposal facility” in Minn. Stat. § 115A.03, Subd. 10)
- **Landfill Abatement:** Actions that avoid landfilling of waste, such as waste reduction, recycling or resource recovery.
- **Landfill Surcharge:** An additional fee applied to waste tipped at landfills; can include State, county and local fees.
- **Leachate:** Liquid that has percolated through solid waste, thus extracting, dissolving or suspending materials from the solid waste. (Minn. Rules § 7035.0330, Subd. 56)
- **Local Recycling Development Grant (LRDG):** Funds administered by the Minnesota Pollution Control Agency and allocated to metropolitan counties for the planning, development and operation of recycling and yard waste composting programs. Local Recycling Development Grant funds are distributed from the Metropolitan Landfill Abatement Account.
- **Major Appliances:** Also commonly referred to as “white goods.” This includes items banned by State law from disposal with solid waste (clothes washers and dryers, dishwashers, hot water heaters, heat pumps, furnaces, garbage disposals, trash compactors, conventional and microwave ovens, ranges and stoves, air conditioners, dehumidifiers, refrigerators and freezers). (Minn. Stat. § 115A.03, Subd. 17a)
- **Materials Recovery Facility (MRF):** Facility designed for centralized sorting, processing and/or grading of collected recyclable materials for marketing.
- **Medical Waste:** Commonly used term referring to infectious waste from medical facilities or procedures.
- **Metropolitan Landfill Abatement Account:** Established under Minn. Stat. § 473.844, an account created to fund projects that result in landfill abatement in the metropolitan area. Part of the proceeds from a State landfill surcharge on waste tipped at metropolitan area landfills is deposited into this account.
- **Metropolitan Solid Waste Management Policy Plan (Policy Plan):** The Metropolitan Solid Waste Management Policy Plan is a regional policy plan for solid waste management in the Twin Cities metropolitan area. It was adopted by the Office of Environmental Assistance as required under Minn. Stat. § 473.149. The Solid Waste Management Coordinating Board and Office of Environmental Assistance jointly developed the current Policy Plan, adopted in October 1997.
- **Minnesota Pollution Control Agency (MPCA):** State agency responsible for overall environmental quality of the state, primarily through enforcement of State rules, issuing of permits and education for compliance. The Governor appoints the MPCA commissioner.
- **Mixed Municipal Solid Waste (MSW):** Garbage, refuse and other solid waste from residential, commercial, industrial and community activities that the generator of the waste aggregates for collection. It does not include auto hulks, street sweepings, ash, construction debris, mining waste, sludges, tree and agricultural wastes, tires, lead acid batteries, motor and vehicle fluids and filters, and other materials collected, processed and disposed of as separate waste streams. (Minn. Stat. § 115A.03 Subd. 21)
- **Mixed Waste Processing:** A process to identify and separate materials from the mixed waste stream that can be recycled or used for better purposes other than landfilling. Separation processes include both mechanical and manual sorting. Mixed waste processing may sort a range of materials including recyclables and organics.

- **Multi-Family:** See *Multi-Unit Dwelling*.
- **Multi-Unit Dwelling (MUD):** A classification of housing where multiple separate units for residential living are contained within one building.
- **Non-MSW:** Solid waste that is not managed as part of the MSW stream. Typically thought of as those items specifically excluded from MSW in the statutory definition of MSW as well as other wastes, such as non-hazardous industrial waste, construction and demolition waste, infectious waste and other separately managed solid waste streams.
- **Non-Processible Waste:** Waste brought to a resource recovery facility but cannot be mechanically processed due to its physical characteristics or potential harmful effects.
- **Non-Putrescible Waste:** Solid wastes that are not capable of being decomposed by micro-organisms with sufficient rapidity as to cause odors, gases, attraction of vectors or other offensive conditions. (By contrast, putrescible wastes are a subset of organic wastes that tend to biodegrade very rapidly, such as food scraps.)
- **Non-Residential:** Refers to places other than where people live, such as businesses, government facilities or operations, institutions, schools, non-profit organizations, community activities, etc. Interchangeable with “commercial.”
- **Open Collection:** A solid waste collection system in which multiple waste haulers or collectors compete for collection accounts in the same geographical area.
- **Organic Waste:** Organics is an overarching term for plant and animal-based wastes that can be reused, processed and recycled and includes yard waste (leaves, grass, tree and shrub waste and other plant waste), household vegetable/kitchen scraps, commercially generated food waste, food manufacturing/production by-products, produce and meat trimmings, plant waste and soiled, non-recyclable paper.
- **Organics Recycling:** The process of breaking down organic (plant and animal-based) waste into a nutrient-dense compost.
- **Organized Collection:** A system for collecting solid waste in which a specified collector or member of an organization of collectors is authorized to collect from a defined geographic service area or areas either some or all of the solid waste that is released by generators for collection. (Minn. Stat. § 115A.94, Subd. 1)
- **Pollution Prevention:** Eliminating or reducing at the source the use, generation or release of toxic pollutants, hazardous substances and hazardous wastes. (Minn. Stat. § 115D.03, Subd. 8.)
- **Problem Material:** Material that, when it is processed or disposed of with mixed municipal solid waste, contributes to one of the following results: (1) the release of a hazardous substance, pollutant or contaminant, as defined in section 115B.02, subdivisions 8, 13 and 15; (2) pollution of water, as defined in section 115.01, subdivision 5; (3) air pollution, as defined in section 116.06, subdivision 3; or (4) a significant threat to the safe or efficient operation of a solid waste processing facility. The four conditions are further defined in Minn. Stat. § 115A.03, Subd. 24a.
- **Processible Waste:** Acceptable waste brought to a resource recovery facility that can be mechanically processed using the existing technology at the facility.
- **Processing:** The treatment of waste after collection and before disposal. Processing includes, but is not limited to, reduction, storage, separation, exchange, resource recovery, physical, chemical or biological modification, and transfer from one waste facility to another. (Minn. Stat. § 115A.03, Subd. 25) For purposes of certification of unprocessed waste, per Minn. Stat. § 473.848, “storage,” “exchange,” and “transfer” are excluded.

- **Product Stewardship:** The concept that all parties who have a role in producing, selling or using a product, including material suppliers, manufacturers, retailers and consumers, assume responsibility for the environmental impacts of a product throughout its lifecycle. These include impacts from the selection of raw materials, the design and production processes, and the use and disposal of the product.
- **Public Entities:** Any unit of State or local government, including counties, cities, towns, metropolitan agencies and districts, special districts, school districts or any other general or special purpose unit of government in the state. (Minn. Stat. § 115A.471) With regard to certain public entity procurement standards established in Minn. Stat. § 16B.122, “public entities” also includes any contractor acting pursuant to a contract with a public entity.
- **Ramsey/Washington Recycling & Energy Board (R&E Board):** A joint powers agreement between Ramsey and Washington Counties to protect and ensure the public health, safety, welfare and environment of each county’s residents and businesses through sound management of solid and hazardous waste generated in each county and collaboration on many waste management activities.
- **Ramsey/Washington County Resource Recovery Project (RRP):** See *Ramsey/Washington Recycling & Energy Board*.
- **Reciprocal Use Agreement:** An agreement among counties to allow residents of one county to use certain services (e.g., household hazardous waste collection) provided by another county that is party to the agreement.
- **Recyclable Materials (Recyclables):** Materials that are separated from mixed municipal solid waste for the purpose of recycling or composting, including paper, glass, plastics, metals, automobile oil, batteries, source-separated compostable materials, and sole source food waste streams that are managed through biodegradative processes. Refuse derived fuel or other material that is destroyed by incineration is not a recyclable material. (Minn. Stat. § 115A.03, Subd. 25a)
- **Recycled-Content:** Used to describe a product that contains recycled materials. Often further clarified as “post-consumer” recycled content and/or “pre-consumer” or “post-industrial” content. “Post-consumer” refers to a finished material that would normally have been discarded as solid waste, having completed its life cycle as a consumer item (Minn. Stat. § 16B.122, Subd. 1c; and Minn. Stat. § 115A.03, Subd. 24b). Instead, it was used to manufacture a recycled-content product. “Post-consumer” is typically thought of as recyclable materials collected from residents and businesses in recycling programs. “Pre-consumer” or “post-industrial” typically refer to recyclable materials that come from manufacturers and product converters, including damaged or obsolete products, overruns and trimmings. These materials have not yet completed a life cycle as a consumer item.
- **Recycling:** The process of collecting and preparing recyclable materials and reusing the materials in their original form or using them in manufacturing processes that do not cause the destruction of recyclable materials in a manner that precludes further use. (Minn. Stat. § 115A.03, Subd. 25b)
- **Recycling & Energy Center (R&E Center):** A waste processing facility in Newport, MN owned by the Ramsey/Washington Recycling & Energy Board.
- **Refuse Derived Fuel (RDF):** The product resulting from techniques or processes used to prepare solid waste by shredding, sorting or compacting for use as an energy source. It consists of lighter weight materials such as paper products with most metals, glass and other non-combustible materials removed.

- **Residuals, Residue:** Waste materials remaining after processing waste for the separation and recovery of materials or energy.
- **Resource Conservation:** Preserving raw materials, energy, water or other materials for future use.
- **Resource Recovery:** The reclamation for sale, use or reuse of materials, substances, energy or other products contained within or derived from waste. (Minn. Stat. § 115A.03, Subd. 27) Resource recovery typically refers to the recovery of energy and usable materials during the processing of mixed municipal solid waste.
- **Resource Recovery Facility:** A waste facility established and used primarily for resource recovery, including appurtenant facilities, such as transmission facilities and transfer stations primarily serving the resource recovery facility. (Minn. Stat. § 115A.03, Subd. 28)
- **Reuse:** The practice of avoiding disposal of material that would become solid waste if it was not put to use again in its original form.
- **SCORE:** Acronym for “Select Committee on Recycling and the Environment,” a State task force appointed by the Governor in the 1980’s to recommend strategies for supporting recycling in Minnesota. “SCORE” is commonly used to refer to State grant funding to counties to support local waste reduction and recycling programs.
- **Separately Managed Wastes:** Waste materials that are managed as discrete waste streams, such as lead-acid batteries, recyclables or infectious wastes.
- **Service Charge:** Under the authority granted in Minn. Stat. § 400.08 and § 473.811, Subd. 8a, a fee collected for services rendered by a county or by extension through joint powers agreements by municipalities of the county.
- **Solid Waste:** Refers to garbage, refuse or sludge from a water supply treatment plant or air contaminant treatment facility, and other discarded waste materials and sludges in solid, semisolid, liquid or contained gaseous form, resulting from industrial, commercial, mining and agricultural operations and from community activities. Solid waste does not include hazardous waste; animal waste used as fertilizer; earthen fill, boulders, rock; concrete diamond grinding and saw slurry associated with the construction, improvement, or repair of a road when deposited on the road project site in a manner that is in compliance with best management practices and rules of the agency; sewage sludge; solid or dissolved material in domestic sewage or other common pollutants in water resources, such as silt, dissolved or suspended solids in industrial wastewater effluents or discharges which are point sources subject to permits under section 402 of the Federal Water Pollution Control Act, as amended, dissolved materials in irrigation return flows; or source, special nuclear or by-product material as defined by the Atomic Energy Act of 1954, as amended. (Minn. Stat. § 116.06, Subd. 22)
- **Solid Waste Management Coordinating Board (SWMCB):** A board formed under a joint powers agreement, consisting of two Commissioners from each of the six metropolitan counties plus ex-officio representation from the Minnesota Pollution Control Agency. SWMCB is established to coordinate solid waste planning and programming on a regional basis.
- **Solid Waste Management Tax:** A percentage tax collected by the State for management services for MSW and non-MSW (specifically construction waste, infectious waste and industrial waste). Services subject to the tax include collection, transportation, processing and disposal. Service providers (such as haulers and landfill operators) who directly bill generators or customers are responsible for collecting and remitting the tax to the State. The current rate, established in 1998, is 9.75% for residential generators and 17% for commercial generators.

- **Source Reduction:** See *waste reduction*.
- **Source Separation:** Separation of recyclable, compostable or other materials by the waste generator prior to collection.
- **Source-Separated Compostable Materials:** Refers to materials that: (1) are separated at the source by waste generators for the purpose of preparing them for use as compost; (2) are collected separately from mixed municipal solid waste and are governed by the licensing provisions of section 115A.93; (3) are comprised of food wastes, fish and animal waste, plant materials, diapers, sanitary products and paper that is not recyclable because the commissioner has determined that no other person is willing to accept the paper for recycling; (4) are delivered to a facility to undergo controlled microbial degradation to yield a humus-like product meeting the Minnesota Pollution Control Agency's class I or class II, or equivalent, compost standards and where process residues do not exceed 15% by weight of the total material delivered to the facility; and (5) may be delivered to a transfer station, mixed municipal solid waste processing facility or recycling facility only for the purposes of composting or transferring to a composting facility, unless the commissioner determines that no other person is willing to accept the materials. (Subd. 32b. MS 1994 [Renumbered Subd. 32d])
- **Source-Separated Recyclable Materials:** Recyclable materials, including commingled recyclable materials, that the generator collects apart from trash.
- **Sustainable Building:** Refers to a building that is healthy and comfortable for its occupants and is economical to operate. It conserves resources (including energy, water, raw materials and land) and minimizes the generation of toxic materials and waste in its design, construction, landscaping and operation. A sustainable building also considers historic preservation and access to public infrastructure systems, as well as the entire lifecycle of the building and its components.
- **Sustainable Materials Management (SMM):** A systemic approach to use and reuse materials more productively over their entire lifecycles.
- **Tipping Fee:** The fee charged by solid waste facilities to waste haulers, collectors or other parties for the privilege of depositing or "tipping" waste.
- **Toxicity:** Under Minn. Rules § 7045.0131, toxicity is one of the six characteristics of hazardous waste. Contaminants of concern include: (1) heavy metals, such as lead or mercury; (2) volatile organic compounds, such as benzene or chloroform; (3) semi-volatile organic compounds, such as pyridine or nitrobenzene; and (4) pesticides/herbicides, such as endrin or lindane.
- **Toxicity Reduction:** Refers to efforts to reduce the toxic or hazardous character of the waste stream.
- **Transfer Station:** An intermediate waste facility in which waste collected from any source is temporarily deposited to await transportation to another waste facility. (Minn. Stat. § 115A.03, Subd. 33)
- **Unacceptable Waste:** Waste that is not allowed at a resource recovery facility under the terms of the service agreement. Unacceptable waste includes wastes which would likely pose a threat to health or safety or which may cause damage to or materially adversely affect the operation of the facility.
- **Volatile Organic Compounds (VOCs):** Includes a variety of chemicals that evaporate easily from the solid or liquid state and are found in a variety of products. Some VOCs can have short or long-term adverse health effects. Many VOCs are found in higher concentrations indoors versus outdoors.
- **Volume-Based (Weight-Based) Fees:** A graduated pricing system for waste collection services in which the fees increase for larger quantities of waste collected.

- **Waste:** Solid waste, sewage sludge and hazardous waste. (Minn. Stat. § 115A.03, Subd. 34)
- **Waste Flow Designation:** A requirement by a county or waste management district that all or any portion of the solid waste that is generated within its boundaries or any service area thereof be delivered to a processing or disposal facility identified by the district or county. (Minn. Stat. § 115A.81, Subd. 2)
- **Waste Management:** Activities which are intended to affect or control the generation of waste and activities which provide for or control the collection, processing and disposal of waste. (Minn. Stat. § 115A.03, Subd. 36)
- **Waste Management Hierarchy (Order of Preference):** A ranking of waste management methods or preference practices in the order in which they are the preferred method or practice. Informally referred to as the “waste management hierarchy.” Minn. Stat. § 115A.02 establishes the following order of preference for waste management: 1) waste reduction and reuse; 2) waste recycling; 3) composting of yard waste and food waste; 4) resource recovery through mixed municipal solid waste composting or incineration; 5) land disposal which produces no measurable methane gas or which involves the retrieval of methane gas as a fuel for the production of energy to be used on-site or for sale; and 6) land disposal which produces measurable methane gas and which does not involve the retrieval of methane gas as a fuel for the production of energy to be used on-site or for sale.
- **Waste Management Act (WMA):** Chapter 115A of State Statutes which governs waste management activities in the State of Minnesota. It was adopted in 1980 and amended by subsequent legislation. Some other sections of State Statutes also affect solid waste management but are technically not part of the Waste Management Act.
- **Waste Reduction:** An activity that prevents generation of waste or the inclusion of toxic materials in waste, including: (1) reusing a product in its original form; (2) increasing the life span of a product; (3) reducing material or the toxicity of material used in production or packaging; or (4) changing procurement, consumption or waste generation habits to smaller quantities or lower toxicity of waste generated. (Minn. Stat. § 115A.03, Subd. 36b)
- **Yard Waste:** Lawn and garden waste, such as leaves, lawn cuttings, weeds, shrub and tree waste, and pruning clippings. (Minn. Stat. § 115A.03, Subd. 38)

## APPENDIX V: MASTER PLAN BACKGROUND, HISTORY AND DEVELOPMENT

### Community Engagement in Preparing the Master Plan

Ramsey County engaged a number of communities and used a variety of methods in preparing this plan. While there were efforts specific to the content of this plan, Ramsey County engages with communities on a continual basis, gathering feedback on policy, strategic and operational direction. In particular, Ramsey County engages with groups of individuals from diverse backgrounds to gather feedback and insight. Using surveys, focus groups, one-on-one dialogue, open houses, social media, structured conversation, and formal and informal gatherings, the county engages with residents, waste management professionals, representatives of municipalities and other public entities, businesses and institutions that operate within the county, and a Solid Waste Advisory Committee. By understanding the demographic composition of Ramsey County, along with cultural and social behavior around trash, recycling and accountability, we help keep our policies and strategies relevant for the communities we serve, we help meet the goals of the Waste Management Act, and we help create an integrated waste management system that meets the needs of our residents.

Minnesota statutes require Ramsey County to work with a Solid Waste Advisory Committee (SWAC) to aid in the preparation and revision of the Master Plan. A SWAC was appointed by the County Board in early 2017 and consisted of 25 members, including residents, industry representatives and municipal representatives. The group convened for four meetings in the spring of 2017. The SWAC functioned as a resource group and sounding board and focused on the following areas of the Master Plan:

- Waste reduction and reuse;
- Prevention of wasted food and management of organic waste; and
- Management of construction and demolition waste.

A draft version of the Master Plan was released for public input for a period of three weeks. During that time comments were received from residents, service providers, municipalities, community groups and other stakeholders. Input was considered in revisions made to the draft master plan.

### Master Plan Background and History

*The waste management system in Minnesota has evolved over time.* Solid waste management planning and implementation in the metropolitan area is governed largely by statutes specific to the seven-county Twin Cities Metropolitan Area. Required by Minnesota statute, the solid waste planning process has been comprised of a periodic revision of the regional solid waste policy plan (Minnesota Statutes, section 473.149), followed by a revision of county solid waste master plans to implement the regional policy plan (Minnesota Statutes, section 473.803) since the 1980's.

Since the early 1980's, Ramsey County has followed a series of solid waste master plans. These plans have guided changes in solid waste management from being a system dependent on land disposal to one that integrates a variety of management strategies. These plans have served as guidance to the counties, municipalities, the waste industry and others as decisions are continually made about waste management practices in the State. The Master Plan has come to be respected for setting clear policy direction, protecting public and environmental health, reducing a variety of risks, and stabilizing the economics of the waste management system.

A historical example of this stability is found in the development of curbside recycling. In the early 1990's, curbside recycling was in its infancy, and there was skepticism about its value and longevity. Ramsey County's Master Plans established clear policy direction, directing that municipalities would be responsible for the collection of recyclables, that it is an expectation that such service be institutionalized, that long-term funding sources for recycling be developed, and that certain goals had to be met. This direction established the clear role for curbside recycling, and was the basis for the service being a permanent fixture in the system.

Another important role of the Master Plan has been to address various risks. At its core, many of the changes in solid waste management over the past thirty years have been aimed at reducing risk to public health, safety and the environment. For example, the county's Master Plans have established policies, regulations and services to reduce the hazardous character of waste. There is now significantly less hazardous waste in mixed municipal solid waste than there was in the past. This reduces a variety of risks, especially occupational health risks to waste industry workers, property damage risks to waste industry equipment, environmental risks related to disposal of waste, and health risks associated with environmental emissions.

The Master Plans have also addressed economic risks. Policies that ensure markets for recyclables, delivery of waste to the resource recovery facility, and stable sources of recycling funding have ensured the system is financially stable. Furthermore, the system as developed has reduced environmental liability risks for businesses and government in Ramsey County. While often overlooked as a benefit of solid waste planning, this liability reduction is a hidden economic development tool that has saved millions of dollars over thirty years. (Recall the cost of cleaning up closed old landfills in Minnesota is over half a billion dollars.)

In sum, the Ramsey County Master Plan is an important tool to protect public health and the environment, to reduce a variety of risks, and to stabilize the economics of waste management for residents and businesses.

Per Minnesota statute, county master plans and revisions to the plans must be submitted to the Minnesota Pollution Control Agency (MPCA) for approval within a specified period. As such, during the past two decades, the Master Plans were submitted in the year following the completion of the Policy Plan revisions: 1992, 1998, 2004, 2010 and 2016. The current Policy Plan is set for the years 2016 through 2036 with review and revisions scheduled to occur every six years (Minnesota Statutes, sections 473.149 and 473.803). For this round of revisions, Ramsey County is required to submit a revised Master Plan by January 2018.

## APPENDIX VI: COUNTY OVERSIGHT OF THE PRIVATE SECTOR/WASTE INDUSTRY

Minnesota Statutes, section 473.805, subdivision 5 states:

***Role of private sector; county oversight.***

*A county may include in its solid waste management master plan and in its plan for county land disposal abatement a determination that the private sector will achieve, either in part or in whole, the goals and requirements of sections [473.149](#) and [473.803](#), as long as the county:*

*(1) retains active oversight over the efforts of the private sector and monitors performance to ensure compliance with the law and the goals and standards in the metropolitan policy plan and the county master plan;*

*(2) continues to meet its responsibilities under the law for ensuring proper waste management, including, at a minimum, enforcing waste management law, providing waste education, promoting waste reduction, and providing its residents the opportunity to recycle waste materials; and*

*(3) continues to provide all required reports on the county's progress in meeting the waste management goals and standards of this chapter and chapter 115A.*

In accordance with Appendix D of the Regional Solid Waste Policy Plan, this appendix explains Ramsey County's conformance with this law. The solid waste management system serving Ramsey County, and the East Metro area in general, is comprised of a combination of services provided by public and private entities. Over the course of 37 years since the Waste Management Act was enacted, the system has evolved to a condition in which the private sector provides a number of services. Therefore, the private sector, both public and not-for-profit organization, play a critical role in carrying out solid waste functions in Ramsey County.

The tools that Ramsey County uses to hold the private sector accountable include:

1. Regulation – through ensuring compliance with county ordinances and, where applicable, State laws that relate to solid waste management;
2. Contracts – through ensuring compliance with voluntary agreements entered into between a unit of government and a private entity; and
3. Monitoring and reporting – gathering information from private parties to monitor actions related to the solid waste system.

The private sector, in partnership with the public sector, is responsible for portions of the solid waste system, with oversight by the county as shown in the table below:

Function	Provided By	Oversight Method
Collection of waste, recyclables, organics, yard waste	Private for-profit and non-profit companies, including specialty companies	<ul style="list-style-type: none"> <li>▪ Licensing of haulers of mixed municipal solid waste</li> <li>▪ Licensing and inspection of transfer stations for MSW and non-MSW</li> <li>▪ Reporting by collectors of MSW, recyclables</li> </ul>
Collection and delivery of Acceptable Waste to the R&E Center	Private waste hauling companies	<ul style="list-style-type: none"> <li>▪ Enforcement of Waste Designation provisions of solid waste ordinance</li> <li>▪ Monitoring and enforcement of waste delivery agreements</li> </ul>
Processing and marketing of recyclables	Private for-profit and non-profit companies	<ul style="list-style-type: none"> <li>▪ Monitoring of regulation by MPCA</li> <li>▪ Response to complaints</li> <li>▪ Review of reporting required by contract or MPCA</li> </ul>
Land disposal	Private landfills in Minnesota and Wisconsin	<ul style="list-style-type: none"> <li>▪ Assuring compliance with contracts between the R&amp;E Board and landfills for disposal</li> </ul>
Portions of services provided to residents, such as yard waste sites, household hazardous waste services	Private companies under contract to Ramsey County	<ul style="list-style-type: none"> <li>▪ Ensuring compliance with contracts</li> </ul>
Collection of residential recyclable	Services provided to municipalities under contract or via ordinance	<ul style="list-style-type: none"> <li>▪ Ensuring compliance with SCORE agreements between county and cities that outline residential recycling requirements</li> <li>▪ Technical assistance to cities to ensure recycling service agreements are enforceable</li> <li>▪ Reviewing reporting to municipalities by service providers</li> <li>▪ Reviewing reporting to the MPCA by recyclers</li> </ul>
Collection of non-residential recyclables, including organics	Services provided to non-residential waste generators	<ul style="list-style-type: none"> <li>▪ Monitoring compliance with State law requiring recycling by certain businesses</li> <li>▪ Monitoring service levels and quality through BizRecycling program</li> </ul>

## APPENDIX VII: RAMSEY AND WASHINGTON COUNTIES JOINT WASTE DESIGNATION PLAN

Ramsey and Washington Counties purchased the Ramsey/Washington Recycling & Energy Center in Newport, Minnesota (R&E Center) and plan to use the waste processing facility as a key component in managing waste and resources in the two counties. During a three-year planning and evaluation period, the counties anticipated the use of waste designation as a critical policy choice to achieve state waste management goals. A Joint Waste Designation Plan was approved by the MPCA in August 2016 on behalf of both counties as the necessary next step in achieving the vision for waste and resource management in the two counties.

The Ramsey/Washington Joint Waste Designation Plan can be found at the following link:

<http://morevaluelesstrash.com/designation-and-master-plans/>

Hard copies can also be requested via phone at 651-266-1199.

## APPENDIX VIII: AMENDMENT TO THE 2011-2030 SOLID WASTE MANAGEMENT MASTER PLAN

Ramsey County amended the processing chapter of its 2011-2030 Solid Waste Management Master Plan to reflect the purchase of the R&E Center, to provide more detail about the R&E Center's operations and to clarify policies and strategies on waste processing and implementation of a Ramsey/Washington County Joint Waste Designation Plan. The amendment was approved by the MPCA in August 2016.

The amendment to the 2011-2030 Solid Waste Management Master Plan can be found at the following link:

<http://morevaluelesstrash.com/designation-and-master-plans/>

Hard copies can also be requested via phone at 651-266-1199.