

Dakota County, Minnesota

Solid Waste Master Plan

2012-2030



Adopted by the Dakota County Board of Commissioners on March 27, 2012.

Approved by the Minnesota Pollution Control Agency on May 24, 2012.

Dakota
COUNTY

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EXECUTIVE SUMMARY

The Dakota County Solid Waste Master Plan (County Master Plan) is the Plan for managing solid waste that is generated and managed in Dakota County through 2030. The County Master Plan is an implementation guide that steers changes in solid waste management and provides direction to stakeholders involved in waste management, including public entities, the waste industry, waste generators, and others as decisions are made about waste management.

State law requires that Dakota County revise its County Master Plan periodically to identify strategies toward achieving revised State goals and objectives, identified in the Metropolitan Solid Waste Policy Plan (Policy Plan). Key stakeholders and the public were engaged in this County Master Plan revision for guidance on waste issues, system performance, roles and responsibilities, and ways to improve solid waste management in Dakota County. The County Master Plan promotes actions that support sustainable waste practices that reduce the amount of toxic waste generated and disposed; enhance waste reduction, reuse, and recycling; promote resource recovery; preserve valuable land disposal capacity; and minimize economic, environmental, and public health liabilities associated with waste management.

This Plan is organized into four chapters that address major waste management methods and tools, as required by Statute.

Chapter 1 - Introduction: provides an overview of the process used to engage stakeholders and revise the County Master Plan, and describes how the County Master Plan will be implemented and maintained over time. This chapter also summarizes supplemental waste management plans, including the Policy Plan and the Regional Solid Waste Master Plan (Regional Master Plan) – and how the County Master Plan conforms to and provides consistency with these plans.

The Policy Plan, approved by the MPCA in April 2011, sets the framework for County Master Plans in the Twin Cities Metropolitan Area (TCMA), which includes Dakota County and six other counties. The Policy Plan sets standards against which local solid waste plans are reviewed and approved. The County Master Plan incorporates the Policy Plan vision, themes, goals, and TCMA mixed municipal solid waste (MSW) system objectives, provided for the first time for waste reduction and reuse, recycling, organics recovery, resource recovery, and land disposal. The Policy Plan's system objectives are aggressive and go beyond current statutory goals, and require expanded and new County educational, financial, and regulatory approaches to achieve them.

Policy Plan MSW Management System Objectives for the Twin Cities Metropolitan Area, 2008-2030						
	2008 Dakota County (actual)	2008 TCMA (actual)	2015	2020	2025	2030
Reduction & Reuse	*	*	1-2%	2-4%	3-5%	4-6%
Recycling	44%	41%	45-48%	47-51%	49-54%	54-60%
Organics Recovery	3%	2%	3-6%	4-8%	6-12%	9-15%
Resource Recovery	10%	29%	32-34%	32-33%	30-31%	24-28%
Land Disposal	43%	28%	20%	17%	15%	9%

*Actual reduction and reuse measures have not yet been defined for reporting purposes.

The County Master Plan includes the Regional Master Plan, developed in a coordinated fashion by Dakota County and the other five-member counties of the Solid Waste Management Coordinating Board

Executive Summary

(SWMCB). The Regional Master Plan emphasizes coordination, collaboration, and partnerships between the SWMCB-member counties and the public and private sectors, and is intended to work in concert with individual County Plans. The Regional Master Plan will be jointly implemented by the SWMCB-member counties, and is included as Appendix A.

Chapter 2 - Existing Waste Management System Description: describes the solid waste management system in Dakota County, starting with preferred waste management practices, as demonstrated in the Waste Management Hierarchy (Hierarchy). Major roles and responsibilities in managing an integrated Regional waste management system are summarized across the public and private sectors. Data on the amount of solid waste generated in Dakota County, waste composition, and the amount managed by specific methods are also included. Chapter 2 provides an inventory of waste management facilities located in Dakota County and an overview of Dakota County's programs and activities.

Dakota County recognizes that no one method of waste management is capable of handling every portion of the waste management stream in an environmentally-sound manner. The County supports an integrated waste management system that strives to manage waste at the highest level of the Hierarchy. The County has strong recycling programs and one of the highest recycling rates in the TCMA. In fact, in 2010 the County achieved the 2015 TCMA Policy Plan recycling and organics recovery objectives, but continued to fall short of and will be more challenged by the TCMA resource recovery and land disposal objectives. Increased facility capacity and access would be necessary for the County alone to reach the Policy Plan's resource recovery objectives; however, the County fully expects to contribute to achieving the objective as the TCMA counties collectively measure progress. An aggressive focus on reduction, reuse, recycling, and organics diversion in the County is necessary for the County alone to reach the Policy Plan's land disposal objectives; however, as with resource recovery, the County fully expects to contribute to achieving the objective as the TCMA counties collectively measure progress.

Chapter 3 - Dakota County Plan for Solid Waste Management through 2030: identifies the County's vision, policies, goals, strategic approaches, and anticipated outcomes for managing more waste at preferred levels of the Hierarchy, near-term (2012-2017), mid-term (2018-2023), and long-term (2024-2030).

The County Master Plan includes a near-term (2012-2017) increment that identifies specific and measurable strategic approaches for each waste management method, with anticipated outcomes or diversion estimates for each major Plan topic area. The overall approach is to provide an aggressive yet realistic start to County Master Plan implementation with well-chosen strategies that drive the desired waste outcomes (tonnages and percentages diverted) near-term, and essential preparatory strategies that pave the way for actions likely to happen in the next planning horizon.

Key areas of emphasis in this County Master Plan – in an effort to more fully develop parts of the waste management system – include:

- Broadening communication, consultation, and technical assistance to the community
- Enhancing recycling and organics waste management diversion, especially by the business and public entity sectors

- Maximizing capacity at area resource recovery facilities
- Improving data quality for better decision-making
- Leveraging partnerships for better education and delivery of waste management services
- Strategic use of expanded and new educational, financial, and regulatory tools for consistency and oversight, and to shift more waste up the Hierarchy

Accomplishing change in these areas necessitates greater partnerships and accountability in Plan implementation among all waste generators, waste industry, and private and public sectors.

Summary of Strategic Approaches:

Outreach and Education

Enhanced community outreach and education will move waste up the Hierarchy through a new program to assist businesses to enhance their recycling, by leveraging partnerships to distribute educational messages, and by targeting audiences of greatest need with specific information and improved distribution. The County will continue and expand the performance-based funding program to cities and townships for waste reduction, reuse, hazardous waste management, organics, and recycling education and outreach.

Regulation

The County will administer its waste regulation programs to protect public health and the environment, and will strengthen County licenses and Ordinances to shift waste management to the highest level of the Hierarchy.

Hazardous Waste Management and Toxicity Reduction

The County will continue to provide comprehensive education, regulate hazardous waste, and expand opportunities for managing household and business hazardous waste.

Waste Reduction and Reuse

The County will implement a reuse campaign for residents, increase overall landfill abatement education, and improve data quality to provide a clearer picture of reuse and reduction. The County will incorporate Environmentally-Preferable Practices (EPP) in County operations and work with public entities to do the same and will look to State and Federal leadership to implement product stewardship initiatives in the private sector.

Recycling

The County emphasis is on educating the community on the importance of recycling and ensuring that recycling is available to everyone, with a targeted focus on increasing business recycling. Recycling opportunities will be enhanced on all public properties, including public schools. Improved data collection will strengthen accuracy in determining recycling rates. The County will continue to provide performance-based funding to cities and townships to develop and implement programs, practices, and methods to meet land disposal abatement goals and objectives and to ensure that residents have the opportunity to recycle. If sufficient progress is not being made toward reaching the upper range of the Policy Plan objective by 2015, enhanced regulatory approaches will be considered.

Organics and Yard Waste Management

The County's strategic focus is to more fully use the existing capacity at the Empire organics compost facility. The County will develop a new educational outreach program for the community, emphasizing businesses that generate large quantities of organics. The County will build on the success of existing public recycling programs to introduce organics diversion programs. Improving data will enhance the County's ability to quantify progress. If significant progress is not being made toward Policy Plan objectives by 2020, the County will evaluate mandatory organics diversion for targeted generators.

Resource Recovery

The County's focus is to increase public entity awareness of processing mandates through enhanced messaging, especially to public schools. Maintaining the County lease of Empire Township land to require a specified quantity of MSW transfer to resource recovery facilities is integral in improving the County's resource recovery rate. Additional approaches include continuing the restriction for MSW landfills in Dakota County to accept processible waste from Metropolitan area generators in accordance with Ordinance 110 Section 6.05, working with the MPCA and public entities so that MSW from public entity operations is delivered to a resource recovery facility in accordance with Minn. Stat. §473.848, and referring non-compliance issues to the MPCA.

MSW Land Disposal

The County will continue to regulate land disposal facilities serving the Region to protect public health and the environment. Near-term strategies for waste reduction and reuse, recycling, organics diversion, and resource recovery will reduce land disposal, with greater diversion anticipated as expanded and new programs are implemented and become mature. If significant progress is not made toward Policy Plan objectives by 2015, the County will participate in State and Regional efforts to evaluate and implement land disposal bans on recyclable materials and consider mid-term implementation of an on-site recycling facility at MSW land disposal facilities.

Non-MSW Management

The County will continue to use standards for its building and paving projects that reduce and recycle non-MSW. As more aggressive approaches within the Region advance, additional non-MSW materials will be diverted from land disposal. If significant diversion of non-MSW from land disposal is not being made by 2015, Dakota County will participate in State and Regional efforts to evaluate and implement land disposal bans on recyclable materials and consider mid-term implementation of a "dirty" on-site recycling facility at non-MSW land disposal facilities.

Contaminated Sites and Brownfields

The County will continue to leverage local, State, and Federal partnerships to enhance the identification, investigation, and appropriate remediation of contaminated sites. The County will continue to develop high quality data on contaminated sites and facilitate site remediation.

Cost and Finance

The County will implement long-term revenue and funding approaches that sustain environmental programs and activities that move waste up the Hierarchy.

Chapter 4 – Performance Measurement and Reporting: provides an overview on data reporting and identifies a broad range of implementation progress measures that the County already uses or will use in the future. Measures include *general outcomes*, such as tons of material recycled; *specific*

outcomes, such as tons of material recycled through a business recycling program; and *outputs*, such as the number of educational programs delivered annually.

Regularly measuring results is part of Plan implementation and benchmarking progress towards Policy Plan numeric objectives. Dakota County is committed to developing, refining, and regularly using a performance measurement system that marks its progress in achieving the goals and outcomes identified in this County Master Plan.

Strategy implementation is subject to County Board approval through annual budgeting and work planning processes. Work priorities are developed with input based on sound science, good judgment, best practices, consultation with State, Regional, and local partners, and review of relevant data.

1: INTRODUCTION

We all rely on having a waste management system that can collect and appropriately manage the many types of waste regularly generated by households, businesses, institutions, and industry. As with other major infrastructure systems, it is essential to regularly evaluate system performance, consider new goals, and plan ways to improve the system. As part of this effort to evaluate and improve waste management, the seven Twin Cities Metropolitan Area (TCMA) counties are required by Minn. Stat. §473.803 to prepare and periodically update their County Master Plans.

In the TCMA, the waste management system is complex, composed of many public and private entities with varied roles ranging from direct service provision to regulation. Improving the overall system is a shared responsibility among the public and private sectors. In Dakota County’s Solid Waste County Master Plan (County Master Plan) revision, Dakota County engaged key stakeholders and the public on waste issues, system performance, roles and responsibilities, and ways to improve solid waste management in Dakota County.

Unless otherwise specified, solid waste refers to both mixed municipal solid waste (MSW) and non-municipal solid waste (non-MSW) – including construction waste, demolition debris, and industrial wastes.

A. Dakota County Master Plan Purpose and Planning Framework

This County Master Plan has been revised to be consistent with the Minnesota Pollution Control Agency’s (MPCA) Metropolitan Solid Waste Management Policy Plan (Policy Plan), complement the Solid Waste Management Coordinating Board’s (SWMCB) Regional Solid Waste Master Plan (Regional Master Plan), and conform to the Dakota County Comprehensive Plan (County Comprehensive Plan). These plans are summarized below:



Policy Plan: The current 2005-2024 County Master Plan was scheduled for revision in 2010 in accordance with Minn. Stat. §473.149; however, the MPCA suspended the effort to conduct a two-year

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Integrated Stakeholder Process. Stakeholders representing residents, businesses¹, the waste industry, and the public and private sectors were charged with developing strategies toward reaching State greenhouse gas emission reduction targets for waste management. In addition, the MPCA directed the SWMCB to evaluate governance and financing structures that could be applied in the TCMA to reduce land disposal. The MPCA used the results of these two efforts, with input from various stakeholders, to revise the Policy Plan. The MPCA adopted the revised Policy Plan on April 6, 2011. The Policy Plan identifies the vision, key themes, goals, policies, objectives, and potential strategies for managing waste in the TCMA over a 20-year time horizon (2010-2030). Minn. Stat. §473.149 requires the Policy Plan to be followed in the TCMA, and to guide development of County Master Plans.

Policy Plan Vision: *A sustainable community minimizes waste, prevents pollution, promotes efficiency, reduces greenhouse gas emissions, saves energy and develops resources to revitalize local economies. The integrated waste management system is an essential component of the infrastructure of a sustainable community. Solid waste must be managed by technologies and methods that support sustainable communities and environments. The Solid Waste Management Hierarchy (Hierarchy), with its associated objectives of protecting the State's air, land, water, and other natural resources and the public health, is central to attaining the twin objectives of sustainability and solid waste management, because it emphasizes waste reduction and reuse over land disposal.*

Key Themes: Fundamental themes in the Policy Plan provide a foundation for County Master Plans and include: *accountability, waste as a resource, the Hierarchy, generator responsibility, government as a leader, product stewardship, and private-sector initiative.*

Goals: Policy Plan goals that direct the County Master Plan include:

Protect and conserve. Manage waste in a manner that will protect the environment and public health, reduce greenhouse gas emissions, and conserve energy and natural resources.

Integrate the parts. Manage waste in an integrated waste management system in accordance with the Hierarchy to minimize landfilling, while emphasizing reducing waste generation and toxicity and increasing reuse, recycling, and source-separated organic waste management.

Manage waste cost-effectively and internalize future costs. Manage waste in a cost-effective manner that maximizes environmental benefits and minimizes long-term financial liability and be priced to provide incentives that encourage waste to be managed as high as possible on the Hierarchy.

Share responsibility. Allocate responsibility and costs for the environmentally sound management of waste equitably among those who use or benefit from the system, including producers, retailers, consumers, government, citizens, and the waste industry.

Numeric Objectives: For the first time, the Policy Plan identifies numeric objectives for the TCMA, presented in five-year increments for waste reduction and reuse, recycling, organics recovery, resource recovery (processing for energy), and land disposal. These numeric objectives go beyond current statutory goals. The objectives are aggressive and require the TCMA and individual counties to thoroughly evaluate and enhance mechanisms used to move waste up the Hierarchy, particularly through education, pricing, and regulation. Emphasis areas in the Policy Plan toward achieving the

¹ For the purposes of this Plan, "business" refers to commercial, institutional, and industrial, or non-residential establishments, and also includes schools.

objectives include: *commercial organics diversion, commercial recycling, and using existing resource recovery facility capacity to its maximum.*

The Policy Plan's numeric objectives are expressed as a percentage of the total TCMA municipal solid waste (MSW) stream for 2015-2030, and are provided in the following table. Actual percentages generated in 2008 by Dakota County and the TCMA are provided as a comparison and baseline.

Policy Plan MSW Management System Objectives for the Twin Cities Metropolitan Area, 2008-2030						
	2008 Dakota County (actual)	2008 TCMA (actual)	2015	2020	2025	2030
Reduction & Reuse	*	*	1-2%	2-4%	3-5%	4-6%
Recycling	44%	41%	45-48%	47-51%	49-54%	54-60%
Organics Recovery	3%	2%	3-6%	4-8%	6-12%	9-15%
Resource Recovery	10%	29%	32-34%	32-33%	30-31%	24-28%
Land Disposal	43%	28%	20%	17%	15%	9%

**Actual* reduction and reuse measures have not yet been defined for reporting purposes.

In 2008, Dakota County nearly achieved the 2015 TCMA recycling objective and achieved the 2015 TCMA organics recovery objective, but fell short of and continues to be more challenged by the TCMA resource recovery and land disposal objectives. Increased facility capacity and access would be necessary for the County alone to reach the Policy Plan's resource recovery objectives; however, the County fully expects to contribute to achieving the objective as the TCMA counties collectively measure progress. An aggressive focus on reduction, reuse, recycling, and organics diversion in the County is necessary for the County alone to reach the Policy Plan's land disposal objectives; however, as with resource recovery, the County fully expects to contribute to achieving the objective as the TCMA counties collectively measure progress.

Regional Master Plan: Although not required by State law, the MPCA recommends the development and adoption of a Regional Master Plan to address issues that lend themselves to a broader regional approach, such as policy, legislative initiatives, public information, and cross-boundary licensing. A Regional Master Plan was developed in 2011 by the six member-counties of the SWMCB, a joint powers board of Anoka, Carver, Dakota, Hennepin, Ramsey, and Washington counties (Region). Although Scott County is part of the TCMA, it is not a member of the SWMCB and did not contribute to the Regional Master Plan development. The Regional Master Plan was guided by the Policy Plan vision, key themes, goals, policies, and objectives. And, because waste management issues extend beyond geographic boundaries, the Regional Master Plan emphasizes coordination, collaboration, and partnerships between the public and private sectors, and is intended to work in concert with individual County Plans. The Regional Master Plan was adopted by the SWMCB on December 14, 2011, and is included as Appendix A.

County Comprehensive Plan: The County Comprehensive Plan was updated in 2008, and establishes the long-range vision for key systems in Dakota County, including transportation, land use, environment and natural resources, and parks. The Environment and Natural Resources Chapter establishes high-level guidelines for natural resource management (e.g., water resources, agricultural land, mineral resources, and natural areas) and sustainable communities (e.g., solid waste, energy, new development,

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and storm water management). The County Master Plan is consistent with the County Comprehensive Plan, and provides the next level of detail with respect to solid waste management.

County Master Plan: Minn. Stat. §473.803, subd. 1 requires each TCMA County to revise its County Master Plan to identify measurable strategies toward achieving Policy Plan goals and objectives. The Dakota County Master Plan was updated concurrently with the Regional Master Plan in 2011. The County Master Plan is a long-term implementation guide for how the County, with its public and private partners, will achieve Policy Plan goals and meet aggressive TCMA objectives. This County Master Plan replaces the previous plan adopted by the Dakota County Board of Commissioners (County Board) on November 16, 2004, and approved by the MPCA on March 22, 2005. The County Master Plan has been updated every five to six years in accordance with State requirements and the next County Master Plan update is expected to begin in 2017 or 2018.

B. County Master Plan Development and Stakeholder Engagement

Dakota County initiated its County Master Plan revision process in 2011, as required by the Policy Plan, to address the Policy Plan's direction and numeric objectives. The County planning process began with scoping and organization to develop a process, a schedule, and stakeholder engagement mechanisms; moved into research and analysis of the current system and needed County Master Plan revisions, with active stakeholder engagement; and concluded with a draft County Master Plan for review and comment.

All aspects of the planning process informed the development of new strategies to manage more waste in the upper levels of the Hierarchy, with a preference to manage waste in a specific order: to reduce waste generation, reuse, recycle, compost, process for energy, and then only materials that cannot be managed in the preferred order are landfilled (Minn. Stat. §115A.02). As new strategic approaches were developed, stakeholders were invited to comment on the technical and political feasibility of the strategies and provide additional ideas. Emphasis was given to quantifying measurable results, and phasing of particular strategies over the life of the County Master Plan.

Many stakeholders provided input throughout the planning process and influenced the overall direction of the County Master Plan. Stakeholders included: the Dakota County Solid Waste Management Advisory Committee (Advisory Committee), Local Solid Waste Staff (LSWS), County staff, waste haulers, waste facility owners and operators, and interested members of the public. The County Board provided input on interim products at significant project milestones.

DAKOTA COUNTY PLANNING PROCESS SUMMARY	
1) Scoping/Organization (2011, 1st Quarter)	Develop County process/schedule Participate in Regional Plan Development (throughout) Appoint Advisory Committee Identify stakeholders and engagement methods Develop public information process Engage Local Solid Waste Staff Engage Advisory Committee
2) Research and Analysis (2011, 2nd Quarter)	Audit and evaluate 2005 plan strategies Identify waste issues and needs in County Evaluate Dakota County System Public online survey Synthesize research findings Engage Local Solid Waste Staff Engage Advisory Committee County Board update
3) Vision, Goal, and Strategy Update (2011, 3rd Quarter)	Review draft Regional plan Identify potential new vision, goals, strategies Develop strategy ideas and test Engage Local Solid Waste Staff Engage Advisory Committee
4) Develop Draft Plan Document (2011, 4th Quarter)	County Board workshop Develop draft plan document Engage Local Solid Waste Staff Engage Advisory Committee County Board update Draft plan review

Key public information and engagement efforts included the following:

- **Advisory Committee:** As required by Minn. Stat. §473.803, subd. 4, an Advisory Committee was established to assist in the preparation of the County Master Plan revision. The County Board appointed Advisory Committee members from Commissioner Districts, including: residents and representatives of towns, cities, private waste management firms, and communities with landfills. County and MPCA staff served as ex-officio members. The Advisory Committee met five times in 2011 and meetings were open to the public. For member information, please see the Acknowledgements page of this Plan.
- **Website:** The County website included information on the County Master Plan efforts; Advisory Committee meetings and actions taken; hosted online surveys; and posted the draft County Master Plan for public review and comment.
- **Surveys:** Online surveys solicited opinions from residents and businesses on waste management issues, with participation from 110 residents and 43 businesses. Appendix C includes a summary of the surveys.
- **Listserv:** A distribution email list (listserv) offered through the County website provided periodic updates and notices for Advisory Committee meetings. Nearly 100 residents, city partners, businesses, and waste industry representatives subscribed to this service.
- **Local Solid Waste Staff (LSWS):** Four meetings were held with the LSWS (city and township recycling coordinators who are key partners in implementing the County Master Plan) to develop strategic partnership approaches and to comment on interim products.
- **Regional Master Plan Development:** County staff participated on the Regional Master Plan development team which included a Stakeholder Forum with over 100 participants from the public and private sectors. Comments were solicited and considered for both the Regional and individual County Plans.
- **Dakota County Board of Commissioners (County Board):** A Solid Waste Master Plan workshop was held with the County Board on October 4, 2011, for input on the County Master Plan's draft policies, goals, and possible new approaches. Staff provided additional updates on County Master Plan progress at County Board Committee meetings. The County Board adopted the County Master Plan on March 27, 2012 (Res. 12-154). The workshop and County Board meetings were open to the public and promoted via the County's website and through the listserv. County Board meetings were attended by representatives from the MPCA, SWMAC, LSWS, and public/private interested parties.
- **10-Day Public Review and Comment Period:** Although not required by Statute, the County opted to provide for a 10-day public review and comment period. The draft County Master Plan was posted on the County's website from February 28 to March 9, 2012, distributed via the listserv, and sent to key stakeholders including private-sector haulers and public entities.

C. How the County Master Plan Will Be Used and Monitored

The County Master Plan will guide Dakota County's integrated solid waste management system toward enhanced sustainability through 2030. Dakota County is accountable to the MPCA for Plan development and advancement, but all stakeholders – including product producers, all levels of government, waste generators, and waste management businesses – are expected to participate and have accountability in implementation of this County Master Plan.

Strategic Implementation Approach: In developing the current revision of the County Master Plan, Dakota County focused on a strategic implementation approach that includes near-term, mid-term, and long-term packages of strategies. This County Master Plan includes a focused, near-term plan, intended to provide the strong start that is needed to reach the aggressive Policy Plan objectives for 2015, 2020, and beyond. The near-term plan identifies new and expanded initiatives and ongoing activities that will be emphasized over the first six years of implementation. Strategic approaches beyond the near-term plan horizon are packaged as mid- and long-term strategies. A range of measures are included in both Chapters 3 and 4 to mark progress in achieving the Policy Plan objectives and to identify the need to initiate more aggressive strategies as needed at the County level.

Annual Work Plans and Progress Reports

County: The County Board develops an annual budget allocation for County Department program areas. The Environmental Management Department will use the annual budget and work planning processes to advance its near-term strategies, and to coordinate with State and Regional priorities and work plans. A supplemental communications work plan is also developed annually by the Dakota County Communications Department, to identify priority messages and venues to promote proper waste management and environmental services available to residents, businesses, and employees. The County's work plans will consider longer-range plans for necessary actions toward meeting the Policy Plan objectives for 2015, with annual revisions based on State and County progress analyses. Progress updates will be submitted to the MPCA through annual reports required by State law.

Municipalities: State law and Dakota County Ordinance 110, Solid Waste Management (Ordinance 110) require each municipality to have a solid waste abatement program and meet annual waste abatement goals, consistent with the County Master Plan. Under funding agreements for abatement activities with Dakota County, municipalities must prepare annual work plans and reports for the County. If the municipality fails to meet work plan goals, the County can institute a program within the municipality.

Haulers: Ordinance 110 requires haulers to comply with ordinance, permit, and license conditions and to report operational data quarterly. Licensed haulers are required to report the number of residential and commercial accounts serviced in each community. The hauler must also report the weight and type of recyclable material collected from each community. Ordinance 110 also requires haulers to identify where each type of recyclable material was delivered deposited, processed, or marketed.

Region: As a member of the SWMCB, Dakota County will participate in Regional Master Plan coordinated efforts and in annual progress reviews of individual County Plans and the Regional Master Plan.

State: The MPCA gathers program data from counties and the Region annually, provides recommendations for actions by counties, and reports to the Legislature.

Detailed information on progress evaluation and reporting is included in Chapters 3 and 4.

2: EXISTING WASTE MANAGEMENT SYSTEM

Minn. Stat. §473.803, subd.1, requires the Dakota County Solid Waste Master Plan (County Master Plan) to describe the existing solid waste management system. This chapter does so by identifying preferred waste management practices; roles and responsibilities; demographics; waste projections and composition; waste management amounts and management methods; facilities; and Dakota County's programs and activities.

A. Preferred Waste Management

In the Twin Cities Metropolitan Area (TCMA) counties, waste management is designed to be "integrated," whereby waste is managed by a variety of methods – be it reused, recycled, composted, processed for energy, or disposed of in a landfill. Across Minnesota, waste is managed in accordance with the Waste Management Hierarchy (Hierarchy) for maximum environmental benefit. The Hierarchy is generally represented as an inverted pyramid, with greatest preference given to waste reduction (the broad top) and least preference accorded to land disposal (the small base).

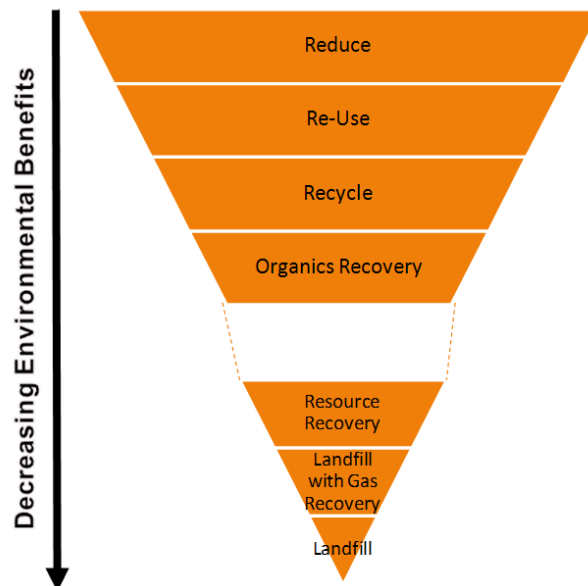


Figure 1: Minnesota's Solid Waste Management Hierarchy

Toward the shared goal of integrated waste management in accordance with the Hierarchy preference, the State and TCMA use education, regulation, and finance to influence efficient waste management that conserves natural resources and protects people and the environment. These programs and activities are required by State law and must be described in TCMA Solid Waste Master Plans.

B. Waste Management Governance, Roles, and Responsibilities

State and local government and the private sector all have roles in implementing solid waste policies and operating the waste management system within the Region. The public sector is ultimately responsible for establishing waste management goals in accordance with the Hierarchy; ensuring that

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State solid waste goals are met; and that public health, natural resources, and the environment are adequately protected. The private sector largely owns and operates the TCMA's solid waste service provisions and infrastructure. Intergovernmental and public-private partnerships help manage solid waste in accordance with State law and the Hierarchy, and ensure that the TCMA is served by an integrated waste management system.

The extent and complexity of the TCMA's solid waste system requires coordination among the following groups:

State – Minnesota Pollution Control Agency (MPCA): The MPCA regulates solid waste facilities and sets solid waste policy through the Policy Plan to meet the goals and requirements in State law. The Policy Plan establishes the framework for Dakota County and other Metropolitan counties to follow in their County Master Plans. The MPCA also distributes State funding to Metropolitan counties for solid waste abatement activities.

Region – Solid Waste Management Coordinating Board (SWMCB): The SWMCB's purpose is to increase the efficiency and environmental effectiveness of solid waste management in the Region, primarily through coordinated communications and outreach, Regional policy development, and collaborative activities. The Region does not own or operate waste management facilities. The SWMCB is formed through a joint powers agreement and members include Anoka, Carver, Dakota, Hennepin, Ramsey, and Washington Counties.

County: In accordance with State law (Minn. Chs. 115A and 473), county governments play the primary role in planning, implementing, and maintaining solid waste programs for proper management of solid waste generated within their respective jurisdictions. Dakota County collaborates with the State, Region, public entities, residents, businesses, community groups, and the waste industry toward meeting State goals. Dakota County licenses and regulates haulers and facilities for collection, management, and related services. Dakota County does not own or operate waste management facilities.

Municipalities (Cities): Cities play an integral role in implementing waste management programs and providing education to residents and businesses. Minn. Stat. §115A.551, subd. 6, allows political subdivisions within the County to develop and implement programs and practices designed to meet County Master Plan goals. To this end, each city in Dakota County administers residential curbside collection programs – either by licensing private waste haulers to provide services or contracting on behalf of their residents for collection services (e.g., Farmington, Hastings) - and provides supporting education and resources to residents and businesses. Dakota County Ordinance 110, Solid Waste Management (Ordinance 110), Section 16 requires cities to implement programs and activities for local abatement and to report on achievement of performance standards. This requirement is implemented through the County's Community Funding Program.

Rural Solid Waste Commission (RSWC): In Dakota County, a RSWC was formed in 1988 through a joint powers agreement between the 13 townships and six rural cities (Coates, Hampton, Miesville, New Trier, Randolph, and Vermillion), specifically as the responsible political subdivision to develop and manage waste abatement programs in rural Dakota County. The RSWC was the first entity to administer a curbside collection program servicing an entire rural area of a Minnesota county.

Public Entities: State laws hold public entities, including counties, cities, townships, and schools, to a higher standard in managing their waste, including waste processing and recycling mandates. Public entities are responsible for carrying out proper waste reduction, recycling, and disposal activities as part of business operations.

Waste Industry (Private Sector): For decades, State law has included a preference for the private-sector management of waste and operation of waste facilities. Dakota County relies on the private sector for direct waste management services. The private sector is primarily responsible for the collection, processing, and brokering of waste and materials. The private sector establishes fees for these services.

Residents and Businesses: Residents and businesses generate waste either as private individuals or as contributors to business, industrial, construction, or demolition activities. Waste management choices are made from various influences and situations, including having the opportunity for waste management options, cost, knowledge, and responsibility. Residents and businesses drive the amount of waste that is generated and discarded, and thus needs to be managed.

C. Demographics

With a population of 398,552 identified in the 2010 U.S. Census, Dakota County remains Minnesota's third most populous County, growing 12 percent since the 2000 Census. Among the seven TCMA counties, Dakota County gained the greatest number of residents (42,648) between 2000 and 2010. Much of this growth occurred in Lakeville (29 percent growth), Rosemount (50 percent), and Farmington (70 percent). The State Demographer projects Dakota County's population at nearly half a million by 2035, and Dakota County could become the second most populous County in the State. Because this County Master Plan is a long-range document, it is important to bear in mind demographic changes that are underway and consider their potential implications for waste management. Dakota County's waste management system and programs will need to respond to projected growth and change in population.

Demographic Summary

<u>Land area:</u>	587 square miles
<u>Land Use:</u>	1/3 urban/suburban, with 95% of the County population; 2/3 rural, with 5% of the County population
<u>Median age:</u>	36.2 years
<u>Non-white population:</u>	17.7%
<u>Total housing units:</u>	159,598
<u>Median annual household income:</u>	\$69,545

As the County's population grows, increased rates of waste generation will place additional stress on the waste management system, requiring an aggressive focus on waste reduction and reuse. Population changes include a shift from a young, family-centric population to an older retiree population. It is possible that waste composition could be somewhat different than projected (e.g., increased pharmaceuticals). Dakota County's population is also becoming more diverse. During the 2010-2011, school year, 12 percent of students enrolled in Dakota County schools spoke one of 76 different non-English languages as their primary language at home. As the trend for growing diversity continues through this County Master Plan horizon, it will be important to understand audience language and cultural needs in developing effective communications on waste management.

D. Waste Projection and Composition

Generation of mixed municipal solid waste (MSW) increased at a faster rate than the County's population growth over the past decade, despite a temporary drop in per capita generation during the recent recession. For purposes of this Plan, MSW includes garbage, refuse, and other solid waste from

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residential, commercial, industrial and community activities, with exclusions as defined in State law. To effectively plan solid waste management activities to address the expected increases in waste generation, it is necessary to project the amount of MSW likely to be generated in the future. Also, complete and current data on the types and quantities of waste is important for good planning, implementation, and evaluation of solid waste programs. The figures below show projected MSW growth and estimated MSW composition.

Projected MSW Growth: The MPCA projected waste amounts using population projections from State Demographer forecasts and per capita MSW growth rates. Dakota County used the MPCA projection and applied 2010 annual reporting data as base year data for its County waste projection. Dakota County's waste projection is shown in the figure below. Over the next 20 years, waste generation is expected to increase by roughly 33 percent. Much of this projected growth in waste will be fueled by population growth.

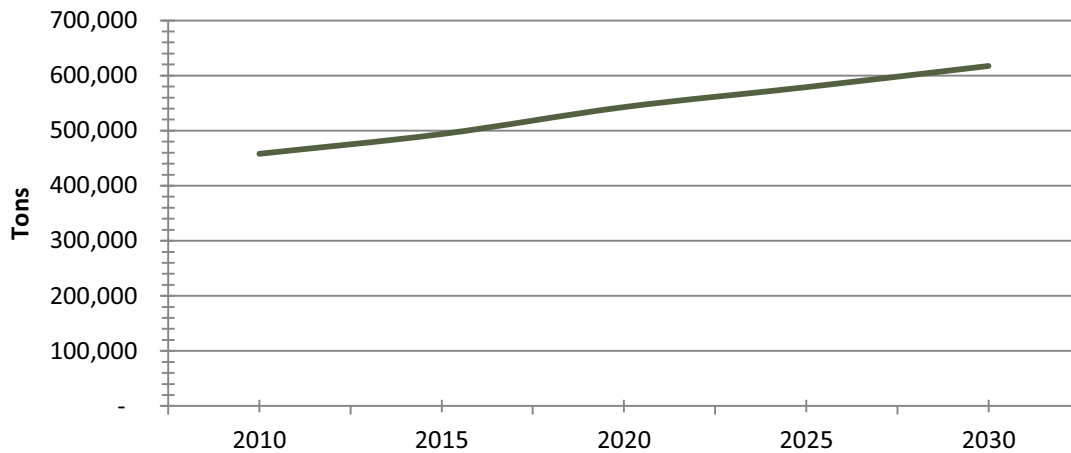


Figure 2: Projected Growth of MSW from Residents and Businesses in Dakota County

Composition of Municipal Solid Waste: The SWMCB and the MPCA conducted a Regional waste composition study in 1999, to develop a representative, statistically defensible estimate of the composition of the MSW stream. The study looked at the composition of waste delivered to select disposal facilities (landfills and resource recovery facilities) from residential, commercial, and institutional sources. Results of the waste composition study are shown in Figure 3.

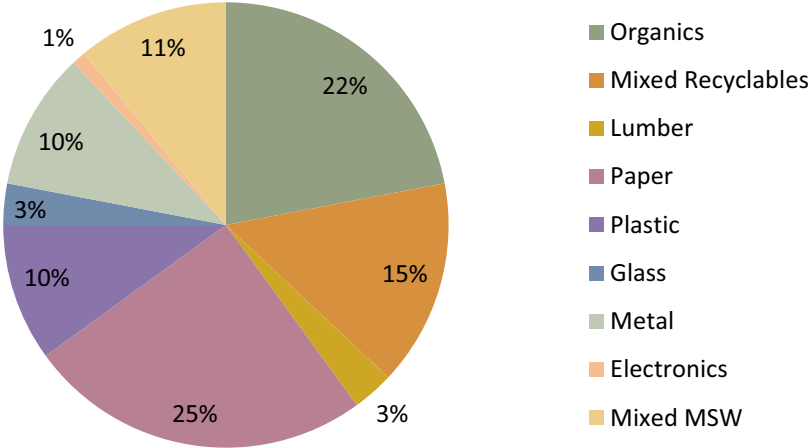


Figure 3: MSW Composition (1999)

The study estimated that the waste stream includes up to 80 percent potentially recyclable material (paper, glass, metals, organics, and plastics). In 2009, the results of the 1999 study were combined with waste composition studies at three TCMA resource recovery facilities. The MPCA observed no significant difference in waste composition over the past ten years.

E. Solid Waste Management in Dakota County

Solid waste includes many components (e.g., MSW, hazardous waste, problem materials, and industrial waste) and no single approach is appropriate for all components. This section looks at the amount of waste generated in the County over time and how it has been managed.

Total Waste Managed

Over the past decade, MSW from residents and businesses managed in the County increased by 72,000 tons, or 19 percent, to a 2010 total of approximately 460,000 tons (Figure 4).

Increased waste management may be related to Dakota County’s 12 percent growth in population between 2000 and 2010.

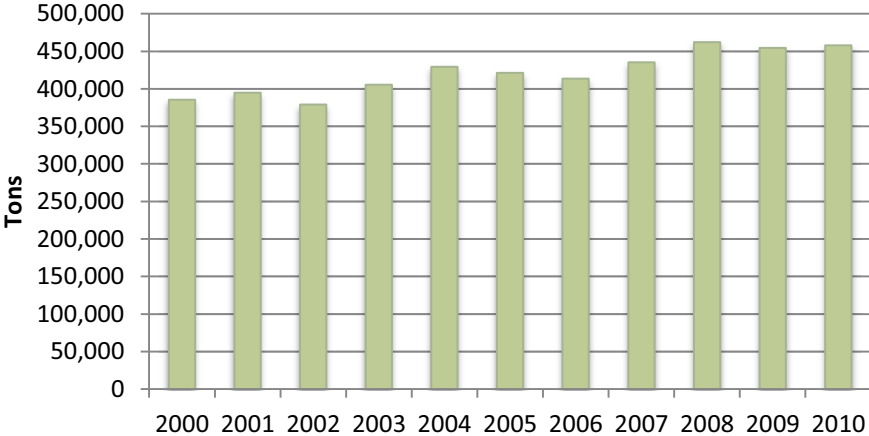


Figure 4: Total Dakota County MSW Managed (Tons)

Waste Managed by Predominant Method

Dakota County tracks the amount of waste managed by the various methods, including recycling, organics recovery, resource recovery, and land disposal. Figure 5 summarizes how the approximately 460,000 tons of MSW from Dakota County residents, businesses, and public entities in 2010 were managed.

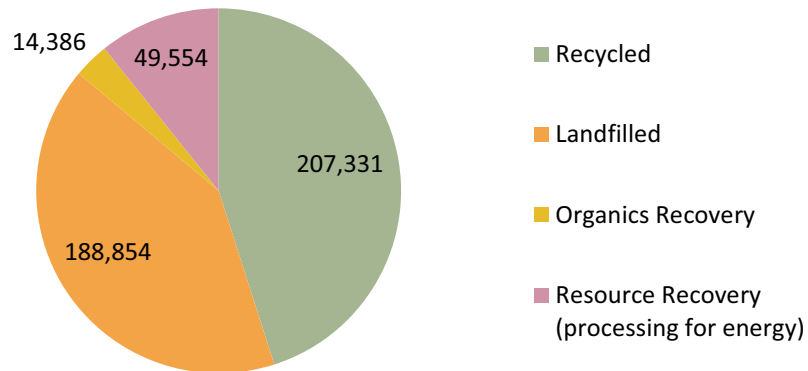


Figure 5: Management of MSW Generated in Dakota County in 2010 (Tons)

The amount of MSW managed by each method is calculated from data reported by licensed organics and recycling facilities, MSW landfills, and resource recovery facilities, and is dependent on the waste hauler properly claiming county-of-origin at the time the waste is delivered to the respective facility. Figure 6 provides trend data over the past decade for recycling, land disposal, and resource recovery as management methods for waste generated in the County. Of note, recycling rates surpassed land disposal rates in 2007, although the difference between the two methods has diminished over the past two years. In Figure 6, the amount recycled includes organics recovery.

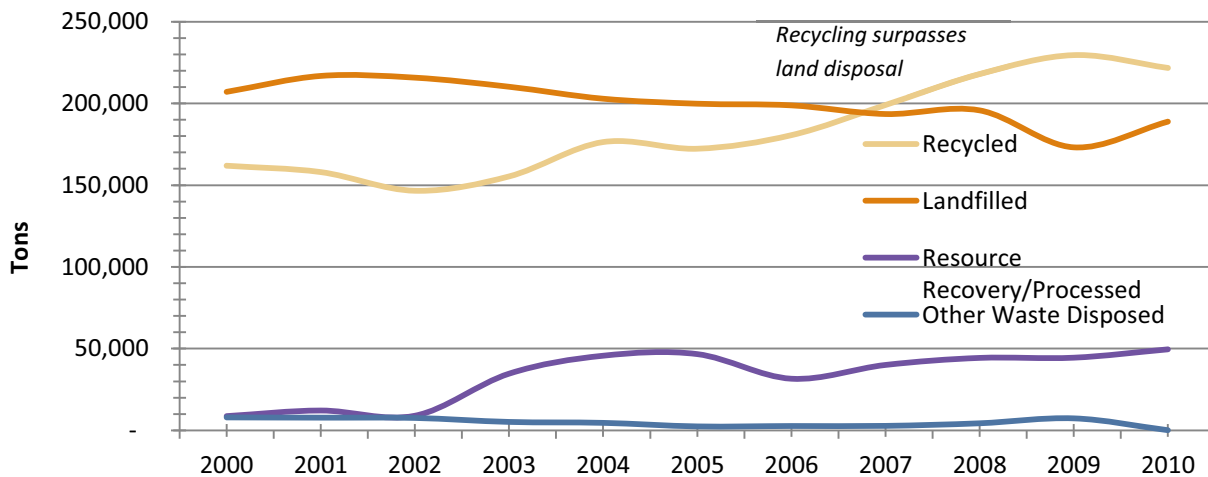


Figure 6: Management of MSW Generated by Dakota County Residents and Businesses (Tons)

Recycling: In 2010, more than 207,000 tons of materials were collected from Dakota County generators for recycling. *Of the total MSW managed in 2010, 45 percent was recycled (with credits, 53 percent).*

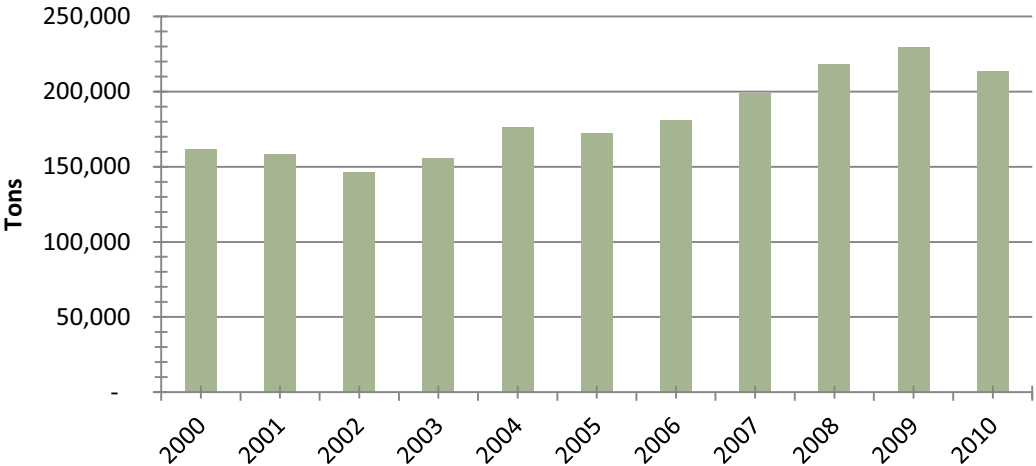


Figure 7: Dakota County Recycling Totals (Tons)

Recycling rates are defined as total tons of MSW recycled divided by total tons of MSW generated, plus applicable waste reduction and yard waste reduction credits. The MPCA awards a five percent yard waste credit and a three percent waste reduction credit, added to a county’s actual recycling rate when specific criteria are met.

In 2010, Dakota County’s recycling rate reached 53 percent (including waste reduction and yard waste credits), exceeding the 1996 recycling goal of 50 percent for TCMA counties. Since 2004, the County’s recycling rate has exceeded the Region’s rate, and since 2006, has been consistently above the State 50 percent recycling goal, as shown in the following graph.

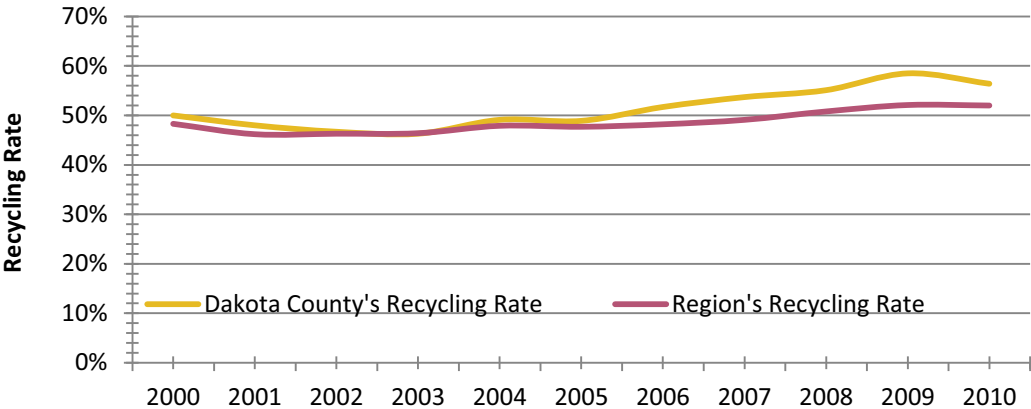


Figure 8: Regional and County Recycling Rates (with credits)

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Steady or slightly increasing recycling rates have been affected by many factors including successful curbside collection programs, local recycling education and outreach, transitioning to single-stream curbside residential collection programs, and changes in market forces.

Organics Recovery: In 2010, more than 14,000 tons of organics generated in Dakota County were recovered. *Of the total MSW managed in 2010, three percent was managed through organics recovery.*

Organics recovery consisted primarily of food waste managed as food-to-animals and source-separated organics composting programs. Yard waste management is not included.

Organics diversion in Dakota County is still limited at present. There is room for growth, primarily for food-to-people (increased efforts and better documentation) and source-separated composting (commercial and residential).

Organics Recovery by Method (Tons)				
Collection method	Residential/Commercial	2008	2009	2010
Food-to-People	Commercial	undocumented	undocumented	undocumented
Food-to-Livestock	Commercial	15,746	13,897	13,736
Source-Separated Organics Composting	Residential	60	215	650
TOTAL Organics Recovery		15,806	14,113	14,386

- **Food-to-People:** Food rescue for human use is poorly documented in Dakota County, to the point that it may be a primary organics diversion method occurring under the radar. A concerted effort will be made to improve data tracking methods for organics diversion through food rescue.
- **Food-to-Livestock:** Without private-sector facility expansion (i.e., Endres), food recovery for conversion into livestock feed might not have the same kind of expansion potential as source-separated organics composting. Endres, located in Dakota County, is the only facility serving the Region and is often at capacity. Direct food-to-hogs programs have been used by schools and businesses in Dakota County, although the major hog operations that accept food waste are in the north Metro, distant from Dakota County.
- **Source-Separated Organics Composting:** Organics programs are slowly developing across Dakota County with a significant interest in collecting source-separated organics in schools and at local events.

Resource Recovery (processing for energy): In 2010, nearly 50,000 tons of waste generated in Dakota County was processed for energy. *Of the total MSW managed in 2010, 11 percent was processed for energy.*

Most of the County's processed waste was managed at one resource recovery facility located in another county. At that facility, the waste was shredded and transported to energy-recovery incinerators

outside the Region. Dakota County falls considerably short of the TCMA processing objective, in part due to longer hauling distances to resource recovery facilities that can accept waste from the County.

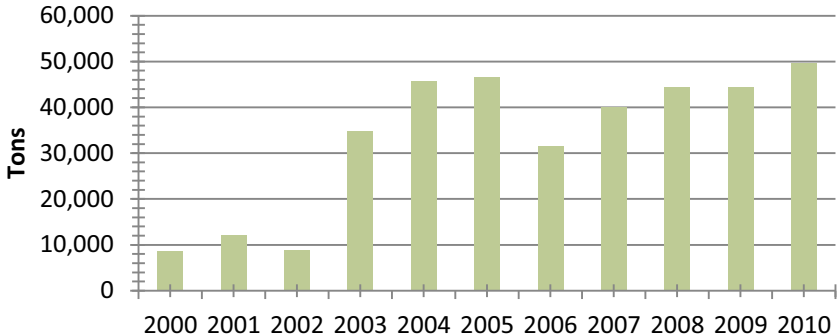


Figure 9: Total Dakota County MSW Processed (Tons)

MSW Land Disposal: In 2010, a total of 188,854 tons of waste generated in Dakota County was land disposed. *Of the total MSW managed in 2010, 41 percent was landfilled.*

Landfilling is the least preferred waste management method in the Hierarchy, but remains a convenient and low cost option for haulers given the location of the two Metropolitan area sanitary landfills in Dakota County. A total of 186,017 tons of MSW, or 98 percent of landfilled waste generated in the County, was delivered to the two landfills located within the County in 2010. Two percent was land-disposed elsewhere in the State or in nearby states.

The following figure shows historic land disposal amounts for waste generated in Dakota County.

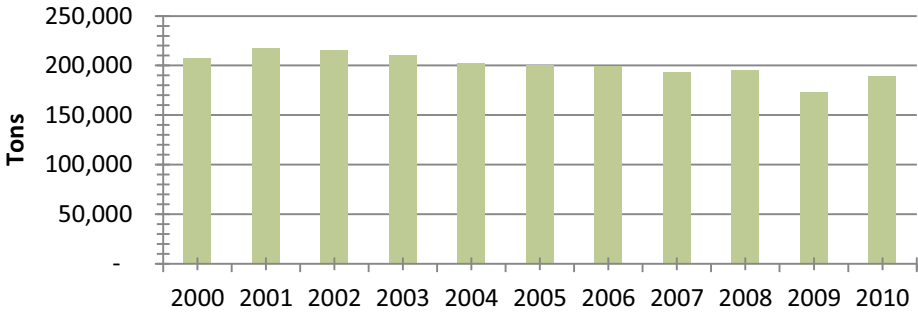


Figure 10: Total MSW Landfilled (Tons)

Non-MSW Land Disposal: *In 2010, approximately 1,080,000 tons of non-MSW was land disposed in Dakota County from in and out-of County sources.* This total 2010 tonnage reflects the total amount of waste disposed of in the four non-MSW landfills located in Dakota County and includes waste generated outside of Dakota County. Non-MSW data is currently reported by waste category disposed of at a particular landfill and is not reported by county of origin. Non-MSW includes nonhazardous industrial waste, construction and demolition waste, materials banned from disposal with MSW, problem

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materials, infectious waste, and other waste streams that are not MSW or otherwise defined or regulated as hazardous waste.

Household Hazardous Waste and Problem Materials: In 2010, nearly 3.4 million pounds of household hazardous waste (HHW) and problem materials were collected from over 42,000 participants, the largest amount since the program began. Overall participation in the County's HHW program has increased 125 percent since 2003.

The increased participation has resulted in a 150 percent increase in the amount of HHW collected. The overall increase in HHW collection at The Recycling Zone in 2010 is partly due to elimination of fees for residential electronics collection and State law prohibiting landfilling of Cathode-Ray-Tube (CRT) devices in 2006.

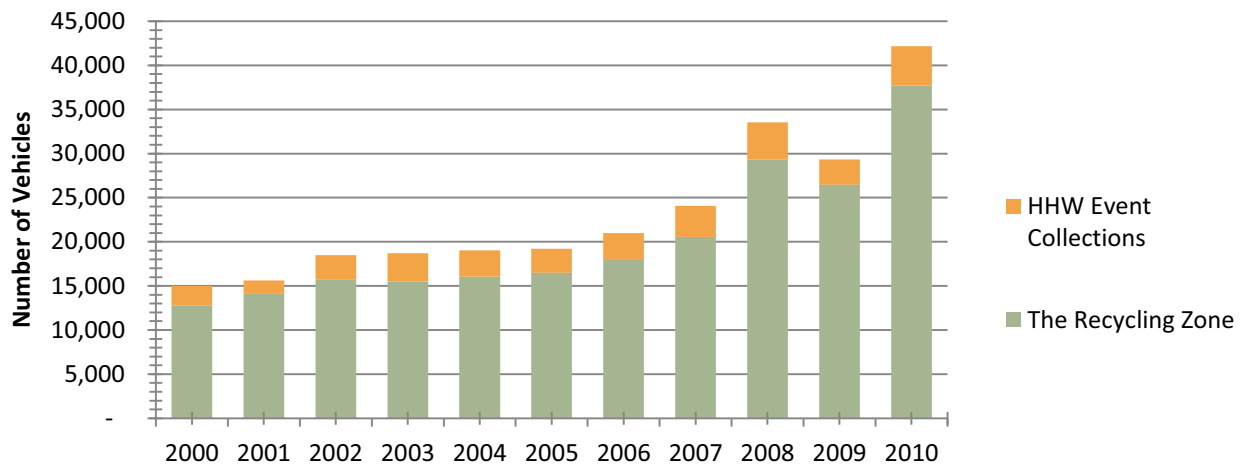


Figure 11: HHW Program Participation (Vehicles)

Electronics collection has been on the rise since the County began collecting residential electronics (for a fee) in 2003. Electronics now represent nearly one-half of the total HHW managed by the County, spiking dramatically in 2008 when the County offered residential electronics collection at no charge, and again in 2010 when the County reinstated the no-charge program. Dakota County collected 5.6 million pounds of electronics from 2003 to 2010. Additional electronics have been collected through private-sector business take-back and recycling programs.

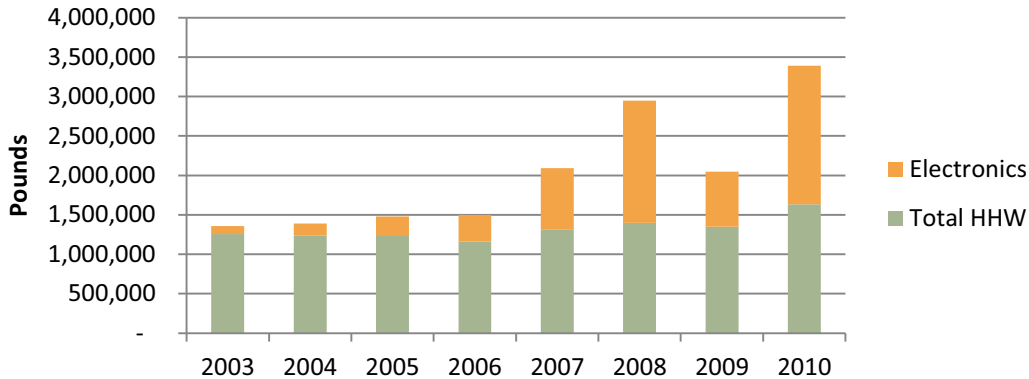


Figure 12: Total HHW and Electronics Collected (Pounds)

F. Collection and Transportation of Waste

Solid waste management services in Dakota County are generally provided by private-sector companies that collect and transport residential and business waste to waste management facilities. The County does not collect or transport solid waste.

Hauling Systems in Dakota County

Collection and transportation of MSW, recycling, and yard waste in the County occurs largely through an *open hauling* system where businesses and residents contract with a private waste hauler of their choice. Roughly 89 percent of County residents live in communities with open hauling systems for trash and recyclables, although some community organizations such as townhome associations may develop single waste contracts for the benefit of their members. Residents and businesses can also subscribe to yard waste collection services, or can manage yard waste at local yard waste facilities.

The cities of Hastings and Farmington have *organized collection*, which serves approximately 11 percent of the County's population. Under organized collection, the city provides or contracts for collection services. The City of Hastings undergoes an open bid process and contracts with one hauler to collect and transport residential MSW, recycling, and yard waste in a private-sector organized collection system. Commercial sector waste in Hastings is managed through an open hauling system. The City of Farmington collects and transports MSW through a public-sector organized collection system. Farmington owns the collection vehicles and employs staff to operate the vehicles. Farmington undergoes an open bid process and contracts with one hauler to collect and transport recyclables and yard waste as private-sector organized collection. Residential and commercial (exceptions allowed) waste is managed through Farmington's collection systems. As required by Minn. Stat. §115A.471, both cities direct MSW to resource recovery facilities.

Hauler Collected Fees

Hauler fees for trash and recyclables collection vary because the private sector establishes and negotiates rates with their customers. Dakota County Ordinance 110, Solid Waste Management (Ordinance 110) includes the following requirements related to hauler collected fees:

Fees for waste hauling services must be weight or volume-based and must increase with the volume or weight collected.

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Section 15.08 L.1. Charges for the collection of mixed municipal solid waste in Dakota County shall increase with the volume or weight of the waste collected.

Section 15.08 L.4. Fees for service that are not based on volume or weight are prohibited.

Recycling cannot be penalized, i.e., waste haulers cannot impose a greater charge on residents that recycle than those that do not recycle.

Section 15.08 L.2. Collectors of mixed municipal solid waste in Dakota County are prohibited from imposing a greater charge on residents who recycle than on residents who do not recycle.

Residential waste reduction is promoted by requiring haulers to offer a 38-gallon or less base unit fee.

Section 15.08 L.3. Haulers shall offer a 38-gallon or less base fee for solid waste generated by a residential source. Incremental service levels shall not increase by more than thirty (30) gallons, with the exception of fees charged for bulky items.

Yard waste must be charged as a separate fee, apart from recycling and waste services.

Section 15.08 L. 5. If yard waste collection is provided, charges must be indicated as a separate line item on a customer's bill for hauler service.

Existing Rates and Charges in Dakota County

Dakota County conducted a non-scientific survey of haulers, customers, and cities with organized collection contracts, and found a range of published service rates for monthly MSW and recycling services (excluding State taxes and fees):

30-38 gallon: \$12.58 - \$16.00 per month

60-68 gallon: \$14.33 - \$30.44 per month

90-96 gallon: \$15.78 - \$33.00 per month

A survey of select haulers for commercial services found a range of published commercial rates for weekly services (excluding State taxes and fees):

90 gallon (recycling): \$12.00 - \$15.00 per month

4 yard (recycling): \$35.00 - \$38.25 per month

4 yard (MSW): \$86.00 - \$125.00 per month

8 yard (MSW): \$130.00 - \$178.00 per month

Published hauler rates, such as those above, provide the best comparison of hauler charges because charges are variable and depend on container size, location, and the type of materials being collected. There currently is no consistent contracting methodology for cities and strong hauler competition in the Region results in a diverse set of charges that are not comparable across cities, businesses, or residents. The variability was clearly demonstrated in a review of published rates, a review of the [MPCA 2009 Organized Collection Study](#), and through surveys of select cities in Dakota County.

The following table shows estimated costs per ton for various management methods and includes tip fees, transport from transfer stations, collection, and other related costs. Estimates do not include local fees and taxes or local planning, regulation, or program administration. Although not easily determined, the below costs per ton estimates can be used to reflect the price of MSW management.

Management Method	Total Cost per Ton	Tip Fee	Collection and Other Costs
Recycling (residential)	\$110 - \$143	n/a	--
Recycling (CII)	\$85 - \$90	n/a	--
Organics (food-to-animals)	\$0 - \$49	n/a	--
Source-Separated Organics	\$80 - \$193	\$40 - \$45	\$40 - \$148
Resource Recovery	\$168 - \$207	\$49 - \$84	\$119 - \$123
Land Disposal	\$130 - \$162	\$39 - \$43	\$91 - \$119

Source: Policy Plan

Obtaining pricing from private-sector facilities is difficult. Contracts are negotiated between the facility and their customers and it is considered private information. Contract pricing varies based on volume and other factors. Dakota County conducted a non-scientific survey to obtain pricing information from facilities located in the County, and for resource recovery facilities outside Dakota County, to determine if tip fees are consistent with those identified in the Policy Plan.

MSW land disposal facilities located in Dakota County allow for public drop-off of waste and are required to post a non-contract per ton fee or "gate rate." MSW landfill tip fees vary depending on contractual conditions, with the highest gate rate found at about \$100 per ton and a negotiated contract tip fee as low \$45 per ton.

Pricing and rebates at the recycling facilities vary, in part, because the recycling markets vary. Pricing also depends on other factors, including whether the waste is from residential or business generators, composition of the materials, and the cleanliness of the materials. Contracts are negotiated between the recycling facility and the waste hauler and are not considered public information. The BFI Recyclery, located in Dakota County, rebates a percentage back to the hauler based on the value of the recyclables delivered and after subtracting a management fee.

The County's only source-separated organics facility is RRT, Processing Solutions, Inc., facility in Empire Township. The facility does not publish a per ton source-separated organics gate rate. Fees and contracts are negotiated between the recycling facility and the waste hauler. Tip fees at the facility are consistent with the cost information in the previous table.

The cost to deliver County-generated waste to Regional resource recovery facilities is consistent with the cost information in previous table.

G. Waste Management Facilities

Waste haulers determine where to deliver collected waste – to a recycling, organics, yard waste, processing, or land disposal facility – based on a variety of factors, including: the type of material collected, facility distance, tip fees, and whether a facility is owned by a competitor or waste hauler's company. Dakota County does not own or operate waste management facilities.

Recycling Facility

Residential and business recyclables are delivered to any of five recycling facilities in and outside of the County. One recycling facility located in Dakota County accepts recyclables from haulers across the Region.

Licensed Recycling Facility in Dakota County	Owner
BFI Recyclery, Inver Grove Heights	Republic Services, Inc.

BFI Recyclery: Browning-Ferris Industries (BFI) constructed a Materials Recovery Facility (MRF) in 1991 to manage recyclables collected from BFI and other waste haulers. The MRF was one of the Region’s first private facilities designed specifically for recyclables. Now owned by Republic Services, Inc., it is located in Inver Grove Heights next to Republic’s Pine Bend MSW landfill. The MRF has been adapted over time to accommodate changes in recyclable sorting systems. The facility’s capacity is estimated at 6,000 tons of recyclables per month.

Organics Management Facilities

Two organics management facilities are located in Dakota County; both are used by haulers across the Region.

Licensed Organics Recovery Facilities in Dakota County	Owner
RRT Processing Solutions, LLC Source-Separated Organics Compost Facility, Empire Township	RRT Processing Solutions, LLC
Endres Processing, Rosemount	Endres Processing, LLC

RRT Processing Solutions, LLC Source-Separated Organics Compost Facility: This facility is located on County-owned land in Empire Township. Dakota County has a lease agreement (lease) with RRT Processing Solutions, LLC that provides for organics composting. The lease commenced in 2002. In support of continued land use for waste management purposes, the County Board authorized a lease extension through June 30, 2017. Food waste and other non-recyclable paper from generators located across the Region, including schools, is delivered to this facility and composted (approximately 16,000 tons in 2010). This facility currently has an operational organics composting capacity of about 24,000 tons per year and has a permitted capacity of 47,000 tons per year – considerable unused capacity exists at this facility.

Endres Processing, LLC: Located in Rosemount, the facility was first licensed by the County in 1998 to recycle food waste and other organic materials into an adjunct ingredient sold in bulk to the livestock feed industry. The facility is licensed to accept 200 to 299 tons of food waste per day (no meat or meat by-products). This is the only food-to-livestock facility serving the Region and is often at capacity.

Yard Waste Facilities

Six yard waste compost facilities are located in Dakota County.

Licensed Yard Waste Compost Facilities in Dakota County	Owner
South St. Paul Yard Waste Compost Facility, South St. Paul	City of South St. Paul
B & D Wood Processing and Yard Waste Compost Facility, Greenvale Township	B & D Wood Processing
Specialized Environmental Technologies (SET) Yard Waste Compost Facility, Burnsville	Specialized Environmental Technologies, Inc.
RRT Processing Solutions, LLC Compost Facility, Empire Township	RRT Processing Solutions, LLC
Resource Environmental Services Yard Waste Compost Facility, Eagan	Gopher Resource Corporation
Allied Waste Services Yard Waste Composting Facility, Inver Grove Heights	Republic Services, Inc.

South St. Paul Yard Waste Compost Facility: A small, city-owned and operated facility, this South St. Paul facility accepts only de-bagged yard waste or yard waste in paper bags. Brush or tree waste is not accepted. Residency is not required to drop off yard waste. Facility capacity is 10,000 cubic yards per year. The facility generates 1,000 cubic yards of compost per year, offered to the public at no cost.

B & D Wood Processing and Yard Waste Composting Facility: In operation since 1996, B & D is located in Greenvale Township, three miles north of Northfield and manages primarily tree and shrub waste. The facility is licensed to receive up to 20,000 cubic yards of yard waste per year. Much of the tree waste is either sawed for lumber or cut for firewood. The remainder is ground for mulch or sold to District Energy in St. Paul for fuel.

Specialized Environmental Technologies (SET) Yard Waste Compost Facility: The facility is located in Burnsville and it has an annual capacity is greater than 40,000 cubic yards. Grass and leaves delivered to the facility must be in compostable bags or reusable containers. The facility also accepts tree and brush waste. End-products available for sale include yard waste compost, blended soils, wood chips, and several kinds of mulches.

RRT Processing Solutions, LLC Facility: The RRT facility is located in Empire Township on County-owned land. All types of yard waste brought in compostable bags or as loose material are accepted, including tree and shrub waste. County-licensed capacity is greater than 40,000 cubic yards per year. In 2002, the facility license was amended to allow composting up to an annualized average of 150 tons per day.

Resource Environmental Services (RES) Yard Waste Compost Facility: RES is a subsidiary of Gopher Resource Corporation, which owns the land in Eagan where the facility is located. The facility is licensed to annually accept greater than 40,000 cubic yards of yard waste, including tree and shrub waste. It accepts only grass and leaves that are loose or are in compostable bags. End-products include yard waste compost, blended soils, and wood mulches. Gerten's, Inc. manages the site.

Allied Waste Services Yard Waste Composting Facility: The facility is located in Inver Grove Heights next to the BFI MSW Landfill and in operation since 2008, the facility accepts all types of yard waste including tree and shrub waste, and has a total annual capacity of 24,500 cubic yards. This facility generally does not accept waste directly from homeowners or landscapers, but instead takes waste from its hauling company. In 2011, this facility was operating minimally due to restrictions on wood and yard waste

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coming out of the Emerald Ash Borer quarantine zone in Hennepin, Houston, Ramsey, and Winona counties.

Dunham Brothers: Although not a yard waste facility like those listed in the above table, Dunham Brothers is a unique facility where clean wood and pallets are converted into animal bedding. Their primary customers are the cattle industry and equestrian farms. The company is licensed for up to 75 tons per day.

Resource Recovery Facilities

Five resource recovery facilities serve the Region, although none are located in Dakota County and not all will accept waste generated in Dakota County.

Resource recovery facilities that are *reasonably* available for Dakota County waste:

Ramsey/Washington County Resource Recovery Facility: The facility is located in Newport and converts MSW into refuse-derived fuel (RDF). The facility is privately-owned and operated. The MSW is delivered, shredded, and separated into three waste streams: RDF, recyclable metal, and residue. The RDF is transported for combustion to Xcel Energy power plants in Red Wing and Mankato, where it is then converted into electricity. The ferrous and non-ferrous metals are recycled, and the residue is landfilled. The facility's permitted capacity is 500,000 tons per year. Some haulers from Dakota County deliver MSW to the resource recovery facility.

City of Red Wing's Integrated Solid Waste Management Campus: The City of Red Wing operates a 30,000 ton per year modular waste-to-energy facility that provides energy for a manufacturing plant. Some haulers from Dakota County deliver MSW to the facility for resource recovery. Incinerated waste is used at the Xcel Energy facility in Red Wing.

MSW Land Disposal Facilities

Residential and business waste is delivered to MSW land disposal facilities in and outside of the County. Two MSW landfills serving the Region are located in the County. Both landfills operate methane gas-to-energy systems that capture methane gas generated by the decaying waste.

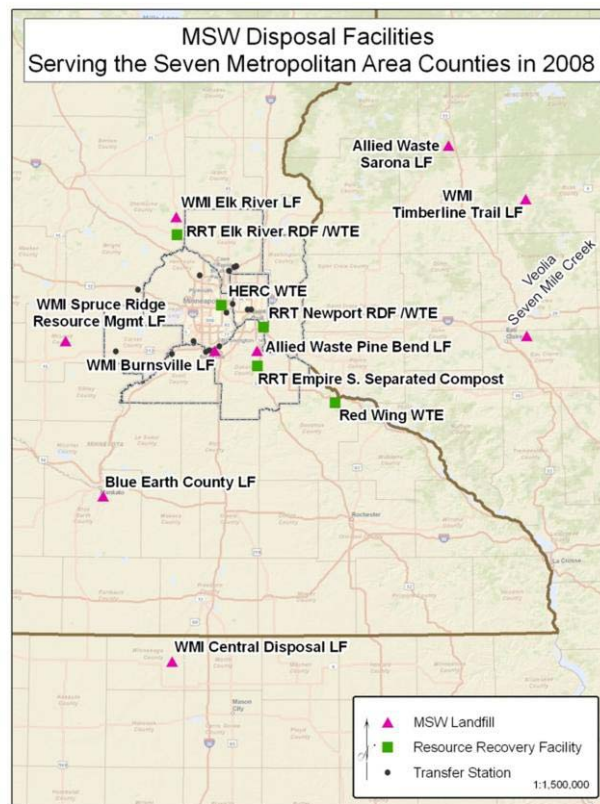


Figure 13: MSW Disposal Facilities Serving the Seven County Metropolitan Area in 2008

Source: Policy Plan

Licensed MSW Landfills in Dakota County	Owner
BFI MSW Landfill, Inver Grove Heights	Republic Services, Inc.
Burnsville Sanitary Landfill, Burnsville	Burnsville Sanitary Landfill, Inc.

BFI MSW Landfill: The BFI MSW Landfill is located in Inver Grove Heights and is owned by Republic Services, Inc. The MPCA originally permitted the landfill in 1971. The landfill is currently permitted at 29.8 million cubic yards of air space. At the end of 2010, 4.6 million cubic yards of airspace remained, and it is estimated that landfill capacity will be consumed by 2021 - at current use rates and permit capacity. Additional design capacity could potentially be permitted that would extend use of the landfill.

Burnsville Sanitary Landfill: Burnsville Sanitary Landfill is located in a commercial area in the northwest corner of the City of Burnsville and is owned by Burnsville Sanitary Landfill, Inc., a wholly owned subsidiary of Waste Management, Inc. The landfill was first permitted by the MPCA in 1971. In 2010, 4.1 million cubic yards of airspace remained, and it is estimated that landfill capacity will be consumed by 2020 at current use rates and permit capacity. Additional design capacity could potentially be permitted that would extend use of the landfill.

Non-MSW Land Disposal Facilities

Four landfills located in Dakota County accept non-MSW, including construction, demolition, and industrial wastes, from generators in and outside of the County. The two MSW landfills in the County also accept non-MSW.

Licensed Non-MSW Landfills in Dakota County	Owner
SKB Rosemount Industrial and Demolition Landfills and Processing Facility, Rosemount	SKB Environmental, Inc.
SKB Rich Valley Demolition Landfill and Processing Facility, Inver Grove Heights	SKB Environmental, Inc.
Frattalone's Dawnway Demolition Landfill, Inver Grove Heights and South St. Paul	Frattalone Companies
Burnsville DemCon Landfill, Burnsville	Waste Management, Inc.

SKB Rosemount Industrial and Demolition Landfills and Processing Facility: SKB Rosemount Industrial and Demolition Landfills and Processing facility is located in Rosemount. Currently, this facility accepts industrial waste, MSW incinerator ash, and demolition waste. The facility was originally permitted to accept only industrial waste and in 1998, the MPCA permitted the acceptance of MSW incinerator ash at the landfill, after issuance of a resolution by the City of Rosemount allowing acceptance of incinerator ash at the facility. A 2009 landfill expansion increased the demolition waste capacity to 8.7 million cubic yards, industrial capacity to 15.4 million cubic yards and incinerator ash capacity to 2.6 million cubic yards. Remaining facility life estimates are 24 years for industrial and demolition wastes and 34 years for incinerator ash.

Existing Waste Management System

SKB Rich Valley Demolition Landfill and Processing Facility: The landfill is located in the City of Inver Grove Heights on property owned by SKB Environmental, Inc. The facility was originally licensed by the County in 1989 and accepts only construction and demolition wastes. SKB Rich Valley is one of the few demolition landfills in the State that has a liner and leachate collection system. This facility has storage limits of 15,000 cubic yards of shingles and 6,000 cubic yards of wood. In 2010, the landfill had a total capacity for construction and demolition waste of 2.3 million cubic yards and remaining facility life is estimated at 19 years.

Frattalone's Dawnway Demolition Landfill: The landfill has a 3.4 million cubic yard capacity and is located in Inver Grove Heights and South St. Paul. The landfill was developed in 1993 and was to accept waste only from the owner, but that changed as ownership changed. The landfill now accepts wastes from pre-screened contractors. Facility life estimates range from 15 to 30 years.

Burnsville DemCon Landfill: The landfill is located in Burnsville and is owned by Burnsville Sanitary Landfill, Inc., a wholly owned subsidiary of Waste Management Inc., and sits within the footprint of the Burnsville Sanitary Landfill. The facility was licensed by the County in the mid-1990s. In 2010, the facility had a capacity of 4.6 million cubic yards of airspace, with an estimated facility life of approximately 40 years.

Hazardous Waste and Problem Materials Facility

The Recycling Zone opened in 1997 and provides a year-round location for residents and businesses to drop off their hazardous waste and problem materials.

Licensed HHW Facility in Dakota County	Owner
The Recycling Zone, Eagan	Gopher Resource Corporation

Dakota County maintains a contract with Gopher Resource Corporation (Gopher), to provide the site, facility, and most on-site labor. Since 1997, the County Board has authorized contract extensions to retain services at the Gopher facility. In 2008, a five-year contract was executed with Gopher, extending operation through 2013 and modifying hours of operation and the facility to address the increased services and HHW drop-off, including:

- Providing a minimum of 15 hours per week for residential HHW drop-off and 36 hours per week for residential recyclables drop-off, including the allowance of at least two evenings each week
- Increasing facility rental space from 3,000 to 9,850 square feet to address space needs
- Continuing source-separated recyclables collection at The Recycling Zone, including: traditional recyclables (e.g., cans, bottles, paper, scrap metal), oil filters, electronics, batteries, cell phones, and phone books
- Continuing HHW and problem material collection by Gopher at The Recycling Zone at no fee for residents, including: paint, solvents, pesticides, aerosols, fluorescent lamps, oil, driveway sealer, antifreeze, compressed gas cylinders, ammunition, fireworks, and sharps
- Providing for County payments for costs relating to HHW collection, labor, supplies, and facility rental
- Continuing Dakota County's business hazardous waste collection programs
- Modifying the education room, signage, lighting, interior space, and entrance canopy

- Constructing a new pesticide storage area to eliminate the need for a flammable room expansion
- Reconfiguring internal space to segregate public areas from waste areas

Dakota County maintains separate contracts with hazardous waste and problem material management companies to provide for the proper disposal and recycling of the materials collected. Dakota County oversees the operations at The Recycling Zone and the management company contracts.

H. Dakota County's Solid Waste Programs and Activities

Dakota County's Environmental Management Department has primary responsibility for promoting proper waste management to protect public health and the environment in the County. The Department administers waste compliance programs through its Waste Regulation Unit and provides technical assistance, HHW management, and funding through its Environmental Initiatives' Unit.

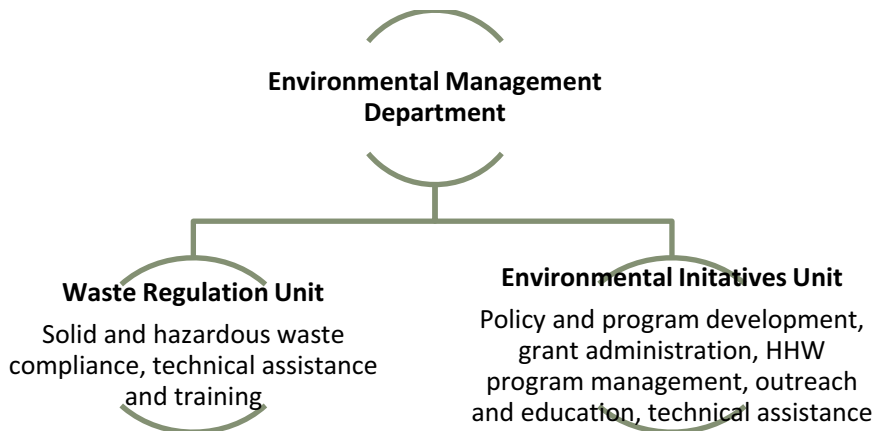


Figure 14: Dakota County Environmental Management Structure

The Department's primary responsibilities include:

- Providing outreach and education on waste with County, municipality, hauler, and community partners
- Providing technical assistance to cities, partners, and the regulated community, such as education toolkits, training, and prepared communications
- Providing financial assistance and/or infrastructure support to municipalities, public schools, and non-profit community organizations for recycling infrastructure, outreach, and education
- Coordinating collection and management of household and business hazardous waste at The Recycling Zone
- Collecting landfill host fees and license fees to fund County programs for reduction, reuse, recycling, and processing
- Leasing County-owned land as a transfer station, yard waste composting site, and the only fully-permitted source-separated composting facility in the Region
- Enforcing County Ordinances covering licensing and disposal restrictions for solid waste facilities, hazardous and solid waste generators, and waste haulers

Existing Waste Management System

Brownfields and contaminated sites programs are administered by the County's Water Resources Department, with coordination from the Environmental Management Department to address consistency in disposal and remediation issues.

The following sections in this chapter provide more information on waste programs and activities in Dakota County for these topics:

1. *Outreach and Education*
2. *Regulation*
3. *Hazardous Waste Management and Toxicity Reduction*
4. *Waste Reduction and Reuse*
5. *Recycling*
6. *Organics and Yard Waste*
7. *Resource Recovery (processing for energy)*
8. *MSW Land Disposal*
9. *Non-MSW Management*
10. *Brownfields and Contaminated Sites*
11. *Cost and Finance*

1. Outreach and Education

Outreach and education play an important role in how a community manages waste. An informed community is empowered to make better consumer choices and waste management decisions when they understand the implications of waste in their lives, are aware of more sustainable options, and believe that it is important to take responsibility for reducing and appropriately managing waste.

Dakota County has committed financial and staff resources toward meeting statutory requirements for providing waste education to the public. Minn. Stat. §115A.552, subd.3, requires counties to "provide information on how, when, and where materials may be recycled, including a promotional program that publishes notices at least once every three months and encourages source separation of residential, commercial, and institutional materials." Additionally, Minn. Stat. §115A.96 requires counties to have an educational component to their household hazardous waste management plans.

To meet these requirements and enhance community understanding of waste issues, Dakota County has developed a mix of programs and ongoing activities, publications, and educational resources:

Programs and Ongoing Activities

- **The Recycling Zone Tours:** Tours of The Recycling Zone are offered to various groups, such as schools, Boy and Girl Scouts, churches, and other Dakota County organizations. Participants learn about HHW management and curbside recycling, and tour the facility. Up to 2,000 people participate annually.
- **County Communications:** A strategic Environmental Management Communications Plan is developed annually by the County Communications Department, to identify priority messages and venues to promote proper waste management and environmental services to residents, businesses, and employees. Plan products have included brochures, factsheets, booklets, online materials, videos, residential newsletters, TV commercials/videos, and other pieces. Topics include reduction, reuse, recycling, composting, and information on The Recycling Zone services. The County promotes messages through various communications channels including the County's website, community and County employee events, newspaper releases and ads, the County Fair, and County education and partnership programs.

- **County-Funded Education through Cities and Townships:** The County enters into annual joint powers agreements to provide funding for cities and townships to administer local residential recycling and education programs. Outreach channels and distribution methods include brochures, print and electronic newsletters, school curricula, websites, social media, utility bill inserts, calendar ads, newspaper ads, TV ads, business outreach, and more.
- **Technical Assistance:** The County provides technical assistance and education to residents on a daily basis, in responding to phone call inquiries, emails, and other requests. For regulated facilities, information needs are addressed during facility inspections.
- **Hazardous Waste Generator Training:** The County offers free training for generators of hazardous waste management five times per year.
- **Community POWER (Partners on Waste Education and Reduction) Program:** The SWMCB developed a grant program for community organizations that provides training, funding, and resources to support community-based waste and toxicity reduction education for behavior change. Dakota County and other SWMCB-member counties provide implementation assistance.

County Resources

- **Online Residential Recycling and Disposal Guide (Guide):** The Guide is an online residential guide of how to reduce, reuse, recycle, compost, dispose of and properly manage more than 100 household items. Disposal information is primarily targeted at a variety of pick-up and drop-off services available in Dakota County. The Guide is online at: www.co.dakota.mn.us/EnvironmentRoads/RecyclingDisposal



The Recycling Education Kit includes displays of recyclable materials and is available for check-out by the public

- **Education Kits for Check-Out:** Dakota County provides education and outreach resources for teachers, students, community groups, and other organizations. Resources are available for check-out and include educational displays, activity kits, learning kits, and banners.
- **Outreach Toolkits:** Outreach toolkits are jointly developed by the MPCA and SWMCB counties, and include displays for check-out and media pieces, such as print and online ads, articles, images and other communication pieces for counties and partners to use in their outreach efforts.
- **Hazardous Waste Generator Newsletter:** The County publishes the Hazardous Waste Generator Newsletter each year and sends it to over 400 hazardous waste generators. The newsletter addresses new regulations, reminds businesses how to remain in compliance, with examples of frequent violations, and provides businesses with current hazardous waste recycling and disposal options and current contact information.

Regional Resources Promoted by the County

- **Rethink Recycling Website and Campaign:** RethinkRecycling.com is the online regional “go-to guide for waste and recycling in the Twin Cities” for residents and businesses. The SWMCB-member counties support Regional efforts and develop and distribute campaign messages. The County website links to RethinkRecycling.com, where residents and businesses can find additional pick-up and drop-off services throughout the Region, beyond the Dakota County locations listed on the County’s website.
- **Environmentally Preferable Practices (EPP) Guide:** The MPCA and the SWMCB jointly developed an EPP Guide as a comprehensive online resource for public entities and businesses that is now maintained and promoted by the MPCA and the SWMCB. The EPP Guide includes information on recycled-content products, waste reduction, product stewardship, energy-efficiency, and least toxic products. Through 2006, the County sponsored annual EPP workshops for local businesses and public entities, to raise awareness on EPP in a range of operational areas, including fleet, office supply purchasing, and education. The EPP Guide is promoted on the County’s internal and external websites.
- **Resourceful Waste Management Guide (RWMG):** The RWMG is a comprehensive online resource for businesses, hosted on RethinkRecycling.com. The RWMG includes information on disposal and management of problem materials and hazardous waste, based on user location and waste disposal needs. It is promoted on the County website.



2. Regulation

Dakota County has an active and robust Waste Regulatory Program, which includes regulation of haulers, generators, and waste management facilities in the County using a combination of regulatory instruments, including County Ordinances, licensing, compliance inspections, enforcement, and technical assistance. Municipality Ordinances support County Ordinances and include requirements for hauler licenses and curbside collection of MSW, recyclables, and yard waste. Current County and municipal Ordinances can be found online.

Ordinances

- **County Solid Waste Ordinance:** Dakota County’s solid waste regulation program began in the 1970’s with adoption of Dakota County Ordinance No. 110, Solid Waste Management (Ordinance 110). Ordinance 110 establishes standards for regulating solid waste management and the operation of solid waste facilities and activities, including infectious waste facilities and activities; establishes requirements for certain facilities on a disposal site; and provides for application and license fees, financial assurance and penalties for lack of compliance with these provisions.
- **County Hazardous Waste Ordinance:** The County’s hazardous waste regulatory program began in 1977 with the passage of the Waste Management Act and County Board adoption of Dakota County Ordinance No. 111, Hazardous Waste Regulation (Ordinance 111). Ordinance 111 establishes standards for generating, storing, processing, or managing hazardous waste in Dakota County.
- **Municipal Ordinances:** All municipalities in the County have established ordinances that dictate how and when MSW collection occurs in their respective areas. Municipal Ordinances are crafted to

ensure the opportunity to recycle exists, that containers are available, and that waste and recycling are handled properly. The municipal Ordinances address residential services, including multi-family dwellings, and commercial services. All municipalities license MSW haulers. Some municipalities have expanded Ordinance requirements. For example, the cities of Apple Valley, Burnsville, and Eagan have instituted hauling zones/districts and times that services can be provided.

Licenses

- **Solid Waste Hauler Licenses:** Hauling companies that collect MSW generated in the County or transport MSW within County boundaries must obtain a MSW hauler license. Dakota County, as a member of the SWMCB, participates in the Regional MSW hauler licensing program. In 2010, 117 companies that haul MSW were licensed to operate in Dakota County. In addition to licensing MSW haulers, Dakota County is the only Regional County that requires licensing of haulers that collect and transport non-MSW to a MSW landfill. Dakota County issued 172 non-MSW licenses to hauling companies in 2010.
- **Solid Waste Facility Licenses:** Solid waste management facilities must have a license from Dakota County to operate. The County licenses MSW, industrial, and demolition landfills; waste processing and recycling facilities; transfer stations; yard waste compost sites; and organics composting facilities. The County issues solid waste facility licenses for a two-year period. Dakota County regulates landfills that receive combustor ash, process residuals, and bypass from Regional resource recovery facilities.

Dakota County plays a critical role in coordinating a solid waste facility's compliance requirements with the MPCA and municipality or township in which a facility is located. While the municipality or township addresses local zoning and end-use requirements and the MPCA generally establishes primary facility design and monitoring requirements, the County focuses technical assistance on facility operations.

- **Hazardous Waste Generator Licenses:** Dakota County annually licenses hazardous waste generators, with fees based on the amount of hazardous waste generated. Minimal generators, those that generate less than ten gallons of hazardous waste and/or less than one quart of acutely hazardous waste, are not required to have a license; however, are required to register with the County.
- **Hazardous Waste Facility Licenses:** Dakota County licenses hazardous waste facilities, including storage facilities, ten-day transfer facilities, storage and recycling facilities, treatment facilities, special hazardous waste storage sites, HHW and Very Small Quantity Generator (VSQG) collection sites, universal waste sites, and used oil collection sites.

Compliance Inspections and Enforcement

Compliance inspections are conducted regularly to evaluate both solid and hazardous facility operations for compliance with license conditions. Inspection frequency is based on the type of facility, potential for risk to the environment, and compliance history. If a facility is found to be out of compliance, a range of enforcement actions will ensue, typically beginning with formal notification of inspection findings and providing opportunities to correct the problem.

Technical Assistance

The County provides technical assistance to hazardous waste generators during compliance inspections. The County has provided technical assistance to the MPCA for its Land Management Plan, Closed Landfill Program, and regulatory efforts to address landfill contamination issues.

3. Hazardous Waste and Toxicity Reduction Programs and Activities

Dakota County has made a long-term commitment to protecting public health and the environment by offering several opportunities for residents and businesses to appropriately manage their hazardous waste and problem materials. The County's programs are well-established and have been successful.

The Recycling Zone

Dakota County's hazardous waste management services began in 1985 with Minnesota's first household hazardous waste (HHW) collection. County services have grown to include a premier facility for residential and business hazardous waste and problem materials collection.

Residential HHW and Problem Materials Services at The Recycling Zone

Minn. Stat. §115A.96 requires counties to implement a HHW management plan. Dakota County provides for collection, storage, and proper management of HHW and problem materials through collection programs at The Recycling Zone, at community collection events, and drop-off locations for select HHW wastes.

- **Material Drop-Off:** Residents can drop off HHW and problem materials at no charge, including: oil-based paint, flammable solvents, pesticides, automotive fluids, aerosols, propane tanks, fluorescent bulbs, rechargeable batteries, and electronics. The Recycling Zone accepts a range of problem materials that aren't necessarily environmentally hazardous, but can be difficult to manage in the normal solid waste stream, such as latex paint, household cleaners, used oil, sharps, and tires (for a fee). Additional materials collected at no charge include electronics, holiday lights, musical greeting cards, ink cartridges, and lead fishing tackle.
- **Reciprocal Use:** Convenience is inherent to a successful HHW collection program. Although The Recycling Zone is located within 10 miles of nearly 80 percent of Dakota County residents, it can be more convenient for residents to use another Regional HHW facility during business hours. Instead of turning away non-county residents, the SWMCB-member counties decided to work together. Each County will accept hazardous waste from a resident of another Metropolitan County that participates in reciprocal use agreements. Dakota County also has a reciprocal use agreement with Scott County, which is not a SWMCB-member County.



The Recycling Zone accepts hazardous waste and problem materials from residents and businesses

Business Services at The Recycling Zone

Although not required by Statute, Dakota County has elected to provide support to businesses for proper waste management through the following programs:

- **Electronics and Fluorescent Bulb Collection Program:** For a minimal fee, businesses of any size can bring in electronics and spent fluorescent bulbs on the second Tuesday of every month for proper disposal. Dakota County partners with Xcel Energy to offer businesses free disposal of up to ten bulbs per year.
- **Very Small Quantity Generator (VSQG) Program:** Because more than 90 percent of businesses in Dakota County qualify as a VSQG, the County offers a program to help businesses that produce small amounts of hazardous waste to meet State disposal requirements. Technical assistance is provided and businesses are required to make an appointment to participate in the program and pay a disposal fee for wastes.

Pesticide Collection Program

Dakota County accepts both business and household pesticides at The Recycling Zone at no charge. Minn. Stat. §18B.065 requires the Minnesota Department of Agriculture (MDA) to establish and operate a waste pesticide collection program for Minnesota counties. The MDA requires counties to enter into cooperative agreements to receive funds to conduct collections for both business and household waste pesticide management. The MDA provides funds to counties with a hazardous waste collection program. Dakota County enters into an agreement with the MDA, and has received State funds for waste pesticide management at The Recycling Zone and at community event collections.

Residential HHW Event Collections

Dakota County has collaborated with cities to provide two to four HHW collection events for residents every year since 1985. County/city HHW collection events provide an opportunity for residents to dispose of paint, pesticides, used oil, cleaning supplies, and other hazardous materials. Local HHW collection events can be closer to home and more convenient for residents than a trip to The Recycling Zone. The 2010 season was the most successful to date with over 4,500 vehicle-participants bringing in 248,000 pounds of HHW and 225,000 pounds of electronics at events in Hastings, Lakeville, Inver Grove Heights, and Burnsville.

Under joint powers agreements with communities, the County typically provides for equipment, staff, publicity outside the collection area, and HHW disposal. Information on the hours, location, and materials accepted at The Recycling Zone are distributed on event days. Cities typically provide event sites, staff, and local publicity.

Residential Sharps and Pharmaceuticals Collections

In 2007, Dakota County implemented a sharps (needles, syringes, and lancets) collection at The Recycling Zone for residents. In 2010, Dakota County partnered with the Drug Enforcement Agency (DEA) to hold three pharmaceuticals collection events. Over 1,000 pounds of pharmaceuticals were collected from 600 residents.

Dakota County In-House Hazardous Waste Program

The County emphasizes proper hazardous waste management in County buildings and on County grounds, including:

Existing Waste Management System

- Providing The Recycling Zone services to properly manage hazardous waste from County operations, such as fluorescent bulbs, paints, and electronics
- Providing The Recycling Zone services to properly manage hazardous waste from illegal dumping on County property
- Using the Rechargeable Battery Recycling Corporation program to manage batteries from County operations
- Promoting the Employee Reuse, Recycling and Disposal Guide to educate employees on proper management of hazardous waste at the office, such as cell phones and cell phone batteries

4. Waste Reduction and Reuse Programs and Activities

Waste reduction eliminates the generation of waste and therefore, the need to manage waste. As such, reduction is the most preferred option in the Hierarchy. Reuse is the next preferred method, and puts intact items back into use rather than recycling component materials or relying on disposal methods. Dakota County's efforts in waste reduction and reuse have focused on: 1) providing reuse opportunities at The Recycling Zone, 2) demonstrating leadership by implementing waste reduction and reuse in County operations and encouraging others to do the same and, 3) providing education and resources of reuse options available to residents and businesses.

The Recycling Zone

Residents and businesses can drop off or take usable materials, such as televisions, printers, fertilizers, household cleaners, paint and other household items at no charge. The amount of material put out for reuse is limited, in part, because of space constraints. Facility improvements in 2009 tripled the space available for reuse items.

Reuse services reduce disposal costs by offering materials that would otherwise need disposal. In 2010, Dakota County reused almost 213,000 pounds of material, saving over \$130,000 in disposal costs.

Twin Cities Free Market Funding

The Twin Cities Free Market is an online exchange service for residents in the Twin Cities area who want to give or get free reusable goods for the home, garage, and garden. Between 2004 and 2010, more than 10,000 items were exchanged and more than one million pounds of goods from Dakota County households were exchanged instead of being sent to landfills. The County discontinued financial support of the Twin Cities Free Market at the end of 2010, because its use declined as other free online exchanges, such as Craigslist and FreeCycle, became available for residents. The County continues to promote other reuse options for residents and businesses in County communications.

Dakota County In-House Reduction and Reuse Program

The County emphasizes reduction and reuse in County buildings and on County grounds, including:



Reuse at The Recycling Zone

- Promoting reuse as a first step in County asset disposal
- Providing an employee reuse program for used office furniture and supplies, such as binders, scissors, one-sided paper (made into notebooks) and staplers
- Employing an office junk mail reduction program to remove employees from unwanted office mail lists
- Providing a green meeting toolkit, guidance, and resources to help reduce waste at County-sponsored events
- Providing recurring reuse messages for employees on DakotaWorks (employee website)
- Promoting the Employee Reuse, Recycling and Disposal Guide to educate employees on reusing office items
- Implementing an Electronic Document Management System (EDMS) to convert many County processes from paper-based activities to Intranet software-based applications. The EDMS manages contracts, financial documents, employee benefit enrollment, and other types of documents
- The Eco-10 Challenge (*no longer active*) was an internal program designed to reduce employee-generated MSW by 10 percent by providing concrete opportunities for waste reduction. Employees voluntarily pledged to participate through activities such as increased electronic communications, enhanced recycling, duplex printing and copying, opting out of junk mail lists, and using reusable mugs. The Eco-10 Challenge launched many of the initiatives listed above.

5. Recycling Programs and Activities

Dakota County launched its recycling program in 1988, by adopting the Dakota County Recycling Implementation Strategy, ensuring that residents would have the opportunity to recycle. Recycling in Dakota County is not mandatory for residents or businesses; however, Ordinance 110 does include language for mandatory recycling, which can be activated by County Board resolution:

- *Mandatory Residential Recycling: Section 16.04 shall be effective upon action by the County Board. It shall be unlawful for any owner or occupant of a residential or multi-unit residential building to generate and deposit for collection MSW that contains any of the following recyclable materials: A) Beverage containers; B) Glass recyclables; C) Paper recyclables; and or D) Other materials that may be designated by the County Board unless such waste is directly delivered or collected for direct delivery to a facility that has been approved by the County for separation of recyclable material.*
- *Mandatory Commercial Recycling: Section 16.05 shall be effective upon action by the County Board. It shall be unlawful for any owner or occupant of a commercial building to generate and deposit for collection MSW that contains any of the following recyclable materials: A) Beverage containers; B) Glass recyclables; C) Paper recyclables; and or D) Other materials that may be designated by the County Board unless such waste is directly delivered or collected for direct delivery to a facility that has been approved by the County for separation of recyclable material.*

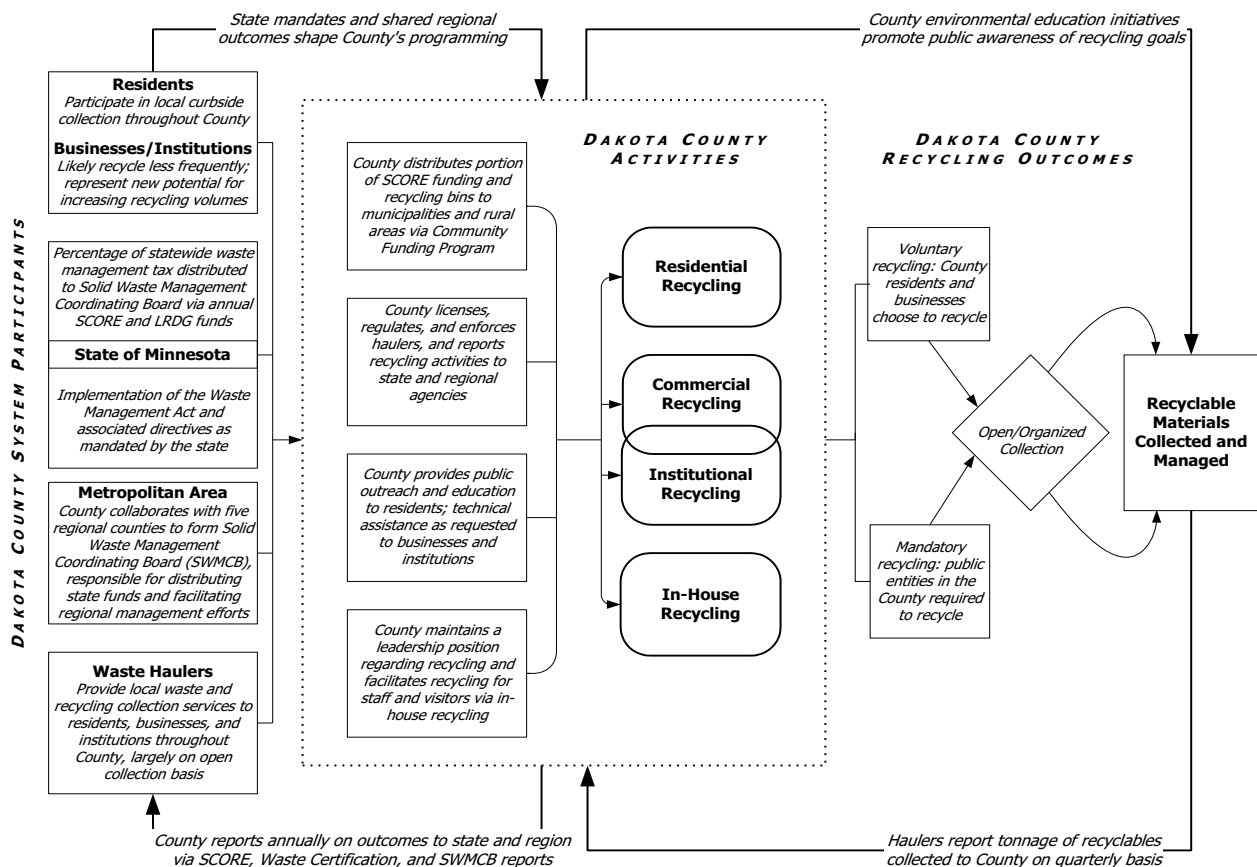
For detailed information about the County's recycling program and progress, refer to the 2002 Dakota County Recycling Evaluation and the 2010 Recycling Retrospective: Analysis of Progress Since 2002 Evaluation.

Dakota County's primary focus has been on residential, public entity, and County business operation recycling, as described in the following programs and activities. Local communities play a key role in assuring the consistency and stability of recycling programs.

Residential Recycling

Curbside Collection: Curbside recycling programs continue to be provided by haulers through contracts with municipalities, or are provided by subscription service under licensing conditions of municipalities. Haulers collect recyclable materials from households, including newspaper, glass, metal cans, magazines, cardboard, residential mixed paper, and bottle-grade container plastics. Some haulers have expanded the list of materials accepted when markets become available. The County has provided recycling containers to single and multifamily residences that are distributed by cities and townships. Residential curbside pickup of recyclable materials occurs in all cities and townships. Dakota County's curbside recyclables collection program for residents began in 1989.

Community Funding Program: The Community Funding Program operates as a partnership among Dakota County and its cities and the RSWC. Dakota County provides funding for waste abatement education and recycling infrastructure and enters into joint powers agreements with communities to administer residential recycling programs. The agreements require that a specified level of service be offered to residents, that communities annually prepare a work plan and itemized budget, and submit an annual report.



Recycling Outcome: Achievement of state mandated 50% recycling rate of total municipal solid waste generated.

Figure 15: Overview of Dakota County's Recycling Program Efforts

Excerpt from the 2012 Community Funding Agreement:

The Municipality shall implement and operate a local comprehensive landfill abatement program that substantially complies with the current program guidelines set forth in Exhibit 1². The Municipality is responsible for maintaining the level of service outlined in the Regional/Dakota County Solid Waste Master Plan (as amended) and for maintaining a solid waste abatement program that includes at least bi-weekly recyclables collection for single family and multi-family households using a recycling container. The solid waste abatement program requires collection of the following recyclables: newspaper, corrugated cardboard, residential office paper, magazines, cans (food and beverage), plastic containers with a neck, and three colors of glass. If the Municipality fails to maintain the above levels of service, the County will provide such service and assess the costs back to the residents of the Municipality. Other responsibilities of the Municipality depend upon the size of the community and are divided into four areas (operations, education, government leadership, and local negotiated initiatives) that are set forth in Exhibit 1. The Municipality's program must be designed to attain a level of recycling of their residential waste stream that supports Dakota County's overall recycling goal of fifty percent (50 percent). The County will determine the residential generation upon which this percentage is calculated, unless the Municipality is able to measure its residential generation amount. Failure to achieve this percentage goal will result in the requirement that a plan to increase recycling be submitted by the Municipality for the County's approval within 90 days of the submittal of the Municipality's 2012 Community Annual Report. The Municipality's performance will be evaluated by its success in meeting its responsibilities and the criteria set forth in Exhibit 1.

Through the Community Funding Program, Dakota County works with the cities and the RSWC to provide primary communication on landfill abatement to residents. Communication is offered through websites, electronic and print newsletters, utility bills inserts, educational presentations, and pilot projects. Eligible funded abatement and education activities relate to government leadership, operational needs, and community education. Funds are also provided for special initiatives through a Local Negotiated Initiative Fund (LNIF) to develop sustainable projects/programs that uniquely support County Master Plan goals and are designed to be replicated in other communities.

The following graph reflects the amount of funding provided to cities and townships to implement landfill abatement activities.

² Exhibit 1 is a supplemental document entitled, "Community Funding Guidelines," that is modified to ensure compliance with any Master Plan revisions and annual priorities is and adopted by municipalities as part of the Agreement.

Existing Waste Management System

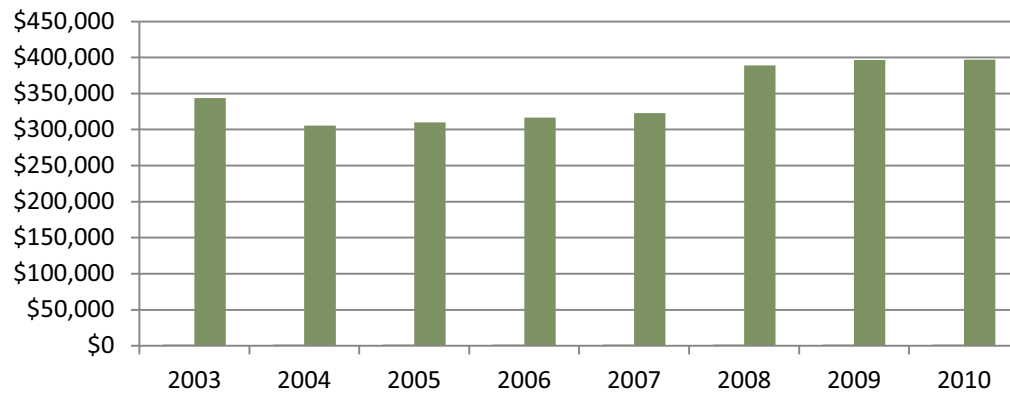


Figure 16: Funding to Cities and Townships for Waste Abatement Activities

Dakota County currently uses a portion of its State Select Committee on Recycling and the Environment (SCORE) and Local Recycling Development Grant (LDRG) funds to support the Community Funding Program. In 2010, the County distributed nearly \$400,000. Communities also contribute their own funds to support their recycling programs and; therefore, increase the total amount spent on recycling programs.

Residential Curbside Recycling Containers: Cities and townships have been provided with residential curbside recycling containers for single- and multi-family residences as part of the Community Funding Program. While the County still offers recycling containers, few municipalities request them because of the private-sector transition to a single-stream collection system. Dakota County has shifted emphasis in this area to providing containers in public areas.

Recycling Drop-Off Locations

The Recycling Zone: As required by Minn. Stat. §115A.552, the County provides for at least one recycling center – The Recycling Zone. Residents can drop off recyclable materials at no charge, including traditional materials such as paper, cardboard, cans, and bottles, and non-traditional materials such as cooking oil, packing peanuts, plastic bags, and holiday lights for no cost. The Recycling Zone also includes an aluminum can redemption center. Businesses can also drop off recyclables at no charge.

Hastings Paper and Cardboard Drop-Off: Since 2006, the waste hauler for the City of Hastings has provided a centrally-located recycling container for businesses and residents to drop off paper materials, including cardboard, magazines, newspapers, junk mail, and box board. Over 1,500 tons of materials have been collected and recycled since the program's inception.

Farmington Cardboard Drop-Off: Since 1993, the City of Farmington has strategically placed 12 cages across the city for business and residential drop-off of corrugated cardboard and uncoated moving paper. Nearly 230 tons were collected and recycled in 2010.

Commercial, Industrial, and Institutional Recycling

Commercial, industrial and institutional (CII) entities include businesses, manufacturers, schools, and local governments. Recyclable materials are collected from CII entities by private waste haulers and

include newspaper, glass, metal cans, magazines, cardboard, mixed paper, and bottle-grade container plastics.

School Recycling Program: In 2009, the County implemented an enhanced recycling program in schools. The program provides infrastructure support, such as labels and recycling containers, and technical assistance for program development, implementation, and evaluation. Project data show recycling increases of 26 percent to 47 percent in participating schools, and this project has been identified as a model for the State and Region. All public schools in Dakota County are solicited to participate in the program, and schools must complete an application for consideration. Schools are selected that best meet established project criteria, including having an existing recycling program, school leadership capacity, and existing youth groups to help implement the project. To date, 31 public schools have participated (approximately one-third of the County's public schools).

County Fair for Recyclables Collection: Since 2003, the Environmental Management Department has facilitated event recycling at the Dakota County Fair, which attracts over 120,000 visitors each year. Through a dedicated partnership, over four tons of bottles, cans, cups, and cardboard were collected for recycling in 2010 – an 18 percent recycling rate – making the Dakota County Fair one of the most successful Fair recycling programs in the State of Minnesota.

Community Events for Recyclables Collection: Rosemount's Leprechaun Days annual summer celebration takes place over 10 days and at many different venues. Event recycling was instituted in 2005 as part of the Community Funding Program, and continues for the Run for the Gold, the Leprechaun Days Parade and the Mid-Summer Faire (carnival). Other cities have also implemented and sustained event recycling, including at annual community events (Burnsville International Festival and Lakeville's Panorama of Progress since 2009, Hasting's Rivertown Days and Mendota Days since 2010, Lilydaze since 2011), sporting events (Lakeville Iron Man and Burnsville Half Marathon since 2009) and other city events such as the Eagan Market Fest and Lakeville Art Festival since 2009 and West St. Paul City open house since 2010.

Business Recognition Program: The Awards for Recycling and Reduction of Waste (ARROW) Program recognizes area businesses for making environmentally-conscious decisions. The program was developed and is maintained through collaborative efforts among the cities of Apple Valley, Burnsville, and Eagan using Community Funding Program funds. Businesses that implement a recycling program, buy recycled-content materials or supplies, sell products with recycled content, reuse material, or have reduced waste are provided window decals, and are recognized through newspaper, listserv, and website promotions. The ARROW program has approximately 140 member businesses.

County In-House Recycling Activities

Dakota County's internal recycling program covers all County buildings and grounds, including County park facilities, libraries, service centers, and transportation facilities. Ongoing efforts include:

- Adopting and using an internal recycling policy (County Policy 4301), requiring recycling of a comprehensive list of paper products
- Adopting and using an internal procurement of recycled products policy (County Policy 2742), requiring the County to purchase post-consumer, recycled-content paper
- Providing standardized, paired, and labeled trash and recycling containers in conference rooms and employee areas

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- Recycling confidential papers, non-confidential papers, glass and plastic bottles and cans, cardboard, clothing and shoes from the jail system, hardcover library books, and cooking oil from the cafeteria
- Conducting recycling events to enhance employee awareness
- Providing recurring recycling messages for employees on DakotaWorks (employee website)
- Promoting the [Employee Reuse, Recycling and Disposal Guide](#) to educate employees on recycling common office items including paper, plastic bottles, and paper clips
- Conducting routine waste sorts and audits at County buildings to measure progress toward goals and reporting findings to employees
- Developing a Resource Management waste and recycling contract to provide building-specific waste and recycling services, evaluation, and service improvement recommendations
- Convening a Resource Management Project Team to implement countywide waste reduction and recycling programs

6. Organics and Yard Waste Management Programs and Activities

The County's primary roles in supporting organics recovery include regulation, managing a lease on County-owned land for waste management purposes, education, community events, and pilot projects.

Organics Regulation

In addition to the regulatory activities described previously, the County regulates organics and yard waste management and facilities. Dakota County prohibits land disposal of yard waste, Christmas trees, and holiday plant decorations. Collected yard waste must be placed in a compostable bag, and yard waste self-hauled to a facility must be dropped off in a reusable container or in a compostable bag. The State and County prohibit yard waste from being mixed with MSW; however, yard waste can be collected by MSW haulers using separate collection vehicles or by special yard waste collectors, such as lawn services, and delivered to yard waste sites.

Lease

County-owned land in Empire Township is actively managed through a lease with a private firm to operate both source-separated organics composting and yard waste composting facilities.

Residential Organics Diversion

- **Education:** Dakota County promotes residential backyard bin composting. Dakota County made compost bins available to residents at a low cost before bins were readily available at retail stores. The County now promotes the sale of compost bins year-around at The Recycling Zone.
- **Residential Organics Collection Pilot:** Commencing in October 2002, the City of Burnsville worked with 900 households in the North River Hills Neighborhood to collect source-separated organic materials. This voluntary program required participating residents to separate the non-recyclable portion of the MSW stream using identifiable compostable bags. The pilot was approximately six months long and officially ended in March 2003, with 12.5 tons composted. The hauler chose to end the pilot in March 2003 because participation did not make the pilot cost-effective.
- **Community Events for Organics Collection:** The Community Funding Program has provided seed money to implement organics diversion projects at community events. For example, in 2010, the City of Rosemount collected the two most popular food items available from its Mid-Summer Faire

vendor booths: pork chops on-a-stick and corn-on-the-cob, and collected paper and food organics from the Run for the Gold event, and diverted the organics for composting.

Institutional Organics Diversion

- **Independent School District 196 Organics Collection Pilot:** Dakota County worked with Independent School District 196 (ISD 196) to implement a District-wide organics collection pilot during the 2002-2003 school year, and separated the non-recyclable, organic portion of the MSW for collection and composting at the site on County-owned land. More than 800 tons of waste was diverted for composting. During the program, recycling of plastic, glass and metal containers increased significantly – in some schools by 400 percent. The District purchased finished compost from the facility operator for application on school athletic fields. The program continues on a permanent basis at the District's elementary schools.

7. Resource Recovery Programs and Activities

Resource recovery, also called waste processing for energy, is part of an integrated waste system, although only one step above land disposal. In 1985, the Minnesota Legislature adopted a law requiring that all MSW generated in the seven Metropolitan counties that is not reduced, reused, or recycled must be sent to a resource recovery facility (Minn. Stat. §473.848) if capacity is available. Although the Statute has not been actively enforced, TCMA counties have focused their efforts over the past two decades on developing capacity and programs to promote resource recovery.

Programs and Ongoing Activities

- **County Lease for Transfer Station:** In the early 1990's, Dakota County worked to site an incinerator on County-owned land in Empire Township. Although the facility was permitted by the State in 1992, the development of the processing facility did not come to fruition. The land is currently being used for waste management purposes through a lease with RRT Processing Solutions, LLC (organics composting, yard waste composting, and transfer to a resource recovery facility for processing). This is the only MSW processing-related facility in the County. The lease includes a minimum processing requirement (via transfer to a resource recovery facility) of 40,000 tons per year, and an annual penalty (\$20,000) if the minimum is not met. Nearly half of all waste processed in Dakota County passes through this transfer station.
- **Hauler Financial Incentive Payment (HFIP) Program:** A subsidy was offered to waste haulers for waste that was delivered and verifiably processed at designated resource recovery facilities. From the inception of the program in 1997 through 2010, the County paid haulers over \$4,343,000 for processed waste and over 362,000 tons of MSW were processed that may have otherwise been landfilled. The County's HFIP program ended in 2010 due to the economic downturn and subsequent budget reductions.
- **Landfill Host Fee Incentives:** Dakota County negotiates host fees with landfills such that landfills pay a higher fee for accepting processible waste than they pay for non-processible waste and process residuals.

8. MSW Land Disposal Programs and Activities

The County's primary role in MSW land disposal is regulating the sanitary landfills and MSW transfer stations serving the Region that are located in Dakota County. The landfills accept waste from the Region, State, and surrounding states. Although landfilling is the least preferred management method, it is necessary in an integrated waste system. The County regulates acceptance of waste at the facilities that are located within the County, including material bans and prohibitions.

Material bans

Materials and wastes banned from disposal at MSW landfills located in Dakota County include:

- Trees and branches, including Christmas trees
- Tires
- Lead-acid batteries
- Major appliances
- Waste oil/used oil and used oil filters
- Yard wastes
- Mercury-containing waste as listed in Minn. Stat. §115A.932
- Telephone directories
- Cathode Ray Tubes
- Other listed wastes exceeding thresholds (e.g., liquids, sludges, radioactive waste, etc.)

Prohibitions

- **Unprocessed Waste:** Ordinance 110 prohibits sanitary landfills from accepting unprocessed MSW generated in the TCMA, unless it has been certified as unprocessable or no other processing facility in the TCMA is capable of processing the waste.
- **Recyclables and Yard Waste:** Ordinance 110 requires that source-separated materials, such as recyclables and yard waste, be delivered to respective recycling and yard waste facilities, and prohibits any land disposal of source-separated materials and other banned materials.
- **Burning and Burying of Waste:** Ordinance 110 prohibits the burning and burial of solid wastes. For years, Ordinance 110 had a farm exemption; however, in 2009, the County Board eliminated this exemption. Significant communications were provided to inform residents of the risks of burning, and all residents in the RSWC area received a newsletter identifying the new prohibition.
- **Yard Waste Collection:** Ordinance 110 prohibits the use of plastic bags for yard waste collection. Yard waste is required to be collected in paper bags or other biodegradable containers, or placed in a container that can be reused.

In addition to the regulatory activities described previously, the County manages the Co-Disposal Program and Landfill Cover Programs:

- **Co-Disposal Program:** The program requires all businesses and industries to evaluate their waste to determine if it is hazardous. Industries that "co-dispose" non-hazardous industrial waste with MSW must: demonstrate proper evaluation in accordance with the law; comply with a State approved Industrial Waste Management Plan; and, in Dakota County, comply with Ordinance 110. County requirements ensure that accepted waste is below hazardous waste limits. The Co-Disposal Program also documents industrial waste characteristics and the types and amounts landfilled.

- **Landfill Cover Programs:** The program addresses essential landfill cover requirements for daily, intermediate and final cover. The Alternative Daily Cover Program addresses daily cover requirements at MSW landfills and intermittent cover at the one industrial waste landfill located in the County. The Alternative Daily Cover Program makes it possible for landfills to meet essential requirements with materials other than clean soil, including use of contaminated soil for daily cover. Approved alternative daily cover options include tarps and foam, which do not consume landfill space.

9. Non-MSW Management Programs and Activities

The County non-MSW program consists of 1) regulatory oversight of non-MSW managed at facilities in the County and 2) programs and projects promoting reuse, recycling and processing of non-MSW.

Regulatory Oversight

Non-MSW includes construction, demolition, and industrial waste. Although some of these wastes are routinely recycled, a significant portion of non-MSW is landfilled. The County's primary role in non-MSW land disposal is regulating the three landfills serving the Region that reside in Dakota County. The County issues facility licenses, collects fees, conducts landfill inspections, and provides for enforcement as necessary to ensure compliance with Ordinance 110. The County also works closely with the MPCA on non-MSW regulatory issues, including rule revisions and compliance.

Programs Promoting Reuse, Reduction, and Recycling

- **Asphalt Shingle Recycling:** The County actively monitors asphalt shingle recycling in the County and Region to track and promote reuse of this material. Dakota County's Transportation Department includes an alternative material specification for recycled asphalt shingle paving. The Dakota County Parks Department also has used asphalt shingle-based paving on Regional trail projects.
- **High Performance Buildings:** The Dakota County Design Construction Sustainability Design Standards are required in County capital building projects to reduce waste generation, increase reuse and recycling, and minimize the County's environmental footprint. The Standards include construction guidelines for elements that are sometimes marginalized, such as building deconstruction and demolition, construction waste reuse and recycling, building material for sustainability, native material landscaping, storm water management, and energy conservation. Examples of past projects include:
 - A reuse and recycling plan that resulted in over 40 percent of demolition debris and construction waste being reused or recycled
 - Manufactured shingle scrap used in parking lot bituminous paving
 - Using more insulation, thermal windows, lighting/heating occupancy sensors , and other energy saving techniques that further reduced energy consumption more than 30 percent compared to Minnesota's energy codes
 - Using building materials certified as "sustainable" or made from renewable raw materials
- **Government Leadership in Green Building:** The Lebanon Hills Visitor Center was the first County building in Minnesota to be awarded certification through The Leadership in Energy and Environmental Design (LEED®) Green Building Rating System™ by the U.S. Green Building Council. A silver medal rating, the third-highest LEED® rating, was awarded to the Visitor Center in April 2009. Buildings certified by the U.S. Green Building Council have lower operating costs, reduce waste sent

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to landfills, conserve energy and water, improve indoor air quality, reduce harmful greenhouse gas emissions, and commit to environmental stewardship and social responsibility.

- **Tire Collection Program:** Proper tire management minimizes potential breeding habitats for disease-carrying mosquitoes. Dakota County provides funding for waste tire collection events in one or more townships each year. This program provides an incentive for township residents to easily recycle this problem material. Tires are also collected at The Recycling Zone and community clean-up events.

10. Contaminated Sites and Brownfields Programs and Activities

Dakota County has old waste disposal sites that have been inventoried by the County's Site Assessment and Response Program. Development or redevelopment of these brownfields is abandoned or delayed when liability, environmental, health and safety issues of these sites emerge.

Restoration of environmentally impacted commercial properties for redevelopment, improved tax base, and job replacement is important; however, the issues of environmental contamination, human health, safety, and environmental justice impact all properties. The County's Site Assessment and Response Program, a solid waste host fee-funded program seeks to:

- Compile comprehensive inventories from State and local data sources for solid and hazardous waste disposal and contaminant release sites, using Geographic Information Systems (GIS), relational databases, interactive computer technologies, and other resources
- Establish site priority, based on potential impacts to the environment and public health and safety, and address the highest priority sites
- Assess relative risks for high priority sites by gathering additional site data and data from adjacent areas to determine significant impacts
- Conduct or facilitate preliminary investigations of the most significant sites and follow-up with detailed investigations and response actions wherever indicated
- Conduct or facilitate emergency response and appropriate remedial actions by owners, responsible parties, and governmental agencies to mitigate risks
- Promote site clean-up to acceptable contaminant levels for current and future uses of land and surface and ground water
- Provide appropriate information to potentially affected persons regarding site status and impacts, including water supply test data and other pertinent results
- Provide technical guidance to municipalities, property and business owners, and other interested persons regarding known or potential sites, their impacts and consequences, and possible resolutions
- Develop innovative techniques, practices, and processes that permit timely interventions and preventatives to lower risks, enhance environmental quality, and improve program effectiveness

The program complements similar Federal and State programs. This program targets unresolved potentially contaminated sites. GIS is used to inventory and track sites.

11. Cost and Finance

Dakota County's programs for solid and hazardous waste management are funded by State grants, negotiated landfill host fees, and license fees. Property tax levy revenues have not been used to fund the County's waste management efforts, although this may change in the future.

Revenue Sources

- **Solid Waste Management Tax and Select Committee on Recycling and the Environment (SCORE) Funding:** In 1989, Governor Perpich established the Select Committee on Recycling and the Environment (SCORE), comprised of elected local, county, and State officials, and waste industry representatives. The SCORE Committee promoted the passage of legislation (Minn. Stat. §115A.557) to create a funding source for waste management programs from MSW services (garbage bills). SCORE funds come from a percentage tax collected by the State for management services on MSW and non-MSW services. Services subject to this tax include collection, transportation, processing, and disposal of waste materials. Service providers (haulers and disposal facility operators) who directly bill generators or customers are responsible for collecting and remitting the tax. Over \$60 million is generated annually through the tax, with a percentage diverted to fund the MPCA and the State general fund.

The tax also funds State SCORE grants to counties to support local waste reduction and recycling programs. Of the estimated more than \$60 million collected each year through the Solid Waste Management Tax, approximately \$14.25 million is currently converted into SCORE funds and distributed across all 87 Minnesota counties to support State-mandated waste reduction, recycling, and other landfill abatement activities. Approximately \$7 million is distributed based on population to the seven Metro counties and \$7 million is distributed to greater Minnesota counties, at a base minimum amount of \$55,950 per county. In 2010, Dakota County received \$985,614 and met the 25 percent match fund requirement using landfill host fees.

- **Metropolitan Landfill Abatement Account (MLAA) and Local Recycling Development Grant (LRDG) Funding:** LRDG is a grant program (Minn. Stat. §473.844) created to fund projects that result in landfill abatement in the TCMA. MLAA is intended to assist in establishing an integrated and coordinated solid waste management system in the Region. The focus of the program is intended to be consistent with the Waste Management Act, and implement the policies and programs outlined in the Policy Plan. Funding for the MLAA program is generated from a \$2.00 per cubic yard (or \$6.66 per ton) surcharge on MSW disposed of at Metropolitan landfills. Paid by solid waste facilities, three-quarters of the surcharge proceeds are deposited into the MLAA.

The MLAA funds the LRDG program, with grants offered to the seven Metropolitan counties. The LRDG Program is designed for planning, developing, and implementing new, enhanced or more effective waste reduction, yard waste composting, and recycling programs for residential, commercial, industrial, and institutional generators of MSW. Counties must support and maintain effective municipal recycling as a condition of receiving LRDG funds and must match LRDG funds with an equal county contribution. LRDG funds are distributed from the MLAA administered by the MPCA. In 2010, Dakota County received approximately \$145,000 and met the 100 percent match fund requirement using landfill host fees.

- **Landfill Host Fees:** Host fees are collected from landfills located in Dakota County, in accordance with negotiated host fee agreements. In late 1997 and early 1998, negotiated host fees replaced the landfill surcharge as fees paid directly to Dakota County. Prior to 1997, a landfill surcharge was

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collected as an additional charge for waste tipped at landfills at the rate of \$3.33 per cubic yard. In 2010, the County collected approximately \$6.8 million, of which approximately \$400,000 was used to fulfill the County's required match for LRDG (100 percent match) and SCORE (25 percent match) funding.

- **Regulatory Fees:** Fees are also collected from solid and hazardous waste facilities and haulers that the County regulates. Fees vary depending on the type of waste facility, and the type and volume of waste managed. License fees collected from solid and hazardous waste facilities and haulers for the past several years have been in the range of \$750,000 annually and fully cover the costs of County regulatory activities.

3: DAKOTA COUNTY PLAN FOR SOLID WASTE MANAGEMENT THROUGH 2030

A. County Vision and Policies

This chapter outlines Dakota County's strategic approach to managing more waste at preferred levels of the State's Waste Management Hierarchy (Hierarchy), near-term, mid-term, and long-term.

For the purposes of the Dakota County Solid Waste Master Plan (County Master Plan), vision, policies, goals, strategies, and outcomes are used in the following manner:

Vision defines the desired future state to be reached through efforts identified in the County Master Plan.

Policies are set by the Dakota County Board of Commissioners (County Board) to define the County's position on specific issues and roles or actions that the County generally will take.

Goals express desired change or outcome in a given area (e.g., recycling). County Master Plan goals were designed to contribute to attainment of the Metropolitan Solid Waste Management Policy Plan (Policy Plan) Twin Cities Metro Area (TCMA) objectives. The TCMA includes the seven-Metropolitan counties of Anoka, Carver, Dakota, Hennepin, Ramsey, Scott and Washington.

Strategies are steps taken to advance the County Master Plan goals and Policy Plan TCMA objectives. By individual topics or waste management areas, the strategies are packaged into a six-year increment that summarizes the County's strategic near-term approach. Additional mid- and long-term strategies that will or could be deployed outside of the current planning horizon are also identified.

Outcomes define measurable targets and anticipated results by specific area. The County Master Plan includes *general outcomes*, such as tons of material recycled, and *specific outcomes*, such as tons of material recycled through a new business recycling program. Outcomes identify how progress in achieving Policy Plan objectives will be tracked, including specific measures for key County Master Plan strategies. State reporting requirements and additional measurements that address the near-, mid-, and long term planning horizons of the County's Master Plan are found in Chapter 4.

Regularly measuring results is part of plan implementation and benchmarking progress towards Policy Plan numeric objectives. Dakota County is committed to developing, refining, and regularly using a performance measurement system that marks its progress in achieving the goals and outcomes identified in this County Master Plan.

Proposed vision, policies, goals, strategies, and outcome measures were developed and refined with guidance received over the course of County Master Plan development from the County Board. Additionally, input was provided by the Dakota County Solid Waste Management Advisory Committee, Local Solid Waste Staff (i.e., city and township recycling coordinators), residential and business surveys, County Environmental Management Department staff, Minnesota Pollution Control Agency (MPCA) staff, and Dakota County's engagement with the Solid Waste Management Coordinating Board

(SWMCB)-member counties (Anoka, Carver, Dakota, Hennepin, Ramsey, and Washington) (Region) to develop the Regional Solid Waste Master Plan (Regional Master Plan).

County Master Plan Vision

Dakota County will have an integrated waste management system that protects air, water, land, and public health through public-private partnerships and strategic use of educational, financial and regulatory tools to reduce toxicity and waste; promote reuse, recycling and resource recovery; and minimize land disposal.

County Master Plan Policies

1. Dakota County will regulate waste generated in the County to protect public health, the environment, and natural resources, in accordance with County, State and Federal rules and regulations.
2. Dakota County supports an integrated waste management system for waste generated in the County in accordance with the State's preferred Waste Management Hierarchy (Hierarchy) identified in Minn. Ch. 115A and the Metropolitan Solid Waste Management Policy Plan (Policy Plan).
3. Dakota County adopts the Policy Plan's Twin Cities Metropolitan Area (TCMA) numeric objectives for waste reduction and reuse, recycling, organics management, resource recovery, and land disposal and will work to achieve them.
4. Dakota County will maximize its available educational, operational, regulatory, and fiscal tools and adapt them, as needed, to encourage residents, businesses, and public entities to manage waste appropriately and at the highest possible level of the Hierarchy.
5. Dakota County will collaborate with its cities and townships, other counties, the Region, State, and the private-sector waste industry to create a coordinated approach to address waste management issues.
6. Dakota County will monitor and share information on emerging waste issues with the public and work with the State, Region, and other partners on potential solutions.
7. Dakota County advocates that manufacturers, consumers, government, and the waste industry all have a role in achieving the objectives of the Dakota County Solid Waste Master Plan (County Master Plan).
8. Dakota County advocates that all waste generators assume fiscal responsibility for the waste they produce.
9. Dakota County will apply environmentally-preferable practices in County operations, programs, and projects to maximize waste reduction, reuse, and recycling.
10. Dakota County supports the State's preference for private-sector waste management and will promote private-sector initiatives toward achieving the goals and objectives of this County Master Plan.
11. Dakota County will use sound data and information in making policy, regulatory, and operational decisions related to waste management.

12. Dakota County advocates that manufacturers and retailers assume greater responsibility for reducing product toxicity, the use of hazardous components in products, and for properly managing products when they become waste.
13. Dakota County promotes mixed municipal solid waste (MSW) processing for energy rather than land disposal for public entity waste managed under their control through service contracts when capacity is available pursuant to Minn. Stat. §115A.471.

B. County Goals and Strategic Implementation Approach

In developing the current revision of the County Master Plan, Dakota County focused on a strategic implementation approach that includes near-term, mid-term, and long-term packages of strategies. There are three sequenced sets of strategies:

The *near-term strategies* cover the 2012-2017 planning horizon, the period until the next anticipated County Master Plan update. The overall approach is to provide an aggressive yet realistic start to County Master Plan implementation with well-chosen strategies that drive the desired waste outcomes (tonnages and percentages diverted) near-term, and essential preparatory strategies that pave the way for actions likely to happen in the next planning horizon. Of the three strategy sets and the planning horizons they represent, the greatest amount of detail is provided for the near-term strategies. The near-term package identifies new strategies, expanded strategies, and continuing strategies along with baseline and anticipated outcomes (e.g., tons of organics diverted). Outcomes from the County's 2010 solid waste reports provide comparison and a baseline for recycling, organics and yard waste diversion, resource recovery, and MSW landfill disposal. Policy Plan TCMA numeric objectives for 2015 and 2020 for reduction and reuse, recycling, organics management, resource recovery, and MSW land disposal are included, with anticipated County 2017 outcomes aggregated from all near-term strategies for hazardous waste management and toxicity reduction, waste reduction and reuse, recycling, organics and yard waste management, resource recovery, MSW land disposal, and non-MSW management. Effective strategy efforts from the near-term are meant to be sustained in the mid-and long-term.

Mid-term strategies cover the 2018-2023 planning horizon and will likely be put into action after the next County Master Plan revision. They are included as part of an overall implementation approach that provides the additional push necessary for meeting State Policy Plan objectives in 2020.

Long-term strategies (2024-2030) cover the third planning horizon, and as such, pose the greatest degree of uncertainty. Nonetheless, Dakota County recognizes that it will still be necessary to have strategies in reserve to continue pushing waste up the Hierarchy and meet Policy Plan objectives in 2025 and 2030. This category includes strategies that most likely will continue into the future, as well as strategies for future consideration by the County Board.

Strategies vary in degree of specificity. Selected strategies intentionally were written more broadly to reflect the uncertainty in predicting future conditions and to allow for flexibility in implementation to address changes affecting the waste management system, such as waste industry changes, political priorities, and the economic climate.

Strategy implementation and prioritization are subject to County Board approval through annual budgeting and work planning processes. The County will use this process to coordinate with State and Regional priorities and work plans. The County's work plans will consider longer-range actions needed

Plan for Solid Waste Management

to meet the Policy Plan objectives for 2015 and beyond, and will be revised annually based on State and County progress analyses. Progress updates will be submitted to the MPCA through annual reports required by State law.

1: Outreach and Education

County Goals

1. The community has the knowledge to properly manage waste.
2. Messages motivate broad-based behavior change.

County Outreach and Education Strategies

Near-Term Strategies	Continue	Expand	New
Provide recurring and consistent education to residents and businesses that includes a comprehensive environmental message that complies with Minn. Stat. Ch. 115A for landfill abatement and household hazardous waste education, using a variety of communication methods.	✓	✓	✓
Promote proper management of problem materials and materials banned from land disposal.	✓	✓	
Target outreach materials to audiences with the greatest need for education.	✓	✓	✓
Strengthen partnerships with cities and townships to provide outreach and education to the community.	✓	✓	
Strengthen partnerships with waste service providers to provide outreach and education to the community.		✓	
With the Region, provide funding for waste and toxicity reduction, reuse, recycling, and organics outreach and education projects.		✓	
Mid- and Long-Term Strategy	Continue	Expand	New
Develop a long-term education plan using targeted messaging on managing waste at the highest level of the Hierarchy and why it is important, including ongoing evaluation of educational effectiveness.		✓	

County Outcome from Near-Term Strategies

Policy Plan TCMA³ 2015 Objective: not identified

Policy Plan TCMA 2020 Objective: not identified

County 2010 Outcome: not applicable/applied to specific waste management methods⁴

Anticipated County 2017 Outcome: to be applied to specific waste management methods

The Policy Plan does not include TCMA numeric objectives for outreach and education. This County Master Plan section also does not quantify waste recovery or landfill diversion for education and outreach efforts. Rather, diversion estimates and recovery rates resulting from outreach and education strategies are reflected in the relevant waste management section. For example, strategies to increase business recyclables recovery include a significant outreach and education component. The diversion

³ The TCMA includes the Metropolitan counties of Anoka, Carver, Dakota, Hennepin, Ramsey, Scott, and Washington. The TCMA objectives are to be achieved collectively by the seven counties.

⁴ The County annually reports to the State on outreach and education efforts. Numeric outreach and education objectives/measures have not been defined for State reporting purposes.

estimates and recovery rates are identified in the recycling section and include estimates from all strategies supporting the business recycling effort, including the education and outreach components.

See Chapter 4 for additional measures for near-, mid-, and long-term strategies.

County Near-Term Strategies (to be sustained in mid- and long-term)

- 1. Dakota County will provide recurring and consistent education to residents and businesses that includes a comprehensive environmental message and complies with Minn. Stat. Ch. 115A for landfill abatement and household hazardous waste education, using a variety of communication methods:**
 - a. Dakota County will provide information on how, when, and where to manage solid waste and encourage source-separation of materials using a variety of effective communication methods, such as print materials, websites and other electronic communications, and technical assistance. (continue)
 - b. Dakota County will provide technical assistance and educational resources to residents and community groups to improve waste and toxicity reduction, reuse, and recycling. (continue)
 - c. Dakota County will develop and implement a waste reduction outreach program for residents. (new)
 - d. Dakota County will develop and implement an outreach program for schools and businesses on managing waste, focusing on improved recycling and organics diversion. (new)
 - e. Dakota County will leverage existing resources by incorporating Regionally-developed communication materials, such as Rethink Recycling. (expand)
 - f. Dakota County will actively market abatement learning opportunities, such as tours and classes at The Recycling Zone, to community organizations based in Dakota County. (continue)
 - g. Dakota County will publicize the measures and outcomes of County waste management programs. (continue)
 - h. Dakota County will measure the effectiveness of its outreach and education programs, such as web-use trends and impression tracking, and use the findings to enhance landfill abatement communications plans. (continue)

- 2. Dakota County will promote proper management of problem materials and materials banned from land disposal:**
 - a. Dakota County will promote its residential and business services at The Recycling Zone to encourage proper management of hazardous waste and problem materials. (expand)
 - b. Dakota County will educate the community and waste service providers on disposal bans, public entity requirements, and waste management options. (expand)
 - c. Dakota County will provide hazardous waste management training and education for the regulated community. (continue)
 - d. Dakota County will support State enforcement of public entity requirements through clear and appropriate information and education. (continue)

- 3. Dakota County will target outreach materials to audiences with the greatest need for education:**
 - a. Dakota County will implement targeted outreach and education for audiences, such as businesses, multicultural groups, and multifamily residences. (new)

- b. Dakota County will collaborate with city partners, the Region, educational institutions, and others to develop effective educational resources, communication and distribution methods, and technical assistance for underserved audiences. (expand)
 - c. Dakota County will use various outreach and educational methods to reach and influence audiences. (expand)
 - d. Dakota County will work with private entities and community groups to disseminate coordinated outreach and education incorporating Regional and State waste education and outreach materials. (continue)
- 4. Dakota County will strengthen partnerships with cities and townships to provide outreach and education to the community:**
- a. Dakota County will provide performance-based funding to cities and townships for enhanced waste reduction, reuse, hazardous waste management, organics, and recycling education and outreach. (expand)
 - b. Dakota County will require as part of the annual community funding program that cities and townships provide outreach and education on waste management to residents and businesses. (continue)
 - c. Dakota County will require as part of the community funding program that cities and townships provide outreach and education to new residents. (continue)
 - d. Dakota County will work with public entities to develop and use coordinated messages incorporating Regional and State waste outreach and education materials. (expand)
- 5. Dakota County will strengthen partnerships with waste service providers to provide outreach and education to the community:**
- a. Dakota County will coordinate with waste haulers to provide customer education. (expand)
- 6. With the Region, Dakota County will provide grants for waste and toxicity reduction, reuse, recycling, and organics outreach and education projects:**
- a. Dakota County, with the Region, will evaluate and implement grant program improvements. (expand)

County Mid- and Long-Term Strategy

- 7. Dakota County will develop a long-term education plan that uses targeted messaging to raise awareness on managing waste at the highest level of the Hierarchy and why it is important, including ongoing evaluation of educational effectiveness. (expand)**

2: Regulation

County Goals

1. Regulation reinforces proper waste management.
2. Regulatory tools support waste management at the highest level of the Hierarchy.

County Regulation Strategies

Near-Term Strategies (and sustained in Mid- and Long-Term)	Continue	Expand	New
Regulate solid and hazardous waste generators, haulers, and facilities to protect public health and the environment.	✓	✓	
Use and strengthen County licenses and Ordinances, to shift waste management to the highest level of the Hierarchy.		✓	✓

County Outcome from Near-Term Strategies

Policy Plan TCMA⁵ 2015 Objective: not identified

Policy Plan TCMA 2020 Objective: not identified

County 2010 Outcome: not applicable/applied to specific waste management methods⁶

Anticipated County 2017 Outcome: to be applied to specific waste management methods

The Policy Plan does not include TCMA numeric objectives for regulation. This County Master Plan section also does not quantify waste recovery or landfill diversion for regulatory efforts. Rather, diversion estimates and recovery rates resulting from regulatory strategies are reflected in the relevant waste management section.

See Chapter 4 for additional measures for near-, mid-, and long-term strategies.

County Near -Term Strategies (to be sustained in mid- and long-term)

1. **Dakota County will regulate solid and hazardous waste generators, haulers, and facilities to protect public health and the environment and in accordance with County Ordinances:**
 - a. Dakota County will regulate solid and hazardous waste generators, solid and hazardous waste facilities, and waste haulers through inspections, manifests, reports, enforcement actions, and other means to achieve compliance with Dakota County licenses and Ordinances. (continue)
 - b. Dakota County will enforce waste and material disposal bans and restrictions, such as prohibiting burning and burying of solid waste. (continue)
 - c. Dakota County will provide oversight through regulation of the private sector as new initiatives are implemented, such as when haulers and facilities collect new materials. (continue)
 - d. Dakota County will evaluate new technology to improve regulatory oversight. (expand)

⁵ The TCMA includes the Metropolitan counties of Anoka, Carver, Dakota, Hennepin, Ramsey, Scott, and Washington. The TCMA objectives are to be achieved collectively by the seven counties.

⁶ Numeric regulation objectives/measures have not been defined for State reporting purposes.

- e. Dakota County will maintain and enhance regulatory records relating to waste generator and facility identification and tracking, license issuances and renewals, violations, complaints, and remediations. (continue)

2. Dakota County will use and strengthen County licenses and Ordinances, to shift waste management to the highest level of the Hierarchy:

- a. Dakota County will complete an evaluation of County regulatory and enforcement tools and implement findings to shift waste management up the Hierarchy. (new)
- b. Dakota County will determine the appropriate tool, such as hauler licensing, and implement findings to require haulers to provide enhanced education to customers and proper labeling of hauler-provided containers. (new)
- c. With the Region, Dakota County will enhance the Regional, County, and municipal hauler licensing programs to improve landfill abatement and to obtain the information necessary to effectively measure and meet goals. (expand)

3: Hazardous Waste Management and Toxicity Reduction

County Goals

1. The use of toxic products is reduced.
2. Convenient opportunities exist for proper hazardous waste and problem material management.
3. Hazardous waste management provides for public health and environmental protection.

County Hazardous Waste Management and Toxicity Reduction Strategies

Near-Term Strategies	Continue	Expand	New
Provide broad-based education on hazardous waste management to the community.	✓	✓	
Provide convenient opportunities to manage problem materials and hazardous waste.	✓		
Increase opportunities to manage problem materials and hazardous waste.		✓	✓
With the Region, provide for consistent and cost-effective services.	✓	✓	
Mid- and Long-Term Strategies	Continue	Expand	New
Work with other public entities and the private sector to remove hazardous wastes and problem materials prior to demolition and remodeling of residential, business, and public entity buildings.		✓	

County Outcome from Near-Term Strategies

Policy Plan TCMA⁷ 2015 Objective: not identified

Policy Plan TCMA 2020 Objective: not identified

County 2010 Outcome: not applicable/not measured separately⁸

Anticipated County 2017 Outcome: 1 percent increase in hazardous waste collection at The Recycling Zone

The Policy Plan does not include TCMA numeric objectives for hazardous waste or toxicity reduction. However, implementing strategies in this section to provide for expanded and new material drop-off opportunities is anticipated to drive an additional 12 to 15 tons per year of residential and business waste to The Recycling Zone, a one percent increase by 2017 from documented amounts collected in 2010.

See Chapter 4 for additional measures for near-, mid-, and long-term strategies.

⁷ The TCMA includes the Metropolitan counties of Anoka, Carver, Dakota, Hennepin, Ramsey, Scott, and Washington. The TCMA objectives are to be achieved collectively by the seven counties.

⁸ The County annually reports to the State on HHW data/measures and they are calculated towards recycling. Numeric hazardous waste management and toxicity reduction objectives/measures have not been identified for State reporting purposes.

County Near -Term Strategies (to be sustained in mid- and long-term)

1. Dakota County will provide broad-based education on hazardous waste management to the community in accordance with Minn. Stat. Ch. 115A:

- a. Dakota County will monitor and share information on emerging issues relating to hazardous waste in the MSW stream and develop new tools, as needed, to mitigate negative public health and environmental impacts. (continue)
- b. Dakota County will provide technical assistance to hazardous waste generators to help them reduce toxic product use in their operations. (continue)
- c. Dakota County will provide information on how, when, and where to properly manage waste, promoting private and public sector options that encourage source-separation of materials and waste streams through a variety of communication methods, such as print materials, websites, and other electronic communications. (continue)
- d. Dakota County will leverage existing communication resources by incorporating Regionally-developed hazardous waste materials, such as Rethink Recycling. (expand)
- e. Dakota County will actively market hazardous waste learning opportunities, such as tours and classes at The Recycling Zone, to residents and businesses in Dakota County. (continue)

2. Dakota County will provide convenient opportunities for problem materials and hazardous waste management:

- a. Dakota County will provide at least one year-round public drop-off facility for hazardous waste and problem materials, The Recycling Zone, in a manner that complements private-sector collection efforts. (continue)
- b. Dakota County will evaluate the need to expand household hazardous waste community collections and implement findings. (expand)
- c. Dakota County will provide fee-based opportunities for proper hazardous waste management, including fluorescent bulb and electronics collection for public entities, businesses, and hazardous waste generators. (continue)

3. Dakota County will increase opportunities for proper management of problem materials and hazardous waste:

- a. Dakota County will evaluate additional collection/drop-off opportunities for hazardous wastes and problem materials, prioritizing materials that are banned from landfill disposal. (expand)
- b. Dakota County will evaluate public roles and expansion opportunities for household hazardous waste event collections in communities. (expand)
- c. Dakota County will provide interim collection programs for proper management of materials (e.g., pharmaceuticals) as State and private-sector product stewardship initiatives develop. (new)

4. With the Region, Dakota County will provide for consistent and cost-effective services:

- a. Dakota County will continue to use reciprocal use agreements to recover funds for household hazardous waste that is generated in other counties and managed in Dakota County. (continue)
- b. In collaboration with the Region, Dakota County will evaluate Region-wide consistency in HHW management at County facilities. (expand)

Plan for Solid Waste Management

- c. In collaboration with the State and Region, Dakota County will develop hazardous waste disposal contracts that provide for cost-effective and environmentally-preferable recycling and disposal for County-collected hazardous waste. (continue)

County Mid- and Long -Term Strategies

5. **Dakota County will work with other public entities and the private sector to remove hazardous wastes and problem materials prior to demolition and remodeling of residential, business, and public entity buildings.** (expand)

4: Waste Reduction and Reuse

County Goals

1. Waste generation is reduced.
2. Materials are reused before entering the waste stream.

County Waste Reduction and Reuse Strategies

Near-Term Strategies	Continue	Expand	New
Develop and provide an education and reuse outreach program.		✓	✓
Use environmentally-preferable practices (EPP) standards-specifications in County operations and encourage use by public entities.	✓	✓	
Support product stewardship legislation.	✓		
Improve reduction and reuse data.			✓
Expand reduction and reuse efforts in the community.			✓
Mid- and Long-Term Strategies	Continue	Expand	New
Increase reuse opportunities at The Recycling Zone or other public locations.		✓	✓

County Outcome from Near-Term Strategies

Policy Plan TCMA⁹ 2015 Objective: 1-2%

Policy Plan TCMA 2020 Objective: 2-4%

County 2010 Outcome: not applicable/not measured separately¹⁰

Anticipated County 2017 Outcome: 1%

The 2015 TCMA Policy Plan objective is one to two percent. The County anticipates meeting the 2015 objective for waste reduction and reuse as near-term strategies are implemented. For example, 3,000 to 5,000 tons per year of reduced and reused waste is anticipated through a new campaign that identifies waste reduction and reuse opportunities for residents and businesses. Dakota County expects the State to develop a consistent Regional measurement method.

See Chapter 4 for additional measures for near-, mid-, and long-term strategies.

County Near -Term Strategies (to be sustained in mid- and long-term)

1. Dakota County will develop and provide a strategic and comprehensive waste reduction and reuse outreach program, using State and Regional outreach tools:

- a. Dakota County will educate residents on waste reduction and reuse options, including reducing junk mail. (expand)
- b. Dakota County will develop and promote a reuse educational campaign for residents. (new)
- c. Dakota County will promote reuse options at The Recycling Zone. (expand)

⁹ The TCMA includes the Metropolitan counties of Anoka, Carver, Dakota, Hennepin, Ramsey, Scott, and Washington. The TCMA objectives are to be achieved collectively by the seven counties.

¹⁰ State reporting includes some reuse data/measures that are calculated towards recycling. Actual reduction and reuse measures have not been defined for State reporting purposes.

- d. Dakota County will conduct outreach and education to businesses on waste reduction and reuse options. (new)
- 2. Dakota County will collaborate with the Region and State to develop and use environmentally-preferable practices-standards-specifications that reduce waste generated by the public sector and encourage their use by public entities:**
- a. Dakota County will participate in the MPCA's Green Team to influence EPP standards in State contracts (State Cooperative Purchasing Venture) for use by Dakota County and public entities. (continue)
 - b. Dakota County will use County policies that include EPP and to support waste reduction and reuse in County operations, such as the use of recycled-content materials, reduced packaging, and EPP printing. (expand)
 - c. Dakota County will share knowledge, experience, and technical expertise regarding EPP with public entities and encourage public entity adoption of such practices. (expand)
 - d. Dakota County will reuse County assets prior to disposal and promote reuse in public entity operations. (expand)
 - e. Dakota County will incorporate language on the use of EPP in County publications, such as use of recycled-content paper and EPP printing. (expand)
- 3. Dakota County will support Regional and State product stewardship efforts and legislation requiring manufacturers to reduce the amount and toxicity of waste in their products and take back products at the end of their useful lives:**
- a. With the Region, Dakota County will lobby and support product stewardship efforts. (continue)
 - b. Dakota County will provide data for legislative changes that enhance product stewardship initiatives. (continue)
- 4. Dakota County will improve waste reduction and reuse data measurements:**
- a. Dakota County will work with the MPCA and the Region in measuring waste reduction and reuse on a Statewide and Regional basis. (new)
- 5. Dakota County will support waste reduction and reuse efforts in the community:**
- a. With the State and Region, Dakota County will promote private-sector reuse efforts.

County Mid- and Long-Term Strategies

- 6. Dakota County will increase reuse opportunities for materials brought to The Recycling Zone or other public locations:**
- a. Dakota County will consider accepting new materials for reuse at The Recycling Zone. (expand)
 - b. Dakota County will evaluate reuse options during community clean-ups and implement findings. (new)

5: Recycling

County Goals

1. Convenient opportunities for recycling exist.
2. Recycling increases.

County Recycling Strategies

Near-Term Strategies	Continue	Expand	New
Ensure and provide opportunities to recycle.	✓	✓	
Collaborate to improve recycling at public properties.	✓	✓	
Provide support to public entities to improve recycling in their operations.	✓	✓	✓
Improve waste contracts to reduce waste and increase recycling in County operations. Help public entities develop similar contracts.	✓		✓
Identify sectors and recyclable materials most needing improvement and address findings.		✓	
Help businesses develop recycling programs.		✓	✓
Work to improve recycling data.		✓	✓
Evaluate and implement a revised performance-based community funding program that results in increased awareness and improved recycling.		✓	✓
Consider Ordinance 110 amendments and Board resolutions if sufficient progress toward reaching the higher range of the TCMA Policy Plan objective is not made by 2015.		✓	✓
Mid-Term Strategies	Continue	Expand	New
Add recycling for difficult materials.		✓	✓
Partner on increased recycling opportunities.			✓
Evaluate and improve County and city tools to increase recycling.			✓
Long-Term Strategies	Continue	Expand	New
Consider additional County drop-off facilities to collect recyclables.		✓	
Partner with cities and haulers on a program to increase recycling in multi-family housing.			✓
Partner to develop opportunities for joint public entity contracting for waste services.			✓

County Outcome from Near-Term Strategies

Policy Plan TCMA¹¹ 2015 Objective: 45-48%

Policy Plan TCMA 2020 Objective: 47-51%

County 2010 Outcome: 45%

Anticipated County 2017 Outcome: 49-52%

The 2015 TCMA Policy Plan objective is 45 to 48 percent. With a 45 percent recycling rate in 2010, the County achieves the Policy Plan’s 2015 objective. The County anticipates an increase of four to seven percent – to 49 to 52 percent by 2017 – as the near-term strategies are implemented. For example,

¹¹ The TCMA includes the Metropolitan counties of Anoka, Carver, Dakota, Hennepin, Ramsey, Scott, and Washington. The TCMA objectives are to be achieved collectively by the seven counties.

5,000 to 20,000 tons per year of recyclables recovery is anticipated through new efforts to provide technical assistance and resources for businesses that generate high amounts of recyclables. In addition, continuing the school recycling program is anticipated to recover 1,000 tons per year, while expanded and new data collection is anticipated to identify undocumented recyclable recovery of approximately 1,500 tons per year. If sufficient progress is not being made toward reaching the upper range of the Policy Plan TCMA objective by 2015, the County will implement a mandatory recycling requirement for generators, which is anticipated to result in significant diversion of recyclables from land disposal, with a goal of up to 100,000 tons each year, increasing the anticipated 2017 outcome well beyond the 49 to 52 percent. Implementing the mandate would depend on whether political and industry support exist.

See Chapter 4 for additional measures for near-, mid-, and long-term strategies.

County Near -Term Strategies (to be sustained in mid- and long-term)

1. Dakota County will ensure the opportunity to recycle for residents, businesses, and public entities in accordance with Minn. Stat. §115A.552:

- a. Dakota County will provide performance-based funding to cities and townships to develop and implement programs, practices, and methods to meet land disposal abatement goals and objectives and to ensure that residents have the opportunity to recycle. (continue)
- b. Dakota County will offer free drop-off of recyclables at The Recycling Zone for residents, businesses, and public entities. (continue)
- c. Dakota County will continue to require haulers to provide recycling services to their customers, as a requirement of Ordinance 110. (continue)

2. Dakota County will collaborate with public entities to improve recycling opportunities at public properties:

- a. Dakota County will provide a check-out container program for public event recycling. (expand)
- b. Dakota County will implement a uniform system of well-labeled, paired trash and recycling containers for County and city properties and gathering places. (expand)
- c. Dakota County will provide technical assistance and resources to facilitate use of the container program at County and public events, including the County Fair and for public gatherings. (expand)
- d. Dakota County will ensure all County-occupied property provides for recycling opportunities in accordance with Minn. Stat. §115A.151. (continue)
- e. Dakota County's annual funding to cities and townships for landfill abatement efforts will have an eligibility requirement that MSW management for facilities under its control complies with provisions found in Minn. Stat. §115A.151. (continue)

3. Dakota County will provide funding, education, infrastructure, and technical assistance to public entities to improve recycling in their operations:

- a. Dakota County will provide containers, labels, and technical assistance as part of the public school recycling program. (continue)
- b. Dakota County will encourage public entities to provide for recycling opportunities in accordance with Minn. Stat. §115A.151. (continue)

- c. Dakota County will annually provide funding, technical assistance, infrastructure, and consistent educational resources to support city and township recycling and landfill abatement programs and will require cities and townships to annually report progress in achieving County landfill abatement goals in accordance with Ordinance 110. (continue)
 - d. Dakota County will develop recycling communications and educational messages for schools. (new)
- 4. Dakota County will use waste contracts that reduce waste and increase recycling from County operations and assist public entities to develop similar waste contracts for waste from their operations:**
- a. Dakota County will use model contracts, such as a resource management contracts, to manage waste from County operations. (continue)
 - b. Dakota County will assist schools and cities in developing model contracts for their operations. (new)
- 5. Dakota County will identify sectors (residential, business, and public entities) and recyclable materials of greatest need for targeted improvement, and address findings:**
- a. Dakota County will identify residential and business sectors with the greatest opportunities for improved recycling and work with these sectors to implement new initiatives. (expand)
- 6. Dakota County will provide technical assistance and resources to businesses to increase the level of recycling:**
- a. Dakota County will research and implement a model business technical assistance program to improve recycling. (new)
 - b. Dakota County will develop and use communications and outreach materials, incorporating the State and Regional resources such as the Resourceful Waste Management Guide, and target messages to businesses to increase recycling awareness and the amount of material recycled. (new)
 - c. Dakota County will enhance the County's waste compliance inspection program to promote business recycling. (expand)
 - d. Dakota County will promote and facilitate business programs through partnerships with industry groups, chambers of commerce, and others. (expand)
- 7. Dakota County will work with the State and the Region to improve recycling data collection and reporting:**
- a. Dakota County will work with the MPCA and Region to improve State recycling data and reporting. (expand)
 - b. Dakota County will collaborate to enhance Regional, County, and municipal hauler licensing to improve reporting of commercial and residential recycling. (expand)
 - c. Dakota County will improve reporting to better quantify waste streams generated in the County. (expand)

- d. Dakota County will evaluate reporting requirements for businesses that collect and haul their own recyclables to markets, and implement findings to obtain information needed to effectively measure and meet goals. (new)

8. Dakota County will evaluate and implement a revised performance-based community funding program that results in increased awareness and improved recycling.

- a. Dakota County will develop a performance scorecard for cities and townships that requires added data collection to measure progress towards achieving the County's landfill abatement goals. (new)
- b. Dakota County will support and assist municipalities that choose to consolidate resources to provide for waste abatement activities. (new)
- c. Dakota County will ensure that municipalities have adequate funds to implement landfill abatement programs required by Ordinance 110. (continue)
- d. Dakota County will consider increasing funding for cities and townships for education, infrastructure, and other efforts that reduce waste and toxicity and enhance reuse, recycling, and organics management in the community. (expand)

9. If progress is not made toward achieving the upper range of the 2015 TCMA Policy Plan objective for recycling, Dakota County will consider Ordinance 110 amendments and County Board resolutions:

- a. Dakota County will evaluate and implement regulatory conditions to improve recycling, such as modified collection frequency, collection method, and hauler performance standards. (new)
- b. Dakota County will evaluate opportunities for additional recycling materials to be collected by all haulers and implement findings through Ordinance 110 and license modifications. (new)
- c. Dakota County will effectuate Ordinance 110 Sec. 16.04 and 16.05 for implementation of mandatory residential and commercial recycling. (expand)

County Mid-Term Strategies (to be sustained in long-term)

10. Dakota County will provide opportunities to recycle difficult to manage materials at The Recycling Zone and at other locations:

- a. Dakota County will support city clean-up events that include collections of difficult-to-manage materials, such as carpet and mattresses. (new)
- b. Dakota County will provide for drop-off of selected materials at County and city facilities, such as textiles and plastics. (expand)

11. Dakota County will partner to increase collection opportunities, such as drop-off containers, for recyclable materials from residents, businesses, and public entities:

- a. Dakota County will partner with cities and haulers to provide collection of recyclable materials, such as cardboard. (new)

12. Dakota County will evaluate and improve County and city educational, financial, regulatory, and operational tools to increase recycling by residents, businesses, and public entities.

- a. Dakota County will work with cities to implement changes in planning and development phases to allow for adequate exterior space for collection of recyclables from commercial establishments. (new)
- b. Dakota County will determine opportunities for collection of recyclables from businesses as part of residential curbside recycling programs. (new)

County Long -Term Strategies

- 13. Dakota County will consider additional County drop-off facilities to collect recyclables for residents, businesses, and public entities. (expand)**

- 14. Dakota County will partner with cities and waste haulers on a program to increase recycling in multi-family housing.**
 - a. Dakota County will work with municipalities to consider development of a model city ordinance requiring landlords to provide opportunities to recycle. (new)
 - b. Dakota County will work with municipalities to identify model city ordinance requirements for new and remodeled multi-family buildings to include recycling opportunities. (new)

- 15. Dakota County will work with partners to develop opportunities for joint public entity contracting for waste services. (new)**

6: Organics and Yard Waste Management

County Goals

1. Adequate capacity exists for organics management efforts.
2. Organic waste diversion increases.

County Organics and Yard Waste Management Strategies

County Near-Term Strategies	Continue	Expand	New
Develop a strategic and comprehensive organics diversion outreach program.		✓	✓
Manage the lease for County-owned land in Empire Township to provide organics management capacity.	✓		
Build on public recycling program infrastructure to introduce organics diversion in County and city buildings, at County and city events, and in public schools.		✓	✓
Research and develop organics management programs to provide technical assistance to targeted generators of organic waste.			✓
Evaluate and improve County and city tools for improved organics management by residents, businesses, and public entities.		✓	✓
County Mid-Term Strategies	Continue	Expand	New
Provide technical assistance and resources to businesses to help develop their organics programs.		✓	✓
Work with the public and private sectors on proposals for new organics and yard waste management infrastructure and capacity serving the County.	✓		✓
If progress is not made towards achieving the TCMA Policy Plan objectives for organics management by 2020, consider Ordinance 110 amendments.			✓
Consider a lease extension for County-owned land in Empire Township to continue source-separated and yard waste management services through June 2022.	✓		
County Long-Term Strategy	Continue	Expand	New
With the Region, evaluate financial stimuli for organics.			✓

County Outcome from Near-Term Strategies

Policy Plan TCMA¹² 2015 Objective: 3-6%

Policy Plan TCMA 2020 Objective: 4-8%

County 2010 Outcome: 3%

Anticipated County 2017 Outcome: 4-5%

¹² The TCMA includes the Metropolitan counties of Anoka, Carver, Dakota, Hennepin, Ramsey, Scott, and Washington. The TCMA objectives are to be achieved collectively by the seven counties.

The 2015 TCMA Policy Plan objective is three to six percent. With a three percent organics recovery rate in 2010, the County currently achieves the 2015 Policy Plan objective. The County's focus is to begin work efforts toward meeting the 2020 Policy Plan objective (four to eight percent). The County 2010 outcome is anticipated to increase one to two percent – up to four to five percent total organics recovery by 2017 – as near- and mid-term strategies are implemented. For example, 5,000 to 20,000 tons per year of organics recovery is anticipated through new efforts to provide technical assistance and resources for businesses that generate high amounts of organics. Expanding the school recycling program to include organics recovery is anticipated to recover another 1,000 tons per year. If significant progress is not achieved by 2020, the County will evaluate executing a mandatory organics recovery requirement for targeted generators, with a goal to divert up to 10,000 tons per year – to meet the 2020 TCMA Policy Plan outcome of four to eight percent. The evaluation will begin in the near-term, and execution of the mandate would depend on whether political and industry support exists.

See Chapter 4 for additional measures for near-, mid-, and long-term strategies.

County Near -Term Strategies (to be sustained in mid- and long-term)

- 1. Dakota County will develop a strategic and comprehensive organics diversion outreach program, using State and Regional outreach tools and through use of a variety of communication methods:**
 - a. Dakota County will educate residents on organics and yard waste diversion options, such as backyard compost bins. (expand)
 - b. Dakota County will promote organics management options, such as food rescue, food-to-livestock, and source-separated organics compost programs to residents and businesses as programs become available. (new)
 - c. Dakota County will promote and publicize the measures and outcomes from best practices organics management programs. (new)

- 2. Dakota County will manage the lease for County-owned land in Empire Township to provide organics management capacity:**
 - a. Dakota County will manage the lease for private-sector organics composting operations through June 2017. (continue)
 - b. Dakota County will monitor the level of service availability and the status of organic management capacity at the Empire Township facility. (continue)

- 3. Dakota County will build on public recycling program infrastructure to introduce organics diversion in County and city buildings, at County and city events, and in public schools:**
 - a. Dakota County will expand the County's school recycling program to include organics diversion infrastructure and technical assistance. (expand)
 - b. Dakota County will partner with waste haulers to provide organics collection at the County Fair and support organics diversion at city-sponsored events when appropriate. (new)

- 4. Dakota County will research and develop organics management programs that provide technical assistance to targeted generators of organic waste:**
 - a. Dakota County will identify large quantity business sectors to target for organics management diversion and develop and implement a technical assistance program. (new)

- b. Dakota County will develop and implement a business technical assistance program that uses best management organics options to maximize food recovery, animal feeding, and composting, and will measure and publicize program results. (new)
 - c. Dakota County will work with cities and haulers to pilot curbside residential organics collection. (new)
- 5. Dakota County will evaluate and improve County and city educational, financial, regulatory, and operational tools for improved organics management by residents, businesses, and public entities:**
- a. In collaboration with the Region, Dakota County will evaluate and implement opportunities to enhance the Regional hauler licensing program to improve yard waste and organics diversion efforts. (expand)
 - b. Dakota County will collaborate with municipalities to evaluate and implement opportunities to enhance the municipal hauler licensing program to improve yard waste and organics diversion efforts. (expand)
 - c. By 2015, Dakota County will evaluate and implement findings on licensing organic waste haulers, with reporting requirements to obtain the information necessary to effectively measure and meet goals. (new)
 - d. Dakota County will pursue the use of finished, solid waste-derived compost in County transportation, parks, and capital landscaping projects and encourage other public entities to use finished compost in development projects. (expand)
 - e. Dakota County will work with the MPCA and the Region to include yard waste in organics diversion measurements. (new)

County Mid-Term Strategies (and sustained in Long-Term)

- 6. Dakota County will provide technical assistance and resources to businesses to help develop their organics programs:**
- a. Dakota County will research and evaluate model technical assistance programs for businesses to improve organics diversion and implement findings. (new)
 - b. Dakota County will use the County's waste compliance inspection program to promote business organics diversion. (expand)
 - c. Dakota County will promote and facilitate organics diversion programs through partnerships, such as industry groups and chambers of commerce. (new)
- 7. Dakota County will work with the public and private sectors on proposals for new organics and yard waste management infrastructure and capacity serving the County:**
- a. Dakota County will monitor yard waste and source-separated organics capacity through licensing. (continue)
 - b. With the Region, Dakota County will encourage proposals for new or expanded organics and yard waste management options (e.g., anaerobic digestion). (new)

- 8. If progress is not made toward achieving the 2020 TCMA Policy Plan objective for organics management, Dakota County will consider Ordinance 110 amendments:**
 - a. Dakota County will evaluate and implement options to require commercial and/or residential organics management by waste haulers, such as an element of hauler licensing or a collection provision. (new)
 - b. Dakota County will evaluate mandatory requirements for separation of organics for targeted generators and implement findings. (new)

- 9. Dakota County will consider a five-year lease extension for County-owned land in Empire Township to continue source-separated organics and yard waste management services through June 2022. (continue)**

County Long -Term Strategy

- 10. With the Region, Dakota County will evaluate financial approaches to stimulate organics diversion until organics management is more cost-competitive with land disposal. (new)**

7: Resource Recovery

County Goals

1. Available resource recovery facility capacity serving the Metropolitan area is used.
2. Public entities in Dakota County arrange for MSW disposal at resource recovery facilities in accordance with Minn. Stat. §473.848 and §115A.471.

County Resource Recovery Strategies:

Near-Term Strategies	Continue	Expand	New
Support statutory requirements that MSW from public entity operations is delivered to a resource recovery facility.	✓	✓	
Support State and Regional efforts to maximize the use of resource recovery facility capacity.	✓	✓	✓
Manage the lease for County land in Empire Township to provide transfer to a resource recovery facility.	✓		
Mid- and Long-Term Strategies	Continue	Expand	New
Collaborate in the study and development of resource recovery infrastructure.	✓		
Consider a five-year lease extension to continue transfer capacity for resource recovery through June 2022.	✓		
Work with the resource recovery facility owners/operators to identify potential options for Dakota County-generated waste to be processed.			✓

County Outcome from Near-Term Strategies

Policy Plan TCMA¹³ 2015 Objective: 32-34%

Policy Plan TCMA 2020 Objective: 32-33%

County 2010 Outcome: 11%

Anticipated County 2017 Outcome: 16-17%

The 2015 TCMA Policy Plan objective is 32 to 34 percent. With an 11 percent resource recovery rate in 2010, the County alone is challenged to meet the Policy Plan objective – increased facility capacity and open and convenient access would be necessary. However, the County fully expects to contribute to achieving the objective as the TCMA counties collectively measure progress. The County 2010 outcome is anticipated to increase five to six percent – up to 16 to 17 percent total resource recovery by 2017 – as near-term strategies are implemented. For example, a goal of 80,000 tons per year of waste managed through resource recovery is anticipated as the MPCA and counties raise awareness for public entity requirements, particularly in schools. An additional 10,000 tons per year is anticipated as the MPCA and counties enforce the disposal restriction of processible waste at landfills. Both efforts are needed to reach the anticipated 16 to 17 percent by 2017.

¹³ The TCMA includes the Metropolitan counties of Anoka, Carver, Dakota, Hennepin, Ramsey, Scott, and Washington. The TCMA objectives are to be achieved collectively by the seven counties.

See Chapter 4 for additional measures for near-, mid-, and long-term strategies.

County Near-Term Strategies (to be sustained in mid- and long-term)

- 1. Dakota County will support statutory requirements that MSW from public entity operations that is not reduced, reused, recycled, or managed through organics diversion is delivered to a resource recovery facility:**
 - a. Dakota County will ensure MSW from County operations is delivered to a processing facility. (continue)
 - b. Dakota County’s annual funding to cities and townships for landfill abatement efforts will have an eligibility requirement that waste from public entity operations comply with provisions found in Minn. Stat. §473.848 and §115A.471. (continue)
 - c. Dakota County will work with the MPCA and public entities to ensure that MSW from public entity operations is delivered to a resource recovery facility in accordance with Minn. Stat. §473.848 and §115A.471. (expand)
 - d. Dakota County will notify public entities of their obligations to comply with provisions found in Minn. Stat. §115A.471 and Minn. Stat. §473.848 and will refer non-compliance issues to the MPCA. (expand)

- 2. Dakota County will support State and Regional efforts to maximize the use of resource recovery facility capacity:**
 - a. Dakota County will work cooperatively with the MPCA as the State enforces provisions found in Minn. Stat. §473.848. (new)
 - b. Dakota County will enhance data collection and reporting to support the MPCA’s enforcement of processing requirements found in Minn. Stat. §473.848. (expand)
 - c. Dakota County will continue to restrict the acceptance of processible waste from metropolitan area generators at MSW landfills located in Dakota County in accordance with Ordinance 110, Section 6.05. (continue)
 - d. Dakota County will annually gather data and submit the MPCA’s annual Certification Report. (continue)

- 3. Dakota County will manage the lease for County-owned land in Empire Township to provide for transfer capacity to a resource recovery facility:**
 - a. Dakota County will manage the lease to continue transfer capacity to a resource recovery facility through June 2017. (continue)
 - b. Dakota County will include a minimum processing requirement with a penalty as a lease condition. (continue)

County Mid- and Long-Term Strategies

- 4. Dakota County will collaborate in the study and development of new or expanded resource recovery-related infrastructure. (continue)**

- 5. Dakota County will consider a five-year lease extension for County-owned land in Empire Township to continue transfer capacity to a resource recovery facility through June 2022. (continue)**

- 6. Dakota County will work with the facility owners and operators to identify potential options for Dakota County-generated waste to be processed. (new)**

8: MSW Land Disposal

County Goals

1. Waste that can be reduced, reused, recycled, processed, or managed through organics programs is diverted from land disposal.
2. Landfill operation and maintenance protects long-term public and environmental health.

County MSW Land Disposal Strategies

County Near-Term Strategies	Continue	Expand	New
Regulate land disposal facilities to ensure compliance with Ordinance 110 and license conditions.	✓		
Conduct waste reviews at land disposal facilities and evaluate disposal alternatives to conserve landfill space.	✓	✓	✓
Work with the State, Region, and waste industry to improve recycling and diversion opportunities at land disposal facilities (e.g., on-site recycling facility).			✓
Work with landfill owners/operators and cities that host landfills to develop post-closure monitoring and mitigation plans.		✓	
County Mid-and Long-Term Strategies	Continue	Expand	New
Work with the State and Region to evaluate enhanced financial assurance.		✓	

County Outcome from Near-Term Strategies

Policy Plan TCMA¹⁴ 2015 Objective: 20%

Policy Plan TCMA 2020 Objective: 17%

County 2010 Outcome: 41%

Anticipated County 2017 Outcome: 25–29%

The 2015 TCMA Policy Plan numeric objective is 20 percent. With a 41 percent land disposal rate in 2010, the County is challenged by the Policy Plan’s 2015 objective; however, as with resource recovery, the County fully expects to contribute to achieving the objective as the TCMA counties collectively measure progress. Reducing Dakota County’s land disposal rate is contingent on the success of waste reduction, reuse, recycling, organics diversion, and resource recovery efforts. With an aggressive approach, the County may be able to reach the Policy Plan’s land disposal objectives in the mid-term.

The County 2010 outcome is anticipated to decrease 13 to 17 percent – to 24 to 28 percent by 2017 – as the near-term strategies are implemented. For example, 10,000 to 40,000 tons per year of landfill diversion is anticipated through new efforts to provide technical assistance and resources to recover recyclables and organics from businesses. An additional 50,000 to 100,000 tons per year is anticipated through the development of an on-site recycling facility at land disposal facilities. If significant progress

¹⁴ The TCMA includes the Metropolitan counties of Anoka, Carver, Dakota, Hennepin, Ramsey, Scott, and Washington. The TCMA objectives are to be achieved collectively by the seven counties.

is not being made toward the Policy Plan objective by 2015, the County will participate in State and Regional efforts to identify opportunities for new land disposal bans.

See Chapter 4 for additional measures for near-, mid-, and long-term strategies.

County Near -Term Strategies (to be sustained in mid- and long-term)

1. Dakota County will regulate land disposal facilities to ensure compliance with Ordinance 110 and license conditions:

- a. Dakota County will use a variety of compliance tools, including licensing, inspections, and enforcement, to ensure that waste is properly managed. (continue)
- b. Dakota County will regulate facilities that manage MSW. (continue)
- c. Dakota County will regulate industrial waste co-disposal and the use of alternative daily cover with waste profile evaluation and random testing. (continue)
- d. Dakota County will use compliance efforts to detect and prevent hazardous waste and other banned materials from being land disposed. (continue)
- e. Dakota County will assess environmental and health impacts from open and closed landfills, and require mitigation as appropriate. (continue)

2. Dakota County will conduct waste reviews at land disposal facilities and evaluate disposal alternatives to conserve landfill space:

- a. Dakota County will monitor landfill capacity, including operating impacts such as use rates of alternative daily cover. (continue)
- b. Dakota County will use a variety of methods to review wastes at landfills to determine if banned, recoverable, and recyclable materials are being land disposed, and will develop a plan to address the findings. (expand)
- c. With the Region, Dakota County will encourage the MPCA to ensure that waste characterization studies are conducted and used to identify opportunities to divert waste. (new)

3. Dakota County will work with the State, Region, and waste industry to improve recycling and diversion opportunities at land disposal facilities (e.g., on-site recycling facility):

- a. Dakota County will use waste characterization studies to develop and implement a plan to target types and quantities of MSW for improved recycling diversion at landfills. (new)
- b. If sufficient progress is not made toward diverting waste from landfills by 2015, Dakota County will participate in State and Regional efforts to evaluate and implement land disposal bans on recyclable materials. (new)
- c. Dakota County will work with the State to add a condition to land disposal facility permits to establish a threshold percentage of allowable recyclable waste. (new)
- d. Dakota County will facilitate roundtables to engage the waste industry in improving landfill abatement. (new)

4. Dakota County will work with landfill owners/operators and cities that host landfills to develop long-term strategies for landfills to protect public health and the environment, and develop post-closure monitoring and mitigation plans. (expand)

County Mid- and Long-Term Strategies

5. **Dakota County will work with the State and Region to evaluate the need for enhanced financial assurance to better protect future generations from long-term environmental and public health impacts from land disposal sites. (expand)**

9: Non-MSW Management

County Goal

1. Reduction, reuse, and recycling of non-MSW increases.

County Non-MSW Management Strategies

County Near-Term Strategies	Continue	Expand	New
Promote reuse and recycling of non-MSW in public entity building and remodeling projects.	✓	✓	✓
Provide opportunities to recycle non-MSW that is banned from disposal.	✓		
Regulate non-MSW haulers and facilities.	✓	✓	
Work with the State, Region, and waste industry to improve recycling and diversion opportunities at non-MSW disposal facilities (e.g., on-site recycling facility) by 2015.		✓	✓
County Mid- and Long-Term Strategies	Continue	Expand	New
Evaluate educational, fiscal, operational, and regulatory tools to promote reduction, reuse, and recycling of non-MSW.		✓	
Work with partners to enhance and promote non-MSW reuse and recycling opportunities for building contractors and remodelers.			✓

County Outcome from Near-Term Strategies

Policy Plan TCMA¹⁵ 2015 Objective: not identified

Policy Plan TCMA 2020 Objective: not identified

County 2010 Outcome: not applicable/data not measured separately¹⁶

Anticipated County 2017 Outcome: 1-2% increase in diversion from non-MSW land disposal

The Policy Plan does not include an overall TCMA numeric objective for non-MSW management. It does; however, recommend a focus on select non-MSW materials and includes 2012 TCMA targets: tear-off asphalt shingles (90 percent recycling), clean biomass fuel (25-90 percent recycling), and wallboard (50 percent recovery). As the near-term strategies are implemented, the County anticipates a one to two percent decrease in non-MSW land disposal for 2017 from documented 2010 amounts. The County will continue to use standards for its building and paving projects that reduce and recycle non-MSW, including asphalt shingles, which is projected to divert 100 tons per year. If significant diversion of non-MSW from land disposal is not being made by 2015, the County will participate in State and Regional efforts to identify opportunities for new non-MSW land disposal bans.

¹⁵ The TCMA includes the seven Metropolitan counties of Anoka, Carver, Dakota, Hennepin, Ramsey, Scott and Washington. The TCMA objectives are to be achieved collectively by the seven counties.

¹⁶ Non-MSW management data is not reported separately in the State by county-of-origin, and an objective has not been identified for State reporting purposes.

See Chapter 4 for additional measures for near-, mid-, and long-term strategies.

County Near -Term Strategies (to be sustained in mid- and long-term)

1. Dakota County will use and promote reuse and recycling of non-MSW in public entity building and remodeling projects:

- a. Dakota County will use the County's Sustainable Design and Building Standards for County building construction, demolition and remodeling projects. (continue)
- b. Dakota County will consider the use of shingle scrap in County paving projects, and encourage public entities to do the same. (expand)
- c. Dakota County will support private-sector initiatives for separation of clean wood for reuse opportunities and biomass use. (new)
- d. Dakota County will share knowledge, experience, and technical expertise regarding non-MSW waste reduction, reuse and recycling opportunities with public entities and encourage public entity adoption of such practices. (continue)

2. Dakota County will provide opportunities to recycle non-MSW that is banned from disposal:

- a. Dakota County will fund and provide technical assistance to collect waste tires in rural areas. (continue)
- b. Dakota County will collect tires at The Recycling Zone and encourage cities to offer tire collections at community clean-up events. (continue)

3. Dakota County will regulate non-MSW haulers and facilities to preserve natural resources and protect public health and the environment:

- a. Dakota County will regulate waste haulers that collect and transport non-MSW and work with the Region to evaluate licensing of non-MSW waste haulers as part of the Regional hauler licensing program, and implement findings. (expand)
- b. Dakota County will regulate facilities that manage non-MSW. (continue)
- c. Dakota County will use a variety of methods to review wastes at non-MSW landfills to determine if banned, recoverable, and recyclable materials are being land disposed, and will develop a plan to address the findings. (expand)
- d. Dakota County will use a variety of compliance tools, including licensing, inspections, and enforcement, to ensure that non-MSW is properly managed. (continue)

4. Dakota County will work with the State, Region, and waste industry to improve recycling and diversion opportunities at non-MSW disposal facilities (e.g., on-site recycling facility):

- a. Dakota County will use waste characterization studies to develop and implement a plan to target types and quantities of non-MSW for improved recycling diversion at landfills. (new)
- b. If sufficient progress is not made toward diverting waste from landfills by 2015, Dakota County will participate in State and Regional efforts to evaluate and implement land disposal bans on recyclable materials. (new)
- c. Dakota County will work with the State to add a condition to land disposal facility permits to establish a threshold percentage of allowable recyclable waste. (new)

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- d. Dakota County will collect and monitor non-MSW data to identify areas for targeted improvement, and work with the State and Region to address the findings. (expand)

County Mid- and Long-Term Strategies

5. **Dakota County will work with the State and Region to evaluate educational, fiscal, operational, and regulatory tools to promote reduction, reuse, and recycling of non-MSW, such as for wallboard.** (expand)
6. **Dakota County will work with partners to enhance and promote non-MSW reuse and recycling opportunities for building contractors and remodelers.** (new)

10: Contaminated Sites and Brownfields

County Goals

1. Creation of contaminated sites is prevented.
2. Contaminated sites are identified, investigated, and remediated.

County Contaminated Sites and Brownfields Strategies

Near-Term Strategies	Continue	Expand	New
Use County Capital Improvement Projects (CIP) as an opportunity to reduce County costs and liabilities, then investigate and remediate such sites.	✓		
Collaborate with cities, townships, and property owners to identify and prioritize brownfields sites.	✓		
Obtain Federal, State, and other grants to conduct investigations of priority brownfields sites.		✓	
Facilitate the investigation and remediation of waste sites on public property by providing funds for investigations and by assisting public property owners in obtaining funding for remediation.	✓		
Improve the environmental review and audit program to provide more frequently updated, accurate, and comprehensive information.		✓	
Work with State agencies and with groups making land use decisions to ensure that environmental protection and remediation of contaminated sites are addressed during redevelopment.	✓		
Provide technical assistance to property owners for conducting environmental investigations and in identifying and obtaining funding for remediation.		✓	
Collaborate with the State and public water suppliers to identify potential sources of groundwater contamination and prioritize dumps and contaminant releases with the greatest potential to impact groundwater resources.		✓	
Evaluate identified waste sites according to their potential for groundwater contamination, current land uses, and natural resources for the purpose of prioritizing sites for additional assessment.		✓	
Conduct investigations and facilitate remediation of waste sites to ensure current and long-term compatibility with land use.		✓	
Improve processes to collect, organize, and evaluate information and use new technologies to share this information with others.		✓	
Work with local governments to assess the extent of illegal dumping in Dakota County, identify trends and issues, and develop processes and methods for preventing and responding to illegal dumping.		✓	

County Outcome from Near-Term Strategies

Policy Plan TCMA¹⁷ 2015 Objective: not identified

Policy Plan TCMA 2020 Objective: not identified

County 2010 Outcome: not applicable/not measured separately related to waste

Anticipated County 2017 Outcome: not estimated related to waste

The Policy Plan does not include TCMA numeric objectives for contaminated sites and brownfields. A range of outcome and output measures will be developed with Plan implementation.

County Near-Term Strategies (to be sustained in mid- and long-term)

1. **Dakota County will use County Capital Improvement Projects (CIP) as an opportunity to reduce County costs and liabilities by identifying waste sites on or adjacent to properties or right-of-way acquired for the CIP early in the CIP planning process, then investigate and remediate such sites.** (continue)
2. **Dakota County will collaborate with cities, townships, and property owners to identify and prioritize brownfields sites.** (continue)
3. **Dakota County will obtain Federal, State, and other grants to conduct investigations of priority brownfields sites.** (expand)
4. **Dakota County will facilitate the investigation and remediation of waste sites on public property by providing funds for investigations and by assisting public property owners in obtaining funding for remediation.** (continue)
5. **Dakota County will improve the existing environmental review and audit program to provide more frequently updated, accurate, and comprehensive information than currently available regarding suspected and known contaminant releases, required and completed assessment activities, and compliance and closure status of subject properties.** (expand)
6. **Dakota County will work with State agencies and with groups making land use decisions such as developers, city administrators, and planners to ensure that issues regarding environmental protection and remediation of contaminated sites are addressed during redevelopment.** (continue)
7. **Dakota County will provide technical assistance to property owners for conducting environmental investigations and in identifying and obtaining funding for remediation.** (expand)
8. **Dakota County will collaborate with the State and public water suppliers to identify potential sources of groundwater contamination within wellhead protection areas and aquifer recharge areas, and prioritize dumps and contaminant releases with the greatest potential to impact groundwater resources.** (expand)

¹⁷ The TCMA includes the Metropolitan counties of Anoka, Carver, Dakota, Hennepin, Ramsey, Scott and Washington. The TCMA objectives are to be achieved collectively by the seven counties.

- 9. Dakota County will evaluate identified waste sites according to their potential for groundwater contamination, current land uses, and natural resources for the purpose of prioritizing sites for additional assessment. (expand)**
- 10. Dakota County will conduct investigations and facilitate remediation of waste sites to ensure current and long-term compatibility with land use. (expand)**
- 11. Dakota County will improve processes to collect, organize, and evaluate information available on site contamination in the County and use new technologies to share this information with others. (expand)**
- 12. Dakota County will work with local governments to assess the extent of illegal dumping in Dakota County, identify trends and issues, and develop processes and methods for preventing and responding to illegal dumping. (expand)**

11: Cost and Finance

County Goal

1. Long-term revenue and funding approaches sustain programs and activities that move waste up the Waste Management Hierarchy.

County Cost and Finance Strategies

County Near-Term Strategy	Continue	Expand	New
Collect and manage waste fees to fund environmental programs and efforts.	✓		
County Mid- and Long-Term Strategies	Continue	Expand	New
Evaluate opportunities to develop an innovation grant program using host fee funds to promote local projects that manage more waste at the preferred upper levels of the Hierarchy.			✓
Work with the State, Region and the waste service industry to evaluate waste collection billing practices, container sizing, and pricing			✓
Evaluate revenue and funding approaches to support effective waste management programs.			✓

County Outcome from Near-Term Strategies

Policy Plan TCMA¹⁸ 2015 Objective: not identified

Policy Plan TCMA 2020 Objective: not identified

County 2010 Outcome: not applicable/not measured separately¹⁹

Anticipated County 2017 Outcome: to be applied to specific waste management methods

The Policy Plan does not include TCMA numeric objectives for cost and finance. This County Master Plan section also does not quantify waste recovery or landfill diversion based on cost and finance strategies. Rather, diversion estimates and recovery rates strategies in this section are reflected in the relevant waste management section.

County Near- Term Strategy (to be sustained in Mid- and Long-Term)

1. **Dakota County will collect and manage waste fees to fund environmental programs and efforts:**
 - a. Dakota County will negotiate and collect host fees for MSW and non-MSW facilities during the operational life of the facilities, and will evaluate the host fee structure to better support landfill abatement activities. (continue)
 - b. Dakota County will evaluate and update, as needed, the fee structure for hazardous and solid waste programs and activities. (continue)

¹⁸ The TCMA includes the Metropolitan counties of Anoka, Carver, Dakota, Hennepin, Ramsey, Scott and Washington. The TCMA objectives are to be achieved collectively by the seven counties.

¹⁹ The County annually reports to the State on cost and finance data, but a numeric objective/measure has not been defined for State reporting purposes.

County Mid- and Long -Term Strategies

- 2. Dakota County will evaluate opportunities to develop an innovation grant program using host fee funds to promote local projects that manage more waste at the preferred upper levels of the Hierarchy. (new)**
- 3. Dakota County will work with the State, Region and the waste service industry to evaluate waste collection billing practices, container sizing, and pricing. (new)**
- 4. Dakota County will evaluate revenue and funding approaches to support effective waste management programs and activities, such as hauler-collected fees or an environmental line item on property tax statements. (new)**

CHAPTER 4: PERFORMANCE MEASUREMENT AND REPORTING

A. Evaluating Progress

Regularly measuring results is an essential part of Dakota County Solid Waste Master Plan (County Master Plan) implementation. Dakota County is committed to developing, refining, and regularly using a performance measurement system that marks its progress in achieving the goals and outcomes identified in this County Master Plan. This chapter provides a variety of implementation progress measures that the County already uses or will use in the future. More detailed progress measures will also be specified in the County's annual work plans, implementation projects, and ongoing process improvement efforts.

Improving Data Quality at State, Regional, and County Levels

The Metropolitan Solid Waste Management Policy Plan (Policy Plan) acknowledges that the complexity of the Twin Cities Metropolitan Area (TCMA) solid waste system makes it difficult to measure how MSW is managed according to the system objectives. Some data is more verifiable, such as the waste amounts delivered to waste facilities, because that material is weighed and records are kept. Other data is not as easily measured, such as the amount of material recycled by commercial establishments. Statute requires the Minnesota Pollution Control Agency (MPCA) to evaluate Select Committee on Recycling and the Environment (SCORE) data collection and management and to make recommendations to the Legislature for its improvement. It is expected that continued evaluations will serve to improve the reliability of the measurement tools that will be used to assess progress in attaining the Policy Plan's TCMA objectives.

B. County Reporting Requirements

Progress updates will be submitted to the MPCA through annual reports required by State law. Reports summarize trends, project and program outcomes, and activities over the course of the previous year, including relevant data to identify progress in achieving objectives as stated in the Policy Plan and the County Master Plan. Annual reports submitted to the MPCA consist of:

- **SCORE Report/Survey** is an annual evaluation of the County's recycling, reduction and waste management programs. Qualitative and quantitative data are gathered through a formal MPCA survey on recycling rates, waste reduction efforts, waste management data and practices, County licensing and collection, and SCORE finance and administration.
- **Certification Report** is an annual solid waste disposal report to the MPCA. The MPCA reviews the report for consistency with the Policy Plan and for consistency with the requirements of Minn. Stat. § 473.848, which states that no person shall dispose of unprocessable MSW generated in the metropolitan area at a land disposal facility.
- **Local Recycling Development Grant (LRDG) Report** is an accounting to the MPCA of how LRDG funds were used in County recycling and yard waste efforts.
- **Household Hazardous Waste Report** provides the MPCA with data on the amount and type of HHW collected during the previous year. Financial data as well as the number of county and out-of-county residents served are also reported.

Measuring County Progress

To gather data for required State reporting and to design improvements of the County's solid waste programs, the County requires regular outcome and output measurement reporting from many sources through regulatory approaches, such as:

- **Solid waste facilities** including all landfills, transfer stations, yard waste, and organics management facilities provide data on the amounts and types of waste that they receive in their annual reports to the County. Landfills and transfer stations report waste sources by municipality. Materials recovery facilities (for recyclables) report the amount of incoming waste and how much waste is separated for recycling.
- **Waste haulers** report the amount of residential and commercial recyclables hauled and the number of accounts that they service, sorted by city.
- **Hazardous waste generators and facilities** report the amount of waste generated and managed, sorted by hazard category and waste type.
- **Municipalities, including the Rural Solid Waste Commission**, report progress toward achieving landfill abatement goals and County Master Plan goals, in accordance with Community Funding guidelines.

Counties share data to account for waste that crosses county lines and also obtain data for waste that is sent outside of the Region and outside of the State to ensure that data is as complete as possible.

C. Implementation of Progress Measures

Additional measures will be used to evaluate performance of specific programs and initiatives. A compendium of possible measures for selected County Master Plan topic areas follows.

Education and Outreach Measures				
Goal 1: The community has the knowledge to properly manage waste.				
Goal 2: Messages motivate broad-based behavior change.				
<i>Measures apply to near-, mid-, and long-term strategies.</i>				
	Key Strategies Impacting Measure	Possible Measures	Primary Reporting or Data Gathering Mechanism	Measurement Frequency
General Outcome	Education and Outreach Strategy 1	Assessment of overall waste management behavior and attitude change in the County	County residential survey	Biennial
Specific Outcome	Education and Outreach Strategy 3	Assessment of waste management behavior and attitude change by target audience (e.g., various types and sizes of businesses, multifamily housing residents)	County program evaluation; County residential survey	Ongoing; Biennial (survey)
Output	Education and Outreach Strategies 1, 2, 3, 4, and 5	Number of impressions or views of County online and print publications	County print distribution and online evaluations/tracking	Monthly, and by event or effort
	Education and Outreach Strategies 1, 2, 3, and 6	Number of education program participants	County, municipal and partner program evaluations/tracking (The Recycling Zone tours, Community POWER, Community Funding reporting)	Ongoing
	Education and Outreach Strategies 1, 2, 3, and 6	Number of educational programs offered	County, municipal and partner program evaluations/tracking (Community POWER, Community Funding reporting)	Ongoing
	Education and Outreach Strategies 1, 2, 3, and 6	Number and types of target audiences reached by education programs	County, municipal and partner program evaluations/tracking (Community POWER, Community Funding reporting)	By event or effort
	Education and Outreach Strategies 1, 3, and 7	Number of people reached in using new methods such as social media (Facebook likes, Tweets, etc.)	County social media evaluations/tracking	By event or effort

Performance Measurement and Reporting

	Education and Outreach Strategies 1, 2, 3, and 6	Number and types of education toolkit checkouts	County program evaluations/tracking	Ongoing
	Education and Outreach Strategy 1	Number of technical assistance calls	County program evaluations/tracking	Ongoing
	Education and Outreach Strategies 1 and 3	Number and types of publications offered	County program evaluations/tracking	Ongoing

Regulation Measures				
Goal 1: Regulation reinforces proper waste management.				
Goal 2: Regulatory tools support waste management at the highest level of the Waste Management Hierarchy.				
<i>Measures apply to near-, mid-, and long-term strategies.</i>				
	Key Strategies Impacting Measure	Possible Measures	Primary Reporting or Data Gathering Mechanism	Measurement Frequency
General Outcome	Regulation Strategy 1	Compliance status of the regulated community	County data from inspections, audits, complaints	Ongoing
Specific Outcome	Regulation Strategies 1 and 2	Management and actual recycling of new materials (e.g., ban implemented)	County data from licensed facility and hauler reports	Ongoing
Output	Regulation Strategy 1	Number and types of licensees and inspections completed	County program tracking (hauler, VSQG, SQG, LQG, facility licenses issued)	Annual
	Regulation Strategy 1	Number of complaint and enforcement issues resolved	County compliance data/tracking	Annual and by incident
	Regulation Strategy 2	Periodic evaluation of County programs: may identify process improvements, enhanced use of regulatory tools, program results, and recommended next steps	Evaluation documentation and County progress reports/assessments	Annual, or by event or effort

Hazardous Waste Management and Toxicity Reduction Measures				
Goal 1: The use of toxic products is reduced.				
Goal 2: Convenient opportunities exist for proper hazardous waste and problem material management.				
Goal 3: Hazardous waste management provides for public health and environmental protection.				
<i>Measures apply to near-, mid-, and long-term strategies.</i>				
	Key Strategies Impacting Measure	Possible Measures	Primary Reporting or Data Gathering Mechanism	Measurement Frequency
General Outcome	Hazardous Waste and Toxicity Reduction Strategies 1-5 (all) and Education and Outreach Strategy 1	Pounds/tons of household hazardous (HHW) and hazardous waste (HW) managed properly	Informal surveys and program evaluations; County residential survey	Ongoing; Biennial (survey)
Specific Outcome	Hazardous Waste and Toxicity Reduction Strategies 2 and 3	Weight of HHW collected at community events and at The Recycling Zone	County Recycling Zone data; municipal collection event data	Monthly; By event or effort
	Hazardous Waste and Toxicity Reduction Strategies 1-5 (all), Waste Reduction and Reuse Strategy 2	Quantity of toxic products reduced in County operations and EPP efforts	County qualitative tracking	Ongoing
	Hazardous Waste and Toxicity Reduction Strategies 2 and 3	Pounds of electronics collected at The Recycling Zone and community collection events	County Recycling Zone data	Ongoing
	Hazardous Waste and Toxicity Reduction Strategy 3	Amount of pharmaceuticals collected at controlled drop-off sites	County program data	Ongoing
Output	Hazardous Waste and Toxicity Reduction Strategies 2 and 3	Number of participants at community collection events and at The Recycling Zone	County Recycling Zone data; municipal collection event data	Monthly; By event or effort
	Hazardous Waste and Toxicity Reduction Strategies 2 and 3	Types of HHW collected	County Recycling Zone data, municipal collection event data	Monthly; By event or effort

	Hazardous Waste and Toxicity Reduction Strategy 1	Number and type of events and promotional efforts to raise awareness of The Recycling Zone services	Program and promotional data tracking	Ongoing
	Hazardous Waste and Toxicity Reduction Strategies 1-5 (all)	Periodic evaluation of County programs: may identify process improvements, enhanced use of regulatory tools, program results, and recommended next steps	Evaluation documentation and County progress reports; HW facility and generator reports	Annual, or by event or effort

Waste Reduction and Reuse Measures				
Goal 1: Waste generation is reduced.				
Goal 2: Materials are reused before entering the waste stream.				
<i>Measures apply to near-, mid-, and long-term strategies.</i>				
	Key Strategies Impacting Measure	Possible Measures	Primary Reporting or Data Gathering Mechanism	Measurement Frequency
General Outcome	Waste Reduction and Reuse Strategies 1-6 (all)	Tons of waste reduction and reuse overall, including per capita waste generation and diversion rates	Licensed facility and hauler reports	Annual
Specific Outcome	Waste Reduction and Reuse Strategies 1 and 6	Pounds of material reused at The Recycling Zone	County Recycling Zone data	Monthly
	Waste Reduction and Reuse Strategy 2	Reduction in paper purchased for County operations	County purchasing data	Ongoing
	Waste Reduction and Reuse Strategies 4 and 5	Tons of reuse occurring in private sector (Goodwill, etc.)	Survey of reuse organizations	Annual
Output	Waste Reduction and Reuse Strategy 2	Qualitative assessment of types and volume of reuse in County operations	Qualitative program tracking	Annual
	Waste Reduction and Reuse Strategy 1	Number reached in promotion of donation and reuse opportunities	County data, such as impression tracking	Annual and by event
	Waste Reduction and Reuse Strategies 1-6 (all)	Periodic evaluation of County programs: may identify process improvements, enhanced use of regulatory tools, program results, and recommended next steps	Evaluation documentation and County progress reports	Annual, or by event or effort

Recycling Measures				
Goal 1: Convenient opportunities for recycling exist.				
Goal 2: Recycling increases.				
<i>Measures apply to near-, mid-, and long-term strategies.</i>				
	Key Strategies Impacting Measure	Possible Measures	Primary Reporting or Data Gathering Mechanism	Measurement Frequency
General Outcome	Recycling Strategies 1-15 (all) and Education and Outreach Strategy 1	Tons of material recycled, including per capita recycling rate	County data from licensed facilities and hauler reports, provided by counties that regulate those facilities and self-haul business reporting	Quarterly and annual
Specific Outcome	Recycling Strategies 1, 2, 3, 4, 6, 8, 9, 10, 11, 12, 13, and 14	Tons of material recycled as a result of County programs	County data from public entities, businesses, and communities served	Annual, or by effort
	Recycling Strategy 2	Amount of waste recycled from County Fair	Licensed hauler/program data from the County Fair staff/contract	By event
	Recycling Strategies 1, 5, 6, 10, 12, and 13	Amounts of recycling from business sector	County data from licensed hauler reports and self-haul business reporting	Quarterly, or by effort
Output	Recycling Strategy 7	Improved data for improved County programs/actions	County qualitative report on data enhancements and how data is used to modify County programs	By effort
	Recycling Strategy 1	Compliance with County Ordinance (hauler data and service obligations)	County compliance inspections, violations, complaints, actions	Annual
	Recycling Strategies 5 and 6	Number of businesses served through County programs	County project data	Annual or by effort
	Recycling Strategies 3 and 8	SCORE funds distributed and withheld: number of municipalities and fund amounts	County project data	Annual
	Recycling Strategies 4 and 15	Number of waste contracts reviewed for public entities	County project data	By event
	Recycling Strategies 2, 3, and 4	Number of public schools and municipalities compliant with State recycling mandates	County program tracking (school recycling, Community Funding) agreements	Annual, or by event or effort

Performance Measurement and Reporting

	Recycling Strategies 4 and 15	Number of public entities using model contracts for waste management	Public school and municipal reporting, per County agreement	Annual, or by event or effort
	Recycling Strategies - 1-15 (all)	County program evaluation: may describe implementation of Ordinance and license changes, County programs or actions, results, and next steps	Evaluation documentation and County progress reports	Annual, or by event or effort

Organics and Yard Waste Management Measures				
Goal 1: Adequate capacity exists for organics management efforts.				
Goal 2: Organic waste diversion increases.				
<i>Measures apply to near-, mid-, and long-term strategies.</i>				
	Key Strategies Impacting Measure	Possible Measures	Primary Reporting or Data Gathering Mechanism	Measurement Frequency
General Outcome	Organics and Yard Waste Management Strategies 1-10 (all)	Tons of organics diverted or managed	Licensed facility reports (provided by counties that regulate those facilities)	Annual
Specific Outcome	Organics and Yard Waste Management Strategies 1, 3, 4, and 6	Tons of organics managed through food rescue programs	County data from facility and program reports (provided by counties that regulate those facilities)	Annual
	Organics and Yard Waste Management Strategies 1, 3, 4, 5, 6, 8, and 10	Tons of organics managed through food-to-livestock programs	County data from licensed facility reports	Annual
	Organics and Yard Waste Management Strategies 1, 2, 3, 4, 5, 6, 8, and 10	Tons of organics managed through source-separated organics composting programs	County data from modified licensed hauler reports; licensed facility reports	Quarterly and annual
Output	Organics and Yard Waste Management Strategy 1	Residential participation with backyard compost bins	Survey of residents	Annual, or as needed
	Organics and Yard Waste Management Strategy 4	Number of residential organics recovery projects developed	County project data	Annual
	Organics and Yard Waste Management Strategies 5 and 8	If licensing implemented, number of organics haulers licensed	County project data	Annual
	Organics and Yard Waste Management Strategy 1	Attitudes and behavior change towards organics diversion programs	Survey of residents and businesses	Annual, or as needed
	Organics and Yard Waste Management Strategies 4 and 6	Number of waste audits conducted in businesses	County project data	Annual
	Organics and Yard Waste Management Strategies 4 and 6	Number of businesses served through County programs	County project data	Annual or by effort

Performance Measurement and Reporting

	Organics and Yard Waste Management Strategy 5	Improved data for County programs and actions	County qualitative report on data enhancements and how data is used to modify County programs	By effort
	Organics and Yard Waste Management Strategies 1-10 (all)	Assessment of County actions: may describe County programs or actions, results achieved and next steps	County progress report/assessment	Annual, or by effort

Resource Recovery Measures				
<p>Goal 1: Available resource recovery facility capacity serving the Metropolitan area is used.</p> <p>Goal 2: Public entities in Dakota County arrange for MSW disposal at resource recovery facilities in accordance with Minn. Stat. §473.848 and §115A.471.</p> <p><i>Measures apply to near-, mid-, and long-term strategies.</i></p>				
	Key Strategies Impacting Measure	Possible Measures	Primary Reporting or Data Gathering Mechanism	Measurement Frequency
General Outcome	Resource Recovery Strategies 1-6 (all)	Tons of waste processed	Resource recovery facility reporting (provided by counties that regulate those facilities)	Annual
	Specific Outcome	Resource Recovery Strategies 1 and 2	Tons of waste delivered vs. waste processed	Resource recovery facility reporting (provided by counties that regulate those facilities)
Resource Recovery Strategies 3 and 5		Tons processed via Empire Township land transfer station operations	County data from lease reporting (lease agreement requires minimum tons to be processed annually from operations)	Monthly
Resource Recovery Strategy 2		Tons of processible and non-processible waste landfilled	County data from landfill reporting, per host fee agreements	Monthly
Output	Resource Recovery Strategies 1 and 2	Number of public entities complying with Minn. Stat. §473.848 and §115A.471	County data from public school and municipal reporting, per County program grants/agreements; MPCA enforcement actions taken, per County referral	Annual, or by event
	Resource Recovery Strategy 1	Number of technical assistance requests fulfilled and number of notices to public entities informing them of Minn. Stat. §473.848 and §115A.471	MPCA enforcement actions taken, per County referral	Annual

MSW Land Disposal Measures				
Goal 1: Waste that can be reduced, reused, recycled, processed, or managed through organics programs is diverted from land disposal.				
Goal 2: Landfill operation and maintenance protects long-term public and environmental health.				
<i>Measures apply to near-, mid-, and long-term strategies.</i>				
	Key Strategies Impacting Measure	Possible Measures	Primary Reporting or Data Gathering Mechanism	Measurement Frequency
General Outcome	Land Disposal Strategies 1-5 (all)	Tons of MSW landfilled (in-county vs. in-State vs. out-of State), including per capita landfill rate	County data from licensed landfill and facility reports	Quarterly, Annual
	Output	Land Disposal Strategies 2 and 3	Improved data quality and usefulness for improved County programs/actions, such as waste characterization studies and audits	County qualitative report on data enhancements and how data is used to modify County programs
Land Disposal Strategy 1 and Resource Recovery Strategy 2		Assessment of compliance of landfill operations, including compliance with County Ordinance restriction requirements (banned materials, processible waste)	County assessment/summary of compliance inspections, violations, complaints and actions taken	Annual
Land Disposal Strategies 1-5 (all)		Assessment of County actions: may describe County programs and actions, results achieved, and next steps	County progress assessment/summary	As needed
Land Disposal Strategies 2 and 3		Landfill capacity that could feasibly accept Metro area MSW	County assessment/summary from landfill facility reports	As needed

Non-MSW Management Measures				
Goal: Reduction, reuse, and recycling of non-MSW increases.				
<i>Measures apply to near-, mid-, and long-term strategies.</i>				
	Key Strategies Impacting Measure	Possible Measures	Primary Reporting or Data Gathering Mechanism	Measurement Frequency
General Outcome	Non-MSW Strategies 1-6 (all)	Tons of non-MSW reused, recycled, and landfilled overall	Qualitative assessment/summary on improved data and how used to modify County programs	As needed
Specific Outcome	Non-MSW Strategy 1	Tons of non-MSW reduced, reused, and recycled during County building and remodeling projects	County data (per project reporting)	Annual
	Non-MSW Strategy 1	Tons of non-MSW managed or used in County projects (recycled shingles in pavement projects) or in projects with public entities	County data, public entity survey	Annual
Output	Non-MSW Strategy 1	Percentage of public entities incorporating improved non-MSW management actions	Public entities survey of use of building practices that result in reduction, reuse, and recycling	As needed
	Non-MSW Strategies 1-6 (all)	County program evaluation: may describe process for identifying target wastes and sectors, County programs or actions, results achieved, and next steps	County qualitative assessment/summary on County programs and actions taken	As needed
	Non-MSW Strategy 1	Number of asphalt bid contracts with alternative bid pricing for recycled shingles	County data	Annual
	Non-MSW Strategy 4	Improved quality, usefulness, and collection efficiency of data on the generation and management of non-MSW	County qualitative assessment/summary on improved data collection systems; County data from licensed facility reports	As needed

APPENDIX A: REGIONAL MASTER PLAN

Last Updated 12/19/2011

Solid Waste Management Coordinating Board

2011-2030 Regional Solid Waste Master Plan



Anoka County
Carver County

Dakota County
Hennepin County

Ramsey County
Washington County



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The Solid Waste Management Coordinating Board

2011-2030 Regional Solid Waste Master Plan

*Reviewed by SWMCB and sent to Member Counties:
December 14, 2011*

SWMCB Chair:

Commissioner Victoria Reinhardt Ramsey County

SWMCB Vice-Chair:

Commissioner Joseph Harris Dakota County

SWMCB Board Members:

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Commissioner Matt Look	Anoka County
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Commissioner Jim Ische	Carver County
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Commissioner Gary Kriesel	Washington County
Commissioner Lisa Weik	Washington County

SWMCB Ex-Officio Members:

Division Director David Benke MPCA

*For more information about the Regional Solid Waste Master Plan,
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The Solid Waste Management Coordinating Board

2011-2030 Regional Solid Waste Master Plan

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Introduction

A. The Need for a Regional Master Plan

The 2011-2030 Regional Solid Waste Master Plan (referred to as the Regional Master Plan throughout this document) is the long-term, regional planning document for managing the six-county metropolitan area's solid waste. It is intended to respond to the vision and objectives described in the state's 2010-2030 Metropolitan Policy Plan (hereafter referred to as the Policy Plan). The Regional Master Plan was prepared by the Solid Waste Management Coordinating Board (SWMCB), a joint powers board comprised of Anoka, Carver, Dakota, Hennepin, Ramsey, and Washington counties, in consultation with the Minnesota Pollution Control Agency (MPCA). The Master Plan was prepared to fulfill the requirements of Minn. Stat. §115A.46 and §473.803.

This Regional Master Plan continues the legacy of adopting a strong regional approach to solid waste planning. The six metropolitan counties, through the SWMCB, jointly prepared this document in consultation with other solid waste stakeholders. Ultimately, the intent of the regional approach is to establish a common regional vision and set of goals that can support the collective and individual needs of counties within the SWMCB region (hereafter referred to as the Region).

B. Priorities within the Regional Master Plan

The Regional Master Plan provides regional and partnership strategies across a wide array of solid waste management areas that are important to the State and Region, and every area will receive attention during the years ahead. However, with public resources significantly strained across every level of government, the SWMCB also recognizes that the prioritization of solid waste management initiatives is of the utmost importance. In accordance with the vision outlined in the Policy Plan, the SWMCB will concentrate its policy focus on preventing waste before costs need to be incurred to manage it. For waste that cannot be prevented, significant opportunities for improvement specifically exist in the areas of recycling and organics recovery, and the SWMCB will therefore explore a variety of management strategies in these areas to improve upon the status quo. Finally, forging stronger partnerships with other solid waste stakeholders (public, private and non-profit) offers opportunities to reach metropolitan-area solid waste objectives in the most cost efficient manner possible, and the SWMCB will serve as a primary forum through which collaborative initiatives can take hold.



C. The Contents of the Regional Master Plan

The Regional Master Plan is divided into the following five sections:

- *Introduction:* Explains the impetus behind the development of the Regional Master Plan and highlights the SWMCB’s priorities for solid waste management in coming years.
- *About the Regional Master Plan:* Describes how the Regional Master Plan was developed and what entities contributed to that effort, outlines how a reader should view the Regional Master Plan alongside other state, regional and local solid waste management planning documents, and describes key components of the Policy Plan that are integrated into the strategies in the Regional Master Plan.
- *Description of the Existing System:* Provides data about the various aspects of the Region’s solid waste management system, citing the most recent data available at the time of Regional Master Plan publication (either 2010 or 2009 depending upon the specific solid waste topic) so that readers have a baseline from which to better assess regional and partnership strategies.
- *Regional Coordination:* Discusses three elements (cost and finance, governance, measurement and accountability) of the Region that fundamentally differ from the programmatic elements of solid waste management but are nonetheless contributors to regional effectiveness.
- *Regional Strategies:* Outlines regional and partnership strategies by specific programmatic element (communications and outreach, land disposal, non-MSW management, organics recovery, processing, recycling, regulation, source reduction, toxicity reduction) for improving solid waste management in the Region. Strategies under “The SWMCB will” header indicate that the Region and its member counties will assume leadership for driving progress with support from the State; strategies under the “In Partnership with the MPCA, the SWMCB will” header indicate that the State has a leadership responsibility with support from the Region and its member counties.



About the Regional Master Plan

Master Plan Development and Implementation

A. Developing the Regional Master Plan

Following MPCA approval of its updated Policy Plan on April 6, 2011, the SWMCB and its member counties began a one-year process to update the Regional and individual county Master Plans that directly respond to the Policy Plan's vision and objectives. The Regional Master Plan, developed by the SWMCB, provides an overall regional vision and includes high-level regional and partnership strategies to enhance solid waste management during future years.

The Regional Master Plan should not be viewed as a standalone document, but instead as part of an integrated set of planning materials that includes the Policy Plan, the individual county Master Plans and the current edition of the SWMCB workplan. Together these documents provide a statewide, regional and county-specific view of the solid waste management landscape alongside long-term visions and short-term strategies that will enable the Region to fully achieve its solid waste management objectives.

B. Input during the Regional Master Plan Development Process

The following entities were involved in the development of the Regional Master Plan by providing valuable input during specific points in the process:

- *The SWMCB:* Provided overall strategic guidance during the development process, reviewed a final draft of the Regional Master Plan and then sent a recommendation to SWMCB member counties to approve the Regional Plan concurrently with its individual Master Plan. Finally, once the Regional Master Plan and all individual county plans were approved, the SWMCB submitted the Regional Master Plan with the individual county Master Plans to the MPCA.
- *Member Counties of the SWMCB:* Coordinated individual county strategies with region-wide strategies, reviewed and officially approved the county's individual plan and the region-wide Master Plan.
- *Staff of the SWMCB:* Brainstormed potential regional strategies, evaluated progress on regional strategies from the 2004 Regional Master Plan, coordinated efforts with MPCA staff, and shared county best practices that could offer benefit to other counties in the Region.
- *The MPCA:* Provided comments during the development process both through its seat on the SWMCB board and through interactions with SWMCB staff,



offered insight into future state priorities and discussed partnership opportunities to achieve Policy Plan Objectives.

- *Public Input:* Provided comments to the SWMCB during a public meeting on November 14, 2011. Those comments were then integrated into the final version of the Regional Master Plan that was reviewed by the SWMCB during December 2011.

C. Implementing the Regional Master Plan

The SWMCB intends that the Regional Master Plan be a document that, in concert with other state, regional and local planning documents, guides the vision and work of the SWMCB. The SWMCB will therefore annually consult the regional and partnership strategies in the Regional Master Plan to measure progress toward Policy Plan objectives and to guide the prioritization of the coming year's SWMCB workplan. Workplan strategies will therefore be specific initiatives derived from the foundational strategies set forth in the Regional Master Plan, and by following this multi-stage system of prioritization and year-end analysis, the SWMCB can, in partnership with the MPCA, transparently improve solid waste management outcomes throughout the Region.



About the Regional Master Plan

Master Plan Framework

The framework for the regional strategies found in this Regional Master Plan is built around a regional vision, key themes, a solid waste management hierarchy and policies that are outlined in the Policy Plan. For background purposes, the following is a brief overview of the key tenets of the Policy Plan:

A. Vision

The Policy Plan is designed to assist all stakeholders in reaching the State's objectives for solid waste management. In all of its related efforts, SWMCB will follow the Policy Plan's vision for sustainability:

A sustainable community minimizes waste, prevents pollution, promotes efficiency, reduces greenhouse gas emissions, saves energy and develops resources to revitalize local economies. The integrated waste management system is an essential component of the infrastructure of a sustainable community. Solid waste must be managed by technologies and methods that support sustainable communities and environments. The solid waste management hierarchy, with its associated objectives of protecting the State's air, land, water, and other natural resources and the public health, is central to attaining the twin objectives of sustainability and solid waste management, because it emphasizes source reduction and reuse over land disposal (2010 Metropolitan Solid Waste Policy Plan page 6).

B. Key Themes

The following key themes underlie all solid waste management recommendations within the Policy Plan and are also incorporated into the vision of this Regional Master Plan (2010 Metropolitan Solid Waste Policy Plan pages 6-7):

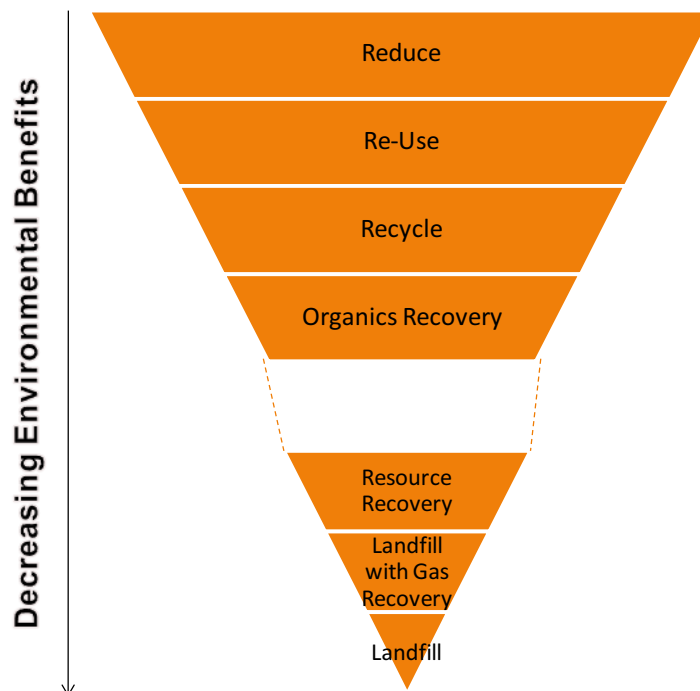
- Accountability
- Waste as a resource
- Solid waste management hierarchy
- Generator responsibility
- Government as a leader
- Product stewardship
- Private sector initiative



C. The Solid Waste Management Hierarchy

The solid waste management hierarchy focuses efforts at the top, where environmental benefits are most significant. A benefits “gap” is depicted between the upper end of the hierarchy (source reduction, reuse, recycling, and organics recovery) and the lower end (resource recovery and landfilling). Throughout the Regional Master Plan, the SWMCB will refer to the solid waste management hierarchy and the Region’s belief that solid waste should be managed at the highest possible level on the hierarchy (*2010 Metropolitan Solid Waste Policy Plan page 2*):

State of Minnesota Solid Waste Management Hierarchy of Preferred Management Practice



D. Policy Plan Objectives and Policies

The following objectives and policies within the Policy Plan provide a foundation from which Regional Master Plan strategies are developed (*2010 Metropolitan Solid Waste Policy Plan pages 7-9*):

Goal 1: Protect and conserve. Manage waste in a manner that will protect the environment and public health, reduce greenhouse gas emissions, and conserve energy and natural resources.



Policy 1: Reduce greenhouse gases and conserve energy and resources. Reduce greenhouse gas emissions and promote energy and resource conservation through integrated solid waste management.

Policy 2: Promote toxicity reduction. Reduce the hazardous character of waste and assure proper management of hazardous waste.

Policy 3: Promote renewable energy and conservation. Promote actions that conserve energy, and will encourage the use of renewable energy, which includes recovering energy from waste.

Policy 4: Manage waste now. Manage solid waste in a manner that will minimize environmental, financial, and public health burdens on future generations.

Policy 5: Protect public health. Ensure public health is protected by reducing waste, recycling and composting (or other organics management) a majority of the waste, and through the proper disposal of what remains.

Goal 2. Integrate the parts. Manage waste in an integrated waste management system in accordance with the hierarchy to minimize landfilling, while emphasizing reducing waste generation and toxicity and increasing reuse, recycling, and source-separated organic waste management.

Policy 6: Support the waste management hierarchy. Manage waste in accordance with the preferred methods in the waste management hierarchy.

Policy 7: Implement regional waste management goals. Manage solid waste in accordance with the numerical targets identified in the Metropolitan System Plan, Part Three.

Policy 8: Hold parties accountable for results. Whether public or private, hold the operators of any solid waste system segment responsible for meeting the goals of this Plan.

Goal 3. Manage waste cost-effectively and internalize future costs. Manage waste in a cost-effective manner that maximizes environmental benefits and minimizes long-term financial liability and be priced to provide incentives that encourage waste to be managed as high as possible on the waste hierarchy.

Policy 9: Promote efficiencies and cost effectiveness and reduce environmental costs. Promote efficiencies and cost effectiveness and reduce environmental costs in the delivery of integrated solid waste



management services, including minimizing risk and managing for long-term care of landfills.

Policy 10: Promote effective governance. Promote governance of solid waste management that results in the implementation of the WMA, resulting in: pollution prevention and decreased land disposal; the fair allocation of costs and liabilities; the efficient provision of services; the promotion of innovation; the fostering of private initiative and new technologies; and the provision of services that meet the diverse needs within the region.

Goal 4. Share responsibility. Allocate responsibility and costs for the environmentally sound management of waste equitably among those who use or benefit from the system, including producers, retailers, consumers, government, citizens, and the waste industry.

Policy 11: Promote generator and producer responsibility. Generators and product producers share responsibility for waste produced, and costs for waste disposal should be borne in the present by producers and generators and not deferred to future generations.

Policy 12: Drive better waste management through incentives, visible costs and effective pricing signals. Provide incentives for waste reduction and recycling, separate management of organic wastes, and resource recovery through pricing of solid waste management services. Costs should be visible to, and understandable by those paying for system services.



Description of the Existing System

A. Introduction

This section of the Regional Master Plan provides a current description of waste management in the SWMCB Region. Sources of data and information include the 2010 SWMCB Data Report, 2009 Annual Results Report (Annual Report) and the 2010-2030 Metropolitan Solid Waste Management Policy Plan (Policy Plan). The Annual Report can be viewed at www.swmcb.org, and contains detailed existing system descriptions, data, graphs, and charts for toxicity reduction, recycling, processing, landfilling, non-MSW, and hazardous waste management, consolidated for the Region. Annual Report data is referenced as "Region. The Policy Plan can be found at www.pca.state.mn.us. Policy Plan data is referenced as the "metropolitan area" because it combines the Region with data from Scott County.

B. Detailed Description of Existing System

The waste management infrastructure in the Region is comprised of private and public entities that collect, transport, recycle, compost, recover, and landfill materials generated by residents, businesses, and institutions. The Region licenses approximately 240 waste hauling businesses, operating about 1,600 vehicles to collect and transport Municipal Solid Waste (MSW). Waste haulers that collect and transport non-MSW, recycling or organic wastes are not regionally licensed. Collection services are generally provided to residents in two ways: by subscription, in which a resident contracts with an individual hauler for service, or by municipal contract. There are no county-organized collection services for the non-residential sector, although some small businesses have access to smaller, organized collection programs. In all instances Minn. Stat. §115A requires waste haulers to provide volume-based pricing services to customers. Finally, after collection, MSW is delivered to a transfer facility or directly to a solid waste recycling, composting, processing, or disposal facility.

The charts and descriptions found on pages 16-19 detail the various aspects and trends associated with the Region's solid waste management system:

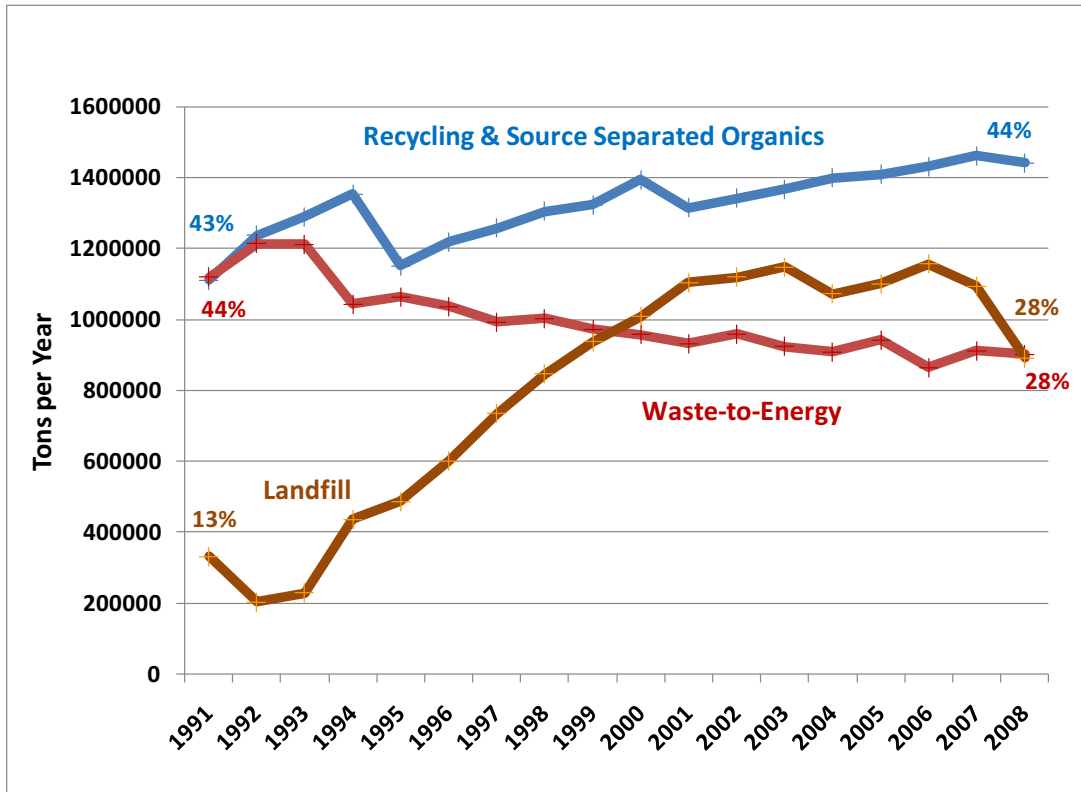


Solid Waste Management after Collection

Management Method (% of total)	2010 Amount (in tons)
Recycling + Organics Recovery (40% + 4% = 44%)	1,344,267
Processing (28%)	862,290
Landfilled (28%)	846,319
TOTAL	3,057,332

(2010 SWMCB Data Report)

Solid Waste Management Trends since 1991



(2010-2030 Metropolitan Solid Waste Policy Plan page 5)



Waste and Toxicity Reduction

Source reduction (also referred to as waste reduction) is the highest priority for managing waste in the solid waste management hierarchy. Source reduction is difficult to measure, but it is typically defined by the change in tons of waste generated per capita. MSW tons per capita decreased since the last update to the Regional Master Plan, from 1.26 in 2005 to 1.09 in 2010.

Toxicity reduction is the process of reducing the amount and degree of hazardous materials in the waste stream to limit environmental and public health risks. The Region promotes reduction of wastes with hazardous characteristics, and provides for reciprocal use of household hazardous waste collection programs. Each metropolitan area county has at least one year-round site for the collection of household hazardous waste (HHW), which is augmented with seasonal, temporary, satellite, or special one-day collections. Since 2005, participation at the Region's HHW facilities has increased by 44%, serving 245,602 vehicles in 2010. The top three collected materials by weight were consumer electronics at 51% of total pounds collected, latex paint at 18% and motor oil and filters at 8%. The Region provides for Hazardous Waste Operations and Emergency Response training for county inspectors and maintains a Very Small Quantity Generator (VSQG) database. Metropolitan county staff inspect, train, and license hazardous waste generators and regulate in accordance with federal Resource Conservation and Recovery Act (RCRA) standards, and use the VSQG database to track hazardous waste manifests.

Recycling

In 2010, the Region's recycling rate was at 40% (not including SCORE source reduction and yard waste credits). Recycling programs in the Region consist of curbside collection, event recycling days or one day events and drop-off sites, and include recycling services for both single-family and multi-family housing. Curbside recycling programs are provided by haulers through contracts with municipalities, or are provided by subscription service under licensing conditions of municipalities. Regional outreach, education and infrastructure efforts have been targeted primarily at the residential sector in the past two decades. Many businesses have recycling programs, and Minn. Stat. §115A.151 requires public entities to have containers for at least three recyclable materials from their operations.

There are five privately-owned and operated Material Recovery Facilities (MRFs) serving the Region. Materials accepted at the MRFs vary, but commonly include: paper/fiber, glass bottles, metals and plastic bottles. The private sector, municipalities, and counties provide numerous public drop-off locations for one or more types of recyclables.



Yard Waste

Minn. Stat. §115A.931 prohibits yard waste from being mixed with MSW, but yard waste can be collected by MSW haulers using separate collection vehicles or by special yard waste collectors, such as lawn services. Public and private collection sites are also available for residents to drop off yard waste, and there are over 40 yard waste sites currently serving the Region. The MPCA estimates that roughly 500,000 cubic yards of yard waste is managed in the metropolitan area through yard waste composting programs. Unlike many areas in the country, wood waste is not currently included in the calculation of yard waste collected for the Region. The SWMCB will therefore work with the MPCA to include yard waste in future performance measures so as to better reflect overall organics diversion activity within the Region and improve the ability of the Region to compare its progress to other areas across the country.

Organics Recovery

In 2010, 4% of the total MSW managed was through source separated organics (SSO) composting programs. Over the past five years, the number of SSO composting programs has risen. At least ten school districts, seven institutions, approximately 35 businesses, and four cities offer SSO composting programs. This does not include the many food-to-people and food-to-animal feed programs that also increase organics diversion. Two permitted organics composting facilities are located within the Region. One fully permitted SSO composting facility is located in Dakota County and a yard waste and organics composting facility with a pilot project permit from the MPCA is located in Carver County. A third facility was recently opened on tribal land in Scott County. All of the facilities are operated by private vendors.

Resource Recovery (Waste to Energy)

Four MSW resource recovery facilities serve the Region, with 28% (862,290 tons) of the Region's total MSW delivered to resource recovery facilities in 2010.

The Hennepin Energy Resource Center (HERC) in Minneapolis uses mass-burn technology to produce steam for district heating and to generate electricity. Ferrous metal is then recovered for recycling from the resultant ash. Hennepin County owns HERC and contracts for its operations. To date the facility has been permitted by the MPCA to burn 365,000 tons annually but has a design capacity of approximately 405,000 tons per year.

The Ramsey/Washington County Resource Recovery Facility located in Newport converts MSW into refuse-derived fuel (RDF). The facility is



privately-owned and operated. The MSW is delivered, shredded, and separated into three waste streams: RDF, recyclable metal and residue. The RDF is transported for combustion to Xcel Energy power plants in Red Wing and Mankato, where it is then burned to generate electricity. The ferrous and non-ferrous metals are recycled, and the residue is landfilled. The facility's permitted capacity is 500,000 tons per year. RDF is used at the Wilmarth Xcel Energy facility and at the Xcel Energy facility in Red Wing.

The Elk River Resource Processing Plant and the Elk River Energy Recovery Station facilities are an RDF processing facility and electrical generation power plant owned and operated by Great River Energy (GRE). The Elk River Resource Processing Plant processes up to 400,000 tons per year of MSW into RDF. The power plant's maximum RDF capacity is 300,000 tons per year, and while most of the energy is used by GRE, in the past, RDF from Elk River has also been sent to the Xcel Energy's Wilmarth facility. Currently, Anoka, Hennepin and Sherburne counties have separate service agreements with GRE. GRE has delivery agreements with the individual private haulers.

The Red Wing Resource Recovery Facility is owned and operated by the City of Red Wing. Select haulers from Dakota County deliver MSW to the facility for processing. The facility's permitted capacity is 27,000 tons per year. Incinerated waste is used at the Xcel Energy facility in Red Wing.

Land Disposal

In 2010, approximately 28 percent of the Region's MSW was landfilled (846,319 tons). Residential waste contributed 55 percent of landfill disposal, while non-residential waste contributed the remaining 45 percent. Of the total MSW landfilled, 92% was delivered to in-state landfills, while 8% was delivered to Wisconsin and Iowa locations. There are two MSW landfills located in the Region; both are located in Dakota County. These landfills are privately owned and operated and both have methane recovery systems. Other landfills serving the Region include those located in Elk River, Glencoe and, as previously mentioned, Western Wisconsin and Northern Iowa.

Non-MSW Management

Non-MSW includes non-hazardous industrial waste, construction and demolition debris (C&D), materials banned from disposal with MSW, non-hazardous industrial waste, non-hazardous infectious waste, and many other waste streams that are not MSW or are otherwise defined or regulated as hazardous waste. Nine non-MSW facilities serve the metropolitan area, including four non-MSW landfills in Dakota County. In 2009, the Region generated nearly 1.9 million tons of non-MSW.



C. Waste Forecast

Over the past decade, the Region has consistently generated about 3.3 million tons of MSW per year. Beginning in 2007, waste generation decreased from 3.4 million tons to 3.1 million tons in 2010 – most likely due to the state and national economic recession that slowed consumer purchasing. However, the Region expects continued population and employment growth over the next 20 years, and this combination will likely result in increased waste generation. It is estimated that the system will have to manage approximately 4.5 million tons of waste per year by 2020. During the time period of 2010 through 2030, the MPCA forecasts that a total of 79 million tons of MSW will be generated in the metropolitan area.

D. Challenges

The Policy Plan identifies challenges in metropolitan area waste management, including forecasted increases in waste generation, increased per capita growth rates, increased land disposal and decreased resource recovery. For the first time, the Policy Plan included numerical objectives in five-year increments for the metropolitan area to attain. These objectives focused on the following categories: Source reduction/reuse; Recycling; Organics recovery; Resource recovery; and Land disposal.

The chart below depicts the Policy Plan's percent of total MSW objectives for 2010-2030:

Management Strategy	2010 Region Actual	2015 State Objective	2020 State Objective	2025 State Objective	2030 State Objective
Source Reduction & Reuse	-	1-2%	2-4%	3-5%	4-6%
Recycling	40%	45-48%	47-51%	49-54%	54-60%
Organics	4%	3-6%	4-8%	6-12%	9-15%
Resource Recovery	28%	32-34%	32-33%	30-31%	28-24%
Landfilled	28%	20%	17%	15%	9%

*(2010 Regional Data Presentation to the SWMCB. June 22, 2011.)
Note: Recycling does not reflect source reduction and yard waste credits*

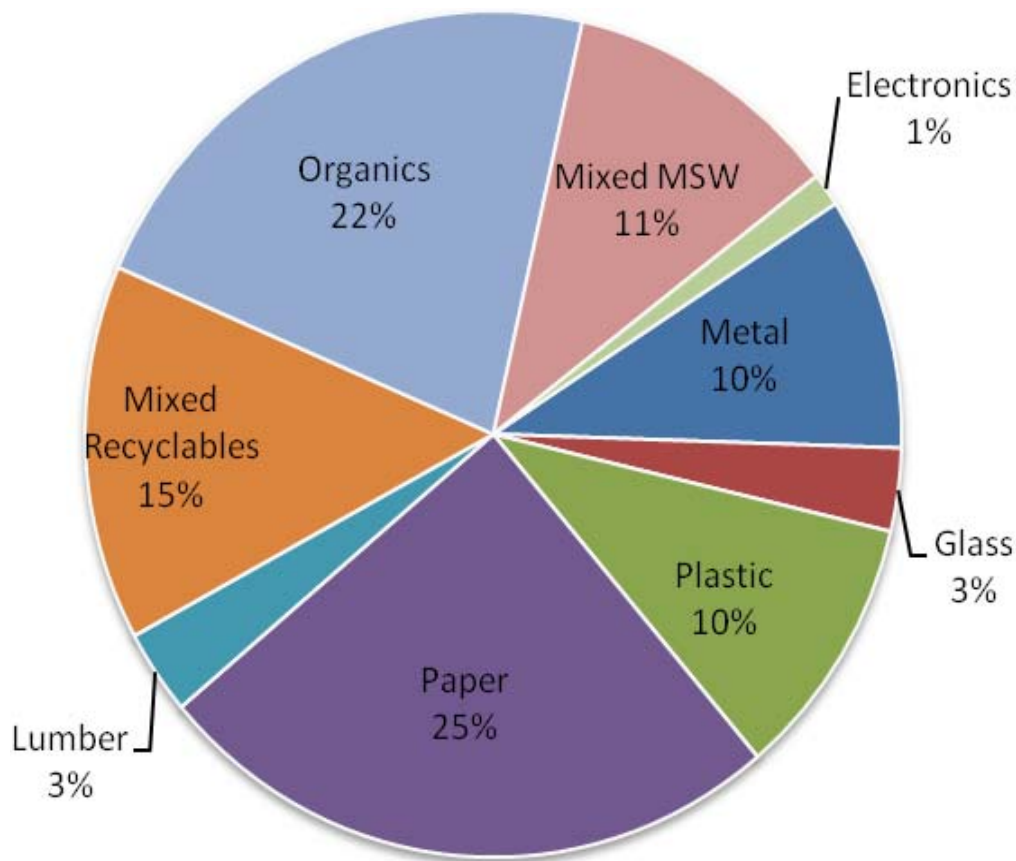


Achieving these Policy Plan objectives will require all solid waste stakeholders to develop new solid waste strategies. The Policy Plan recognizes the need for new ideas, suggesting that the Region define future expectations, outline roles and responsibilities, and verify performance to reach the state objectives.

E. Opportunities

In 1999, the SWMCB and the MPCA conducted a waste composition study to analyze MSW deposited at landfills and resource recovery facilities. In 2009, the results of the 1999 study were combined with waste composition studies at three resource recovery facilities. The studies show no significant changes in waste composition over the past decade. Figure 3 identifies MSW composition for the metropolitan area.

Metropolitan Area MSW Composition



(2010 Metropolitan Solid Waste Policy Plan, page 25)



The studies do, however, continue to demonstrate that there are opportunities for material recovery prior to land disposal. The Policy Plan identifies potential strategies for increased material recovery, with a strong emphasis on non-residential recycling and organics recovery. The Policy Plan also supports the use and expansion of existing tools to move waste management up the solid waste management hierarchy and to better hold stakeholders accountable. These tools include education, licenses, ordinances, and contracts. The MPCA has committed to supporting legislative initiatives for extended producer responsibility/product stewardship, fully enforcing existing processing and public entities laws, restricting land disposal capacity as part of certificate of need decisions, and providing research, support and technical assistance that provides the foundation from which local governments can successful operate.



Regional Coordination

Cost and Finance

A. Introduction

In 1980, the Minnesota Legislature enacted the Waste Management Act, established the solid waste management hierarchy of preferred waste management practices and required counties to manage solid waste in order to protect public health and the environment. The Legislature also clearly established a preference for the private provision of waste management services, as well as a preference that the costs of the waste management system be made visible to the consumer. Over time, the Legislature adopted a variety of laws related to the financing of the system, including SCORE taxes, landfill surcharges, public subsidies of recycling, designation, waste management service charges and county authority to issue bonds. The purpose of these laws is to provide the financial tools necessary to pay the costs of meeting the public objectives of protecting public health, a cleaner environment, and resource conservation.

As the regional waste management system developed over the last 30 years, costs increased and the methods of financing changed. Waste generators now pay for waste management services in a variety of ways, ranging from direct payments to private providers, to state taxes or local charges that indirectly pay for other services. Publicly funded services are also financed in a variety of ways, mostly independently created and administered at the local level. There is no regional solid waste charge, but counties contribute funds to operate the SWMCB due to the collective belief that regional coordination has and will continue to improve solid waste management outcomes.

B. Cost and Finance Principles

This Regional Master Plan emphasizes the need to focus the limited public resources that are available on regional solid waste management priorities. This work must be achieved within a market-driven system and should strive to reduce reliance on public subsidies and local property taxes whenever possible. The following cost and finance principles will be used by the SWMCB as it considers future region-wide financing issues:

- Public and private pricing policies should create incentives for generators to manage solid waste as high as possible on the solid waste management hierarchy;
- The solid waste management system and each of its components should account for the full costs of managing waste, including risk management, long-term care, and environmental costs;



- The costs of waste disposal should be borne by current waste generators and not deferred to future generations;
- Manufacturers, retailers and consumers should assume greater responsibility for the cost of collecting, transporting, and managing products at the end of their useful lives;
- The roles and responsibilities of local governments in achieving the Region’s solid waste management objectives are impacted not only by short and long-term financial implications, but also by state laws and a regional commitment to environmental protection; and
- A larger state funding role is needed to reach all solid waste management objectives in the Policy Plan.

C. Regional Strategies

The SWMCB will:

1. Research other cost and finance mechanisms, including a regional financing model, and specifically identify how those mechanisms could improve solid waste management, if Policy Plan objectives are not met.

In partnership with the MPCA, the SWMCB will:

2. Identify and secure the revenue sources that provide adequate and long-term funding for the Region; and
3. Engage other solid waste stakeholders to evaluate billing and contracting associated with waste and recycling collection so as to assess how incentives can be leveraged to increase recycling and organics recovery.



Regional Coordination

Governance

A. Introduction

Since 1991, counties in the metropolitan area have collaborated on solid waste management through a joint powers agreement (JPA). The JPA that created the Solid Waste Management Coordinating Board has been amended several times during its two decade existence, and each time it has been amended with the intent of improving the coordination of county solid waste management efforts within the Region. Today, the specific, stated purpose of the SWMCB is to increase the efficiency and environmental effectiveness of solid waste management across multiple county jurisdictions, primarily through coordinated communication and outreach, policy development and collaborative activities.

Like the counties that continue to recognize a need for regional coordination, the MPCA emphasizes the importance of regional governance in managing solid waste in the Policy Plan. Under its objectives and policies, the MPCA includes the following statement regarding governance:

Policy 10: *Promote effective governance. Promote governance of solid waste management that results in the implementation of the WMA [Waste Management Act], resulting in: pollution prevention and decreased land disposal; the fair allocation of costs and liabilities; the efficient provision of services; the promotion of innovation; the fostering of private initiative and new technologies; and the provision of services that meet the diverse needs within the Region (2010 Metropolitan Solid Waste Policy Plan, page 10).*

While governance by itself cannot achieve the aggressive objectives established by the MPCA, the SWMCB agrees that effective regional governance is a component of achieving solid waste management success. The SWMCB spent 2010 - 2011 completing a governance analysis in preparation of the Regional Master Plan update at the end of 2011. During its analysis, the SWMCB:

- Analyzed the extensive research and case studies prepared by Dakota County regarding regional solid waste systems in North America and specifically focused on the governance and financial components of those systems;
- Participated in a strategic development process and workshop facilitated by the University of Minnesota that examined both the form and functions of the SWMCB; and



- Individually interviewed a majority of SWMCB commissioners to garner their ideas regarding the form and function of SWMCB in the present and how to best prepare the organization for the future.

The SWMCB asserts that solid waste management success in the Region should be judged on whether the solid waste objectives outlined in the Policy Plan are achieved. Effective regional governance is therefore a necessary—but not sufficient—condition of a successfully managed region. The SWMCB believes that there are solid waste management improvements that can be achieved under the current governance model. Therefore it is important that the State and Region first focus on functional improvements (i.e. increased organics recovery and recycling). Finally, as has been the case for two decades, the counties are able to adjust the SWMCB JPA to address changes in form if such changes are ultimately deemed necessary to enhance solid waste management effectiveness.

B. Regional Governance Principles

As indicated in the previous section, the SWMCB will continually assess whether the JPA enables the counties to effectively carry out their waste management responsibilities by referencing the following governance principles:

- *Efficiency and Effectiveness:* Counties are required by state law to engage in waste management, and will work jointly through the SWMCB to carry out activities that increase the efficiency and effectiveness of county efforts;
- *Accountability:* Counties are accountable to the MPCA through their individual solid waste master plans, and the counties shall then hold one another accountable through the SWMCB JPA. The counties, through their individual plans and through the SWMCB, will identify the specific methods to hold others in the Region accountable. The Performance Measurement chapter of this Regional Master Plan discusses how SWMCB will continually review and critically evaluate performance;
- *Support of the Solid Waste Management Hierarchy:* The Region’s governance will be structured so as to implement and support initiatives that move management of waste up the solid waste management hierarchy;
- *Support of the Private Sector:* The Region’s governance structure will advance the State’s solid waste management objectives through efforts that recognize the Region’s market-based approach to solid waste management; and



- *Continual Improvement:* On an ongoing basis, the SWMCB will evaluate its governance model and will examine and modify the current governance structure, as necessary, to meet the Region’s solid waste objectives.

C. Regional Strategies

The SWMCB will:

1. Provide waste management leadership in the Region by serving as a forum for policy discussions, conducting research and evaluation studies and developing Regional programs in partnership with the State, other public entities and the waste industry;
2. Evaluate changes to its joint powers agreement that are necessary for implementation of Master Plan strategies; and
3. Continue to evaluate governance options if Policy Plan objectives are not met.



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Regional Coordination

Measurement and Accountability

A. Introduction

Measuring solid waste results is integral to the success of the Region's solid waste management system. The SWMCB, in partnership with the MPCA, is committed to collecting robust solid waste data that enables policymakers to devise strategies that result in the Region achieving the solid waste management objectives outlined in the Policy Plan. Without improved measurement data, it will be impossible for the State and Region to fully assess the effectiveness of Master Plan Regional Strategies and the Region's waste management system.

SWMCB believes that all successful solid waste measurement and accountability strategies will recognize the following principles:

- Data measurement, collection and reporting consistency will enable the State and Region to identify the most promising opportunities for system improvements and the expansion of solid waste management best practices;
- The flow of solid waste and the generators that produce it do not neatly fit within city and county jurisdictional lines;
- Non-residential generators will produce more timely and reliable data if they are required to submit identical data one time and to one entity;
- Consistent solid waste data must be available to the State so that it can construct meaningful policies that address the long-term solid waste issues of highest priority;
- When possible, counties should focus their resources on the creation of programmatic solid waste management efforts that are informed by the use of data that is consistent statewide and fits within a solid waste regulatory framework that is imposed by the State; and
- State, regional and local entities should be held accountable for the roles and responsibilities that they are expected to fulfill within Minnesota's solid waste management system.

The *SWMCB Joint Powers Agreement*, effective July 1, 1998, states that the SWMCB shall systematically evaluate the progress of the Region and each county in achieving the outcomes articulated in the Regional Master Plan.



B. Measuring Regional Progress on Achieving Solid Waste Management Objectives

Solid waste progress will ultimately be benchmarked against the objectives outlined in the 2030 Solid Waste Management Policy Plan, and those objectives will therefore serve as the outcomes by which SWMCB and its member counties will be held accountable. SWMCB will also regularly analyze available solid waste data to produce solid waste reports that compare the Region's current progress to the regional solid waste management objectives in the Policy Plan.

It is through this constant analysis that future regulatory, policy and communication priorities will be identified and specific strategies included in the annual workplan to guide programmatic implementation. Instead of attempting to measure and track data across a wide array of solid waste subcategories that ultimately are not the outcomes by which the Region will be assessed, the SWMCB will focus the 2011 Regional Master Plan on the macro objectives that will be the standards that determine regional success. This focus will will prioritize data collection and management efforts and enable the SWMCB and MPCA to focus more attention on the creation of critical data collection and measurement methods that are needed to fully assess future regional solid waste management progress.

C. Measurement of County Specific Strategies

In order to highlight the regional focus of the 2011 Regional Solid Waste Master Plan and streamline the submission of information to the MPCA, County Specific Initiatives (CSI's) were removed from the Regional Master Plan, and specific county strategies are instead being housed in the SWMCB member counties' individual Master Plans that must be submitted concurrently with the Regional Master Plan. Per the requirements of the SWMCB JPA, counties will continue to collectively review their county-specific strategies on an annual basis at a SWMCB meeting and identify specific tasks and results that each county will attempt to achieve in the year ahead. It is expected that both qualitative and quantitative measures of progress will identify how county strategies are contributing to the achievement of SWMCB's objectives identified in this Regional Master Plan.

D. Regional Strategies

The SWMCB will:

1. Evaluate and enhance current measurement and reporting tools (i.e. ReTRAC);
2. Support county development of individual performance measures so long as the measures provide data that integrates with other counties and enables the Region to benchmark progress on solid waste objectives;



3. Develop performance measures that track progress toward the achievement of the Region's recycling, organics recovery, processing and reuse objectives included within the State's 2030 Solid Waste Policy Plan;
4. Annually report to the MPCA regarding progress in meeting the Policy Plan objectives, including challenges and opportunities for future improvement; and
5. Encourage the inclusion of yard waste in any calculation of organics recovery for the Region.

In partnership with the MPCA, the SWMCB will:

6. Support full measurement of State, Regional and individual county waste management progress so as to improve overall accountability and better identify when changes to the current system are required;
7. Support the MPCA as it expands facility permitting and the reporting of solid waste data;
8. Align SCORE and other data so that it is consistent and aligns with the integrated reporting recommendations in the MPCA's SCORE revamp report;
9. Continue providing data to the MPCA so that it can measure source reduction and reuse at the state level and determine the effectiveness of pilot projects and other new strategies; and
10. Rely on the MPCA to evaluate and update Policy Plan objectives, as necessary, based on updated solid waste data.



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Regional Strategies

Source Reduction and Reuse

A. Introduction

The Policy Plan stresses the need to manage waste to maximize environmental benefits. A source reduction and reuse objective of 4-6% has been established for 2030. This is an aggressive objective that will require strong MPCA leadership, with support and local leadership from counties and municipalities from around the state.

A key public policy related to source reduction is product stewardship. Product stewardship, also known as extended producer responsibility (EPR), spreads responsibility for products at the end of their useful life among manufacturers, distributors, retailers and users. Product stewardship solutions can result in less waste being produced, and will be important in meeting the source reduction and reuse Policy Plan objective. This Regional Master Plan calls for the Region to foster product stewardship approaches to the management of difficult to manage waste. The Region will promote product stewardship framework legislation and support producer responsibility initiatives in order to reduce the expense and burden of collection currently borne by government.

Government is a large consumer of goods and services and generates large quantities of waste. Both the Policy Plan and the Regional Master Plan emphasize that government will lead by example, take environmental factors into consideration when making purchases and collaborate to share knowledge, experience, and technical expertise regarding environmentally preferable practices. The counties will continue participating in cooperative purchasing and seek to expand the availability and utilization of green products in their own operations and throughout residential and non-residential sectors within the Region.

Progress toward the source reduction and reuse Policy Plan objective will require improved data measurement. Standard methodology for measuring source reduction and reuse needs to be developed by the State to ensure that source reduction activities in one county be tracked in a way that is consistent with other counties. The Region will therefore depend upon the MPCA to develop that methodology and will provide local government input and data, when possible, to ensure the development process is a successful one.



B. Regional Strategies

The SWMCB will:

1. Provide product stewardship leadership in the Region by serving as a forum for policy discussions, conducting outreach with public entities, and raising general awareness about the product stewardship/extended producer responsibility model;
2. Develop and expand reduction and reuse efforts throughout the Region through programs such as the Reuse Alliance;
3. Provide assistance to counties to increase the purchasing of environmentally preferable products through cooperative purchasing contracts; and
4. Share knowledge, best practices, and technical expertise regarding environmentally preferable practices among public entities.

In partnership with the MPCA, the SWMCB will:

5. Develop a statewide policy for product stewardship and support related product stewardship legislation;
6. Support the MPCA's new and ongoing efforts to develop and expand reduction and reuse efforts throughout the Region;
7. Support MPCA efforts to develop and implement a measurement tool for source reduction and reuse; and
8. Expand the available list of environmentally preferable products contained within cooperative purchasing contracts.



Regional Strategies

Toxicity Reduction

A. Introduction

Reducing the toxicity of the waste stream is important in order to effectively protect public health and the environment. The most effective way to reduce the toxicity of waste is to redesign products to use less toxic components or to recover toxic components before they enter the waste stream, but sometimes toxic products must be used and then disposed of appropriately. In these instances, the waste containing toxic or hazardous components should be removed from the MSW waste stream and properly managed.

Before turning its focus to the management of toxic waste, the Regional Master Plan calls for an initial focus to be on preventing the toxic waste from even being created. The Master Plan calls upon residents and businesses to use fewer products containing toxic and hazardous components, reduce the amount of the product used, and properly manage products containing toxic or hazardous materials. The Region will develop appropriate communication tools to assist the counties in carrying these messages to the community, and additional information about specific communication strategies can be found in the Regional Master Plan's "Communication and Outreach" section.

A regional effort to foster product stewardship, meaning that all parties involved in designing, manufacturing, selling, and using a product take responsibility for the life-cycle environmental impacts of that product, will also prove effective from a cost, public health and environmental perspective. However, consistent with a key theme throughout the Regional Master Plan, greater private sector involvement and reduced dependence on government subsidization is needed to enhance product stewardship in the years ahead.

Finally, in addition to communication tools and encouraging greater product stewardship, the Region will continue to use a variety of compliance strategies, including coordinating certain aspects of hazardous waste regulation, to assure the proper management of toxic and hazardous waste by regulated entities. The counties will also continue to offer a regional HHW collection system through a reciprocal use agreement.

B. Regional Strategies

The SWMCB will:

1. Maintain the reciprocal use agreement for HHW collection services;



2. Evaluate cooperative purchasing efforts that provide for more efficient operation of county HHW programs;
3. Assist member counties in HHW system planning by coordinating an evaluation of driving distances as a measure of convenience, to determine if gaps exist in the availability of HHW programs;
4. Coordinate discussions about elements of county regulatory compliance strategies, including licensing, inspection, consultation and enforcement, to ensure that hazardous waste is properly managed throughout the Region; and
5. Evaluate emerging issues related to hazardous waste, such as proper management of pharmaceutical waste.

In partnership with the MPCA, the SWMCB will:

9. Monitor product use that may affect the level of toxic/hazardous materials in the waste stream and coordinate with the MPCA to identify solutions to reduce the toxicity of waste;
10. Develop a statewide policy for product stewardship and support related product stewardship legislation that addresses problem materials and products with toxic and hazardous components; and
11. Develop household hazardous waste disposal contracts that provide for cost-effective and environmentally preferable recycling and disposal options for county-collected household hazardous waste.



Regional Strategies

Recycling

A. Introduction

Recycling is a significant component of the Region's solid waste management system. The Policy Plan strongly emphasizes recycling, establishing an objective that 60% of all MSW should be recycled in the Region by 2030. The plan repeatedly mentions the importance of recycling in managing waste as a resource because recycling offers the promise of reduced pollution, diminished demand for scarce natural resources, and state and regional economic growth potential. In 2010, the Region recycled 41% of all MSW (not including SCORE source reduction and yard waste credits).

The Region's waste generation is expected to grow to an estimated 4.5 million tons by 2030. The costs associated with managing this increased waste will be significant. Ultimately, the Regional Master Plan recognizes the magnitude of the challenging task facing the counties, and it is clear that the 60% recycling objective will not be accomplished without generators and service providers involved in future efforts to improve. SWMCB counties will therefore continue working with their partners to empower generators and service providers so that a collaborative effort maximizes the Region's diversion of recyclable material in the years ahead.

As previously mentioned, the SWMCB recognizes that meeting higher recycling objectives will be a challenge. New initiatives must be undertaken to achieve the 60% recycling objective by 2030. First, the development of new markets is extremely important. SWMCB counties believe that the MPCA is positioned to be the governmental entity that aggressively leads market development efforts while working closely with the private sector and the federal government. SWMCB and the counties will then provide policy and regulatory support to the MPCA as those new markets emerge. Second, the SWMCB believes that the private sector is best positioned to introduce new collection techniques and technology to ensure that recycling effectiveness is maximized. The SWMCB therefore looks forward to working with the private sector in coming years to help introduce new, effective technologies to the Region.

B. Regional Strategies

The SWMCB will:

1. Share research, information, public policy tools and tactics for improving residential and non-residential recycling;
2. Develop model ordinances to encourage a consistent regulatory approach for recycling, as needed;



3. Evaluate and outline best management practices for “away-from-home” recycling, in locations such as parks, arenas, and public buildings as well as private businesses that serve the public;
4. Establish regional data reporting methods to guide recycling policy, including residential recycling for the Region, after identification by the MPCA of the appropriate entity for data development and collection;
5. Consider the development of programs targeted at the non-residential sector to increase recycling; and
6. Strengthen partnerships, through discussions and other opportunities, with service providers and recycling management facilities to identify improved recovery efforts and education needs.

In partnership with the MPCA, the SWMCB will:

7. Support state-led efforts to increase non-residential recycling through expanded policy efforts if Policy Plan objectives for recycling are not met using currently available policy tools;
8. Review the Policy Plan objectives following the receipt of improved data;
9. Support MPCA imposing mandatory separation goals for recyclable materials at transfer stations and landfills if the Policy Plan objectives for recycling are not met;
10. Support ordinances or legislation requiring entities that handle recyclables to report recycling rates to the State; and
11. Assist the MPCA in discussions on market development and participate in any activities emanating from those discussions.



Regional Strategies

Organics Recovery

A. Introduction

Organics recovery in the Region includes the management of yard waste (leaves, grass, and other plant waste) and source-separated organic (SSO) materials that include food waste, food production by-products, produce and meat trimmings, plant waste, and soiled, non-recyclable paper. In 2010, changes to Minn. Stat. §115A.03 subdivision 25(a) added composting of SSO's to the definition of recycling.

There are a variety of technologies available to manage the Region's organic wastes, including residential backyard composting, food rescue, food donation, food to livestock feeding, food to livestock feed manufacturing and various forms of non-residential composting. There has also recently been interest in anaerobic digestion, and several projects are currently being explored within the Region, but the technology remains in the early stages of assessment at this time.

County, city, and private sector efforts have been successful in increasing the amount of organic wastes materials managed by a variety of methods in the Region, and in 2010, 127,366 tons (26% of the Region's potential SSO) were diverted from the MSW waste stream.

The significant growth in organics recovery throughout the Region is due to county technical assistance, education programs, promotion of already existing organics recovery services, and targeted financial incentives. The Region's 2010 level of organics recovery, at 4%, already meets the Policy Plan system objective for organics recovery of 3-6% of total MSW by 2015. However, meeting future objectives (4-8% of total MSW in 2020 and 9-15% of total MSW by 2030) will require further changes in the waste management system. The counties and SWMCB will continue designing policies and programs in response to the State's challenging organics recovery objectives. Finally, it is also important to note that the SWMCB recognizes that: 1) private sector cooperation is needed to reach the 9-15% objective by 2030; and 2) yard waste should be included in performance measures for organic wastes to more accurately reflect ongoing efforts in the Region and align with how organics recovery is calculated in other regions around the country.



B. Regional Strategies

The SWMCB will:

1. Share research, information, public policy tools and tactics regarding organics recovery;
2. Develop model ordinances to encourage a consistent regulatory approach for organics recovery, as needed;
3. Host discussions with the private sector on the development of organics recovery strategies and technologies;
4. Establish regional data reporting methods to guide organics recovery after identification by the MPCA of the appropriate entity for data development and collection;
5. Consider the development of programs targeted at the non-residential sector to increase organics recovery;
6. Analyze joint collection of yard waste and organics recovery from residential generators; and
7. Identify a range of financial and regulatory organics recovery tools available to counties, and hold discussions to identify opportunities for regional consistency.

In partnership with the MPCA, the SWMCB will:

8. Support state-led policy efforts to increase non-residential organics collection and management as appropriate infrastructure develops, if policy plan objectives for organics recovery are not met using currently available policy tools;
9. Review the Policy Plan objectives following the receipt of improved data;
10. Support legislation requiring appropriate handlers of organic wastes to report organics recovery rates to the State; and
11. Work to include yard waste in performance measures for regional organics diversion.



Regional Strategies

Processing

A. Introduction

Waste processing is an important element in the waste management system for waste that is not reduced, reused or recycled. By processing waste into energy, resource recovery facilities reduce landfilling and power residences and businesses throughout the Region. To manage waste in accordance with the solid waste management hierarchy, the SWMCB adopts processing as the preferred alternative to landfilling for MSW that is not otherwise reduced, reused or recycled. (Note: see the Regional Master Plan's "Organics Recovery" section for specific strategies regarding organics diversion).

In 1985, the Minnesota Legislature adopted a law requiring all MSW generated in the seven metropolitan counties that is not reduced, reused or recycled to be processed at a resource recovery facility. There are currently four resource recovery facilities serving the Region: the Hennepin Energy Recovery Center, the Newport Resource Recovery Facility, the Elk River Resource Processing Plant and Red Wing waste-to-energy facility.

The Policy Plan highlights the need to ensure that waste generated by public entities is processed in a method that is consistent with its highest identified use per the State's solid waste management hierarchy. In response to that processing requirement and future waste management objectives identified in the Policy Plan, the MPCA and SWMCB agree that full utilization of the Region's waste processing capacity is a key component in achieving those desired outcomes. Full utilization of capacity is important to the achievement of current and future objectives. This effort must be coordinated with other available policy and regulatory tools to be as effective as possible.

The MPCA and SWMCB acknowledge the need for MPCA to fully exercise its statutory authority to enforce Minn. Stat. §473.848; it is only through a combination of fully utilizing processing capacity and the exercise of statutory enforcement authority for how waste is managed that the Region's future solid waste management objectives will be fully achieved.

B. Regional Strategies

The SWMCB will:

1. Address waste processing issues throughout the Region on an individual county or sub-regional basis;
2. Support a market-based approach regarding privately owned and operated



resource recovery facilities serving the Region, thus likely leading to the reduction or elimination of public subsidies;

3. Encourage its member counties, individually or jointly, to retain a first option to purchase RDF and processing facilities if, after termination of existing agreements, the facilities are to be closed or converted to a non-processing use; and
4. Support full utilization of design resource recovery capacity.

In partnership with the MPCA, the SWMCB will:

5. Ensure full compliance with Minn. Stat. §473.848 that requires MSW to be processed prior to land disposal;
6. Support the MPCA's enforcement of Public Entities law; all individual county plans will include the requirement that Public Entities process MSW;
7. Support current law that designates MSW and RDF as a source of renewable energy;
8. Monitor existing processing capacity and operations and consider proposals from the private sector for new processing options for the Region; and
9. Work to include yard waste, including wood waste used for the production of renewable energy, in performance measures for regional organics diversion.



Regional Strategies

Land Disposal

A. Introduction

Landfills continue to play a role in the solid waste system for the metropolitan area. Although land disposal is the least preferred option in the solid waste management hierarchy, an integrated waste management system requires that some landfill capacity be available. The Policy Plan acknowledges that landfills are necessary and that landfill capacity is needed for waste that cannot be reduced, reused, recycled or processed. Newer technologies such as leachate recirculation, bioreactors, and landfill mining provide opportunities to improve landfill management, but need to first be evaluated and then designed in a manner that prevents negative environmental outcomes. Ultimately, conservation of landfill space and the use of new technologies should be encouraged, but only when they also provide for optimal environmental protection.

Landfills that serve the metropolitan area are privately owned and operated, with some of the landfills serving the Region located in neighboring states. Governments therefore specifically focus on the regulatory issues that govern landfilling; landfill design and operation in Minnesota is regulated by the MPCA, counties and cities. This Master Plan stresses the need for landfills to be designed and operated in an optimal manner while also recognizing that landfills as well as all other waste facilities' operations will need to be expanded or changed by 2030 to achieve Policy Plan objectives.

Note: In this section of the Master Plan, the term "landfilling" refers to MSW landfills only.

B. Regional Strategies

The SWMCB will:

1. Regionally support individual county use of a variety of compliance strategies including licensing, inspection and enforcement to ensure that regulated solid waste is properly managed in landfills throughout the Region.



In partnership with the MPCA, the SWMCB will:

2. Support MPCA initiatives to document landfill air emissions and the long-term impacts and costs of landfilling to support future policy decisions;
3. Monitor existing landfills' capacity;
4. Encourage the MPCA to adopt a requirement for landfills and transfer stations to conduct waste characterization studies to identify opportunities to divert waste; and
5. Engage the waste industry to improve waste diversion opportunities at waste facilities.



Regional Strategies

Non-MSW Management

A. Introduction

Non-municipal solid waste (MSW) generally consists of three major components: construction, demolition and industrial waste. The Region is served by nine landfills that accept these waste streams. At present, these landfills have approximately 25 million cubic yards of remaining capacity.

The Region has invested significant resources in characterizing and researching non-MSW management so that more accurate data can be incorporated into SWMCB policy and program developments. This Master Plan therefore continues to recognize the need to further improve data regarding non-MSW management.

In addition to gathering improved data, the Metropolitan Solid Waste Management Policy Plan recognizes the need for new or expanded non-MSW market development, specifically targeting clean and mixed biomass, tear-off asphalt shingles and wallboard. For example, some SWMCB member counties have already seen significant savings from the recycling of shingles into asphalt paving projects, and the Region and state stand to benefit from both a budgetary and environmental perspective if shingle recycling can become more pervasive.

The Regional Master Plan's non-MSW strategies focus on increasing the reduction, reuse, recycling and processing of non-MSW through means that are consistent with the solid waste management hierarchy.

B. Regional Strategies

The SWMCB will:

1. Strongly encourage all member counties to include alternative bid pricing requirements whenever hot mix asphalt or asphalt paving services are purchased so as to increase shingle recycling;
2. Develop model language for county projects requiring that construction and demolition waste be reused and recycled to the greatest extent possible; and
3. Develop and promote initiatives that enhance non-MSW recycling and management in the Region, including assisting counties in evaluating the incorporation of the MPCA's pre-demolition inspection rule into local ordinances.



In partnership with the MPCA, the SWMCB will:

4. Work to streamline data collection for non-MSW waste;
5. Support initiatives that establish statewide non-MSW diversion objectives;
6. Work to develop a consistent definition and application for "beneficial use";
7. Support the private sector in expanding market development for recycled non-MSW, and beneficial uses for non-MSW materials such as clean and mixed biomass, tear-off asphalt shingles and wallboard; and
8. Encourage the MPCA to utilize landfill and transfer station permitting authority to require separation of non-MSW prior to land disposal.



Regional Strategies

Regulation

A. Introduction

The metropolitan counties are required by state law to regulate solid and hazardous waste. Each county has developed ordinances and Master Plans to define the steps that will be taken to affirm that solid and hazardous waste generators and facilities are regulated, that waste is managed in accordance with federal, state and local requirements and that the objectives of the Master Plan are met. The ordinances also specify the enforcement actions that may be used to gain compliance.

Note: For additional information regarding specific solid waste regulations within each SWMCB member county, please consult the individual county Master Plans that are being submitted concurrently with the Regional Master Plan.

The SWMCB does not have regulatory authority on behalf of its member counties, and previous editions of the Regional Master Plan therefore did not include any specific solid waste regulation strategies. However, with some of the available state and regional solid waste management regulatory tools not being fully utilized and a desire by SWMCB to expand some regulatory efforts throughout the Region, SWMCB opted to include regional and partnership strategies for regulation in the 2011 Regional Master Plan for the first time.

B. Regional Hauler Licensing

Established in 1995, the regional hauler licensing program was designed so the metropolitan counties can, through a collaborative effort, issue mixed municipal solid waste hauler collection and transportation licenses. The program provides for the issuance of one base license by the county in which the hauler is based and an operating license by each county in which a hauler operates. The base license provisions, including insurance requirements, fees, hauler application form and license year, are consistent throughout the Region. The SWMCB establishes the requirements for the application process and encourages uniform enforcement guidelines be carried out by the counties. However, the counties are the regulatory authorities responsible for licensing haulers and enforcing licensing requirements.

C. Hazardous Waste Licensing

Each metropolitan county licenses and inspects hazardous waste generators and facilities pursuant to hazardous waste ordinances. Because of the differences in population, priorities, and resources, the number of licenses issued and inspections conducted varies among the counties. For instance, some counties have adopted



minimal generator registration requirements and others require a full license for all generators. Similarly, some counties inspect all licensees and others have a risk-based system for determining which companies to inspect. Whenever possible, the metropolitan counties attempt to be consistent in application of licensing programs, as this helps avoid confusion for companies with locations in more than one county or that move from one county to another.

D. County Ordinances

Minn. Stat. §473.811 requires that each metropolitan county have ordinances that regulate solid and hazardous waste. Counties must license hazardous waste generators and both solid and hazardous waste collection and processing facilities. Solid and hazardous waste facilities that are covered by the ordinances must be in compliance with the requirements of the county ordinances, state rules and the Policy Plan. Therefore, county ordinances describe the licensing requirements and enforcement tools that may be used to obtain compliance.

Hazardous waste ordinances must embody and be consistent with state rules. When state rules are changed, counties must modify their ordinances accordingly and submit the changes to the State for approval within 120 days. Hazardous waste ordinances may be more stringent than state rules as long as they do not impede the implementation of state rules. The metropolitan counties have worked together through the SWMCB during the past twenty years to develop ordinances that are consistent with one another and with state rules. When state rules are changed, the metropolitan counties meet to discuss the changes and to coordinate ordinance modifications.

Note: For additional information regarding specific solid waste ordinances within each SWMCB member county, please consult the individual county Master Plans that are being submitted concurrently with the Regional Master Plan.

B. Regional Strategies

The SWMCB will:

1. Continue coordination of existing regulatory initiatives, such as the Very Small Quantity Generator (VSQG) database and health care and hazardous waste project;
2. Explore the expansion of regional hauler licensing to include non-MSW, recycling, and organics collection services; and
3. Evaluate each county's regulatory tools and identify opportunities for regional consistency in application that results in solid waste being managed at the highest level possible on the solid waste management hierarchy.



In partnership with the MPCA, the SWMCB will:

4. Support full MPCA enforcement of existing statutes that include processing (Minn. Stat. §473.848) and public entities law;
5. Identify state and regional solid waste priorities that focus future regulatory efforts;
6. Continue coordinating enforcement actions so as to maximize state and local resources; and
7. Support increased state efforts to improve recycling, organics recovery and processing through strategies such as disposal bans or generator requirements when Policy Plan objectives are not being met using currently available regulatory tools.



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Regional Strategies

Communications and Outreach

A. Introduction

The SWMCB has coordinated communications and outreach initiatives to enhance and complement county and regional programs and regulatory efforts since the creation of the SWMCB in 1991. The communications and outreach efforts seek to raise awareness and change behavior among residential and non-residential waste generators in the Region so that solid and hazardous waste is managed in ways that are consistent with county and regional plans. The SWMCB's communication and outreach efforts are designed to complement county efforts. All communication efforts are aligned with the solid waste management hierarchy, which emphasizes source and toxicity reduction, recycling, organics and resource recovery over sending waste to landfills.

To raise awareness and encourage behavior change, the SWMCB's communications and outreach efforts focus on developing and delivering consistent messages and educational materials using a variety of tools and media. Messages and materials are disseminated through regional partnerships, which are an important way to leverage resources and effectively reach a wide variety of audiences. Ultimately, the SWMCB's communications and outreach efforts will continue to empower residential and non-residential waste generators to make informed decisions about source and toxicity reduction, recycling, composting and resource recovery over sending waste to landfills.

B. Regional Strategies

The SWMCB will:

1. Seek new and strengthen current partnerships with public entities, community organizations, businesses, the waste industry and others to develop and deliver communication and outreach programs;
2. Update and support RethinkRecycling.com as a centralized source of information for waste generators in the Region;
3. Develop and disseminate consistent and effective messages that complement county efforts and empower residential, non-residential, and governmental waste generators to implement successful solid waste management programs;



4. Develop and implement regional outreach methods for solid waste-related messages. Outreach methods may include SWMCB-printed materials, print and television media, and social media and other forms of communication;
5. Provide educational, financial, and technical support to community-based organizations through programs such as Community POWER for the purposes of incorporating solid waste management best practices and education into community activities; and
6. Target a significant portion of the Region's communications and outreach efforts at non-residential recycling and organics recovery, currently the two solid waste policy issues of highest priority for the Region.

In Partnership with the MPCA, SWMCB will:

7. Work to integrate state, regional and local communications planning and tools in order to efficiently utilize public funds. SWMCB will provide opportunities for MPCA staff to participate in communication strategy planning and will participate in MPCA communications planning when invited. In addition, SWMCB will promote MPCA materials in the Region and encourage the MPCA to promote the use of SWMCB communications materials to statewide partners.

APPENDIX B: ACRONYMS AND DEFINITIONS

Acronyms

ARROW	Awards for Recycling and Reduction of Waste
C&D	Construction and Demolition Waste
CII	Commercial, Industrial, Institutional
EPP	Environmentally Preferable Practices
GIS	Geographic Information Systems
HHW	Household Hazardous Waste
LEED®	Leadership in Energy and Environmental Design
LNIF	Local Negotiated Initiative Funding
LQG	Large Quantity Generator
LRDG	Local Recycling Development Grant
LSWS	Local Solid Waste Staff
MLAA	Metropolitan Landfill Abatement Account
MPCA	Minnesota Pollution Control Agency
MRF	Materials Recovery Facility
MSW	Mixed Municipal Solid Waste
Non-MSW	Non-Mixed Municipal Waste
RCRA	Resource Conservation and Recovery Act
RDF	Refuse Derived Fuel
RSWC	Rural Solid Waste Commission
SCORE	Select Committee on Recycling and the Environment
SWMCB	Solid Waste Management Coordinating Board
SQG	Small Quantity Generator
TCMA	Twin Cities Metropolitan Area
VSQG	Very Small Quantity Generator
WMA	Waste Management Act

Definitions

Terms used in this Policy Plan are intended to have meanings consistent with State Statutes. Any words not defined in this appendix should be understood to have a meaning consistent with State law.

Business	See Commercial.
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)
Commercial	Includes businesses, government facilities or operations, institutions, schools, as well as institutional, industrial, and non-residential establishments.
Composting	The controlled microbial degradation of organic waste to yield a humus-like product. (Minn. Rules, sec. 7035.0300, subp. 20)

Appendix B: Acronyms and Definitions

Construction and demolition waste (C and D)	Waste building materials, packaging and rubble resulting from construction, remodeling, repair and demolition of buildings and roads. (Minn. Stat. §115A.03, subd. 7). Also referred to in the Plan as construction and demolition waste.
Governance	Governance is the process by which waste is managed for the public good. Governance includes the goals and activities of government entities, businesses, nonprofits, communities, and individual citizens.
Hazardous waste	Any refuse, sludge, or other waste material or combinations of refuse, sludge or other waste materials in solid, semisolid, liquid, or contained gaseous form, which because of its 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 incapacitating reversible illness; or b) pose a substantial present or potential hazard to human health or the environment when improperly treated, stored, transported, or 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
Household hazardous waste	Waste generated from household activity that exhibits the characteristics of or that is listed as hazardous waste under MPCA rules, but does not include waste from commercial activities that is generated, stored, or present in a household. (Minn. Stat. §115A.96, subd. 1b)
Industrial solid waste	Solid waste resulting from industrial processes and manufacturing. It does not include hazardous wastes.
Land disposal	Depositing of waste materials in a land disposal facility.
Leachate	Liquid that has percolated through solid waste and has extracted, dissolved, or suspended materials from it. (Minn. Rules, sec. 7035.0300, subp. 56)
Local governmental unit	Cities, towns, and counties. (Minn. Stat. §115A.03, subd. 17)
Long-term care	Actions to prevent or minimize the threat to public health and the environment posed by a mixed municipal solid waste disposal facility that has stopped accepting waste by controlling the sources of releases or threatened releases at the facility (Minn. Stat. §115B.39, subd. 2.(c)).
Major appliances	Defined by Statute as 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)	A facility designed for centralized sorting, processing, and/or grading of collected recyclable materials for marketing.

Mixed municipal solid waste (MSW)	(a) Garbage, refuse and other solid waste from residential, commercial, industrial and community activities that the generator of the waste aggregates for collection, except as provided in paragraph (b), (b) mixed MSW 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, but does include source-separated compostable materials. (Minn. Stat. § 115A.03, subd. 21)
Non-municipal solid waste (non-MSW)	Solid waste resulting from construction, demolition, or industrial activities which is not mixed municipal solid waste.
Organic waste	Organic waste typically includes food waste, non-recyclable paper products, yard waste and other materials that readily degrade.
Organized collection	A system for collecting solid waste in which a specified collector, or a member of an organization of collectors, is authorized to collect from a defined geographic service area or areas some or all of the solid waste that is released by generators for collection. (Minn. Stat. §115A.94, subd. 1)
Problem material	A material that, when it is processed or disposed of with MSW, contributes to one of the following results: 1) the release of a hazardous substance, or pollutant or contaminant; 2) pollution of water; 3) air pollution; 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.
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 and. 473.848, subd. 5)
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 life-cycle. These include impacts from the selection and extraction of raw materials, the design and production processes, packaging, delivery, use and disposal of the product at the end of its useful life.
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.
Recyclable materials	Materials that are separated from mixed municipal solid waste for the purpose of recycling, including paper, glass, plastics, metals, automobile oil, and batteries. Refuse derived fuel or other material that is destroyed by incineration is not a recyclable material. (Minn. Stat. §115A.03, subd. 25a)

Appendix B: Acronyms and Definitions

Refuse-derived fuel (RDF)	The fraction of processed mixed municipal solid waste that is shredded and used as fuel in a boiler. It consists of lighter weight materials such as plastic and paper products, with most metals, glass, and other non-combustible materials removed.
Residuals	Waste materials left after recovery of recyclables and/or the physical, chemical or biological processing of wastes.
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 facility	A waste facility established and used primarily for resource recovery, including related and appurtenant facilities such as transmission facilities and transfer stations primarily serving the resource recovery facility. (Minn. Stat §115A.03, subd. 28)
Secondary materials	The marketable or usable products derived from solid or hazardous waste through processing or separation.
Solid waste	Garbage, refuse, sludge from a water supply treatment plant or air contaminants treatment facilities, 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, but does not include hazardous waste; animal waste used as fertilizer; earthen fill, boulders, rock; sewage sludge; solid or dissolved materials in domestic sewage or other common pollutants in water sources, 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 materials as defined by The Atomic Energy Act of 1954, as amended. (Minn. Stat. § 116.06, subd. 22)
Solid waste management	The systematic administration of activities that provide for the collection, separation, storage, transportation, transfer, processing, treatment and disposal of solid waste.
Source separation	Separation of recyclable or compostable materials by the waste generator prior to collection.
Source reduction (see also 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 used in production or packaging, or changing procurement, consumption, or waste generation habits to result in smaller quantities of waste generated. (Minn. Stat. § 115A.03, subd. 36a)
Special wastes	Nonhazardous wastes that have been prohibited from disposal with mixed municipal solid waste or have had other specific management requirements prescribed by Statute. They include, but may not be limited to, tires, lead acid batteries, major appliances, used oil and yard waste.

Storage	Containment of solid or hazardous waste, in an approved manner, after generation and before collection, for ultimate recovery or disposal.
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)
Waste flow designation	A requirement by a waste management district or county that all or any portion of the mixed municipal 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 facility	All property real or personal, including negative and positive easements and water and air rights, which is or may be needed or useful for the processing or disposal of waste, except property used for the collection of the waste and property used primarily for the manufacture of scrap metal or paper. Waste facility includes, but is not limited to, transfer stations, processing facilities, and disposal sites and facilities. (Minn. Stat. §115A.03, subd. 35)
Waste management	Activities that are intended to affect or control the generation of waste and activities which provide for or control the collection, processing and disposal of wastes. (Minn. Stat. §115A.03, subd. 36)
Waste Management Hierarchy (Hierarchy)	A ranking of waste management methods or of 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 reduction	See Source Reduction
Yard waste	Garden wastes, leaves, lawn cuttings, weeds, shrub and tree waste, and prunings. (Minn. Stat. §115A.03, subd. 38)

Appendix B: Acronyms and Definitions

APPENDIX C: RESIDENTIAL AND BUSINESS SURVEYS

Purpose:

The 2011 Dakota County Solid Waste Master Plan survey was developed to gain insight into current waste management practices among residents and businesses and solicit responses to the concepts of enhanced recycling and organics management.

Methods:

Two surveys were designed and prepared, one for residents and one for businesses, using Survey Monkey, a web-based survey hosting tool. Survey promotion consisted of a news item on the County website front page, news items sent to (1,160) subscribers to the County's environmental and waste-related listserv, and notification to businesses regulated under the County's hazardous waste Ordinance. Select cities in Dakota County also promoted the surveys on their websites. Surveys were open to participation for two months.

Note: Because public online surveys are non-scientific in sampling method, they cannot be considered representative of larger populations as a whole. Survey promotion targeted audiences likely to have greater knowledge of and interest in waste issues.

Response:

43 businesses responded to the survey. Predominant business sectors included: manufacturers (14), education (5), and health care (5). Business size ranged from small operations (nearly half had 50 or fewer employees) to very large (5 percent had 1,000-5,000 employees). 55 percent owned their commercial space, 33 percent leased space, and the remainder had alternate arrangements.

110 residents responded to the survey. 57 percent were aged 34-53 years, 20 percent were less than 34 years, and 22 percent were 55 or older. 79 percent resided in single family houses and 20 percent resided in apartments, condos, or townhomes. 95 percent of respondents lived in urban-suburban Dakota County and fewer than five percent lived in rural Dakota County.

General Findings:

Businesses:

- **93 percent of business respondents report that their business recycles.** Of those that don't recycle, the predominant reasons were unavailability of service, cost, lack of knowledge on what can be recycled, and lack of control over waste services.
- More than half recycle cans, paper, shredded confidential paper, plastic bottles, fluorescent bulbs, electronics, scrap metal, and wooden pallets.
- Fewer than half recycle glass and food waste/organics.
- 71 percent have recycling for employees and customers.
- 79 percent report collection of recyclables by a waste hauler, 53 percent self-haul some recyclables to a facility, and 63 percent have recyclables collected by a vendor other than a waste hauler.

Appendix C: Residential and Business Surveys

- The top three sources of information on recycling and waste management include: haulers (75 percent), Dakota County (73 percent), and the Minnesota Pollution Control Agency (53 percent).
- 65 to 70 percent have not brought recyclables, electronics, or spent fluorescent bulbs to The Recycling Zone, mostly because they have other services, or they are unfamiliar with services at The Recycling Zone.
- For Very Small Quantity Generators of hazardous waste, 40 percent do not participate in the VSQG program at The Recycling Zone, mostly because of lack of program awareness and use of other hazardous waste services.
- Inducement to recycle more at their businesses, listed in order of preference, include:
 1. Financial incentives, such as rebates 63 percent
 2. More education and information 45 percent
 3. Requirements for recycling 40 percent
 4. Infrastructure assistance 34 percent
 5. Technical assistance 21 percent
- 53 percent were very likely or somewhat likely to participate in an organics composting program if offered by their hauler.
- 83 percent would support cost savings through their hauler offering smaller trash containers.
- Places where businesses would like to see more recycling opportunities in Dakota County include:
 1. Gas stations 75 percent
 2. Businesses 53 percent
 3. Retail stores and public facilities 47 percent
 4. Public schools 28 percent
- Businesses rated these County services as important:
 1. Electronics recycling 89 percent
 2. Waste regulation 89 percent
 3. Fluorescent bulb recycling 86 percent
 4. Waste education and technical assistance 81 percent
 5. Office recycling 78 percent
 6. Composting and organics assistance 64 percent
 7. Operating The Recycling Zone 43 percent

Residents:

- **99 percent of residential respondents report that their household recycles.** Of those who do not recycle, the primary reasons are that: 1) they do not produce enough recyclables; and 2) they are not interested in recycling
- 94 to 98 percent recycle cans, plastic bottles, paper, and glass. 61 percent recycle shredded confidential paper.
- To dispose of reusable items in good condition, respondents use the following options:
 1. Bring to organization such as Goodwill 88 percent
 2. Donate to organization that picks up goods 59 percent

- | | |
|------------------------------|------------|
| 3. Sell, trade online | 36 percent |
| 4. Sell in garage sale | 22 percent |
| 5. Place in trash | 21 percent |
| 6. Give to family or friends | 10 percent |
| 7. Bring to consignment shop | 8 percent |
- The top sources of waste management information for residential respondents include:

1. Dakota County	70 percent
2. Waste hauler	44 percent
3. General Internet search	39 percent
4. City or township	29 percent
 - 20 percent of respondents do not generate yard waste. Of those that do, 23 percent compost it at home, 22 percent bring it to a compost facility, 20 percent put it out for hauler collection, and five percent burn it. Comments included request for additional yard waste facilities in the County and more uniform collection of yard waste by haulers.
 - Respondents have used The Recycling Zone for specific materials, listed in order of decreasing frequency:

1. Electronics	71 percent
2. Batteries	61 percent
3. Household chemicals	59 percent
4. Fluorescent bulbs	57 percent
5. Appliances	34 percent
6. Printer cartridges	17 percent
 - 45 percent have brought recyclables to The Recycling Zone. Of those who have not, the main reason cited was having other services for recycling (72 percent) and lack of awareness of The Recycling Zone (32 percent). 24 percent find it inconvenient to use The Recycling Zone.
 - 61 percent have brought electronics to The Recycling Zone. Of those who have not, the main reasons cited were use of other services for electronics (50 percent) and lack of awareness that The Recycling Zone accepted electronics (34 percent). 32 percent find it inconvenient to use The Recycling Zone for electronics.
 - 64 percent have brought household chemicals or fluorescent bulbs to The Recycling Zone. Of those who have not, the main reasons cited were lack of awareness that The Recycling Zone accepted household chemicals and fluorescent bulbs (44 percent) and using other services (32 percent). 27 percent find The Recycling Zone too far away for household chemicals and fluorescent bulbs.
 - 46 percent are willing to drive six to ten miles to a drop-off center. 28 percent prefer to drive no more than five miles and 26 percent were willing to drive more than 10 miles to a drop-off facility.
 - Inducements to recycle more at home, listed in order of preference, include:

1. Nothing – already recycle everything	44 percent
2. More information on what to recycle	36 percent
3. Rebates for recycling	34 percent
4. More frequent collection by hauler	27 percent
5. Larger recycling container	19 percent

Appendix C: Residential and Business Surveys

- 71 percent would be likely to separate household organics waste for hauler collection.
- 75 percent would be likely to participate in a compost program for organics waste, if offered by their waste hauler.
- 86 percent would support hauler-offered cost savings for using smaller trash containers.
- Places where residents would like to see more recycling opportunities in Dakota County include:
 1. City and County buildings and parks 71 percent
 2. Gas stations and retail stores 64 percent
 3. Businesses and public schools 54 percent
- Residents rated these County services as important:
 1. Household hazardous waste disposal 92 percent
 2. Operating The Recycling Zone 90 percent
 3. Electronics recycling 89 percent
 4. Waste regulation 87 percent
 5. Household recycling 87 percent
 6. Waste and recycling education-technical assistance 87 percent
 7. Composting and organics assistance 69 percent

APPENDIX D: DAKOTA COUNTY BOARD RESOLUTION OF PLAN ADOPTION

BOARD OF COUNTY COMMISSIONERS DAKOTA COUNTY, MINNESOTA

March 27, 2012

Resolution No. 12-154

Motion by Commissioner Workman

Second by Commissioner Egan

Adoption Of Dakota County Solid Waste Master Plan And Authorization To Submit To Commissioner Of Minnesota Pollution Control Agency

WHEREAS, the Dakota County Board of Commissioners (County Board) recognizes the need for waste management approaches that reduce landfilling, protect public health and the environment, and conserve natural resources; and

WHEREAS, the Minnesota Pollution Control Agency (MPCA) adopted a revised 2010-2030 Metropolitan Solid Waste Policy Plan (Policy Plan) on April 6, 2011; and

WHEREAS, the Policy Plan provides the framework for solid waste management in the Metropolitan area; and

WHEREAS, Minn. Stat. §473.803 requires Metropolitan county solid waste master plans to be revised and contain specific and measurable strategies to implement the Policy Plan; and

WHEREAS, in accordance with Minn. Stat. §473.803, subd. 4, the County Board appointed a Solid Waste Management Advisory Committee (SWMAC) to aid in the preparation and review of the Dakota County Solid Waste Master Plan (County Plan) revisions; and

WHEREAS, guidance for the County Plan content was received from the SWMAC; Local Solid Waste Staff; County staff; the County Board; and through other public engagement and information processes such as online surveys, email distributions (listserv), and website promotions; and

WHEREAS, a Regional Solid Waste Master Plan (Regional Plan) was developed by the six member-counties of the Solid Waste Management Coordinating Board (SWMCB), in collaboration with the MPCA and public and private stakeholders; and

WHEREAS, the SWMCB adopted the Regional Plan on December 14, 2011; and

WHEREAS, the SWMCB and has asked the SWMCB-member counties to adopt the Regional Plan as part of their County Plan adoption; and

WHEREAS, on February 28, 2012, the County Board (Resolution No. 12-106) authorized distribution of a draft County Plan to interested parties including licensed haulers, facilities, and generators; and cities, townships, and schools for a 10-day period; and

WHEREAS, comments received from interested parties during the 10-day period did not result in content changes to the County Plan; and

WHEREAS, MPCA staff conducted a preliminary review of the County Plan and declared it ready to be routed to the MPCA Commissioner; and

WHEREAS, the revised Metropolitan master plans must be submitted to the MPCA Commissioner for review and approval by April 6, 2012; and

WHEREAS, Dakota County staff recommends adoption and submittal of the County Plan to the MPCA Commissioner for final review and approval; and

WHEREAS, this recommended County Plan replaces the 2005-2024 Regional/Dakota County Solid Waste Master Plan adopted by the Dakota County Board of Commissioners on November 16, 2004 (County Board Resolution No. 04-528); and

WHEREAS, implementation and costs will be determined annually as part of the County Board of Commissioners work plan priorities and approval of the Environmental Management Department budget.

NOW, THEREFORE, BE IT RESOLVED, That the Dakota County Board of Commissioners hereby adopts the 2012-2030 Dakota County Solid Waste Master Plan including the Regional Solid Waste Master Plan; and

BE IT FURTHER RESOLVED, That the Dakota County Board of Commissioners hereby directs Dakota County staff to submit the Dakota County Solid Waste Master Plan to the Minnesota Pollution Control Agency Commissioner for final review and approval.

STATE OF MINNESOTA
County of Dakota

	YES		NO
Harris	<u>Absent</u>	Harris	_____
Gaylord	<u>X</u>	Gaylord	_____
Egan	<u>X</u>	Egan	_____
Schouweiler	<u>Absent</u>	Schouweiler	_____
Workman	<u>X</u>	Workman	_____
Krause	<u>X</u>	Krause	_____
Branning	<u>X</u>	Branning	_____

I, Kelly Olson, Clerk to the Board of the County of Dakota, State of Minnesota, do hereby certify that I have compared the foregoing copy of a resolution with the original minutes of the proceedings of the Board of County Commissioners, Dakota County, Minnesota, at their session held on the 27th day of March 2012, now on file in the County Administration Department, and have found the same to be a true and correct copy thereof.

Witness my hand and official seal of Dakota County this 28th day of March 2012.



Clerk to the Board

APPENDIX E: CROSS REFERENCE

Minnesota Statutory Requirements and the Dakota County Solid Waste Master Plan

MINN. STAT. §473.803 COUNTY MASTER PLAN REQUIREMENTS

(as outlined in the MPCA's 12/6/11 letter)

Location in Dakota County Master Plan

1. County Solid Waste Master Plan to implement the Policy Plan

Chapter 1: Introduction

Section A-Dakota County Master Plan Purpose and Planning Framework

Section C-How the County Master Plan Will Be Used and Monitored

Chapter 2: Existing Waste Management System

Section C-Waste Management Governance, Roles, and Responsibilities

Chapter 3: Dakota County Solid Waste Management System through 2030

Section A-County Master Plan Policies

Section B-County Goals and Strategic Implementation Approach

2. County solid waste activities, functions, and facilities

Chapter 2: Existing Waste Management System

Section H-Dakota County's Programs and Activities

3. Existing system of solid waste generation, collection, processing, and disposal

Chapter 2: Existing Waste Management System

Section D-Waste Projection and Composition

Section E-Solid Waste Management in Dakota County

Section F-Collection and Transportation of Waste

Section G-Waste Management Facilities

Section H-Dakota County's Programs and Activities

4. Proposed mechanisms for complying with the recycling requirements of §115A.551

Chapter 3: Dakota County Solid Waste Management System through 2030

Section B: 1-Outreach and Education

Section B: 5-Recycling

5. Proposed mechanisms for complying with the household hazardous waste management requirements of §115A.96, subd. 6

Chapter 3: Dakota County Solid Waste Management System through 2030

Section B: 1-Outreach and Education

Section B: 3-Hazardous Waste Management and Toxicity Reduction

<p>6. <u>Existing and proposed county and municipal ordinances and license and permit requirements relating to solid waste facilities and solid waste generation, collection, processing, and disposal</u></p> <p><u>Existing: Chapter 2: Existing Waste Management System</u> Section B-Waste Management Governance, Roles, and Responsibilities Section F-Collection and Transportation of Waste Section H- Dakota County’s Programs and Activities</p> <p><u>Proposed: Chapter 3: Dakota County Solid Waste Management System through 2030</u> Section B: 2-Regulation Section B: 3-Hazardous Waste Management and Toxicity Reduction Section B: 5-Recycling Section B: 6-Organics and Yard Waste Management Section B: 7-Resource Recovery Section B: 8-MSW Land Disposal Section B: 9-Non-MSW Management Section B: 10-Contaminated Sites and Brownfields</p>
<p>7. <u>Existing or proposed municipal, county, or private solid waste facilities and collection services within the county together with schedules of existing rates and charges to users and statements as to the extent to which such facilities and services will or may be used to implement the Policy Plan</u></p> <p><u>Existing: Chapter 2: Existing Waste Management System</u> Section F-Collection and Transportation of Waste Section G-Waste Management Facilities Section H- Dakota County’s Programs and Activities</p> <p><u>Proposed: Chapter 3: Dakota County Solid Waste Management System through 2030</u> Section B: 3-Hazardous Waste Management and Toxicity Reduction Section B: 5-Recycling Section B: 11-Cost and Finance</p>
<p>8. <u>Any solid waste facility which a county owns or plans to acquire, construct, or improve together with statements as to the planned method, estimated cost and time of acquisition, proposed procedures for operation and maintenance of the facility</u></p> <p>N/A – Dakota County does not own or plan to acquire facilities</p>
<p>9. <u>A proposal for the use of each facility after it is no longer needed or usable as a waste facility</u></p> <p>N/A – Dakota County does not own or plan to acquire facilities</p>
<p>10. <u>The master plan shall, to the extent practicable and consistent with the achievement of other public policies and purposes, encourage ownership and operation of solid waste facilities by private industry</u></p> <p><u>Chapter 3: Dakota County Solid Waste Management System through 2030</u> Section B: Dakota County Solid Waste Management Policies</p>

11. For solid waste facilities owned or operated by public agencies or supported primarily by a public agency, the master plan shall contain criteria and standards to protect comparable private and public facilities already existing in the area from displacement unless the displacement is required in order to achieve waste management objectives identified in this plan

N/A – Dakota County does not own or plan to acquire facilities

12. Include a land disposal abatement element to implement the Metropolitan Land Disposal Abatement Plan adopted under §473.149, subd. 2d

Chapter 3: Dakota County Solid Waste Management System through 2030

- Section B: 1-Outreach and Education
- Section B: 2-Regulation
- Section B: 3-Hazardous Waste Management and Toxicity Reduction
- Section B: 4-Waste Reduction and Reuse
- Section B: 5-Recycling
- Section B: 6-Organics and Yard Waste Management
- Section B: 7-Resource Recovery
- Section B: 8-MSW Land Disposal

13. Implement the local abatement objectives for the county and cities within the county as stated in the Metropolitan Abatement Plan

Chapter 2: Existing Waste Management System

Section B: Waste Management Governance, Roles, and Responsibilities

Chapter 3: Dakota County Solid Waste Management System through 2030

- Section B: 1-Outreach and Education
- Section B: 2-Regulation
- Section B: 3-Hazardous Waste Management and Toxicity Reduction
- Section B: 4-Waste Reduction and Reuse, 5-Recycling
- Section B: 6-Organics and Yard Waste Management
- Section B: 7-Resource Recovery
- Section B: 8-MSW Land Disposal

14. Include specific and quantifiable county objectives, based on the objectives in the Metropolitan Abatement Plan, for abating to the greatest feasible and prudent extent the need for and practice of land disposal of mixed municipal solid waste and of specific components of the solid waste stream generated in the county, stated in six-year increments for a period of at least 20 years from the date of the Policy Plan revisions

Chapter 3: Dakota County Solid Waste Management System through 2030

- Section B: 1-Outreach and Education
- Section B: 2-Regulation
- Section B: 3-Hazardous Waste Management and Toxicity Reduction
- Section B: 4-Waste Reduction and Reuse
- Section B: 5-Recycling
- Section B: 6-Organics and Yard Waste Management
- Section B: 7-Resource Recovery
- Section B: 8-MSW Land Disposal

15. Include measurable performance standards for local abatement of solid waste through resource recovery and waste reduction and separation programs and activities for the county as a whole and for statutory or home rule charter cities of the first, second, and third class, respectively, in the county, stated in six-year increments for a period of at least 20 years from the date of the Policy Plan revisions

Chapter 3: Dakota County Solid Waste Management System through 2030

Section B: 1-Outreach and Education

Section B: 2-Regulation

Section B: 3-Hazardous Waste Management and Toxicity Reduction

Section B: 4-Waste Reduction and Reuse

Section B: 5-Recycling

Section B: 6-Organics and Yard Waste Management

Section B: 7-Resource Recovery

Section B: 8-MSW Land Disposal

Chapter 4: Performance and Measurement Reporting

Section C: Implementation of Progress Measures

16. Performance standards must implement the Metropolitan and county abatement objectives

Chapter 3: Dakota County Solid Waste Management System through 2030

Section B: 1-Outreach and Education

Section B: 2-Regulation

Section B: 3-Hazardous Waste Management and Toxicity Reduction

Section B: 4-Waste Reduction and Reuse

Section B: 5-Recycling

Section B: 6-Organics and Yard Waste Management

Section B: 7-Resource Recovery

Section B: 8-MSW Land Disposal

Chapter 4: Performance and Measurement Reporting

Section C: Implementation of Progress Measures

17. Include standards and procedures to be used by the county in determining annually under subdivision 3 whether a city within the county has implemented the plan and satisfied the performance standards for local abatement

Chapter 1: Introduction

Chapter 2: Existing Waste Management System

Section B-Waste Management Governance, Roles, and Responsibilities

Chapter 3: Dakota County Solid Waste Management System through 2030

Section B: 1-Outreach and Education

Section B: 5-Recycling

Section B: 7-Resource Recovery

Chapter 4: Performance and Measurement Reporting

Section C: 1-Outreach and Education

Section B: 5-Recycling

Section B: 7-Resource Recovery

APPENDIX F: MINNESOTA POLLUTION CONTROL AGENCY LETTER OF PLAN APPROVAL



Minnesota Pollution Control Agency

520 Lafayette Road North | St. Paul, Minnesota 55155-4194 | 651-296-6300

800-657-3864 | 651-282-5332 TTY | www.pca.state.mn.us | Equal Opportunity Employer

RECEIVED

MAY 29 2012

**DAKOTA COUNTY
PHYSICAL DEVELOPMENT**

May 24, 2012

Commissioner Nancy Schouweiler, Chair
Dakota County Board of Commissioners
Administration Center
1590 Highway 55
Hastings, Minnesota 55033-2343

Dear Commissioner Schouweiler:

I am pleased to inform you that Dakota County's Master Plan (Plan), was approved by the Minnesota Pollution Control Agency (MPCA). MPCA staff reviewed the Plan and determined that it meets the requirements outlined in Minn. Stat. § 473.803 and supports achieving the objectives of the 2010-2030 Metropolitan Solid Waste Policy Plan. The Findings of Fact approving the Plan are enclosed. MPCA staff found that Dakota County has developed a strong Plan that includes innovative and aggressive elements, such as:

- Developing and implementing a new framework for increasing the processing of mixed waste at the metro area's system of energy and materials recovery facilities.
- Working with the MPCA and other Counties to explore the expansion of reporting of solid waste statistics. This includes efforts to work collaboratively to develop a uniform non-residential recycling data collection and reporting program.
- Increasing awareness and the implementation of best practices for recycling and organic materials recovery. This may include evaluating recycling programs, expanding outreach and education, and partnering to maximize recycling.
- Expanding the County's highly effective household hazardous waste and problem materials recovery programs.

The MPCA appreciates Dakota County's continued leadership and commitment to implementing comprehensive and effective solid waste management programs. We commend Dakota County staff for their hard work throughout the planning process and would like to request an opportunity to speak to the County Board at an upcoming meeting to express our appreciation. Now that the Plan is complete, we recognize that implementation will require continued commitment to waste management and we look forward to working in partnership with you to reach the County's new strategies and objectives.

Sincerely,

A handwritten signature in cursive script that reads "Michelle Beeman".

Michelle Beeman
Deputy Commissioner

Enclosure

cc: Jeff Harthun, Dakota County
Lori Frekot, Dakota County
Renee Burman, Dakota County
Rick Patraw, MPCA
Mark Rust, MPCA
Sig Scheurle, MPCA