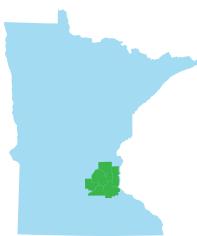




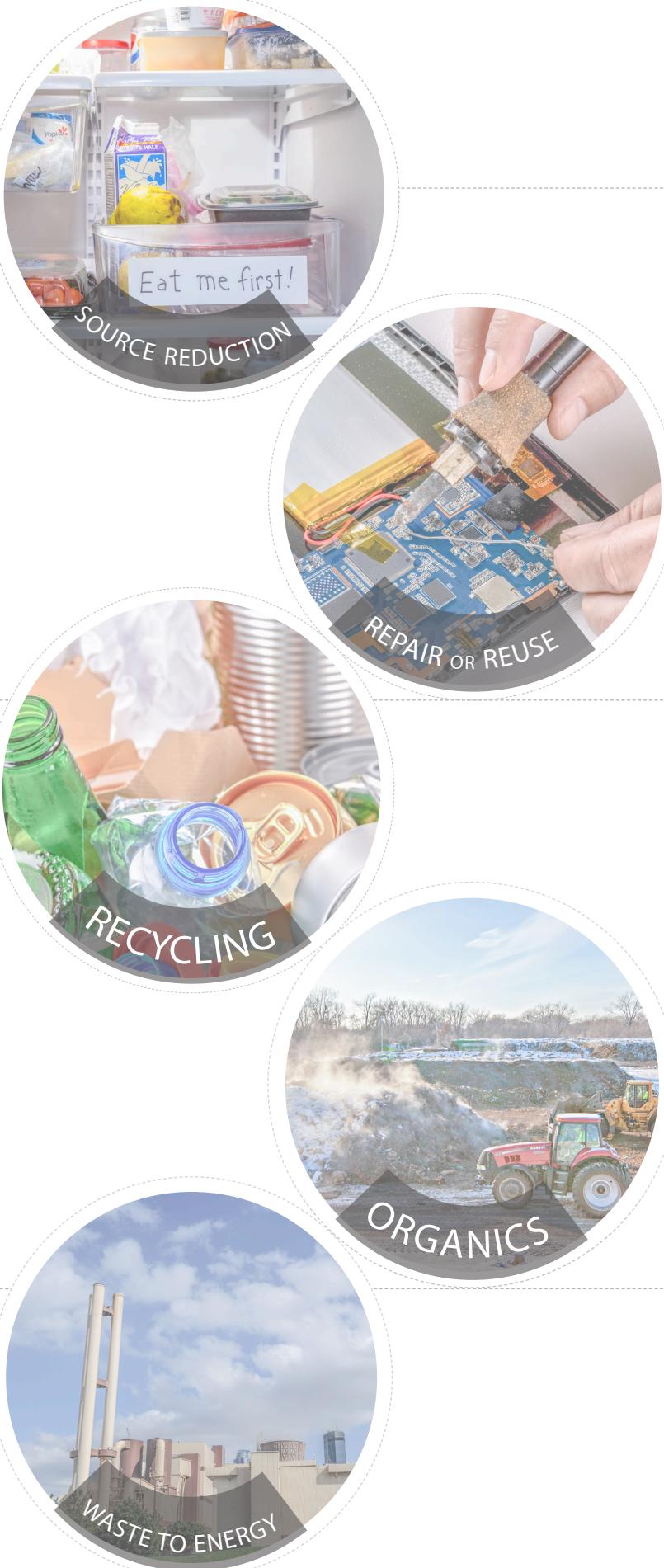
Minnesota Pollution
Control Agency

Metropolitan Solid Waste Management **Policy Plan**

2016 – 2036



Prepared by the
Minnesota Pollution
Control Agency
in consultation
with the
Metropolitan
Counties



Legislative charge

Minn. Stat. § 473.149

A metropolitan long range policy plan for solid waste management, prepared by the Pollution Control Agency, sets goals and policies for the metropolitan solid waste system, including recycling consistent with section 115A.551, and household hazardous waste management consistent with section 115A.96, subdivision 6. The MPCA shall include specific and quantifiable metropolitan objectives 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.

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This report is available in alternative formats upon request, and online at www.pca.state.mn.us.

Contents

Acronyms	i
Summary	1
Part one: Introduction and background	2
Introduction	2
Purpose of this Plan	2
How the Plan will be used by stakeholders	3
What has been accomplished already?	3
What challenges still exist?	4
Part two: Framework for Change	6
Vision	6
Goals and policies	8
Part three: Metropolitan System Plan 2016-2036	10
Regional waste generation forecast	10
Statutory goals	11
Sustainable Materials Management	12
Solid waste abatement objectives	14
Improving the reliability of the data	18
Achieving a 75% recycling rate is challenging but possible	19
Additional benefits of attaining the MSW system objectives	20
Best management practices to achieve the 75% recycling goal	21
Regional solutions	21
Source reduction and reuse	24
Collection best practices	25
Recycling management - traditional and non-traditional	28
Organics management	30
Non-municipal solid waste	35
Recycling market development	42
Emerging technology	44
Product stewardship	45
Part four: Implementing the plan	47
Solid waste master plans	47
MPCA initiatives that will be used to support the plan	47
Implementation monitoring	48

County annual reports.....	48
Legislative reports.....	49
Metropolitan Landfill Abatement Account.....	49
Appendix A: Overview of the current Twin Cities Metropolitan Area solid waste management system.....	A-1
Appendix B: Environmental justice review	B-1
Appendix C: Predrafting notice	C-1
Appendix D: Procedures, standards, and criteria	D-1
Appendix E: Glossary.....	E-1
Appendix F: Methodology for the 75% recycling rate and waste forecasts	F-1
Appendix G: Implementation table.....	G-1
Appendix H: Response to public comments on the DRAFT Metropolitan Solid Waste Policy Plan 2016-2036.....	H-1
Appendix I: Public comment letters on the DRAFT Metropolitan Solid Waste Policy Plan 2016-2036.....	I-1

Acronyms

ARM Association of Recycling Managers

C&D construction and demolition debris

CII commercial, industrial, institutional

CON Certificate of Need

DLI Department of Labor and Industry

EPA U.S. Environmental Protection Agency

HERC Hennepin Energy Recovery Center

HHW household hazardous waste

ISW industrial solid waste

ISWM integrated solid waste management

LRDG Local Recycling Development Grants

MLAA Metropolitan Landfill Abatement Account

MMSW mixed municipal solid waste

MN AIA Minnesota American Institute of Architects

MnTAP Minnesota Technical Assistance Program

MN USGBC Minnesota U.S. Green Building Council

MSW municipal solid waste

MnDOT Minnesota Department of Transportation

MPCA Minnesota Pollution Control Agency

MRF materials recovery facility

Plan Metropolitan Solid Waste Management Policy Plan

RAM Recycling Association of Minnesota

RDF refuse derived fuel

RMD recycling market development

ROD restriction on disposal

SMM Sustainable Materials Management

SSO source separated organics

SWMCB Solid Waste Management Coordinating Board

TCMA Twin Cities Metropolitan Area

USDA U.S. Department of Agriculture

WARM waste reduction model

WLSSD Western Lake Superior Sanitary District

WMA Waste Management Act

WMI Waste Management, Inc.

WTE waste to energy

Summary

This Metropolitan Solid Waste Management Policy Plan (Plan) establishes the plan for managing the Twin Cities Metropolitan Area's (TCMA) solid waste through 2036. The Plan was adopted by the Commissioner of the Minnesota Pollution Control Agency (MPCA) on April 6, 2017. The MPCA sought input from the seven metropolitan counties (Anoka, Carver, Dakota, Hennepin, Ramsey, Scott and Washington) and other stakeholders during the development of the Plan.

The overarching message of this Plan is that fundamental change in the form of accountability and effective tools is necessary among the stakeholders responsible for solid waste management in the TCMA, if the region is to continue to move beyond current trends and meet the goals set forth in the Waste Management Act (WMA). The activities of these stakeholders must be aligned so that overall system goals are achieved in a cost effective manner and reach state goals and objectives. This Plan provides a framework for change to assist state and local leadership and all stakeholders to meet these challenges and advance the TCMA solid waste system.

Minn. Stat. § 473.149 requires that the Plan be followed in the TCMA. All stakeholders, including the MPCA, will be accountable for implementing the Plan. The Plan is comprised of four parts that describe the responsibilities of stakeholders, including product producers, all levels of government, waste generators, and waste management businesses.

The Plan outlines the challenges and opportunities for waste management in the TCMA over the next 20 years and includes a framework for change, including a system plan which promotes aggressive goals that support the upper end of the waste hierarchy. The Plan also describes the tools that the MPCA and metropolitan counties will use to implement the Plan and monitor the progress toward meeting the system objectives.

The metropolitan solid waste planning process is comprised of two parts: 1) the Plan as prepared by the MPCA in consultation with stakeholders; and 2) the more detailed county master plans, to be completed after adoption of the Plan that address the specific projects and programs to be implemented within the counties. During the preparation of the Plan, the MPCA actively sought public input through stakeholder meetings on February 25, 2016, February 29, 2016, and March 3, 2016; public meetings on August 10, 2016, and August 11, 2016, and a public comment period from July 11, 2016, through September 16, 2016, as required in Minn. Stat. § 473.149. Changes were made to the Plan based on public input and are documented in the Response to Public Comments (Appendix G) issued by the MPCA. This Plan replaces the Plan adopted by the Commissioner on April 6, 2011.

Part one: Introduction and background

Introduction

In 1980, the Minnesota Legislature recognized the importance of waste management with the passage of the Waste Management Act (Minn. Stat. § 115A). This statute's purpose is to improve integrated solid waste management (ISWM) to protect the state's natural resources and public health. It establishes the following hierarchy, in order from most to least beneficial to the environment, of preferred solid waste management practices:

1. Waste reduction and reuse
2. Waste recycling
3. Composting of source-separated compostable materials, including but not limited to, yard waste and food waste
4. Resource recovery through mixed municipal solid waste (MMSW) 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
6. Land disposal which produces measurable methane and which does not involve the retrieval of methane gas as a fuel for the production of energy to be used on-site or for sale

The above hierarchy was established to achieve the following goals, as provided in Minn. Stat. § 115A.02(a):

1. Reduction in the amount and toxicity of waste generated
2. Separation and recovery of materials and energy from waste
3. Reduction in indiscriminate dependence on disposal of waste
4. Coordination of solid waste management among political subdivisions
5. Orderly and deliberate development and financial security of waste facilities including disposal facilities

Purpose of this Plan

This Plan establishes the framework for managing the TCMA's solid waste for the next 20 years (2016-2036) and was prepared in accordance with the requirements of Minn. Stat. § 473.149. This Plan will

guide the development and activities of solid waste management and must be followed in the TCMA. The Plan supports: the goals of the Waste Management Act (WMA) hierarchy; improving public health; reducing the reliance on landfills; conserving energy and natural resources; and reducing pollution and greenhouse gas emissions.



The Twin Cities Metropolitan Area includes Anoka, Carver, Dakota, Hennepin, Ramsey, Scott, and Washington counties, but not the cities of Northfield, Hanover, Rockford, and New Prague.

Key definitions and acronyms

Municipal Solid Waste (MSW)

Includes materials that have been separated for recycling and organics recovery and materials collected as trash that is generated by residential, commercial, industrial, and community activities.

Mixed municipal solid waste (MMSW)

Includes materials collected as trash that is generated by residential, commercial, industrial, and community activities.

Non-municipal solid waste (Non-MSW)

Includes materials resulting from construction, demolition, or industrial activities which is not mixed municipal solid waste.

Participants in the process

The MPCA worked with the seven metropolitan counties (Anoka, Carver, Dakota, Hennepin, Ramsey, Scott and Washington) in the development of this Plan. In addition, the MPCA hosted three stakeholder meetings in advance of the release of the draft Plan, and two public meetings after the draft Plan was released to gather input from other Plan stakeholders, including members of the recycling and waste industry and members of the general public.

How the Plan will be used by stakeholders

- Product producers. The Plan will guide product producers, including manufacturers and retailers, because they have a role in product stewardship and extended producer responsibility initiatives as well as Sustainable Materials Management (SMM).
- Waste generators (residents, businesses, public entities). The Plan will 1) inform waste generators about their roles and responsibilities in waste management; 2) educate generators about solid waste issues and services (both public and private) available to them; and 3) identify and direct state agencies and county governments who provide assistance.
- Waste industry. The Plan will outline the responsibility of the waste industry in providing future solid waste facilities and services. For the purposes of this Plan, the “waste industry” includes all entities, public or private, that collect and/or manage solid waste in some form, including recyclables, household hazardous waste (HHW) and problem materials.
- Government. The Plan will: 1) guide the counties and regional governmental entities in developing solid waste master plans, ordinances, work plans, and budgets; 2) guide the MPCA metropolitan oversight responsibilities, including administration of the Metropolitan Landfill Abatement Account program, county plan reviews, and the MPCA’s approval of solid waste facility permits and landfill certificates of need; 3) guide the MPCA in its regulatory, enforcement, and technical assistance functions that affect the TCMA; 4) contribute to policy discussions regarding solid waste legislation affecting the TCMA; and 5) guide local jurisdictions in the planning and provision of services to residents and businesses.

What has been accomplished already?

The TCMA solid waste system is the result of planning and development that began with the 1980 WMA. Since 1980, much has been accomplished.

- The TCMA recycles 49.9% of the municipal solid waste (MSW) generated. The recent improvement is largely due to advances in organics collection for food to people, food to livestock, SSO management, and yard waste composting.
- Reuse and recycling activities contribute significantly to the economy of the region.
- Organics recovery has greatly increased since 2008.
- Resource recovery has increased since 2009, though facility shortages still exist.

- Resource recovery facilities manage 28% of the MSW generated.
- Land disposal has decreased by 18% since 2008.
- Problem materials, such as major appliances, mercury-containing products, and electronic waste are banned from the MMSW stream, and infectious wastes are separately managed.
- A system to collect and manage HHW is available to all residents. Six of the counties participate in an arrangement of shared reciprocity.

As a region, we should be proud of the advances we have made as a result of the efforts from product producers, waste generators, waste industry, and government.

What challenges still exist?

While we have made some great strides, as noted above, there is more to be done, collectively, to reach our goals.

- TCMA MSW generation continues to grow, and the region's solid waste diversion efforts currently in place will need to be more robust to meet the goals set out in state law.
- Traditional recycling has decreased slightly since 2008.
- The Legislature established a 75% combined recycling and organics goal for the TCMA, so system changes must occur throughout the region to achieve the new objective.

Figure 1 shows the percent of MSW managed from 1991 to 2015 in the TCMA by recycling and organics recovery, resource recovery, and land disposal. Higher percentages of abatement occurred in the early years, because four of the seven TCMA counties used waste flow designation as a primary tool to direct MMSW to facilities and to pay for all services that benefited the entire system.

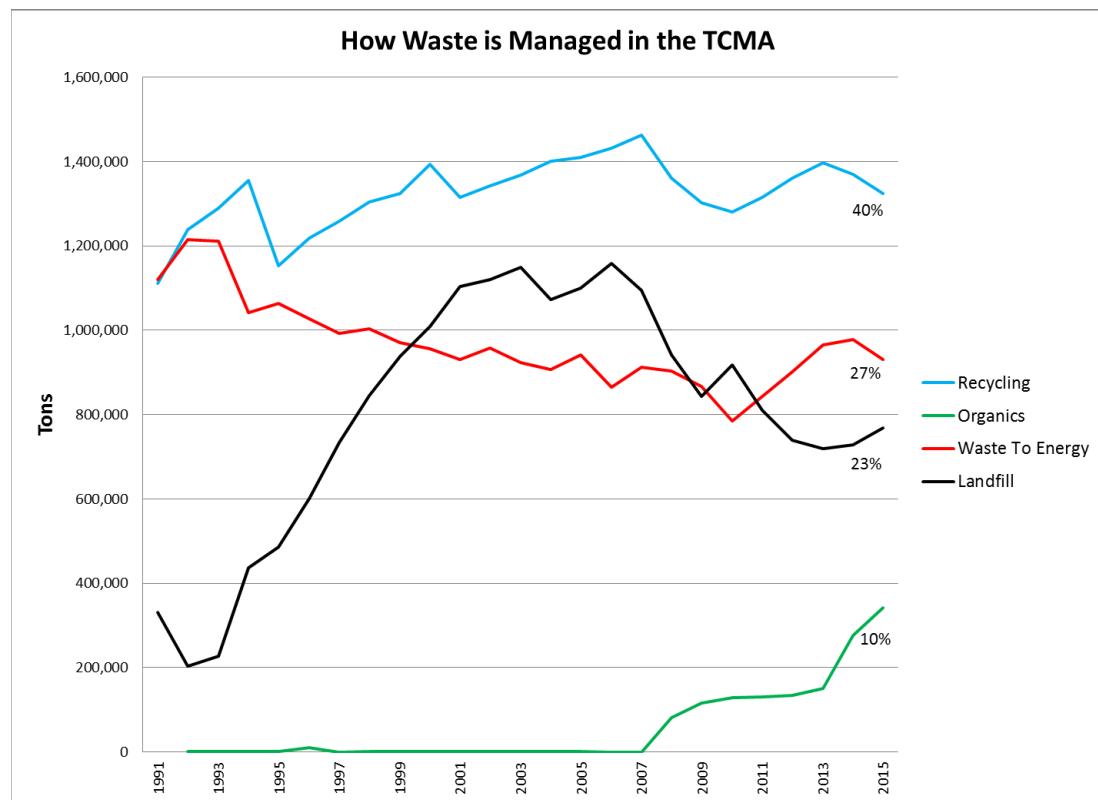


Figure 1. TCMA MSW management method percentages from 1991 to 2015 (Source: SCORE and Certification Reports)

If the current trends continue, nearly 8 million tons of additional waste will be sent to landfills over the 20-year period of this Plan (Figure 2). Figure 2 demonstrates the importance of changing the status quo over the next 20 years. Over 60% of MSW sent to landfills today could be recycled; this “lost opportunity” results in the loss of valuable metals, plastics, paper, and other commodities. Inevitably, the state, citizens, and businesses will be left with additional costs for siting new landfills, hauling MMSW long distances, increased greenhouse gas emissions, and cleanup at disposal facilities.

The TCMA generates approximately 60% of Minnesota’s MSW and, therefore, has a tremendous impact on the state as a whole. The entire state has experienced a stagnation of performance.

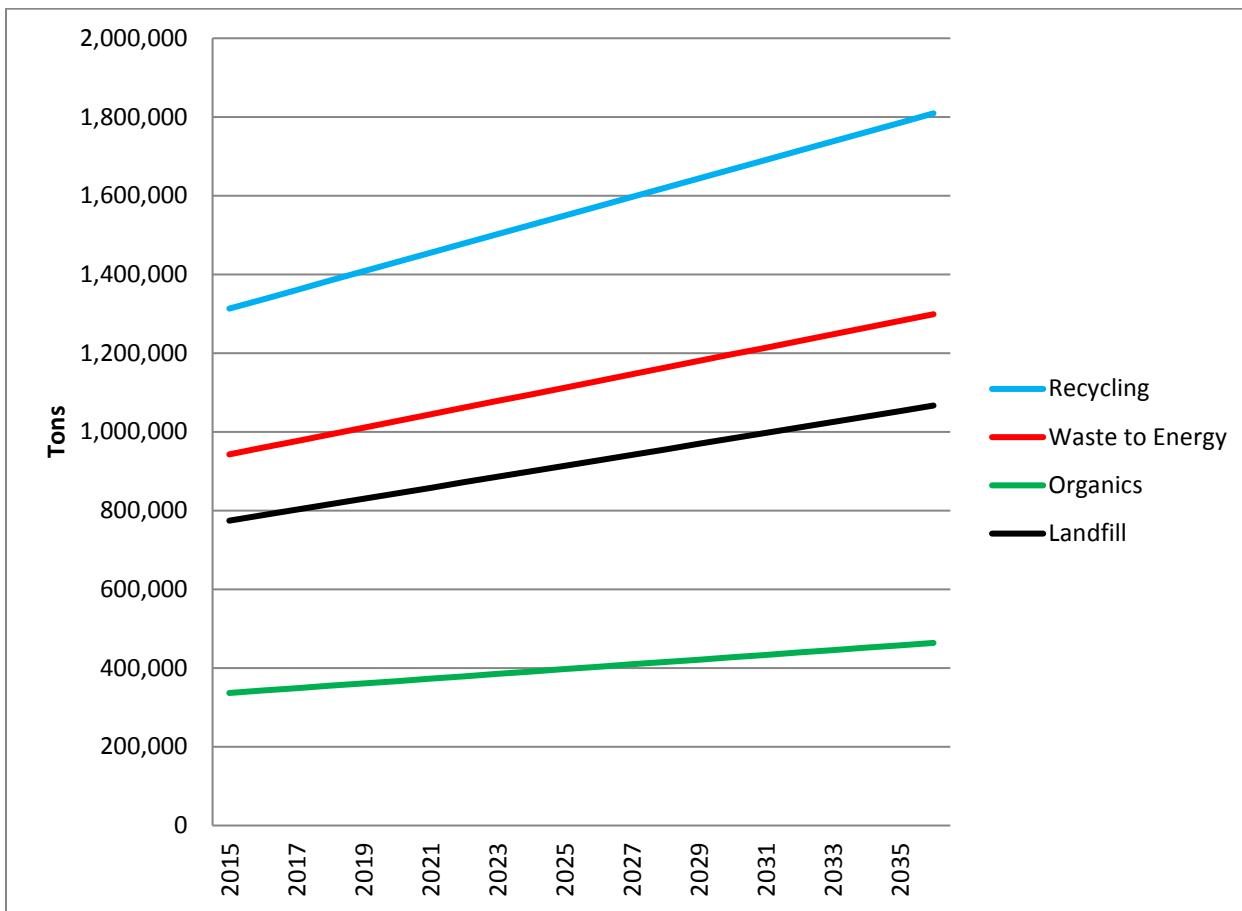


Figure 2. Metro MSW tons to different management methods if current rates continue

Resource recovery capacity continues to be under-utilized in the region because the MMSW is being diverted to landfills by private haulers. This loss will result in a reduction of: renewable energy capacity; ferrous and nonferrous recovery capacity; and pollution and resource savings.

The MPCA has refocused compliance efforts around § 473.848 (Restriction on Disposal) to ensure that existing resource recovery capacity is fully used. In addition, Ramsey and Washington counties have purchased the Newport Refuse Derived Fuel facility and will continue to invest in that facility to ensure continued materials and energy recovery and landfill abatement.

To improve performance, all stakeholders must be willing to accept responsibility to remedy failures and deficiencies. Restoring accountability in the solid waste system will be critical.

The private sector has a significant role, and it should be recognized for its ability to foster innovation and efficiencies through competition. More needs to be done to ensure that the activities of the private sector and the public sector are aligned to reach state goals.

Part two: Framework for Change

This section of the Plan lays out a Framework for Change built around a regional vision, key themes, goals, and policies. This framework will guide all decisions of the MPCA, regional governing entities, metropolitan counties, and other stakeholders with respect to the TCMA solid waste system.

Vision

This Plan is designed to help stakeholders exceed the benchmarks established in state law. In doing that, the TCMA will continue to reduce its reliance on landfills, prevent pollution, reduce the toxicity of waste, conserve natural resources and energy, improve public health, support the economy, and reduce greenhouse gases.

The Plan sets forth a vision for sustainability for the TCMA solid waste management system:

The TCMA is a sustainable community that 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 is managed by technologies and methods that support sustainable communities and environments. The solid waste management hierarchy, with its associated goals 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, reuse, recycling, organics recovery, and resource recovery over land disposal.

Key themes

The following key themes underlie all elements of the Plan.

Accountability. Many entities, public and private, are responsible for implementing this Plan, including state and local governments; private waste and recycling businesses; citizens; manufacturers of products; retailers and other businesses; and environmental groups. All must be held accountable. The WMA gives the state agencies and counties primary oversight for holding the parties accountable. Permits, financial assistance, and certificate of need (CON) are tools the MPCA uses to hold parties accountable. However, the authorities granted to the state and counties may not be sufficient and possible changes in authority may be needed. In the complex metropolitan solid waste system, accountability is not necessarily a linear top-down relationship, and all parties must also voluntarily hold themselves accountable.

Solid waste management hierarchy. This Plan stresses the need to manage waste in an ISWM system in accordance with the hierarchy of preferred waste management practices, with an emphasis on reduction and recycling to promote resource conservation and environmental protection. Scientific research has pointed out the environmental benefits of the hierarchy, such as reduced greenhouse gas emissions resulting primarily from waste reduction and recycling. Figure 3 shows the solid waste management hierarchy, and emphasizes the need to focus efforts at the top, where environmental benefits are most significant.

Minnesota's waste hierarchy

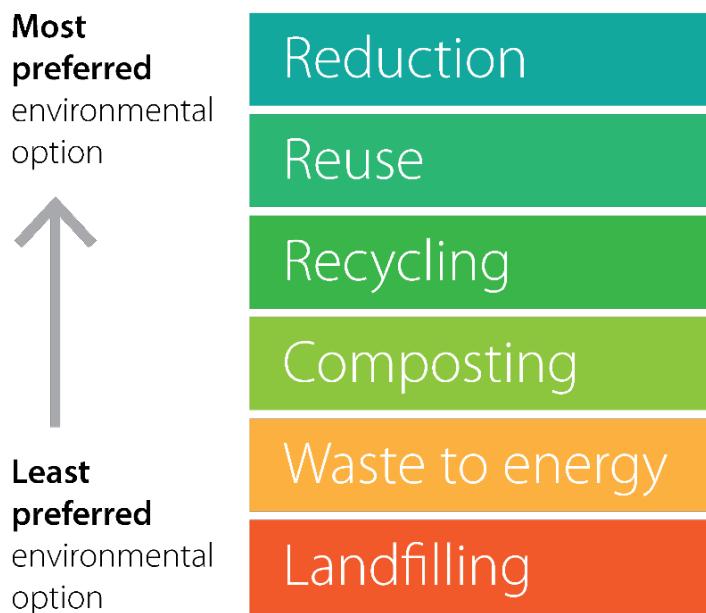


Figure 3. The solid waste management hierarchy of preferred methods

Generator responsibility. This Plan contains policies to aggressively foster and encourage responsibility at multiple levels (personal, corporate, government). Surveys show that most generators (a person or entity that produces waste) believe that their responsibility ends once the waste is hauled away. Generators are responsible for the waste they produce. That means generators must make wise purchasing and wise disposal decisions—accounting for the external costs of managing waste and evaluating the effects of their waste disposal decisions.

Government as a leader. Government provides health care, feeds and houses people, manufactures goods, provides a variety of services, builds structures, and more. In all of these activities, waste is generated. The goals and policies in this Plan are designed to steer the TCMA toward a new vision for solid waste management, with government leading the way by managing its waste according to the hierarchy.

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

Private sector initiative. In the TCMA, there has been a long history of solid waste services provided by private businesses and nonprofits. The private sector has a significant role to play in implementing the Plan – through innovation as well as public-private partnerships – and has a major responsibility for meeting the goals of the WMA hierarchy.

Environmental benefits. Solid waste management has an important role to play in reducing environmental impacts, such as greenhouse gas emissions, toxicity, and energy and water use. Moving materials up the waste management hierarchy maximizes environmental benefits.

Goals and policies

The following goals and policies provide the basis for improving solid waste management in the TCMA. For the purposes of this section, “goal” is defined as an aim or desired result; “policy” is defined as a course or principle of action adopted or proposed by a government, party, business, or individual.

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

The goal of the WMA is to protect Minnesota’s land, air, water, and other natural resources, and public health by improving waste management to serve the following purposes: reduce the amount and toxicity of waste generated; increase the separation and recovery of materials and energy from waste; and coordinate the statewide management of solid waste and the development and financial security of waste management facilities, including disposal facilities. This goal recognizes a prevention-based approach to waste management, to reduce, to the extent feasible, adverse effects on human health and the environment.

Policy 1: Focus more programs and work on reuse and waste and toxicity prevention. Sustainable Materials Management begins to look at ways to decrease our overall impact on the environment. Encourage manufacturers to design for repair, reuse, and recyclability.

Policy 2: Strengthen recycling markets to increase demand for recyclables and therefore allow for increased recycling and conservation of energy.

Policy 3: Ensure systems are in place that foster the growth of organics recovery.

Policy 4: Promote renewable energy and conservation, which includes recovering energy from waste.

Policy 5: Manage waste properly to protect human health in a manner that does not disproportionately burden low-income people and communities of color. Ensure that all waste management facilities meet all applicable environmental standards.

Policy 6: Support the strong existing system for proper management of hazardous waste and household hazardous waste.

Goal 2: Whether public or private, hold the operators and users of any solid waste system accountable for meeting the goals of this Plan.

To achieve the aggressive goals established in this Plan and by the Legislature, all parties in the solid waste system must be held accountable. Cities and counties must ensure the systems are in place for the proper management of waste. Generators must use the tools provided to reduce, reuse, recycle, resource recover, or dispose of waste. Haulers and facility operators must ensure that waste is managed properly upon collection.

Policy 7: Support the collection of reliable data to ensure that all parties in the solid waste system accurately measure progress toward achieving the objectives of this Plan.

Policy 8: Ensure that demolition debris and industrial wastes are categorized and are managed according to the applicable Statutes and Rules. Measure more accurately the composition of non-MSW generated in the metro area and being landfilled in Minnesota.

Policy 9: Increase opportunities for cities to implement organized collection for recycling and MMSW.

Policy 10: Cities and counties hold haulers in their communities accountable for managing waste according to the Plan via their licensing agreements.

Policy 11: Counties hold cities, haulers, and private business accountable.

Policy 12: MPCA provides oversight of the system by holding counties and private businesses accountable. The Legislature holds the MPCA accountable for meeting waste management goals.

Policy 13: Continue to pursue product stewardship for products or materials that warrant attention due to fulfilling criteria such as: presence in solid waste, costs to manage, low recovery rates, and environmental benefits when reused or recycled.

Goal 3: Manage waste cost-effectively and internalize future costs so that long term care is reflected in the cost of service received now. 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.

The state's Landfill Cleanup Program and other programs to clean polluted land are this and future generations' price for past disposal practices. Some waste management practices are less expensive than others, but carry greater long-term or unknown financial and environmental risks. Some methods appear to cost more, but have measurable and significant economic value to the state. This goal is about balance: to maintain a sustainable system of managing waste; to keep costs of our solid waste system affordable; and to recognize the market is an important driver in waste management decisions.

Policy 14: Account for all phases of a material's life cycle, including environmental and economic impacts.

Policy 15: Determine anticipated future costs and potential liability associated with currently operating disposal facilities.

Policy 16: Local governments work together to develop a consistent ordinance structure that allows private entities to smoothly operate across the region.

Policy 17: 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 disposal facilities.

Part three: Metropolitan System Plan 2016-2036

The Metropolitan System Plan provides guidance to all stakeholders responsible for TCMA solid waste management and was developed in accordance with the requirements of Minn. Stat. § 473.149 subd. 2d. for a land disposal abatement plan. It describes broad regional system objectives, a landfill diversion goal, and the strategies necessary for solid waste programs and services to meet the region's needs for the next 20 years. The System Plan recognizes the inter-county complexity of the TCMA solid waste system and the value of and need for regional approaches. Specific details associated with implementing the System Plan on a local level will be refined in the county master plans and any regional master plan developed by the metropolitan counties. The System Plan identifies where specific stakeholder actions are necessary to implement the objectives and strategies. The System Plan:

1. Places emphasis on the upper end of the hierarchy (source reduction, reuse, recycling, and organics recovery).
2. Establishes objectives for each waste management method.
3. Achieves full use of resource recovery facility capacity and implements the restriction on disposal (ROD) of MMSW requirements.
4. Establishes a ceiling on the amount of metro MSW land disposal that will be allowed to occur.

The System Plan includes numerous strategies for reducing waste and increasing recycling and organics recovery. All stakeholders in the system have roles and responsibilities to ensure successful implementation of these strategies. An implementation table that identifies roles, responsibilities, and timeframes for each strategy is provided in Appendix G. The table will serve as an accountability plan for the strategy implementation.

Regional waste generation forecast

In 2015, the TCMA generated 3.365 million tons of MSW. Metro MSW generation is projected to grow to 3.98 million tons by 2035 (see Figure 4). This forecast does not include the non-MSW waste stream – construction, demolition and industrial wastes. The non-MSW forecast is included in the non-MSW section of the Plan. The MSW forecast was generated using waste generation from 2009-2015. This time period was chosen because the recession from 2007-2009 created a new baseline. More complex modeling (e.g., applying economic factors) may be appropriate in the future. The MPCA notes that the time period from 2009 to 2015 results in a small sample size for projecting waste out 20 years. The forecast will be revised with the next plan revision and will include a longer time-period for the projection of this data at that time. The full statistical reasoning is included in Appendix F.

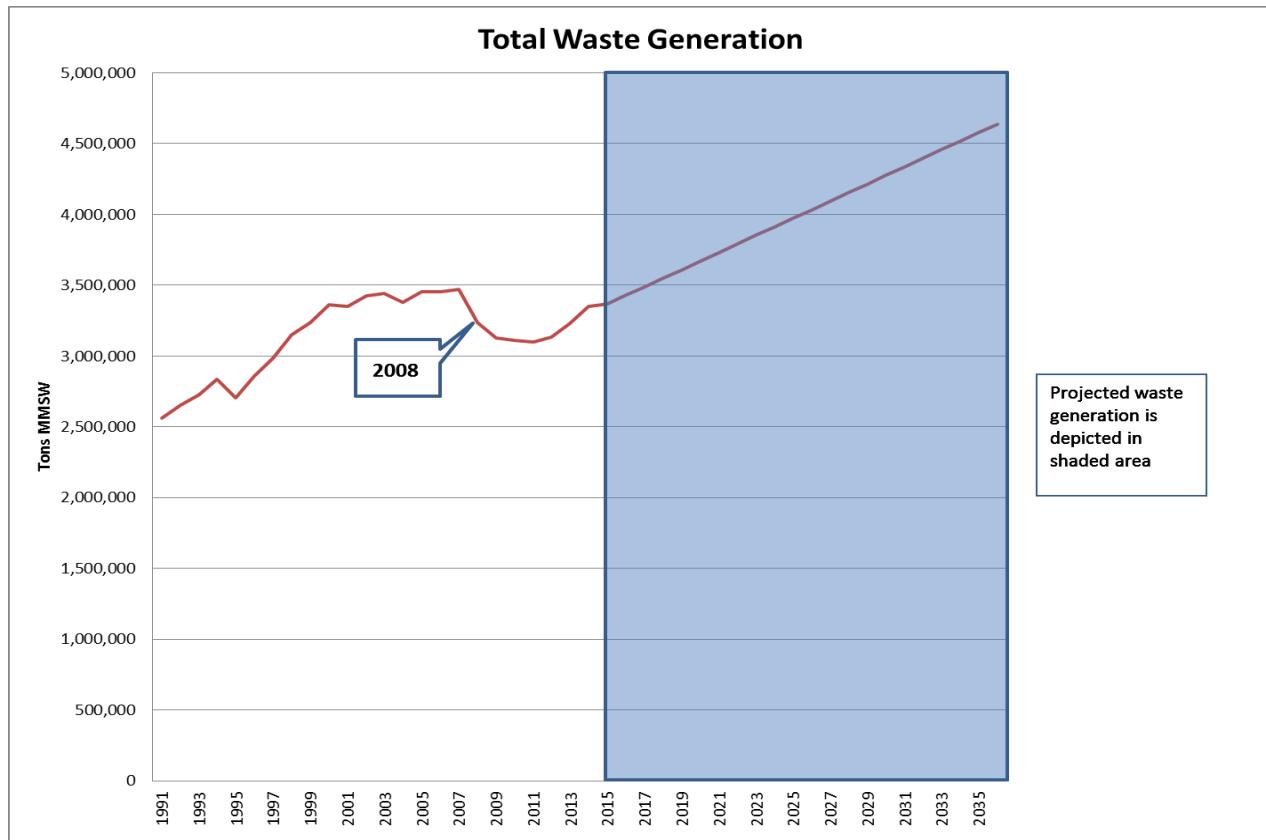


Figure 4. Projected MSW tonnage growth in the TCMA 2015-2035

Statutory goals

Total MSW generation increased through the mid-2000s. It began to decrease in 2008, most likely due to the national and regional economic decline. The economy has rebounded, but waste generation has only increased to the level of the initial dip in 2008 (Figure 4).

Compared to the peak of per capita generation in 2000, per capita waste generation has decreased nearly 11% (Figure 5). The importance of source reduction is demonstrated by comparing Figures 4 and 5. Despite a decrease in per capita waste generation, overall waste generation is predicted to increase. This increase is primarily due to the state's growing population. Even though individuals are doing a better job with reducing waste, the state as a whole continues to generate more waste. Per capita waste reduction is a good thing, but growth in overall waste generation takes a toll on the environment. Such increases in waste generation are unsustainable and must be curbed through aggressive source reduction and reuse strategies, since source reduction and reuse have the largest environmental benefits.

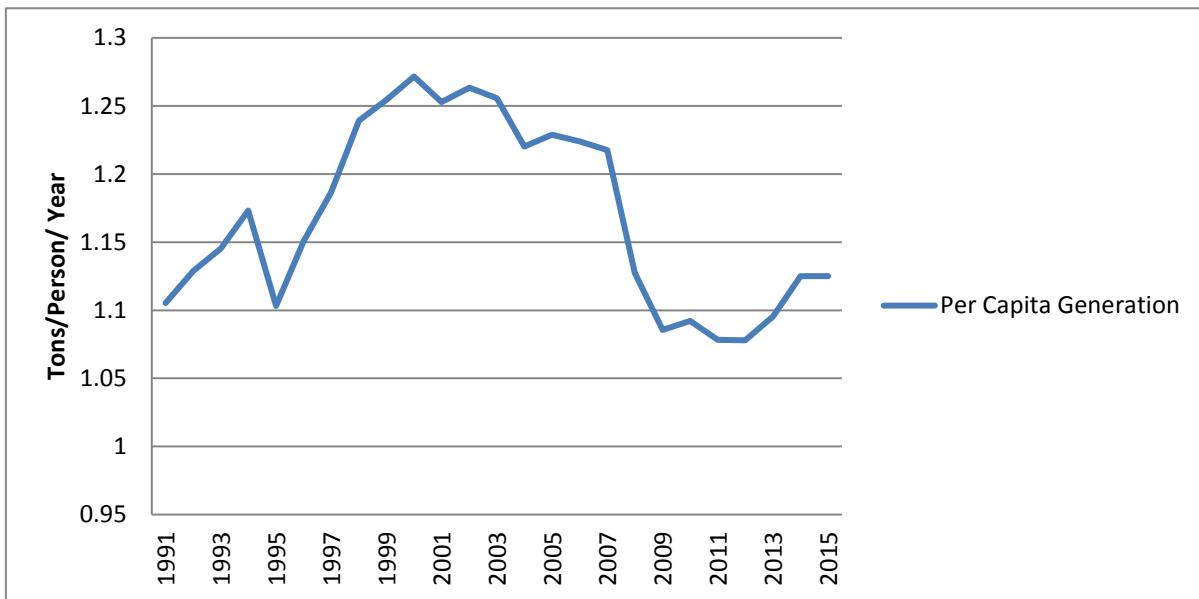


Figure 5. Per Capita Waste Generation in TCMA 1991-2015

In 2014, the Minnesota Legislature changed the recycling goal for metropolitan counties established in Minn. Stat. § 115A.551. The previous goal of 50% was adjusted to a new recycling goal of 75%. Due to significant efforts throughout the TCMA to increase recycling and organics recovery, the region achieved the previous 50% goal in 2015. The new recycling goal of 75% is to be achieved by December 31, 2030, and is a combined goal for traditional recycling and organics.

Sustainable Materials Management

The MPCA is pursuing a SMM vision to inform future planning of waste and materials management for the State.

SMM focuses on the best use and management of materials based on how they impact the environment throughout their life cycle. SMM considers the impacts of extracting raw materials, scarcity of materials, product design, product use, and reuse.

SMM starts from the recognition that products and materials vary in the environmental impacts they cause throughout their life cycles, and that the largest portion of those impacts is typically caused in the extraction of raw materials, manufacturing, and sometimes during the use of the products (Figure 6).



Figure 6. The environmental life cycle of materials

the resources that have been dedicated to recycling and disposal over the years.

Minnesota's solid waste management hierarchy directs us to reduce, reuse, and recycle materials and then process remaining solid waste before landfilling. A SMM framework helps us understand that the hierarchy is a useful tool to be used as part of an integrated process of actions throughout materials' life cycles rather than as a single choice at the point of discard – to reuse, recycle or throw away.

New partners will need to be established as activities like product design, changes to the manufacturing stage, and consumption or use phases of products are analyzed and changed. This means first working with manufacturers to create durable, fixable, and lightweight products that use less material and materials with lower environmental footprints, and secondly, putting in place policies and infrastructure that extends the life of products, through repair, rental, refurbishing, and reuse of all kinds. Ideally, goods are designed in a way that when they cannot be used or repaired further, the components are easily separated for recycling. Collecting meaningful data to determine the success and effectiveness of such initiatives will also be a challenge.

Framing Minnesota's efforts to conserve resources and protect our air, land, and water by using a SMM approach requires evolution of the traditional waste management hierarchy put into state law 35 years ago. SMM provides a framework based on data and analysis tools developed in the decades since the hierarchy was established. The SMM framework will enable public and private efforts to better target materials that have the greatest overall impact on the environment, including energy, water, and resource use, as well as greenhouse gas generation. Recent development and refinement of analysis tools and available data, including life cycle assessment, allow a more complete view of the environmental impacts of products and materials through a product's life cycle, a helpful addition to the traditional metric of tons managed. By incorporating these new tools, SMM can inform decision making, resulting in better overall environmental outcomes.

This is not an entirely new concept; it builds on the foundation of work set in motion by the WMA (Minn. Stat. § 115A). The waste management hierarchy (Minn. Stat. § 115A.02) already emphasizes practices that have little to do with management of discarded products. "Reduce", which refers to preventing creation of discards altogether, and "reuse" primarily involve changes in consumption and use materials, not management of discards.

While the waste management hierarchy puts reduction and reuse at the top, in practice, the main focus of the state, cities, counties, and private sector over the last 30 years has been on recycling and disposing of the waste that has already been created. A main challenge with implementing a SMM approach will be dedicating staff and program resources, in both public and private sectors, to SMM initiatives, similar to

While SMM offers important information on environmental impacts and helps policy makers focus efforts on achieving the highest and best environmental use of materials, neither SMM nor the hierarchy provides information on other important factors such as economic (e.g., jobs) and social/political (e.g., environmental justice) considerations which would also need to be evaluated before final decisions are made. Though the focus of the MPCA is primarily environmental and human health, the MPCA has and will continue to consider all of these implications when making decisions on policy, planning, and implementation.

The importance of recycling is reaffirmed in the SMM framework. The benefit of recycling is commonly thought to be in managing discards to reduce demand for disposal facilities, when in fact, the larger environmental value of recycling lies primarily in providing feedstocks to manufacturing and reduced need for extraction and processing of virgin raw materials. Continued work is needed to support and develop recycling markets and recycling technologies for products where markets aren't mature or technologies don't yet exist; especially markets for materials with a high environmental impact.

Next steps for Sustainable Materials Management

1. The MPCA, in collaboration with stakeholders, will select a few priority solid waste materials to focus on for reduction, reuse, and recycling based on life cycle analysis. The state will take into account the economic impact on local units of government and social issues of SMM as it determines priorities.
2. The counties will work with the MPCA on implementing strategies for the priority materials.
3. The MPCA, in collaboration with stakeholders, will help quantify the environmental impacts from the materials/products that are targeted.
4. The counties will allocate staff time on reaching the goals in the Plan for reduction and reuse and ensure that grant funding eligibility should include reduction, reuse, and recycling (including organics).
5. The MPCA, in collaboration with stakeholders, will work on creating quality standard measurements for SMM.
 - a. This could include a capture rate for materials/products.
 - b. MPCA and stakeholders will determine what environmental indicators will be most important for SMM.
 - c. MPCA and stakeholders will determine which tools, models, and calculators will be acceptable for SMM.
6. The MPCA and the counties will work to increase the partners involved in working on SMM, recognizing that SMM needs to include organizations that can impact products and materials upstream.

Solid waste abatement objectives

Pursuant to Minn. Stat. § 473.149 subd. 2d. Table 1a sets specific quantifiable objectives for abating the need for and practice of land disposal for the TCMA region over the next 20 years. Landfill abatement is best achieved through an ISWM; therefore, the statute requires “objectives for waste reduction and measurable objectives for local abatement of solid waste through resource recovery, recycling, and source separation programs.” Table 1a defines the objectives by percentages of waste generated, and Table 1b defines the objectives in tons. Table 1b shows the objectives in tons based on the current waste forecast in this Plan and is subject to change as the forecast is updated. Several factors were considered when setting the objectives, including:

- Current statutory goals
- The regional waste generation forecast
- The implementation of restriction on disposal of MMSW in the TCMA

Meeting the objectives will: reduce greenhouse gas emissions; support the production of renewable energy; conserve natural resources; and reduce land disposal.

Evaluation of the system objectives

The MPCA will annually evaluate progress toward achieving all the system objectives. The MPCA recognizes the challenges associated with measuring progress and will continue to work with local governments to assure the data collected is necessary and relevant, and will take responsibility to collect data on a statewide or regional basis when appropriate. The MPCA will reassess the objectives in this Plan in light of the progress, system and technological changes, and the available tools. If the MPCA determines that the objectives are not being met, it will report to the Legislature on actions that could effect change. These actions could include a wide range of initiatives.

Emphasis on the upper end of the hierarchy

The system objectives are intended to maximize the upper end of the hierarchy, including an emphasis on product stewardship, source reduction, reuse, and achieving the legislative goals for recycling and organics recovery.

Table 1a. MSW management system objectives in percentages (2016-2036)

Management method	Current system (2015)	2020	2025	2030	2036
<i>Floor – The lower range of the percentages below represent the minimum amount of MMSW that must be managed by these methods.</i>					
Source reduction & reuse (cumulative) ¹		1.5%	3%	4%	5%
Recycling ²	39%	51%	54%	60%	60%
Organics recovery ³	10%	12%	14%	15%	15%
<i>Restriction on disposal of MMSW – The percentages below represent the amount of resource recovery expected to occur after maximizing reduction, recycling and organics recovery. Restrictions on the land disposal of processible MMSW will be enforced.</i>					
Resource recovery ⁴	28%	35%	31%	24%	24%
<i>Ceiling - The percentages below represent the maximum amount of MSW land disposal that will be allowed.</i>					
Max landfill ⁵	23%	2%	1%	1%	1%

To avoid double-counting, the source reduction percentages cannot be added with the other MSW management method percentages lower on the hierarchy.

²This does include residue after processing that cannot be recycled and is sent to a landfill.

³Organics may include: food to people, food to animals, and composting of source-separated compostable materials.

⁴Resource recovery through mixed municipal solid waste processing or waste to energy; Includes residue before and after processing that is sent to a landfill; a byproduct of resource recovery is ash that must be managed at an industrial land disposal facility (the weight of the ash is 15% to 20% of the incoming tons).

⁵This objective refers to TCMA generated MSW that is disposed at all landfills that serve the TCMA. This does not include ash from resource recovery facilities.

Table 1b. MSW management system tonnages (based on objectives in Table 1a in thousands of tons (2010-2030))

Management method	Current system (2015)	2020	2025	2030	2036
<i>Floor – The lower range of the percentages below represent the minimum amount of MSW that must be managed by these methods.</i>					
Source reduction & reuse (cumulative) ¹	0	55	119	171	232
Recycling ²	1,324	1,844	2,081	2,463	2,644
Organics recovery ³	342	434	540	616	661
<i>Restriction on disposal of MMSW – The percentages below represent the amount of resource recovery expected to occur after maximizing reduction, recycling and organics recovery. Restrictions on the land disposal of processible MMSW will be enforced.</i>					
Resource recovery ⁴	931	1,271	1,184	985	1,058
<i>Ceiling - The percentages below represent the maximum amount of MSW land disposal that will be allowed.</i>					
Max landfill ⁵	768	67	49	41	44
Total tons generated	3,365	3,615	3,854	4,105	4,407

To avoid double-counting, the source reduction amounts cannot be added with the other MSW management method amounts lower on the hierarchy.

²This does include residue after processing that cannot be recycled and is sent to a landfill.

³Organics may include: food to people, food to animals, and composting of source-separated compostable materials.

⁴ Resource recovery through mixed municipal solid waste processing or waste to energy; Includes residue before and after processing that is sent to a landfill; a byproduct of resource recovery is ash that must be managed at an industrial land disposal facility (the weight of the ash is 15% to 20% of the incoming tons).

⁵This objective refers to TCMA generated MSW that is disposed at all landfills that serve the TCMA. This does not include ash from resource recovery facilities.

Aggressive objectives for source reduction and reuse, recycling, and organics recovery

All stakeholders, including the MPCA, will be held accountable for meeting these objectives. The MPCA believes the objectives are achievable. However, to reach the long-term objectives, the TCMA will need significant changes to current tools, new tools, and increases in funding.

Source reduction and reuse

By 2036, the TCMA should generate 5% less waste than was projected for 2036. This is the same methodology as the previous Plan. If the source reduction and reuse objectives are not met, the tons required to meet the other MSW management method objectives will increase, because the MSW generation will be higher. Source reduction and reuse practices serve to reduce the amount of waste that is available for management and, therefore, the tons of waste source reduced or reused are subtracted from the projected MSW generation total (i.e., the percentages of recycling, organics recovery, resource recovery, and landfill add up to 100%).

Capacity for recyclables and organics

The [MPCA Recycling and Solid Waste Infrastructure Evaluation](#) (Reclay StewardEdge, 2015), which examined the available capacity for recyclables in the state, indicated that the existing capacity for recyclables in the TCMA exceeds the current demand. However, in order to meet the MSW management system objectives, additional new materials recycling facilities and organics processing capacity may be needed to process the additional tons of materials recovered (Table 2). The tons of additional materials included in Table 2 represent the additional materials that would need to be managed if the objectives in the Plan are achieved. In addition to potential new capacity and/or facilities, the availability of markets for the collected and processed material will be necessary.

The MPCA will work over the duration of the plan to evaluate available capacity for organics recycling. The MPCA has made grant funding available to expand capacity in the state. The MPCA has also revised regulations for compost facilities with the intent of making it easier for existing facilities to expand capacity and for new facilities to come online. The MPCA will conduct a capacity analysis in 2017 for compost facilities. In addition, the MPCA will evaluate capacity at food-to-livestock and food rescue organizations in the coming years. The MPCA will also work with public and private partners (including haulers) to ensure that state policy aligns with the state's desire to have adequate capacity for meeting the goals in the Plan.

Table 2. Potential additional materials to be processed in tons (2016-2036)

Facility type	2015 Base	2020	2025	2030	2036
Materials recycling (additional tons)	NA	+519,933	+237,000	+382,000	+181,000
Materials recycling (total tons)	1,324,067	1,844,000	2,081,000	2,463,000	2,644,000
Organics recovery (additional tons)	NA	+92,255	+106,000	+76,000	+45,000
Organics recovery (total tons)	341,745	434,000	540,000	616,000	661,000

MPCA Recycling and Solid Waste Infrastructure Evaluation (<https://www.pca.state.mn.us/sites/default/files/ws1-09.pdf>, Reclay StewardEdge, 2015)

Fully use existing resource recovery facility capacity

The system objectives are intended to fully utilize existing permitted TCMA resource recovery capacity (Table 3) in the near term. However, if the MPCA's waste generation forecast is accurate and the objectives for source reduction and recycling are achieved, then over the next decade all processible MMSW in the metropolitan area counties will need to be directed to the four resource recovery facilities serving the region. This is necessary because MPCA forecasts that over time there will be less MMSW in the region available for disposal (resource recovery or landfilling) as more waste is managed by source reduction, reuse, and recycling in accordance with the hierarchy.

Additional MMSW processing to recover traditional recyclable materials and organic materials from waste prior to resource recovery may be needed to achieve recycling goals. Some counties in the TCMA have already begun exploring system improvements and the addition of new technologies that may facilitate more cost effective methods to capture additional recyclables. However, if source separation is the primary vehicle for expanding the recovery of traditional recyclables and organics, it may not be necessary to build new resource recovery capacity to recover these commodities from MMSW.

Table 3. Existing resource recovery facility capacity serving the metro area (tons)

MMSW Processing Facility	Permitted Capacity	Greater Minnesota-forecast tons per year	Metro area- forecast tons per year	Total -forecast tons per year
HERC	365,000	0	365,000	365,000
GRE	552,000	30,000	420,000	450,000
REC	500,000	20,000	480,000	500,000
City of Red Wing	30,000	24,000	6,000	30,000

All efforts to improve processing and capture more recyclables should be a joint effort between public and private sector stakeholders to assess what policies will be the most effective. The MPCA has regulatory authority to ensure implementation of ROD (Minn. Stat. § 473.848) and public entities requirements (Minn. Stat. § 115A.471), both of which require processing of MMSW. Hennepin County and Ramsey and Washington counties own processing facilities and have been successful in directing waste to those facilities. But, there are also two processing facilities accepting TCMA-generated MMSW that are consistently operating below capacity and this deficiency needs to be addressed.

A ceiling on landfilling

The system objectives strive to reduce land disposal to 1% of MSW generation within the next 10 years, recognizing that some MMSW is not processible, and some disposal options will always be necessary. If the MMSW cannot be reduced, reused, recycled, or composted, it should first go to a resource recovery facility and only be landfilled if the waste is determined to be unprocessible. A portion of the MMSW delivered to resource recovery facilities that is recycled or recovered for organics management is counted as recycled in the objectives in Tables 1a and 1b (see table footnotes).

Improving the reliability of the data

The complexity of the TCMA solid waste system makes it difficult to measure how MSW is managed. Some data is relatively reliable, such as the waste volumes delivered to waste facilities, because that material is weighed and records are kept. Other data is not as easily measured, such as the volume of material recycled by commercial establishments. In 2009, the Legislature required the MPCA to evaluate SCORE data collection and management and to make recommendations for its improvement (Minn. Law 2009, ch. 37, art. 1, sec. 62, subd. 2). Many improvements to data collection have occurred since this legislative requirement and the adoption of the previous Plan. It is expected that this work will serve to improve the reliability of the measurement tools that will be used to assess the progress in attaining this Plan's system objective.

For the past several decades MPCA has relied on counties pulling together the data and reporting it to the MPCA. The counties relied on hauler reports, facility reports, and county estimates. Online data entry by all permitted facilities is now standardized and streamlined. The sources of data (e.g., haulers or facilities) now directly report their data to the MPCA. In 2015, the Legislature required haulers to directly report to the MPCA (Minn. Stat. 115A.93). The hauler forms were completed in 2016, and in 2017 haulers will begin to report data from calendar year 2016 using the new forms. This system will also provide better data on the waste management practices of commercial establishments. With haulers and facilities reporting directly to the MPCA, we may further be able to identify areas where there is duplication and further streamlining can be made.

These improvements are critical, as it is not possible to accurately demonstrate the progress made in the TCMA through estimation. However, changing data sources may also change the baseline. The reported numbers will be different, not due to a change in programs, but because of the change in

reporting. Once the new baseline is established, the MPCA will have more reliable information to guide policy decisions.

Achieving a 75% recycling rate is challenging but possible

During the 2014 Legislative session, the 2030 recycling and organics recovery objectives included in the previous Plan were codified in state statute. This statutory change established the goal of a combined recycling/organics rate of 75% by 2030 for the TCMA. In 2015, the TCMA achieved a 49.9% combined rate for traditional recycling and organics diversion. Nearly half the total available waste generated was put to a higher use or diverted from disposal through reuse, recycling, or organics recovery. Despite this success, much of the recyclable and compostable material is still being disposed.

Based on waste composition studies conducted in 2013, the MPCA conservatively estimates that 63% of the waste disposed is either recyclable or compostable. If all material that could be recycled or composted were captured from the waste stream, the TCMA would achieve an 81% recycling rate. While a 75% recycling rate is a very aggressive goal, and one that requires system changes in order to achieve, it should be pursued. To achieve the 75% goal, approximately 50% of the material currently going to waste to energy or landfill would need to be diverted from these facilities. Given that 63% of the waste is currently recyclable, nearly all of the available material would need to be recovered (Figure 7). In short, the waste stream continues to contain a large volume of materials that could be recycled or composted. As such, the opportunity to increase the current 50% recycling rate, which has been relatively unchanged for many years, is very feasible. However, as our baseline is readjusted (due to the new reporting structure) and estimated tonnages are removed, reassessment of the objectives may be necessary. The full assumptions are summarized in Appendix F.

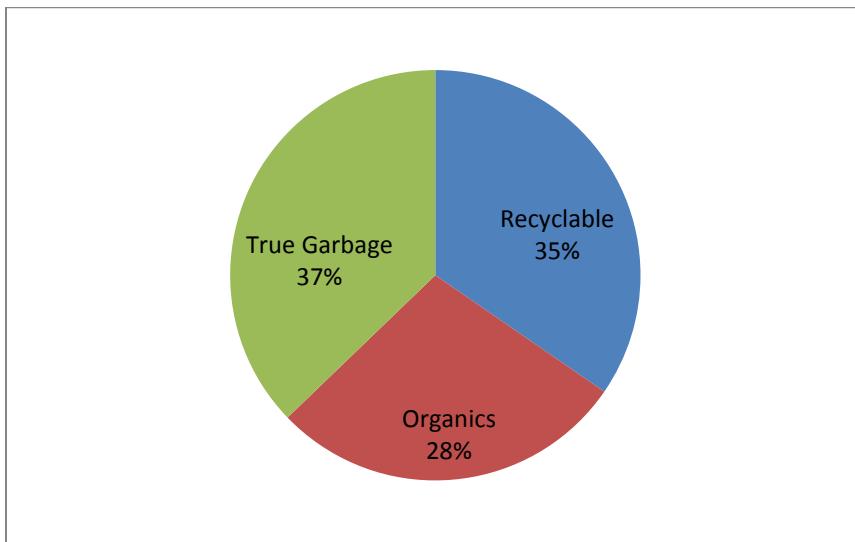


Figure 7. TCMA MMSW composition: average based on Ramsey/Washington and MPCA Composition Analyses in 2013

The data in Table 4a is derived from certification reports and SCORE reports. These reports are provided by the seven TCMA counties. The table shows two hypothetical situations using 2015 data: one scenario where all available recyclable material is actually recycled, resulting in an 81% recycling rate, and a second scenario where the 75% goal is achieved. The top row provides actual 2015 data.

Table 4a. 2015 reported data, 100% of recyclables captured, and 75% goal (in tons)

	Recycling	Organics	Resource recovery	Landfill	Total waste	Recycling rate
2015 reported	1,324,067	341,745	931,415	767,490	3,337,071	49.9%
All recyclables are diverted	1,911,888	820,836	570,977	33,370	3,337,071	81%
75% is achieved	1,802,803	700,000	800,898	33,370	3,337,071	75%

Table 4b applied the 75% combined recycling and organics goal to the waste projected for 2030. This table demonstrates that the TCMA will not generate enough material to operate the resource recovery facilities at full capacity if the 2030 waste reduction, recycling, and organics objectives are achieved. In a future Plan, the MPCA and the TCMA counties may need to consider sending appropriate industrial waste and demolition debris, such as packaging and wood, to the TCMA's resource recovery facilities in order to fill the available capacity, or reduce processing capacity. It also demonstrates that very little material is available for land disposal.

Table 4b. Using projected 2030 tons

	Recycling	Organics	Resource recovery	Landfill	Total waste	Recycling rate
5% source reduction and 75% are achieved	2,462,807	615,702	1,026,170	41,047	4,104,678	75%
75% is achieved	2,565,424	641,356	1,026,170	42,757	4,275,707	75%

As the MPCA transitions to a new data reporting structure, comparison of annual report data from solid waste facilities with certification report data from the counties is possible. The annual reports indicate that approximately 710,000 tons of recyclables were accepted by facilities in and near the TCMA. This is significantly less than the approximately 1,324,000 tons reported by counties in the certification reports. The MPCA expects some discrepancies, since some recyclable material is sent directly to end-market and some of the recycling reported by counties includes estimates for commercial recycling. However, this discrepancy is large enough that the MPCA, the TCMA counties, and the solid waste facilities need to convene to better understand the differences in the reported tonnages. Theoretically, the hauler data, once received by the MPCA, will further shed light on this issue and help generate a more accurate recycling tonnage for the TCMA.

More improvement is needed, as the MPCA needs to regularly collect waste composition data from not just resource recovery facilities but also landfills. Resource recovery facilities are currently required to conduct waste composition studies every five years. This requirement should be extended to all disposal facilities for consistency. The data provides important trend information on waste composition (types and quantities of materials disposed). The addition of data from landfills will help policy, planning, and implementation efforts, such as assessing capture rates of recyclable and compostable materials. This will enable the MPCA to adjust its programs and policies according to the changing waste stream.

Additional benefits of attaining the MSW system objectives

Achieving the MSW waste management system objectives in this Plan will not only serve to abate the use of landfills, but will also have a direct effect on achieving the state's environmental and energy goals since moving waste up the hierarchy reduces environmental impacts. In the year 2036 alone, reaching the system objectives would:

- Reduce greenhouse gas emissions by over 3 million metric tons of carbon dioxide equivalent, equal to taking over one million vehicles off the road for an entire year
- Conserve over 18 million BTUs of energy

Greenhouse gas emissions reductions and energy savings information were calculated using the U.S. Environmental Protection Agency's (EPA) Waste Reduction Model. It is important to note that the majority of these reductions and savings are contributable to waste reduction and recycling objectives. The savings calculated above are significantly smaller than documented in the previous Plan. This difference is attributable to the different calculation method used. This Plan documents the savings achieved in a single year – 2036 – by reaching the Plan objectives, as compared to the business as usual scenario. The previous Plan documented the cumulative savings for the 20-year duration of the Plan.

Best management practices to achieve the 75% recycling goal

There are various approaches to meet the system objectives of this Plan. The TCMA waste management system is governed by multiple entities, public and private, and a variety of strategies provide the flexibility to meet the needs of each program or situation. The state, counties, cities, businesses, nonprofits, communities, and citizens all have specific roles and responsibilities for improving solid waste management. In order to minimize conflict and inefficiencies, it is important to select strategies that align public and private objectives and to work together to identify necessary changes to existing strategies and indicate where new ones are needed. Many of these strategies will require investment and additional funding. The MPCA will advocate for additional funding for the system where appropriate.

In 2015, the TCMA achieved a 50% recycling rate. Achievement of a 75% recycling rate by 2030 will require the implementation of many aggressive and innovative strategies. Although the TCMA has many effective programs in place, stakeholders throughout the region must go beyond the current status quo in order to reach the 75% recycling goal.

Each topic below includes key strategies that will be instrumental to the region reaching the recycling goals. The MPCA expects that all counties will integrate implementation of at least some of these strategies directly into their master plans. The beginning of each topic's list of strategies includes guidance on how many of the strategies should be incorporated into the master plans. The MPCA acknowledges that each county has unique needs. Therefore, the MPCA will accept an alternative strategy proposed by a county in place of one of the strategies outlined below, provided the county can demonstrate that the alternative strategy would achieve similar benefits. Several strategies included in the sections below will be led by the MPCA. If a county selects one or more of the state-led strategies for inclusion in its master plan, the county will be expected to actively participate in the implementation of the strategy/strategies. The MPCA expects that these strategies will be expanded and detailed implementation actions created during master plan development.

The MPCA is committed to achieving the recycling objectives established in this Plan and intends to assist with strategy implementation as noted below.

Regional solutions

Although the TCMA counties do not have a formal regional waste management district in place, the region can implement certain strategies at the regional level. Minn. Stat. § 473.149, subd.6 requires the MPCA Commissioner to report to the Legislature on the need to reassess metropolitan solid waste responsibilities, if the goals of the metropolitan statutes are not being met.

Strategies

Counties should incorporate at least two of the following strategies into their respective county solid waste management master plans or provide alternative strategies that will achieve the same objectives.

Implement standardized messaging regarding residential recycling in all seven TCMA counties

Thorough education is essential to implementing a successful recycling program. The TCMA counties have developed strong recycling messaging for residents throughout the region for many years. The Solid Waste Management Coordinating Board (SWMCB), which includes members from six of the seven metro counties (Anoka, Carver, Dakota, Hennepin, Ramsey and Washington), began collaborating on education campaigns in the TCMA more than 10 years ago and has produced many useful resources designed to increase the capture of recyclable materials. Their most recent campaign, *Know What to Throw*, made significant progress towards standardizing the recycling messaging received by residents throughout the TCMA (<http://www.rethinkrecycling.com/residents/know-what-throw>). However, the consistent messaging of the *Know What to Throw* campaign will not reach its maximum potential without commitment from stakeholders throughout the regional recycling system, since recycling messaging is often provided by haulers.

Providing consistent messaging throughout the entire region is critical since residents of the TCMA often work, attend school, or socialize in counties other than their county of residence. While individual counties and the SWMCB have developed strong educational campaigns, there has not been adoption of the consistent messaging throughout the entire region. Key players in the recycling system, including haulers, facility operators, and cities, have not been directly involved in the development and implementation of many of the campaigns. Without system-wide involvement, buy-in, and ongoing coordination, the messaging is less effective.

In order to strengthen recycling programs and increase the capture of recyclables throughout the TCMA, residents, businesses, and institutions must receive standardized messaging regarding recycling. A regional recycling education group charged with developing standardized recycling messaging and a sustainable implementation plan including goals, timelines, resource needs, and roles/responsibilities should be created. This group must include all of the key players in the TCMA recycling system. A great example of multi-sector collaboration on an educational tool is the recent [“Organics Recycling Outreach Guide”](#). This guide was developed by a multi-sector team and includes standardized guidance on the terminology that should be used when educating residents and businesses about organics diversion programs. Coordination with existing groups and efforts, such as the Association of Recycling Managers (ARM), is encouraged. Use of existing materials and campaigns is also strongly encouraged.

To this end, the MPCA is coordinating with ARM, materials recovery facilities (MRFs), cities, counties, haulers, the Recycling Association of Minnesota (RAM), and other partners to build a more comprehensive and effective structure for recycling communication. It will include improved standardized “yes-no” recycling lists that will be updated annually and be the basis for MRF, hauler, city, and county recycling communication to the public and local businesses. The purpose of this group is to build on what is already working with recycling outreach and education and improve those areas where more development, coordination, and communication is necessary. Stakeholders have commented that while some of this now occurs, much of the current outreach is still too inconsistent and disjointed to be effective. If recycling communication and outreach is not effective, the TCMA will not have educated recyclers. If the TCMA does not have educated recyclers, facilities will not receive the materials they want and programs will not collect enough materials to achieve recycling goals. The goal for this group is to develop a more coordinated approach to recycling education and messaging that culminates in a draft proposal that will be shared with the larger stakeholder community for input and adjustment. This straw proposal implementation plan will recommend appropriate roles and responsibilities for the

system, proposed tools and resource needs, timelines, and checks and balances that will ensure a sustained and more coordinated approach. The stakeholder group recommendations and implementation plan proposal will be ready for broader stakeholder input in early 2017. The MPCA will also look at compliance with Minn. Stat. 115A.552, subd. 3a (Opportunity to Recycle) to encourage more frequent communications from counties and cities.

Involvement from the eight MRFs (and the haulers that support them) that serve the TCMA area is critical. Not all of the facilities accept the same materials, but the residential education will focus on those materials that are accepted by all. The education campaign will also include clear guidance of materials that none of the facilities accept. Developing a strong relationship with those eight facilities will also help foster a collaborative effort to ensure that updates by the facility are clearly explained to cities, counties, and other entities that work with educating the public.

Address state and city codes and ordinances that inhibit recycling

The success of a recycling program relies on many factors. Not having enough space to collect and store recyclable materials is a big concern in non-residential settings. In addition, requiring the installation of an enclosure around a recycling dumpster can make the recycling program cost-prohibitive. Often, building codes do not require adequate space for recycling containers in new construction, city zoning codes or ordinances restrict flexibility by not allowing several businesses to share a community dumpster/recycling location, or codes/ordinances require that the recycling dumpster be surrounded by a fence. City codes/ordinances should not have provisions that restrict the ability for businesses, multi-family buildings, or residents to have access to recycling.

The MPCA will collaborate with counties, cities, the Minnesota chapter of the American Institute of Architects (MN AIA), the Minnesota chapter of the U.S. Green Building Council (MN USGBC), and the Department of Labor and Industry (DLI) to identify if the 2015 changes to the state building code sufficiently addressed the barriers for recycling and organics management programs.

Counties should work with cities to modify ordinances/zoning codes that do not allow enough flexibility for recycling infrastructure, specifically with respect to exterior enclosures. By 2022, cities in the TCMA should update city ordinances to be consistent with this recommendation. To implement this strategy, counties may:

- Require that cities update their ordinances in order to receive funding for recycling programs.
- Provide technical assistance to cities updating their ordinances.
- Provide model city ordinance language that clearly defines when the exterior enclosure requirement applies and requires the enclosure to be large enough to accommodate trash and recycling containers.
- Work with developers and city planning staff to increase awareness of the need to accommodate for recycling and organics collection to ensure the issue is addressed in all new construction.

Standardize ordinances

Some of the TCMA counties collaborate on education and licensing of haulers. Many of the counties also have reciprocity for HHW collection locations. However, the seven TCMA counties largely operate as individual entities. This can create challenges for private businesses that are trying to implement the solid waste system in the metro area. In order to facilitate more clarity to private businesses and the public, solid waste ordinances should be consistent across the seven-county metro area to the greatest extent possible. Where possible, implement region-wide initiatives, such as:

- Reciprocity programs for HHW across all seven counties
- Regional (seven-county) licensing of haulers
- Standard hauler reporting requirements

Source reduction and reuse

According to Minn. Stat. 115A.55, “It is a goal of the state and counties to reduce the generation of municipal solid waste.” The source reduction goal for the TCMA is 1.5% by 2020. In order to meet this goal, the counties and the state will have to work on source reduction along with other partners including citizens, businesses, and organizations. In the last few years, the MPCA has focused its source reduction programs on reuse, food waste prevention, and procuring more sustainable products. The MPCA will continue to work on these programs and expects the counties to support and implement programs in these areas as well.

Strategies

Counties should incorporate at least two of the following strategies into their respective county solid waste management master plans or provide alternative strategies that will achieve the same objectives.

Expand and improve material exchange programs such as the University of Minnesota’s Materials Exchange Program

The Minnesota Technical Assistance Program (MnTAP) has had a Materials Exchange Program for businesses to post and exchange/purchase materials for several years. A recent study conducted by a graduate student on behalf of MnTAP illustrated how the Minnesota Materials Exchange Program could become more effective. If the exchange became more proactive and staff facilitated exchanges between organizations, especially in areas that already have reuse options available, there is an overall increase in items reused. In 2015 the Materials Exchange diverted 92,320 pounds. While this diversion may seem small, the environmental benefits of reuse are more significant than recycling. Last year, just over 7,250 pounds of computer and office equipment were exchanged. Recycling of this material would have saved 9 metric tons of carbon dioxide equivalent (MTCO2e). If those same 7,250 pounds were reused just one time, 186 MTCO2e would have been saved – 177 MTCO2e more than recycling. This is just one example of why recycling and reduction/reuse should not be compared just on a pound to pound basis and why it is important to document management methods for material.

Support the state’s Sustainable Purchasing Program

Over the last several years, the MPCA has worked closely with the Department of Administration on increasing access to sustainable goods and services and reducing the environmental impacts of procurement. In the past, emphasis was primarily on recycled content products. While recycled content is still important, the Sustainable Purchasing Program strives to consider the impacts along the entire life cycle of the product or service. This new approach provides greater environmental benefits that extend beyond the benefits of recycling.

The state will continue to work on increasing the number of sustainable state contracts. Counties should continue to work with the state on sustainable purchasing by adopting purchasing requirements consistent with state requirements and purchasing sustainable products from state contracts.

Implement a program for either businesses or residents that prevents food from being wasted

Preventing food from being wasted conserves valuable resources. There are many resources available to educate both citizens and organizations on ways to reduce the amount of food that is wasted. Counties and cities are encouraged to use existing tools (i.e. Eureka Recycling’s Preventing Food Waste tools, EPA’s Food: Too Good to Waste, Save the Food, Food Recovery Challenge, etc.) to promote ways to

measure food that is wasted, provide tips for prevention, document changed behaviors, and conduct measurement after programs are implemented.

Implement at least two active programs that focus on reuse at the county level

Reuse keeps products in use longer and avoids the need for a new product to be purchased. The MPCA evaluated the economic association of reuse in Minnesota and discovered many organizations that are thriving in this sector. The MPCA and the county should continue to educate people on the environmental benefits of reuse and create programs that encourage people to purchase used goods and repair existing goods. The counties should implement at least two programs from the list that follows.

- Ensure that all educational materials related to donation and clean-ups focus on the educating residents on the environmental, social, and economic benefits of buying used, renting or repairing. Promote purchasing used items and shopping used as well as renting or repairing. Consider creating a Choose to ReUSE coupon book like the successful Hennepin County booklet.
- Increase the capture rate of goods that are still usable from residences that have a population that moves frequently such as a move-in/move-out at colleges and universities in the TCMA or multi-family buildings.
- Conduct a study with cities on the best management practices to capture household items (i.e. furniture, kitchenware, clothing, etc.) for reuse so less ends up in the waste stream.
- Encourage and support cities and communities to host fix-it clinics.
- Encourage and provide assistance for neighborhoods, communities, or cities to host swaps (clothing, toys, books, etc.) or libraries (e.g., tools).

Collection best practices

A variety of methods are used throughout the TCMA to collect recyclable materials, organics, and trash from generators. Given the diversity of communities represented in the region, it makes sense that the methods remain somewhat flexible. However, there are several best management practices that should be implemented to increase the recycling rates in the region.

Strategies

Counties should incorporate at least one of the following strategies into their respective county solid waste management master plans or propose an alternative strategy that would achieve similar outcomes to the strategies below.

Contract for residential recycling by 2025

Research has shown that organized recycling collection programs yield a higher recycling rate when compared to non-organized recycling programs (*The Benefits of Organized Collection*, MPCA, February 2012). Results from this study demonstrated that organized recycling programs yielded an average of 579 pounds of recyclables per household, compared to 510 pounds per household in open recycling collection programs. Roughly 60% of communities in the TCMA offer organized recycling collection; however, many cities still rely on subscription, opt-in services provided by licensed haulers. While some of these non-organized programs have been successful, the results from communities with organized recycling are more consistently strong. Organized recycling collection was included as a best practice in two recent reports addressing strategies for increasing recycling (*Strategies for Increasing Recycling*, Ramsey/Washington Resource Recovery Project; *Green Step Cities Best Management Practices*, prepared by Foth).

In addition to yielding higher recycling rates, organized recycling collection is often more economical for residents. Data in Table 5 is derived from the Department of Revenue's solid waste management aggregated tax receipts and bills from the TCMA. This data demonstrates that, on average, the monthly cost for residential recycling in an organized system is nearly 40% less than the monthly cost in a subscription system.

Table 5. Monthly cost of residential recycling in the TCMA

Subscription average	\$6.33
Organized average	\$3.95

By 2025, cities in the TCMA should provide organized recycling collection for residents. To implement this strategy, counties may:

- Require that cities offer organized residential recycling collection in order to receive funding for recycling programs
- Provide technical assistance to cities developing and implementing an organized recycling program

The MPCA also plays a role in implementing this strategy and may provide technical assistance to cities developing and implementing a new organized recycling program.

Contract for residential MMSW collection by 2025

In the TCMA, 36% of cities currently contract for residential MSW collection, compared with 72% of cities nationwide. However, over the last few years, several communities followed the process required by Minn. Stat. § 115A.94 and successfully implemented organized MMSW collection programs for their residents. Although transitioning from an open MMSW collection system to an organized MMSW collection system is not simple, there are many environmental benefits of organized collection, and counties should work with cities to make this transition. Several reports developed over the last few years have identified organized MMSW collection as a best practice to increasing recycling (*Strategies for Increasing Recycling*, Ramsey/Washington Resource Recovery Project; *Green Step Cities Best Management Practices*, prepared by Foth; *Taking Out the Trash*, Macalester-Groveland Community Council; *Analysis of Waste Collection Service Arrangements*, MPCA).

An organized MMSW collection system allows a community to implement incentives for waste reduction, such as effective unit-based pricing. Although Minn. Stat. 115A.9301 requires haulers to establish volume-based pricing even in open collection systems, the price differences set by haulers are not enough to drive behavior change because the majority of the cost is attributable to transportation of the waste. Research has shown that the cost of generating a large amount of MMSW must be significantly more than the cost of generating a smaller amount of MMSW in order to incentivize waste reduction and recycling. To incentivize behavior change, the differential should be set at least 80% higher than the smaller container size (*Increasing recycling now! Guidebook for community adoption of recycling and pay as you throw ordinance*, Lisa A. Skumatz, Ph.D. and Juri Freeman 2008). When a community establishes an organized MMSW collection system, it is able to negotiate prices that will incent behavior change. Implementation of effective unit-based pricing has been shown to increase recycling rates, assisting the TCMA in achieving the aggressive recycling goals (<http://www.paynow.org/resources.html>).

In addition to the environmental benefits associated with increasing recycling, creating efficiencies in waste collection can reduce both fuel consumption and emissions. Fuel consumption during collection activities in cities with open collection systems is typically much higher than that of cities with organized systems. The number of haulers and their market share can affect overall fuel consumption and emissions. In an open system, trucks from many haulers travel the same alley. In an organized system,

there may be the same number of haulers, but only one truck travels down each alley, resulting in lower fuel use because fewer miles are traveled to collect the same amount of material. Even open cities with one hauler having more than 60% of the market share (e.g., Eagan) would see a significant reduction in fuel use by switching to an organized system. A city with many haulers each having a smaller market share (e.g., St. Paul) would realize even greater savings. Fewer vehicle miles traveled also results in less air pollutant emissions from heavy duty waste/recycling collection vehicles. Public concern has increased regarding human health and environmental impacts of particulate matter and nitrogen oxides, which are emitted in large amounts from heavy duty vehicles. (source: *The Benefits of Organized Collection*, MPCA, February 2012).

Organized MMSW collection programs are also often more cost-effective when compared to subscription programs. Data in Table 6 was derived from Department of Revenue solid waste management aggregated tax receipts and bills from the TCMA. The monthly cost for residential MMSW collection varies by container size. Although the cost for a 90-gallon cart is similar in both systems, the cost in organized collection systems is lower on average (12% lower for a 30-gallon container, 16% lower for a 60-gallon container).

Table 6. Monthly cost of residential MMSW service in the TCMA

Container size	30 gallon	60 gallon	90 gallon
Subscription average	\$13.62	\$16.75	\$17.15
Organized average	\$11.92	\$14.03	\$17.16

The city of Maplewood organized MMSW collection in 2012. The first full year that organized MMSW collection was implemented, the city's residents saved \$663,600 on their garbage bills. Data on MMSW collection costs before the City implemented organized collection was gathered from hauler bills provided to the Maplewood City Council by residents as the City researched organized collection. The total saving to the City since organized collection started five years ago is over \$2.7 million.

Collect recycling weekly

Recycling is collected bi-weekly in most cities with single stream recycling programs. Since recycling carts often reach capacity during the two-week interval between collections, some residents throw the extra recyclables into their garbage container. By offering weekly collection, the recycling carts are less likely to exceed capacity. Residents who miss a bi-weekly recycling collection find themselves with a month's worth of recyclable material to fit in their cart that many times is completely full after two weeks. Going to every week recycling means missing a collection is also less of an issue.

Counties should work with their cities to implement weekly collection for recyclables.

Pair bi-weekly trash collection with weekly recycling and organics collection

By pairing weekly recycling and organics collection with bi-weekly trash collection, communities may achieve greater recovery rates. Since the majority of residential waste is recyclable or compostable, very little waste remains in the trash when curbside recycling and organics programs are provided. Organics collection removes the putrescible portion of the waste stream that causes trash to smell bad, so trash does not need to be collected as frequently. Offering recycling and organics collection weekly allows for a transition to bi-weekly trash collection, leading to potential cost savings for haulers and residents. Bi-weekly trash collection incentivizes residents to place all recyclable and compostable materials in the weekly containers and may result in greater recovery rates.

Counties should work with their cities to pair bi-weekly trash collection with weekly recycling and organics collection.

Collect recyclables and trash on the same day

Same day collection of recycling and trash allows residents to remember their collection day. Keeping track of different collection schedules can be challenging, especially if the schedules change often. Implementing same day collection for both recycling and trash helps residents remember their recycling day and can lead to increased waste diversion.

Counties should work with their cities to implement same day collection for recyclables and trash.

Recycling management - traditional and non-traditional

Strategies

Counties should incorporate at least one of the following strategies into their respective county solid waste management master plans or provide alternative strategies that will achieve the same objectives.

Focus the implementation of mandatory commercial recycling in the TCMA on generators of large quantities of recyclables and the generators of most impactful materials

- a. Establish a baseline for commercial recycling in the region and identify the generators of large volumes of recyclables.** Minn. Stat. § 115A.151 requires property owners with buildings in the seven-county metro area that contract for four cubic yards or more of trash per week also recycle at least three materials. This law went into effect at the beginning of 2016, so although it is too soon to assess the impacts of the new law, this is a good time to establish a baseline.

In addition to establishing a baseline, identification of the large volume generators of recyclables is necessary to developing a targeted, effective commercial recycling program. MPCA is reviewing existing data from other states and the EPA on typical generators of large quantities of recyclables and will work with counties to interpret this data for use in program implementation. If appropriate data is unavailable, the MPCA will work with the counties to develop a list of large volume generators, as well as a list of generators of the most impactful materials.

- b. Identify materials that are most impactful to the environment.** The SMM approach discussed earlier in the Plan will allow the MPCA and stakeholders to identify the material types that are most impactful to the environment. By doing so, recycling efforts can be targeted with a focus on capturing the most impactful materials in the waste stream. This approach does not mean existing programs will be dissolved. But, in order to achieve the aggressive recycling goals established in this Plan and in statute, the region must consider how to capture recyclables from portions of the waste stream that have not been previously targeted, that have not been aggressively targeted, or that do not have a high capture rate.

The MPCA and stakeholders will complete an analysis of materials from the waste stream that should be focused on because of their increased ability to reduce impacts on the environment.

See the above section, "Sustainable Materials Management", for more explanation of this new approach.

- c. Re-focus commercial recycling assistance.** In addition to the new state law on commercial recycling, the TCMA counties have emphasized providing technical assistance to businesses interested in developing or improving a recycling program for the last few years. Several counties have implemented commercial recycling grant programs that have yielded great results. This increased emphasis on commercial recycling throughout the region, in order to capture more materials and increase environmental benefits, is laudable. To maximize such efforts, municipalities and the MPCA should share data and work in concert to identify high priority generators and determine which materials are most impactful to the environment.

Once the identification of those materials is complete, commercial recycling efforts should be re-focused and expanded to include generators of large quantities of recyclables. Counties should work with the MPCA to develop a large-scale commercial recycling assistance program for their municipalities incorporating this new focus.

In order to maximize staff resources at both the state and county level, counties are asked to partner with the MPCA on commercial recycling assistance and compliance efforts. Since the counties are more in touch with the waste management efforts of businesses within their respective counties, counties should share with the MPCA information collected about commercial entities that are not making an effort to comply with the commercial recycling requirements or may require additional assistance with compliance. This information will help the MPCA prioritize assistance efforts that lead to better compliance with the law.

Support the collection of non-traditional recyclables such as furniture, mattresses, carpet

Several TCMA communities have developed formal collection programs for a variety of non-traditional recyclable materials. For example, Hennepin County offers collection for mattresses (<http://www.hennepin.us/green-disposal-guide/items/mattresses>). However, these collection programs are not yet commonplace throughout the region, and many TCMA residents struggle with how to manage their non-traditional recyclables. Reuse and recycling markets for many of these materials are available. Since many non-traditional recyclable materials are also considered “problem materials” at resource recovery facilities and landfills, and have substantial environmental benefits when reused or recycled, they are typically better suited for reuse and recycling than disposal.

To increase the recovery of non-traditional recyclables, counties should offer more formal collection programs for these materials, or support cities in the development of formal collection programs.

Continue efforts on compliance with the public entities recycling requirements

Minn. Stat. § 115A.151 requires that all public entities recycle a minimum of three materials. In addition to offering grants to cities and schools to develop or maintain recycling programs, the TCMA counties have worked to ensure that all buildings under county control are in compliance with the law. Counties are well-positioned to support their public entities with meeting this requirement through assistance, education and regulation. To increase recycling by public entities, the following are recommended:

- The Metropolitan Abatement Progress Report to the Legislature submitted by the MPCA should include a metric on public entity recycling.
- County grants awarded to public entities should be incentive-based. Grantees should be required to demonstrate measurable results.
- Counties should provide education and assistance to public entities on best practices for recycling.
- MPCA should implement compliance and enforcement as needed.

Evaluate the effectiveness and the impacts of mandatory upfront processing of waste prior to or at resource recovery facilities and landfills that accept waste from the TCMA

Achievement of the 75% recycling goal will require major system changes. Upfront processing of waste to recover recyclables prior to or at resource recovery facilities and landfills serving the TCMA may prove to be an important strategy for meeting the goals and should be evaluated prior to implementation.

An evaluation of the effectiveness and impacts of mandatory upfront processing of waste prior to or at all resource recovery facilities and landfills serving the TCMA is necessary. The evaluation should include:

- Review of existing research on available upfront processing technologies, including an evaluation of the materials that can be recovered from the waste.

- Roles and responsibilities of the state, counties, and private sector.
- Assessment of the cost to the system for implementation.
- Assessment of the impacts on the export of waste.

Organics management

Capturing and preventing a larger portion of the organic materials available in the waste stream for people, animals, and for the creation of a soil amendment is critical for the region to reach the food prevention goals of the EPA and U.S. Department of Agriculture (USDA) as well as recycling goals for the state. Farms and non-profits have taken the lead on capturing food that would have been wasted to be recovered for human consumption or animal feed. In order to meet the goals set out by EPA and USDA of a 50% reduction in food waste by 2030, the state and counties will need to work collaboratively with industries to find innovative ways to prevent and recover food from being wasted. Food loss and waste in the United States accounts for approximately 31%—or 133 billion pounds—of the overall food supply available to retailers and consumers and has far-reaching impacts on food security, resource conservation, and climate change. Food loss and waste is the single largest component of disposed U.S. MSW, and accounts for a significant portion of U.S. methane emissions, according to the National Resource Defense Council.

Preventing food waste from being generated is the most cost effective and efficient way to reduce food loss. The EPA has developed programs for both commercial and institutional generators as well as residential generators. The Food Recovery Challenge provides assistance and information for organizations to prevent food from being wasted in the first place through diversion programs. The residential toolkit “Food: Too Good to Waste” was designed as a community based social marketing campaign for neighborhoods to learn tips on preventing food from being wasted in the home.

Donation of food for people is another way to prevent food from being wasted. There are several non-profits in the state that capture food for human consumption. Food-to-Livestock programs capture food that isn’t fit for human consumption but can be used as an animal feed. These two programs manage a significant portion of the organic materials that are being counted towards the state’s current recycling goal. These programs tend to work best for commercial or institutional generators due to the need to maintain especially low contamination thresholds and because they generate larger amounts of food waste.

While organics recovery has increased over the last several years, challenges still remain. The best method of collecting organics has yet to be determined, complicating the promotion of best practices. The number of commercial compost facilities is still relatively small and collectors are often obligated to travel longer distances to access the facilities. There is a lack of transfer stations that accept and consolidate organics for transport to the facilities. This leads to inefficiencies which can increase costs. Collection is also a challenge. Haulers need route density to offer affordable service but getting a suitable number of residential or commercial customers in close enough proximity for a sensible route is tough. The relative high cost of compostable products, most notably the compostable plastic bags required by many programs, is another challenge. Despite these challenges, interest in organics diversion remains high, and participation in both commercial and residential programs has grown.

To reach the recycling goals, the region must begin addressing these challenges and increase access to collection, improve its ability to collect and process organics, develop markets for compost, and educate the public.

Strategies

Counties should incorporate at least three of the following strategies into their respective county solid waste management master plans or provide alternative strategies that will achieve the same objectives.

When working with organizations, encourage preventing food waste and food donation first

As the MPCA and local units of government provide technical assistance to organizations it is important to make sure to promote prevention of food waste first before discussing diversion options such as composting. Many times preventing the food from being wasted would be a more economical approach and with the number of tools now available an easier fix as well. There are several ways for organizations to track where the food waste is happening that allows them to implement specific steps to prevent further food loss. EPA's Food Recovery Challenge has free resources for this and there are also companies that focus only on this. Donating to a non-profit not only reduces the cost of disposal but can have positive tax implications. Food-to-livestock programs are usually cheaper than disposal as well.

Make residential curbside organics collection available county-wide by 2025

Access to collection is critical to capturing more of the organic materials currently being disposed. To do so, SSO collection should be made available region wide.

Communities that are currently required to provide curbside recycling under 115A.552 Opportunity to Recycle should be required to offer curbside organics collection. Organics drop sites (where residents deliver their own household's organics to a central collection location) may be a good starting place, but they do not offer the convenience many potential recyclers expect. Providing curbside service to residents – so access is equivalent to curbside recycling or trash collection – will be necessary if the 75% recycling goal is to be achieved.

The TCMA includes a diverse set of communities with varied waste management programs in place. Given the existing challenges facing organics collection, the region should begin by establishing the necessary infrastructure and systems to support region-wide residential curbside organics collection. By 2020, each county should require that all licensed haulers offer curbside organics collection. By 2022, cities of the first and second class (as defined in Minn. Stat. § 410.01) should provide an organized residential organics collection program. By 2025, all residents in the TCMA should have access to organized curbside organics collection. Prior to implementing a curbside collection program, communities should consider the best method of collection. See sidebar above ("Complete an evaluation of the organics collection methods that work best for your communities") for more information on key considerations.

Complete an evaluation of the organics collection methods that work best for your communities.

Efforts of collecting organics curbside are relatively new. There are a number of approaches that have or could be used for collection; however, because of the relative infancy of the methods, no single practice has proved superior. In the coming years, communities will be able to customize program and collection methods based on their specific objectives and barriers. A continuing effort to evaluate and document the pros and cons of each collection method will be needed to position local governments to make wise decisions when designing their programs.

Methods for curbside collection that warrant further consideration include:

- Collecting organics curbside in a cart – including only food scraps, non-recyclable paper and compostable plastics
- Co-collecting organics with yard waste
- Co-collecting organics, in a durable compostable bag, with MMSW (sorting facilities to remove compostable bags are required with this model)
- Co-collecting organics with curbside recyclables (in a truck with separate compartments)

Local governments will need to work closely with haulers, transfer stations, and compost facilities to evaluate which collection methods are realistic in their communities. The processes used for providing other services may also influence which strategy is most viable. The following resources may be helpful when evaluating the different collection methods:

- Assessment of Residential Source Separated Organics Collection Options: A study for the city of Minneapolis, 2013
- Zero-Waste Composting: How Food Waste Can Help Conquer Climate Change and Prevent Disease. Eureka Recycling. 2013

Curbside organics programs are typically funded primarily by user fees. Historically, user fees for curbside recycling have been applied to all households even though some households may choose not to participate. The WMA, under 115A.93, requires that: “A licensing authority shall prohibit MMSW collectors from imposing a greater charge on residents who recycle than on residents who do not recycle.” Since source separated compostable materials are also defined in state law as a recyclable material cities need to consider compliance with 115A.93 in determining how to fund their organics programs.

Assessing the fees for participation in organics collection to all households, and offering that collection via an organized system, appears to result in higher participation. In Minneapolis, where all households pay a fee for organics collection, more than 40% of households have already signed up to participate in the organics program (which will be available citywide by the end of 2016). By contrast, communities that require participating households to subscribe and pay an additional fee have fewer participants. For example, in St Louis Park, where until recently only households willing to subscribe and pay an additional \$10 per quarter have organics collection, only about 10% of households were participating. The city changed its billing structure in 2016 and has seen an increase in participation.

The city of Minneapolis currently pays their hauling subcontractor \$3.38 per month per household for weekly organics collection. In St. Louis Park, the city pays their hauling contractor \$3.50 per month per household for weekly organics collection and an additional \$52 per ton of organics collected. Organics in St. Louis Park are co-collected with yard waste, which is included in these cost figures. In some open hauling communities, subscription service is available to subscribers at a cost of between \$59 and \$89 per household per year and in some cases the fee includes compostable bags. In many cases, households can offset at least a portion of the additional cost for organics collection by reducing the size of their trash container when they begin organics collection service.

Require organics diversion by large generators of organic material by 2022

In the TCMA, many businesses are required to recycle a minimum of three materials types per Minn. Stat. § 115A.151. Given this requirement, it is logical for large commercial generators of organic materials, such as restaurants and grocery stores, to implement organics diversion. Voluntary approaches within the TCMA, notably the efforts by Hennepin, Ramsey, and Washington counties, have had success in increasing organics diversion by large generators. However, mandatory organics diversion by large commercial generators has more potential to significantly increase recycling rates.

Requirements that certain types of organizations participate in organics diversion efforts have become increasingly common in recent years. In Minnesota, the Western Lake Superior Sanitary District (WLSSD), located in northeast Minnesota, requires most restaurants, colleges, hospitals, nursing homes, assisted living facilities, food processors, and caterers to separate and recycle their pre-consumer food waste. In Massachusetts, businesses or institutions that generate over one ton of organic material per week are required to divert food waste from disposal through composting, conversion, recycling or reuse. Vermont’s Universal Recycling Law (Act 148) includes a ban on food scraps (effective in 2020) that will effectively require all commercial and residential organics generators to recycle organics. The Vermont law also includes a requirement that waste haulers and solid waste facilities collect organics and recyclables. California’s Assembly Bill 1826 requires businesses, institutions and multi-family residential complexes with five or more units that generate at least eight cubic yards of organic waste per week to have organics picked up and recycled separately from trash.

The WLSSD ordinance would serve as a good model for the TCMA. In the WLSSD ordinance specific sectors are identified, and criteria are set to determine which businesses are obligated to participate. For example, grocery stores that are 7,500 square feet or larger, hospitals with 100 or more beds and restaurants with a St Louis County “Level 3” food-handling license are required to participate.

To make significant progress toward achieving the recycling goals, large generators of organic material should implement organics diversion. By 2022, each TCMA county should require organics diversion by large commercial generators. The counties should encourage moving organic materials up the waste management hierarchy and support businesses in donating food to people and implementing a food to animals program, in addition to source-separated organics composting. To ease the potential burden on small businesses, small commercial customers could be given the opportunity to use city-negotiated organics collection contracts.

Support community based social marketing campaigns that educate residents on ways to reduce the amount of food that is not eaten

A significant portion of food that is wasted comes from the household. The EPA and Rethink Food Waste through Economics and Data have both highlighted the impact reducing food loss from households would bring. It has been shown that just by having people become aware of the amount of food being wasted from their home, people start to change behavior. Tools, such as EPA's Food: Too Good To Waste, Eureka's Make Dirt Not Waste and tips on Save the Food, a website developed by the Ad Council and Natural Resources Defense Council, have been developed and people that have been given the tools to use have seen up to a 25% reduction in wasted food. It is important to prevent food from being wasted before we think about managing it because reducing wasted food conserves the resources needed to grow food in the first place. Food that is diverted does not have these upfront benefits. Preventing food from being wasted is also more cost-effective.

Develop additional transfer capacity in the region

As noted in the 2015 Solid Waste Policy Report, there is an immediate need for transfer capacity for organic materials. Increasing the number of transfer stations in the region would facilitate the development of new organics collection programs that might have been previously stalled by the distance to the composting facility.

The MPCA has made funding for transfer capacity and/or sorting of durable compostable bags a priority in its 2016-2017 Environmental Assistance Grant round. In addition, MPCA staff is committed to providing technical assistance to facilities to assist them with meeting permit requirements for consolidating and transferring organics.

Use of durable compostable bags is one strategy that has gained some traction for collecting organics. Source Separated Organics (SSO) are separated by the generator into the durable compostable bags. The durable bags are designed to be co-collected (typically with MMSW) while withstanding the rigors of compaction in garbage trucks and on tipping floors. The challenge is that the durable compostable bags/co-collected material needs to be delivered to a facility with the capacity to sort the SSO/bags from the MMSW. In 2016, only a handful of the facilities in the TCMA had established sorting systems for durable compostable bags.

As a recyclable material, SSO are exempt from the state's solid waste management tax. The MPCA will work closely with the Department of Revenue to ensure that as methods that allow for more efficient collection of organics are developed, the incentives remain in place. Each collection method will likely require evaluation to ensure that quality material is effectively captured so the intent of the exemption is preserved.

Implement organics diversion at public entity facilities and in large event venues

Minn. Stat. § 115A.151 has required public entities to recycle since the early 1990s. While compliance with this law is still an issue, the TCMA counties have made significant progress in implementing traditional recycling programs and encouraging the municipalities within each county to do the same.

However, most public entities have not yet implemented an organics diversion program. Since this Plan prioritizes residential organics collection as well as organics diversion by large generators, public entities are also encouraged to implement organics diversion programs.

By 2025, city and county facilities should implement an organics program. Although the cost of compostable products has been cited as a common barrier to establishing a program, public entities are well positioned to reduce these costs by participating in cooperative purchasing agreements that provide significant price breaks.

Progress has already been made implementing organics collection in prominent TCMA event venues like Target Field, CHS Field, the Science Museum of Minnesota, and the Xcel Center. Working with other venues like US Bank Field, the new soccer stadium, and other prominent gathering spaces will also help the public to become familiar with organics collection and capture large volumes of organic waste. Some stadiums have had noteworthy successes with organics collection because they often have the opportunity to design procurement programs so only organic and recyclable wastes are produced. For example, The Ohio State University's football stadium has achieved recycling rates above 98% in recent years.

The state of Minnesota is also working to establish organics programs at many state owned and operated facilities. In 2016 the Capitol Complex implemented organics collection at more than 20 state facilities. The project is intended to provide a template for agencies that are not part of the complex to also implement organics collection in combination with recycling best practices.

Evaluate mixed waste processing for organics recovery

Meeting a 75% recycling goal in the TCMA will take a broad range of programs and policies to achieve. Asking generators to source-separate their recyclables, including organics, is beneficial in that the material collected is of a higher quality (less contamination), and thus can be used to create more valuable and versatile products. Source separation is also emphasized as a priority over processing by statute (Minn. Stat. 115a.02). Other processing technologies that are designed to process MMSW by removing recyclables, and potentially organics that have not been source separated, also need to be assessed for their effectiveness.

In contrast to source separation, mixed waste processing has historically been challenging largely due to the quality of material captured and questions about overall system impacts. Changes to the technology may require another look to determine what type of impact this approach may have on overall diversion efforts. Anaerobic digestion, for mixed solid waste, has emerged as another alternative but questions remain about the overall benefits of the process (e.g., the usability of the digestate after gas collection). Life cycle analysis should be done to determine the benefits of anaerobic digestion for mixed waste processing and other technologies. For these processing strategies to be viable there must be clear and conclusive evidence that materials can be effectively captured, that there are outlets for the material, and that the products made from the process have value.

To that end, the MPCA, in partnership with stakeholders, should conduct an evaluation of processing technologies that addresses the following:

- The ability to capture quality organics effectively
- The availability of end-use facilities willing to accept processed organics
- The overall quality and marketability of the products made from the process
- The impacts of potentially lower quality compost products on markets for compost produced from source separated organic material

The timing of this evaluation is dependent on funding.

Mixed waste processing also raises questions regarding how to account for and report on captured materials. Sorting a material from the trash alone is not sufficient to qualify as recycling. Material must be manufactured (or composted) into a new product with some value if it is to be considered recycled.

Non-municipal solid waste

In 2015, 3.5 million tons of non-municipal solid waste (non-MSW) was disposed in landfills that serve the TCMA. This includes industrial solid waste (ISW) and construction and demolition debris (C&D). Non-MSW waste types need to be tracked more effectively to ensure proper management and protection of human health and the environment.

Table 7. 2015 disposal in facilities that accept TCMA waste

Waste Type	Landfill Type	Quantity
Industrial Solid Waste	MSW landfills, ISW Landfills, Class III Demo landfills or Non-MSW disposal cells at sanitary landfills	1.75 million tons
Construction/Demolition Debris	MSW landfills, ISW landfills, all types of Demolition Landfills	1.78 million tons
Mixed Municipal Solid Waste	MSW Landfills	1.62 million tons

Land disposal practices, waste characteristics, and financial incentives have changed dramatically over the last three decades. The laws and rules governing solid waste management have not kept pace and now create some counterproductive incentives. As Table 7 above demonstrates, 1.75 million tons of ISW was disposed of in TCMA landfills in 2015. There has been a large amount of growth in non-MSW (C&D and ISW combined) since 2009, while MSW had modest growth (Figure 8). The rapid growth of non-MSW along with tax data demonstrating that non-MSW disposal is increasing at a rate that outpaces industry growth, indicates that waste reclassification may be occurring. There is not enough data to definitively conclude that waste reclassification is occurring, so it is important to gather more information about this issue.

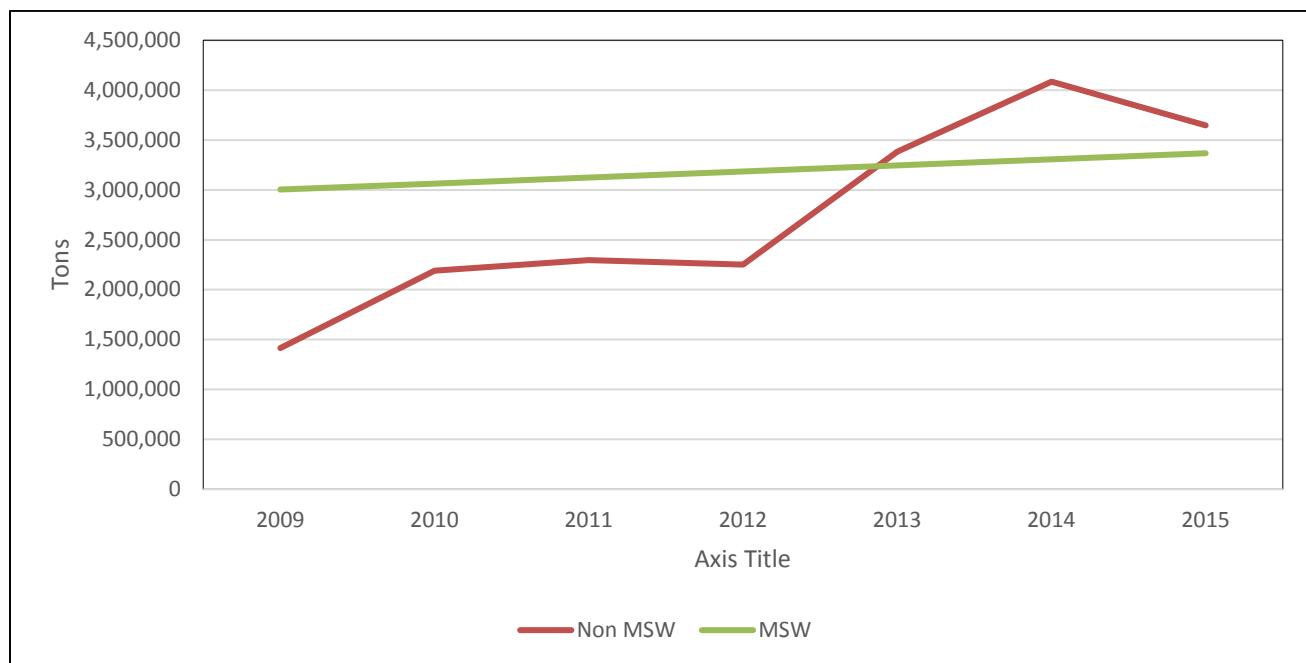


Figure 8. Metro MSW and Non MSW Generation since 2009 (in tons)

State law (Minn. Stat. §§ 473.801 to 849) provides general guidance to reduce the amount and toxicity of waste generated and landfilled in the TCMA and calls for the MPCA to set out plans for MSW and non-MSW landfill abatement (Chapter 473.149). However, there are no statewide statutory goals for non-MSW reduction and recycling. Non-MSW accounted for approximately 3.5 million tons (69%) of the total solid waste landfilled in the TCMA in 2015. Of the 3.5 million tons of non-MSW, 1.78 million tons was C&D and 1.75 million tons was ISW. Non-MSW has not been given as much attention as MSW by the MPCA and the TCMA counties. The fast growth of non-MSW land disposal is a concern for the MPCA. The last close examination of non-MSW was conducted in 2007 and there have been significant changes to the types and quantities of non-MSW landfilled since then. Unfortunately, the MPCA only has non-MSW data for these facilities back to 2009, but it is clear in the chart that in 2009, non-MSW tonnage was nearly half of total MSW generation, but by 2014, non-MSW surpassed MSW generation. More focus should be placed on non-MSW management to increase the reuse and recycling of non-MSW and achieve the benefits associated with diverting non-MSW from landfills.

Past and present systems

In 1988, solid waste management in Minnesota looked like this:

- Industrial waste was a result of manufacturing or processing that needed special testing and screening before being landfilled as MMSW.
- The only ISW landfills were mono-fill facilities for coal ash, paper sludge, and auto fluff.
- Taxes for all solid waste types were low.
- No expectation that it would be desirable to have waste classified as ISW.

Currently, solid waste management in Minnesota looks like this:

- Many regions of Minnesota are served by landfills with large industrial generators but report no ISW disposal. Instead ISW is treated as a component of MSW.
- 63% of ISW that is classified as industrial waste is characterized as “other ISW”, so it is not possible to know exactly what constitutes that portion of the waste.
- Permitting and Environmental Review for MSW landfills is restrictive, but there are many fewer restrictions for C&D or ISW landfills. There were fewer restrictions on those waste streams because they were believed to be lower risk, but we have increasing evidence that demolition debris and industrial waste also carry environmental risks.
- The nature of ISW has changed (e.g., waste has been observed to contain less inert and unprocessable materials such as foundry sand and contaminated soil) and now contains more material that resembles what would have originally been considered MSW.

State Statute Definitions:

Mixed municipal solid waste § 115A.03, subd. 21

(a) "Mixed municipal solid waste" means 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 municipal solid waste 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.

Industrial waste § 115A.03, subd. 13a

"Industrial waste" means solid waste resulting from an industrial, manufacturing, service, or commercial activity that is managed as a separate waste stream.

State Rule Definitions: 7035.0300 subp.63

Mixed municipal solid waste

"Mixed municipal solid waste" has the meaning given it in Minnesota Statutes, section 115A.03, subdivision 21.

Industrial solid waste 7035.0300, subp.45

"Industrial solid waste" means all solid waste generated from an industrial or manufacturing process and solid waste generated from nonmanufacturing activities such as service and commercial establishments. Industrial solid waste does not include office materials, restaurant and food preparation waste, discarded machinery, demolition debris, municipal solid waste combustor ash, or household refuse.

- Under current law, it is easier to expand ISW or demo landfills, than it is to expand MSW landfills.
- Tax rates are 20 to 30 times higher for MMSW compared to ISW; this creates a strong tax incentive to characterize MSW as ISW.

Evaluating definitions

There are small differences between industrial waste, as defined in Minn. Stat. § 115A.03, and ISW, as defined in Minn. R. 7035.0300 (See sidebar, “State Statute Definitions”). These differences could create confusion among those attempting to manage the system. Therefore, the MPCA is investigating data trends to determine if this is a problem that needs further resolution.

Tax incentives and regulatory differences

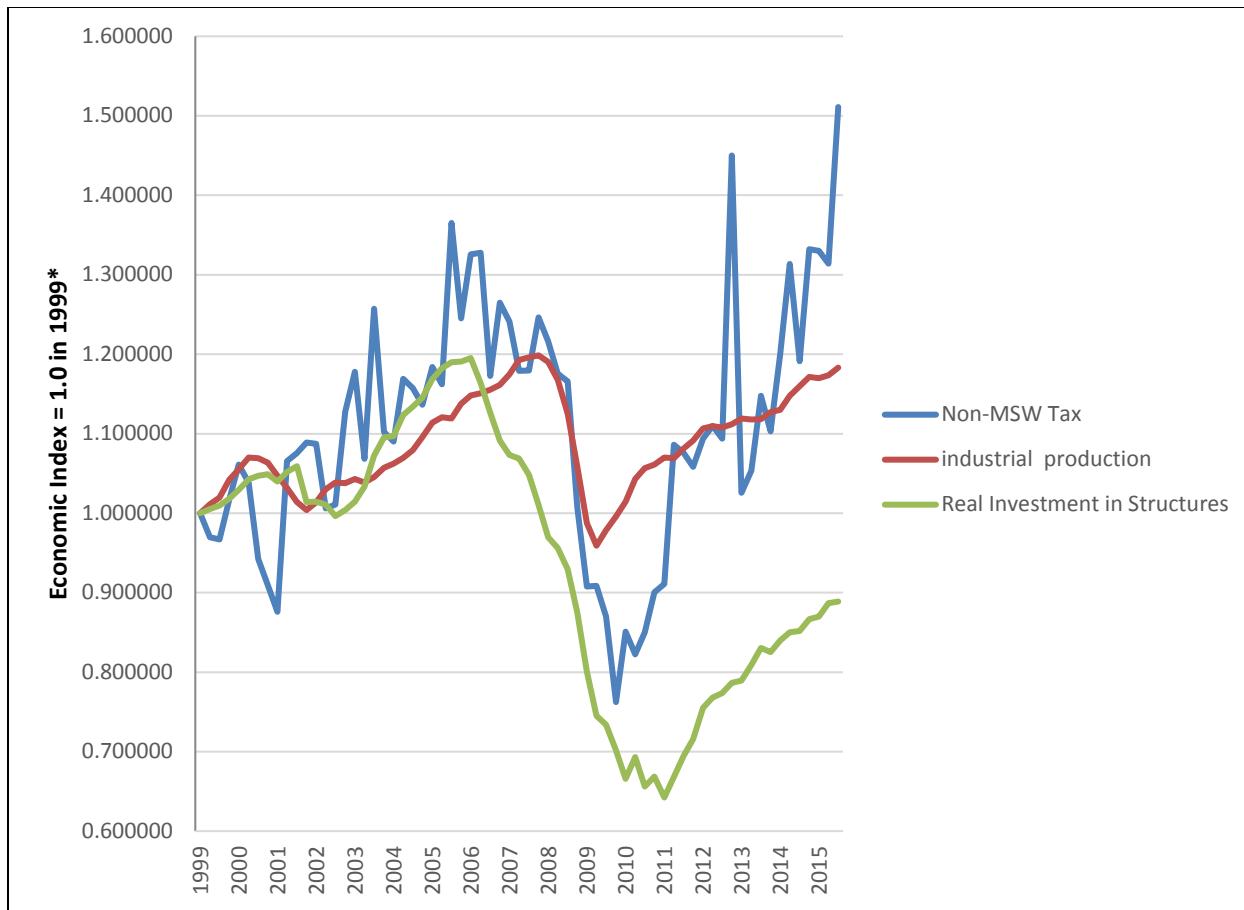
Disposing of waste in an ISW landfill is less expensive than disposing of it in a MSW landfill because ISW landfills do not have the same regulatory requirements or tax structure as MSW landfills. The disposal rate for ISW is \$0.462 per ton, much lower than the 17% of the sales price charged for MMSW (Table 8). The differences in the tax rates can lead to MMSW tax being about 20 times more expensive than the Industrial tax.

Table 8. Solid waste management tax rate charged for different waste types

Type of waste	Solid waste management tax rate
Construction Debris	60 cents per cubic yard or \$2 per ton
Industrial Waste	60 cents per cubic yard or \$0.462 per ton
MMSW Commercial	17% of sales price
MMSW Residential	9.75% of sales price

The regulatory burden is also lighter at ISW landfills because they are not required to obtain certificates of need, and there are no statutory goals for landfill abatement of materials that are handled as ISW. This has the potential to result in larger volumes of industrial landfill capacity, which can in turn promote lower tipping fees.

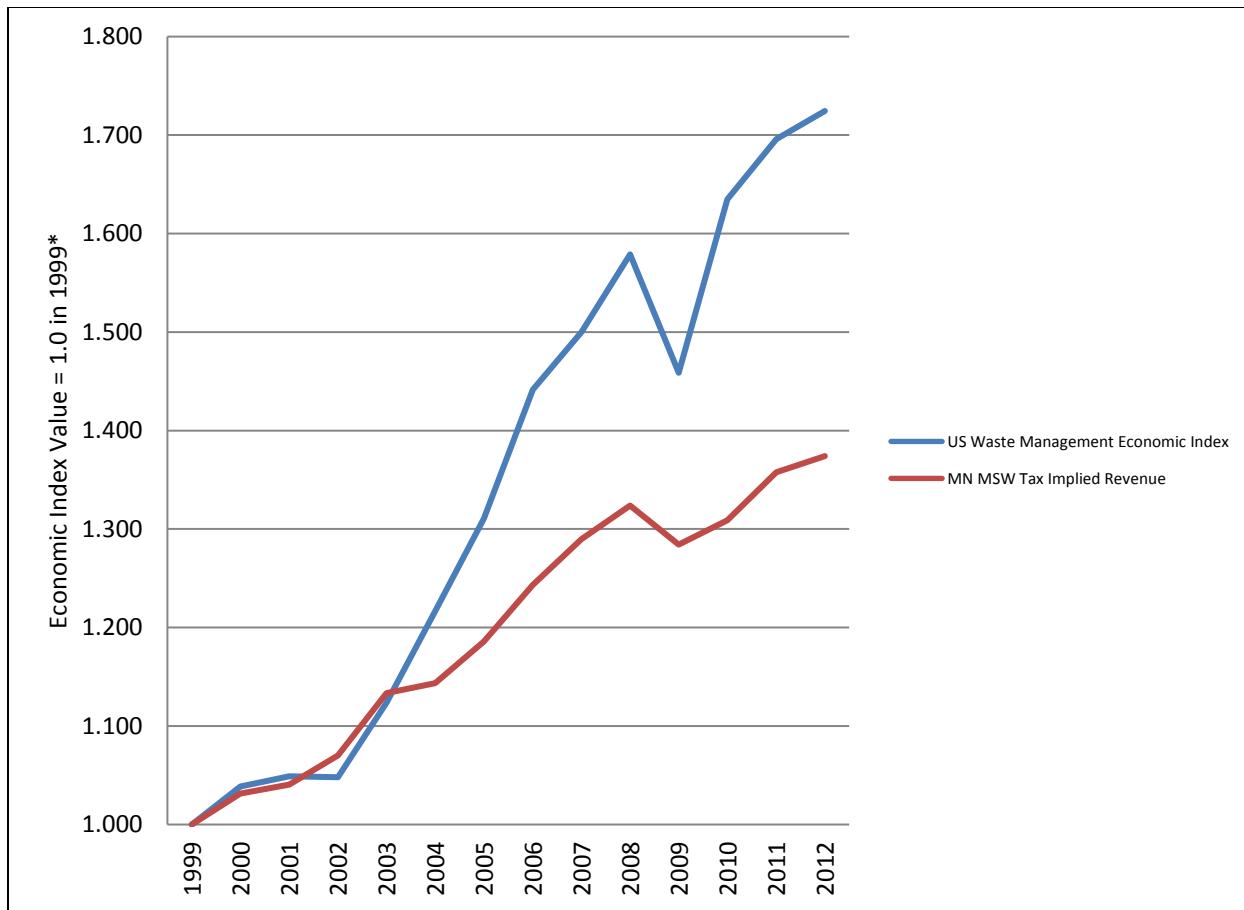
Minnesota Management and Budget has also noticed a couple of trends in the tax data. In Figure 9, the blue line shows non-MSW tax receipts for the state of Minnesota. The red line shows industrial economic activity over time and the green line shows construction investment over time. The tax line should be somewhere between the industrial activity and construction investment (or at least have a similar trend). Prior to 2009, the tax line was in close proximity to the actual production in the State and had a similar growth. Since 2009, non-MMSW tax receipts are growing at a rate that is much higher than the rate of actual industrial and construction activity, which is not consistent with past trends and creates questions because the tax is directly connected to volume of waste generated.



*The economic index is set at 1.0 for the year 1999. Values greater than 1.0 show economic growth relative to 1999, values less than 1.0 show less economic growth. The index is valuable because it places all three variables on the same scale.

Figure 9. Non-MSW revenue with industrial production and construction activity

Figure 10 shows the relationship with the Minnesota MSW tax compared with actual economic activity of the national solid waste industry. Prior to 2003, the MSW tax was in line with the national economic growth. However, since 2003, the tax has not kept up. Since 2009, that divergence has grown more quickly. This chart combined with the chart above, show that the MSW tax is growing more slowly than it should be and the non-MSW tax is growing more rapidly than it should be. This data combined with the rapid growth in non-MSW and stagnant growth of MSW speak to the need to look at this issue more closely with improved data.



*The economic index is set at 1.0 for the year 1999. Values greater than 1.0 show more economic growth than 1999, values less than 1.0 show less economic growth. The index is valuable because it places both variables on the same scale.

Figure 10. MN MSW tax revenue compared with US Waste Management Economic Index

Importance and benefits of focusing on non-MSW

Non-MSW has strong connections to Sustainable Materials Management(SMM). The EPA has demonstrated that concrete and carpet have relatively higher environmental impact compared to other materials (<https://www.epa.gov/sites/production/files/2015-11/documents/sfhomes.pdf>). In Minnesota, these impactful materials are part of ISW, but the WMA primarily focuses on MSW management. The non-MSW portion of the waste stream is growing very quickly (Figure 11). The non-MSW forecast was generated using non-MSW data from facilities that accept TCMA waste. The 2009 – 2015 time period used in the forecast was chosen because the MPCA only has reliable data regarding TCMA disposal of non-MSW back to 2009. This forecast may include non-MSW generated outside of the metro area as well as MSW counted as ISW. Expanded analysis of this waste stream will be necessary for a more accurate forecast and will be updated when the MPCA reissues this plan in six years. The full statistical assumptions are included in Appendix F.

In order to meet long-term environmental goals in the State, statutory recycling goals should be established for C&D and ISW. Expanding the focus to all solid waste will impact the way we measure recycling in the future.

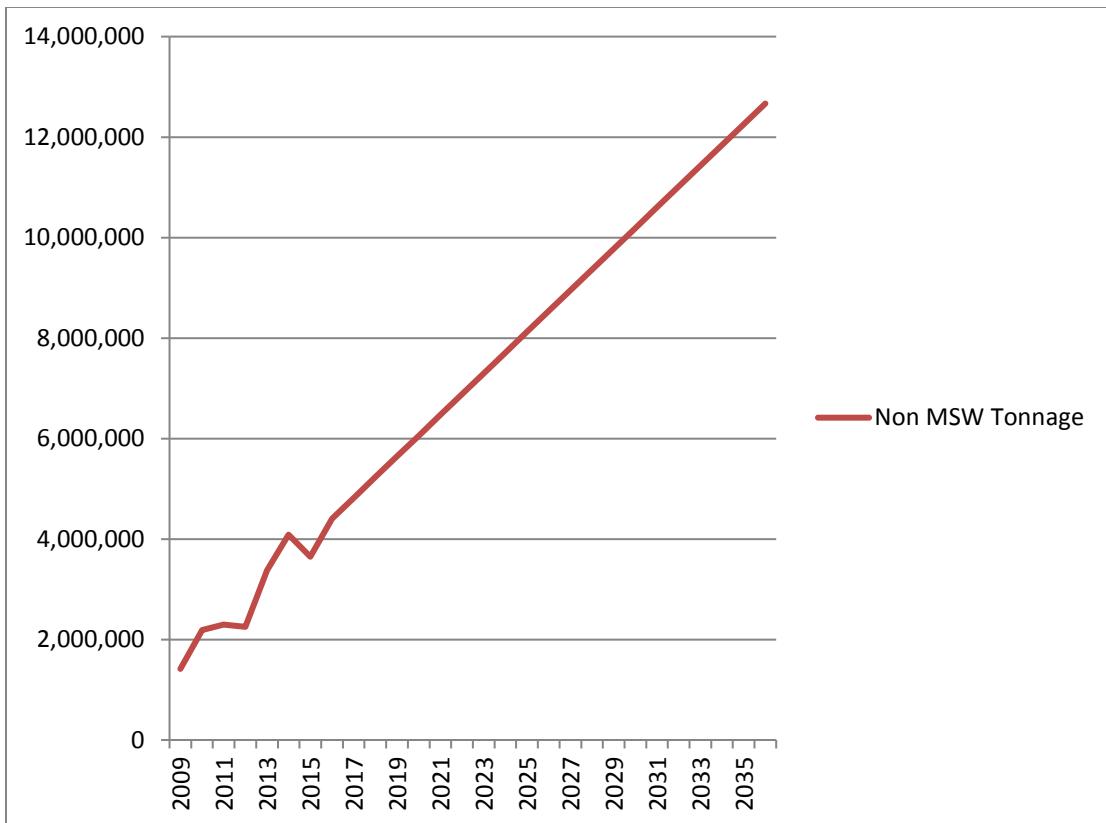


Figure 11. Non-MSW waste forecast

Increasing the recovery of C&D and ISW in the TCMA could yield benefits ranging from reduced environmental impact to job creation. Waste Cap in Wisconsin has demonstrated an ability to recycle or beneficially use 88% of the material generated at their demolition and deconstruction sites. In addition, they have focused on finding local markets for their material, leading to increased job opportunities in Wisconsin. Requiring the recycling of construction debris in the TCMA could greatly reduce the amount of C&D waste going to land disposal.

Strategies

Counties should incorporate at least one of the following strategies into their respective county solid waste management master plans or provide alternative strategies that will achieve the same objectives. Several strategies included in the sections below will be led by the MPCA. Counties that select these strategies are expected to actively participate in their implementation. The MPCA expects that these strategies will be expanded and detailed implementation actions created during master plan development.

The following recommendations will drive the TCMA toward a system where all solid waste is managed effectively and the state of Minnesota realizes the greatest environmental benefit.

Ensure that projects that receive general obligation bond funding from the state of Minnesota are in compliance with the B3 guidelines (http://www.b3mn.org/guidelines/m_3.html)

The Minnesota B3 Program (Buildings, Benchmarks, and Beyond) studies building performance and develops standards and strategies for measuring and increasing performance of buildings receiving state funds. Most buildings participating in the B3 program are state-owned, but some buildings developed by local governments (including housing) have participated. The B3 Guidelines (B3-MNBG) are a series of

required and recommended performance standards, among them energy and waste efficiency standards (SB 2030). The MPCA will work with the Department of Administration on ensuring that B3 guidelines are followed for buildings being renovated, built or demolished.

Work with cities to adopt ordinances that require waste plans for demolition/deconstruction projects

Some cities and counties have adopted ordinances that require waste plans for renovation, new buildings, and demolitions since many building materials can be reused or recycled. In Cook County, Illinois, C&D material is the largest component of the waste stream. Cook County also found that renovations contribute the largest amount of construction and demolition waste generated.

Counties should require waste plans to be developed and approved for renovation, new builds, deconstruction and demolition. The goal is to reuse as much of the building materials as possible. Plans could include a reuse and recycling rate for homes that are over a certain square footage or older than a specific year but all should require reporting the materials recovered as well as disposed of with the amounts broken out by weight and end markets to the county or city, as well as a pre-demolition inspection. SCORE money could be used to help encourage participation. Potential tasks are listed below.

1. Begin by implementing a deconstruction and demolition checklist (Ramsey County model).
2. MPCA should evaluate the capacity for recycling and reuse of demolition debris, so that the markets can be supported for these materials.
3. Once the study is complete, counties or cities should adopt ordinances that require the waste plan with specific recycling/reuse goal as well as measurement. Ordinances can utilize a phased approach.

Study waste classification practices

MPCA should evaluate the meaning and application of statutory and rule definitions of MMSW, industrial solid waste, and industrial waste. The MPCA will ensure that a level playing field exists for all parties in the solid waste system. Once the evaluation is complete, the MPCA will make recommendations and changes to ensure that all parties within the system understand how to properly classify MMSW, ISW, and C&D.

Waste composition studies must be conducted at all disposal facilities that accept waste from the TCMA

Resource recovery facilities are currently required to conduct waste composition studies every five years. This requirement should be extended to all disposal facilities for consistency. The data provides important trend information on waste composition (types and quantities of materials disposed). The addition of landfill information will help policy, planning, and implementation efforts, such as assessing capture rates. This requirement should include all landfills.

Develop more comprehensive measurement of the industrial and C&D segments of the solid waste stream

Collect data on recycling/reuse that occurs with these material types in addition to the disposal. It will be important to collect information to show success in diversion of recyclable/reusable materials from disposal in addition to the amount of material actually disposed. Common materials that are recovered from demolition sites are concrete, shingles, wallboard, carpet and lumber. Concrete and carpet have large environmental impacts, so focusing on them would provide the greatest return.

Recycling market development

Traditional recycling markets

Recycling market development (RMD) creates and maintains demand for recyclable materials by developing end markets for them. RMD looks at the highest and best use of post-consumer discards that are collected from the waste stream. Material that is recycled and reintroduced as a feedstock into a manufacturing process continues to generate economic activity. Focus should be on our local economies, investment in new products from recycled material, materials recovery facility (MRF) new technologies, and keeping jobs and tax dollars in Minnesota.

During the 1990s, the state of Minnesota and private industry invested millions of dollars in developing recycling end markets. The success of the current collection system and end markets for recycling that are in place today directly reflect those investments. In the 2000s, the investment pace in Minnesota slowed down considerably on the end market side because of industry consolidation and closure due to the increased amount of material being exported to China. However, China also imported millions of tons of recycled material from our domestic market. They were willing to pay above-market prices even for contaminated loads. China's borders closed to all but the cleanest, most organized loads in 2013 with the institution of the Chinese government's Green Fence policy. The lack of investment in domestic markets since 2000 meant the domestic market could not absorb the increased amount of material, which resulted in dramatic price drops for recyclable material. Local markets are usually less volatile and more cost effective than foreign markets, support the local economy, and provide jobs.

Strategies

The following strategies are MPCA-led initiatives but active participation from stakeholders is expected.

Research best practices for MRF optimization

Contamination is a big concern at MRFs. Plastic bags gum up the system, shredded paper contaminates plastic bales, and glass gets crushed to an unusable size and unfortunately, some residents put non-recyclable items into their single sort bins. All these factors lead to an increase in the amount of residual material that must be disposed of vs. recycled. There are new technologies that could help MRFs attain a cleaner, higher value product. MPCA, TCMA counties, MRFs and other partners should work together to research the best equipment available and best operational practices to increase yield of recyclables and reduce contamination.

Invest in new technologies and equipment for sorting

The MPCA, TCMA counties, MRFs and other partners can use the recommendations from MRF optimization research to inform MPCA grant and loan priorities. This may require that the state seek federal funding and private equipment manufacturer funding as well.

Expand the capacity for existing markets, specifically glass, paper, and film

Glass continues to be a commodity with negative value. The issue stems from the size of crushed glass at the end of the MRF process. These small pieces can also be contaminated with bits of paper, plastic, and batteries. The amount of film, specifically agricultural plastic and boat wrap, has exploded in the last few years. It is preferable to recycle this material rather than landfilling or burning onsite as much of it is now. Paper, while stable at the moment, is another material that could lose its value. Commodity availability and pricing is fluid and other materials may also need assistance. The MPCA, industry representatives, counties, and recycling organizations should work together to coordinate material quality, collection, and markets for these three materials in particular.

Establish a shared vision to build and improve local market development infrastructure and capacity

Infrastructure and investment in the 1990s was critical for developing and maintaining markets within the TCMA and throughout Minnesota. It will take a second wave of investment to maintain and expand Minnesota's established and new recycling markets. The MPCA and partners (industry, government, non-profit, institutional, etc.) should investigate how this can be implemented by 2018. The group should focus on market development needs including infrastructure development (public and private), funding, and assistance and develop recommendations on how to effectively advance statewide priorities. The group will establish a shared vision and responsibilities to meet Minnesota's recycling market development goals.

Organics markets

In Minnesota, over 30% of what we throw away is compostable (food, soiled paper, etc.). MPCA, along with many cities in the TCMA, is working to bring organics collections to curbside containers, sports facilities, and commercial businesses. If this material can be captured, it would put a big dent in the required 75% recycling rate in the TCMA. There are opportunities to reduce the amount of food that is not eaten and move food waste to higher and better uses such as food to people and animal feed. The rest should be made into compost, used to feed livestock, or rendered. More end markets are needed for compost.

Strategies

Counties should incorporate at least one of the following strategies into their respective county solid waste management master plans or provide alternative strategies that will achieve the same objectives.

Expand the use of compost in the Minnesota Department of Transportation's and in local government transportation infrastructure projects

Use of compost in roadside and other construction projects has many benefits. Compost helps amend soils so they are better equipped to support plant growth, prevent erosion and infiltrate runoff to prevent pollutants from entering lakes and streams. A number of communities have established practices that have incorporated use of compost into routine operations. For example, Maryland recently adopted legislation, Chapter 430 (House Bill 878) that lays out specific circumstances when the State Highway Administration will use compost and compost-based products. Implementing similar specifications into Minnesota's public construction efforts would help expand markets for compost and ensure that those projects are conducted in a way that better protects Minnesota's lakes, rivers and streams.

In revising their specifications for compost, the Minnesota Department of Transportation (MnDOT) recently worked with the MPCA to include compost products that are derived from food scraps. Previously, MnDOT only allowed yard-waste and bio solid- derived compost. Once finalized, this addition will allow for a broader application of compost in roadside construction and landscaping projects, incentivizing capacity growth for compost facilities statewide.

The MPCA should work closely with MnDOT to identify strategies to increase the use of compost.

Assist local governments in adopting policies that require the use of compost in new construction projects

A number of communities have established requirements that local governments use compost in any construction project. For example, the city of Denver has a Soil Amendment Program that requires new residential, commercial, industrial and government properties to use compost so soil more effectively

retains water. Details about the Denver program can be found here:
<http://denverwater.org/Conservation/SoilAmendmentProgram/>

Similar policies have been adopted elsewhere including communities like Leander, Texas; Fort Collins, Colorado; Montgomery County, Maryland; (<http://www.biocycle.net/2014/10/20/ordinances-to-amend-soils-boost-compost-demand/>) and Eagan, Minnesota. Other communities have developed voluntary programs and paired them with financial incentives to encourage better management of stormwater.

These recommendations are typically adopted by communities primarily because of concerns about water pollution. The benefits they have for expanding markets for compost are usually not the primary motivation. That said, by promoting and expanding use of compost the composting industry is in a position to be more successful.

Emerging technology

The solid waste system is constantly evolving. Waste materials change and the technology to separate the materials generated improves. These changes generally improve our ability to divert more material from land disposal; however, they also often create challenges. A challenge with new technology is that the MPCA does not currently have specific rules directing the specific permitting of some new types of waste processing systems. The permitting process for some of these types of facilities is largely straightforward, but the MPCA struggles with policy decisions around technologies that do not fit neatly into current rules and the Solid Waste Management hierarchy. There are also challenges with fully understanding the environmental impacts of some of these new technologies. For example, the MPCA can permit a facility to operate and ensure that it does not have direct adverse impacts on the environment and human health. However, the facility may pull materials from a higher and better use, so that creates policy concerns and the permitting process will likely take longer than it would for an established technology. Examples of this could include: plastic beverage containers going to a resource recovery facility rather than being recycled or paper being composted rather than recycled. It also creates issues when facilities ask for tax-exempt status because they should be considered recycling, or a county wants that particular technology to count towards their recycling goal.

Due to this challenge, the MPCA needs to develop a system for evaluating, not only new technology, but also existing technology via life cycle analysis. This system would allow the MPCA to more quickly and confidently make policy decisions about the environmental impacts of a new facility wishing to locate in Minnesota. It would also allow the MPCA to compare the impacts of the proposed facility to other types of solid waste facilities and processes in the state, region, and beyond. The MPCA will inform the public of the results of the analysis.

Strategies

The following strategies are MPCA-led initiatives but active participation from stakeholders is expected.

Evaluate anaerobic digestion for the region

The MPCA will evaluate the environmental impacts of different methods of anaerobic digestion (including the energy outputs, feedstocks, and digestate) to determine how this technology fits into the waste management hierarchy. Does anaerobic digestion more closely align with composting, resource recovery, or should it be its own tier of the hierarchy? If so, where should that tier fall? The MPCA will begin by looking at the updated waste reduction model (WARM) calculator (https://www3.epa.gov/warm/Warm_Form.html) as developed by EPA and other available research.

Develop a process for gathering the information necessary to make timelier and consistent policy decisions by 2019

The MPCA should evaluate the various levels of the hierarchy using a life cycle perspective, which will help the MPCA with future policy decisions around new technologies by providing a basis for comparison. The evaluation should include:

- Identification of existing life cycle analysis, such as EPA's decision support tool (<https://mswdst.rti.org/>), research about waste management methods, including, but not limited to, land disposal, resource recovery, composting, anaerobic digestion, plastics to oil, recycling, and food to livestock.
- Identification of gaps in life cycle analysis data and research funds needed to fill those gaps.
- Development of solid waste life-cycle policy recommendations.
- Apply knowledge from these studies to develop a framework for preferred technology.

Product stewardship

Defining which entities should have responsibility for which tasks is an important concept. Since 1980, the government's role is no longer one of being a "caretaker" for waste produced by residents and businesses, but one of allocating responsibility for waste to those who produce it. The costs of proper management must be reflected in the prices paid for services, incorporating the true costs of waste management and thereby encouraging more environmentally sound options. Research and experience have shown that environmentally sound, up-front management decisions are cost-effective for businesses.

Product stewardship is a strategy through which all parties involved in designing, manufacturing, selling and using a product, share in the financial and physical responsibility for collecting and managing products in an environmentally sound manner at every stage of that product's life. Manufactured goods and packaging are about three-fourths of the material that becomes MSW. Products and packaging may contain hazardous materials, and some can be expensive to manage as waste. Product stewardship spreads the responsibility for products that become waste beyond government, to the manufacturer and consumer. Ultimately, product stewardship is about facilitating movement of materials up the waste management hierarchy.

This Plan promotes 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. Better waste management can be driven through incentives, visible costs, and effective pricing signals. Incentives for waste reduction and recycling, separate management of organic wastes, and resource recovery can be provided through pricing of solid waste management services, product stewardship requirements, tax incentives, or fees on disposable items. Costs should be visible to, and understandable by, those paying for system services.

Strategies

Counties should incorporate both of the following strategies into their respective county solid waste management master plans or provide alternative strategies that will achieve the same objectives.

Counties report annually on the management of priority materials for product stewardship

The MPCA has identified several priority materials for product stewardship – carpet, mattresses, mercury-containing lamps, primary batteries, agricultural plastic, and plastic boat wrap (read more about the selection of these materials in the 2015 Solid Waste Policy Report,

<https://www.pca.state.mn.us/sites/default/files/lrw-sw-1sy15.pdf>). In order to understand the potential

impacts of product stewardship for these materials, the MPCA needs more data on the current management system. Counties should annually report data on the weight of carpet, mattresses, mercury-containing lamps, and primary batteries managed within the county. The report should also include the annual cost to the county to manage each material type.

Create a regional Product Stewardship committee

The advancement of product stewardship in the region relies on partnerships. A committee, composed of a representative from each metropolitan county, could focus on advancing the product stewardship agenda in the TCMA. The committee could be a focal point for data collection and analysis for products considered for product stewardship initiatives. The committee could also work in consultation with the MPCA and others regarding statewide initiatives and the development of local policies that implement product stewardship.

Part four: Implementing the plan

Solid waste master plans

Minn. Stat. § 473.803 requires the TCMA counties to prepare master plans that implement this Plan. Any solid waste activity within the seven-county region must be consistent with the Plan and the county master plans. Several options exist for the development of county solid waste master plans, including the development of a regional implementation plan, development of some aspects of the county master plans by a regional entity, or the development of individual county master plans. The approach taken will be decided in discussions between the MPCA and counties.

The counties must submit master plans to the MPCA in accordance with the schedule specified in this Plan. The master plans must be comprehensive and describe the relevant policies and implementation plans and strategies. The master plans must describe the activities to be implemented by counties, cities, and townships and the private sector.

Components of a master plan

1. Set specific, quantifiable objectives and establish measures and timeframes to meet the system objectives identified in Part Three, Table 1.
2. Incorporate strategies identified in Part Three of this Plan, or alternative strategies that will achieve the same objectives, into county master plans.
3. Incorporate all elements of individual county master plans as required by Minn. Stat. § 473.803.
4. Develop 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 the waste management objectives identified in the plan as required by Minn. Stat. § 473.149, subd. 1.
5. Identify and prioritize strategies that best implement the MSW system objectives; give preference and identify which strategies best promote inter-county regional implementation, such as regional designation, organized collection, and hauler collected fees. Identify where other stakeholders' assistance and what type of assistance is necessary.

The MPCA will review county master plans in accordance with the requirements of Minn. Stat. §§ 473.149, 473.803, and 473.848. The master plans must conform to and implement the Plan and be compatible with each other. If the MPCA Commissioner does not approve a master plan, the county must submit a revised master plan within 90 days. County master plans and any regional master plans shall be completed and submitted to the MPCA within nine months after the adoption of this Plan (see Appendix D).

MPCA initiatives that will be used to support the plan

The MPCA intends to implement the Plan with the following initiatives:

1. Enforce all laws and rules where the MPCA has the authority, including:
 - a. The metropolitan restriction on disposal of MMSW law, Minn. Stat. § 473.848, as part of solid waste facility permit decisions
 - b. The Public Entities law, Minn. Stat. § 115A.471 to require all levels of government comply with County Solid Waste Plans
 - c. The CON law, Minn. Stat. §§ 115A.917 and 473.823, that restrict landfill capacity as part of (CON) decisions.

- d. Solid waste rules including permits and operating requirements
- e. Other statutes in the WMA that the MPCA is charged with enforcing
- 2. Begin to transition to a SMM approach focused on minimizing environmental impact and emphasizing the use of life-cycle analysis.
- 3. Prioritize solid waste rulemaking to advance the needs of the metropolitan area to meet the goals of this Plan, in consultation with the counties.
- 4. Consider policy initiatives that implement the Plan, with particular emphasis given to regional solutions and new tools, as well as modification of existing tools, which restore accountability in the system. This may include identifying policy initiatives in consultation with the counties.
- 5. Provide research where possible, support and technical assistance to clarify and remove barriers and provide clear and consistent direction.
- 6. Work to develop markets and support management capacity for recyclable and compostable materials to ensure adequate infrastructure for the increase in recycling and composting rates.
 - a. Evaluate capacity for organics management
 - b. Lead efforts to promote state agency use of compost
- 7. Review and adapt the methods used to evaluate the regional solid waste system, including the types of data collected and methods of collection.
- 8. Begin to permit and regulate waste activities based on environmental risk rather than based on point of generation.
- 9. Support county designation efforts by providing timely and effective review of designation plans and county master plan amendments (per Minn. Stat. §§ 115A.80 to 115A.893).
- 10. Review technologies in an efficient, standardized, timely process.
- 11. Provide more focus on non-MSW.
 - a. Clarify definitions of non-MSW
 - b. Collect more data on non-MSW
 - c. Work to support waste composition studies at all waste facilities
 - d. Develop preferred management methods for non-MSW consistent with the hierarchy

Implementation of these initiatives may require additional funding.

Implementation monitoring

County annual reports

TCMA counties are required to submit annual solid waste reports to the MPCA for approval (Minn. Stat. § 473.803, subd. 3). The reports must provide information on waste generation and management activities, as well as progress in achieving the policies and objectives in the Plan. If the MPCA finds that the reports indicate that the counties are achieving the landfill abatement results required under law, the reports will be approved. Any report that does not demonstrate compliance with the criteria will be disapproved (see Appendix D).

Legislative reports

The MPCA must submit a Metropolitan Abatement Progress Report (progress report) to the Legislature by July 1 of each odd-numbered year that describes the progress made in implementing the Plan, including an assessment of whether the objectives of the TCMA abatement plan have been met and whether each county and each class of city within each county have achieved the objectives set for it in the Plan. The progress report must recommend any legislation that may be required to implement the Plan.

Previously, the MPCA used the Solid Waste Policy Report, which was submitted biannually to the Legislature, to communicate progress on Plan implementation. In 2012, the Legislature changed the submittal schedule for the Solid Waste Policy Report from every two years to every four years, making it incompatible with the submittal schedule for the progress report. Based on this change, the MPCA will submit a separate progress report by July 1 of each odd-numbered year.

If in any year the MPCA reports that the objectives of the Plan have not been met, the MPCA must evaluate and report on the need to reassign governmental responsibilities among cities, counties, and TCMA agencies to assure implementation and achievement of the TCMA and local abatement plans and objectives (Minn. Stat. § 473.149, subd. 6).

Metropolitan Landfill Abatement Account

Minn. Stat. § 473.844 authorizes the MPCA to award grants in the TCMA for landfill abatement activities. Funding for the Metropolitan Landfill Abatement Account (MLAA) programs is generated from the Metropolitan Solid Waste Landfill Fee, a \$2 per cubic yard or \$6.66 per ton surcharge on MMSW disposed of at the two landfills in the TCMA, and interest earned on investment of this money. Of the money collected, 25% is directed to the Metro Landfill Contingency Action Fund and 75% to the MLAA.

The MLAA program is designed to assist the TCMA in meeting region-wide goals for landfill abatement. The MLAA program is intended to assist in establishing an integrated and coordinated solid waste management system in the TCMA, consistent with the WMA hierarchy (Minn. Stat. § 115A.02), and implement the policies and programs outlined in the Plan. Fifty percent of the funds in the MLAA are dedicated to the Local Recycling Development Grant (LRDG) program and the remaining 50% are discretionary funds allocated to the MPCA for distribution to support landfill abatement. In 2014, just over \$2.1 million was distributed to the metropolitan counties under this program. The availability of this funding is based on land disposal of MMSW at the two metropolitan area landfills, and changes to disposal patterns and rates will impact the total amount available.

The LRDG program provides grants to the seven TCMA counties. The LRDG program is designed to implement new activities or to enhance or increase the effectiveness of existing yard waste composting and recycling programs within the TCMA. TCMA counties are required to support and maintain effective municipal recycling as a condition of receiving LRDG funds. All activities funded through the LRDG program must be consistent with this Plan and the county's master plan.

Appendix A: Overview of the current Twin Cities Metropolitan Area solid waste management system

In 2015, the TCMA generated an estimated 3.3 million tons of municipal solid waste (MSW). Residential waste is estimated to make up 45% of the MSW and commercial, industrial, institutional (CII) waste makes up the remaining 55%. Approximately 4 million tons of non-MMSW (such as construction and demolition debris (C&D), industrial waste, and medical waste) was managed in the TCMA and surrounding counties and sent to C&D and/or industrial waste landfills. The TCMA solid waste infrastructure is comprised of private and public entities that collect, transport, recycle, recover and land dispose the materials generated by homes, businesses, and institutions.

Description of the system

Minn. Stat. ch. 115A and 473 mandate a two-fold strategy: 1) pursue the highest methods of solid waste abatement through source reduction, reuse, recycling, organics recovery and resource recovery; and 2) minimize the use of landfills and ensure landfills are environmentally sound. The metropolitan counties have the primary responsibility for planning and managing an integrated solid waste system. Over the past 10 years, that system has had an MSW recycling rate of approximately 50%, including traditional recyclables and organics; increased the recovery of demolition and construction wastes; provided support to a system of resource recovery facilities that turned solid waste into renewable energy; implemented organics diversion programs and capacity; and initiated source and toxicity reduction and public awareness activities.

Waste composition

In 2013, an analysis of the composition of MMSW deposited at landfills and resource recovery facilities was conducted by the MPCA. Ramsey and Washington counties conducted a similar study at their Recycling and Energy Center in 2014. An average for the TCMA was calculated based on data from these two studies. The amount of material being disposed in the TCMA, identified by material type, is shown in Figure A-1.

Collection

The metropolitan counties license approximately 225 waste hauling businesses to collect and transport MMSW. Waste haulers that collect and transport non-MMSW, recycling or organic materials are not licensed. State law requires waste haulers to provide volume-based service. Most TCMA communities allow residents and businesses to choose the waste hauler that provides their service, referred to as “open collection.” Some TCMA cities and townships (including Minneapolis) arrange for the service by contract or provide their own service, referred to as “organized collection.” Communities with organized collection represent 30% of the households in the TCMA (although not all multi-family residences in these cities are included in these services). There are no organized collection arrangements for commercial waste, although some communities allow small businesses access to organized collection services.

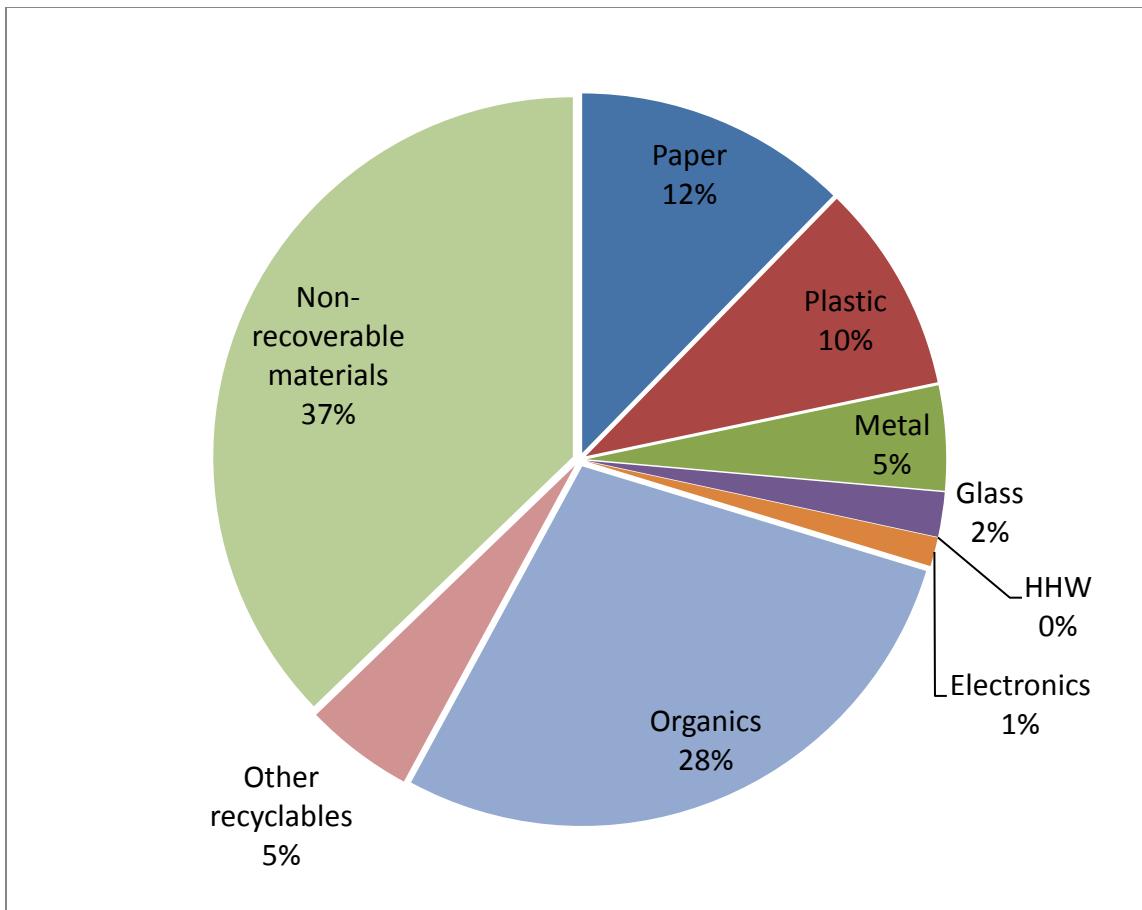


Figure A-1. TCMA MMSW composition, 2013

Residential recycling collection services are provided by either contract with an individual hauler or by municipal contract. In the TCMA, 67 municipalities contract for service which represents 58% of the households in the region. Commercial recycling collection services throughout the region are provided by subscription service.

After source separation, the remaining waste is hauled directly to a resource recovery facility or land disposal facility, or may be taken to a transfer station for compaction and transport to facilities located farther away. In the TCMA, there are 19 transfer stations, of which 14 are licensed to accept MMSW and 5 to accept only C&D waste. One transfer station is publicly owned and the remaining privately owned.

Toxicity reduction

Waste that is hazardous as defined by federal and state laws and local ordinances pose environmental and public health and safety risks. Toxicity reduction is an effort to manage the risks associated with the hazardous character of waste.

The TCMA addresses the hazardous character or toxicity of waste in two ways. The first is aimed at residents and consists of efforts to encourage reduction of wastes with hazardous character, coupled with a network of household hazardous waste (HHW) programs operated by counties. The second is aimed at commercial generators of hazardous waste and includes regulating under the federal Resource Conservation and Recovery Act standards for businesses in the TCMA.

Household hazardous waste collection programs play an important role in removing toxic materials from the waste stream. Each of the metropolitan counties has at least one year-round site for the collection of HHW, and most augment that site with seasonal, temporary, satellite, or special one-day collections. A Reciprocal Use Agreement allows residents to use any of the HHW collection sites located in the six Solid Waste Management Coordinating Board (SWMCB) counties (Anoka, Carver, Dakota, Hennepin, Ramsey, and Washington).

Of the waste received by HHW facilities, a high percentage is recycled or fuel-blended, or taken from product exchange shelves for reuse. Approximately 10 to 15% of the HHW cannot be reused, recycled, or fuel-blended and is managed at hazardous waste incinerators or landfills.

Recycling

Residential recycling programs consist of curbside collection and drop-off sites, and include recycling services for both single-family and multifamily housing. Curbside recycling programs in the TCMA are provided by haulers through a contract with a municipality or are provided through subscription service. Most counties provide some funding for municipal programs. The private sector, municipalities, and two counties provide numerous public drop-off locations for one or more types of recyclables.

Many businesses have active recycling programs, and commercial recycling accounts for most of the recycling in the region. The success of the region's recycling program is not only a result of county and city efforts, but of the significant contribution the private sector has made through the development of markets; provision of drop-off locations; and the many elements needed to develop the recycling infrastructure.

Recyclables collected are taken directly to a recycling market, a recycling broker, or to a MRF. Materials commonly recovered for recycling include:

- Paper/fiber (including corrugated, mixed paper, newspaper, office paper, magazines, phone books, boxboard)
- Glass bottles
- Metals
- Plastic bottles and film
- Food waste (to animal feed)
- Other organic materials
- Wood pallets
- Tires
- Used oil
- Appliances
- Batteries
- Mattresses
- Electronic waste

Presently, eight businesses operate MRFs that manage residential recyclable materials generated in the TCMA: Waste Management in Minneapolis; Allied in Minneapolis; Allied in Inver Grove Heights; Eureka Recycling in Minneapolis, DemCon in Shakopee, Dick's Sanitation (Recycle Minnesota) in Lakeville, Randy's Sanitation in Delano, and Tennis Sanitation in Saint Paul Park. In 2008, the materials recycled came from these sources: 73% from CII recycling; 23% from residential recycling; and 4% from mechanical / hand-sort recycling. Historically, 20 to 25% of the residential waste and about 50% of CII waste is recycled.

Yard waste

Yard waste is prohibited by state law from being mixed with the MMSW, landfilled, or processed at resource recovery facilities. Yard waste is collected either by MMSW haulers using separate collection vehicles, special yard waste collectors (such as lawn services), or by residents who drop off yard waste at collection sites. A few cities also offer the collection of yard waste mixed with other organics for composting. Yard waste is managed through county, municipal, and private programs. Two counties operate yard waste collection sites that allow citizens to drop off yard waste and pick up compost. However, municipalities or private firms sponsor most yard waste sites. Documented yard waste volumes are now reported to the MPCA. 146,540 tons of yard waste was reported in the TCMA in 2015. Some counties did not report yard waste, so the documented tonnage is less than what was actually managed.

The yard waste ban appears to be largely effective, since the 2013 Waste Composition study found only 2.9% of the material at landfills and resource recovery facilities was yard waste. A 2013 EPA report, Advancing Sustainable Materials Management: Facts and Figures 2013 Assessing Trends in Material Generation Recycling and Disposal in the United States, estimated that yard waste accounted for 13.5% of all waste generated nationally.

Organic waste management

Organic materials account for a larger portion of the MMSW currently sent to landfills and resource recovery facilities. The 2013 Waste Composition study identified 31% of the waste stream as organic and an additional 9.8% as compostable paper. Organics recovery programs include food rescue, food-to-livestock, and composting. Mixed waste processing to capture organic material has also been suggested as a method for capturing organics, although there are currently no active programs in the TCMA utilizing this approach. Each management method has different requirements regarding what materials are acceptable but it is clear there is substantial opportunity to reduce or recover organic materials that are currently ending up in the trash.

A portion of the compostable paper identified in the 2013 waste composition study is likely not suitable for composting. Items like freezer boxes and cups from fast food establishments frequently have plastic lining and as such, beginning in 2016, many composters have begun to educate recyclers to exclude those materials. Therefore, a conservative assessment of the quantity of compostable paper available would suggest that the number is lower than 9.8%. Despite this complication, items like napkins, paper towels, pizza boxes, and unlined paper plates, cups, and bowls are accepted in composting programs along with compostable plastics and food scraps.

Progress has been made in recovering organics in recent years although access to organics collection remains a challenge for many Minnesota residents and businesses. Several cities, including Minneapolis and St. Louis Park, are offering organics collection to residents citywide. A 2013 survey conducted by the MPCA of city recycling programs suggests that only about 8% to 9% of the state's population has access to curbside organics collection. Most of the curbside access is through subscription-based programs where residents opt in and pay a fee to participate. A number of other cities that utilize open collection systems for providing trash service also have one or more hauler providing organics collection. The 2013 survey also suggests that access to organics drop sites is more prominent, but still only about 23% of the state's population have an organics drop-site in their city. Individuals willing to self-haul their organics have access to drop sites in Carver, Dakota, Hennepin, Ramsey, and Scott counties.

Curbside collection primarily utilizes one of three methods:

- Collecting organics curbside in a cart – including only food scraps, non-recyclable paper and compostable plastics

- Co-collecting organics with yard waste
- Co-collecting organics, in a durable compostable bag, with MMSW (sorting facilities to remove compostable bags are required with this model).

A fourth method has also been identified in recent studies as a potential option:

- Co-collecting organics with curbside recyclables (in a truck with separate compartments)

The TCMA is currently served by a number of food rescue organizations, five food-to-livestock operations with garbage feeder permits (able to accept meat and vegetative food scraps), three large scale composting operations that are permitted to accept SSO, and many yard waste composting facilities. In general, these facilities have indicated they have the capacity to handle larger volumes of material. Transfer capacity, route density, and access to hauling service remain a challenge.

In 2015 the Legislature increased SCORE funding for the state's 2015 and 2016 fiscal years. The Legislature also required TCMA counties to spend half of the new funding on organics. The counties' obligations for organics spending are listed in Table A-1.

Table A-1. Organics obligation by county for FY2015-2017

	FY2015 Organics Obligation	FY2016 Organics Obligation	FY2017 Organics Obligation
Anoka	\$116,810.50	\$85,906.50	\$100,107.00
Carver	\$33,337.00	\$26,689.50	\$32,200.00
Dakota	\$138,111.50	\$103,145.50	\$120,659.00
Hennepin	\$406,882.00	\$315,556.50	\$370,342.50
Ramsey	\$180,243.50	\$136,467.50	\$159,494.00
Scott	\$48,916.50	\$38,462.00	\$46,087.00
Washington	\$86,516.00	\$64,323.50	\$75,073.50
	\$1,010,817.00	\$770,551.00	\$903,963.00

TCMA counties reported collecting a total of 341,745 tons of organics in calendar year 2015. Table A-2 provides the total amount of organics recovery reported, by type, in the 2015 SCORE report for the TCMA counties.

Table A-2. Organics recovered in 2015 (in tons) (data from the 2015 SCORE report)

	Residential SSO	C/I/I SSO	Yard Waste	Food-to-livestock	Food-to-People	Other Organics	Total Organics
Regional Total	1,632.83	35,810.64	146,538.73	115,277.31	7,149.56	35,336.28	341,745.35

The yard waste stream is primarily coming from residential sources. The food-to-livestock and food-to-people figures come from commercial sources. 2015 data suggest organics diversion is growing in Minnesota with an all-time high organics recovery rate of 10.2%.

It is also worth noting that the items included in the organics calculation now include yard waste composting. That policy change took effect in 2013 but many counties have not yet included documented yard waste in their annual reports to the MPCA. This change in reporting process resulted in a significant increase in the combined organics/recycling rate. Further increase in the organics recovery rate will likely be more challenging to achieve in future years.

Resource recovery

Four MMSW resource recovery facilities serve the TCMA. The Hennepin Energy Recovery Center (HERC) facility in Minneapolis uses a mass-burn technology, producing energy for district heating and electricity. The facility also recovers ferrous metal for recycling from the ash. HERC is limited by its state permit to burning 365,000 tons annually.

The Ramsey/Washington County Resource Recovery Facility (Recycling and Energy Center) is a refuse-derived fuel (RDF) facility owned by Ramsey and Washington counties. The facility was purchased by the two counties in 2016. Mixed waste is sorted into processible and non-processible waste on the tipping floor, processed, 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 burned to generate electricity. The facility recovers ferrous and non-ferrous metals for recycling, and unprocessible waste and residue from processing is delivered to landfills. Recycling and Energy Center's permitted capacity is 500,000 tons per year.

The Elk River Resource Recovery Project (GRE-Elk River) is an RDF processing plant owned by Great River Energy (GRE). Mixed waste is sorted into processible and non-processible waste on the tipping floor, processed and separated into three waste streams: RDF, recyclable metal, and residue. The RDF is transformed for combustion to GRE's power plant in Elk River. The facility recovers ferrous and non-ferrous metals for recycling, and unprocessible waste and residue from processing is delivered to a landfill. GRE-Elk River's permitted capacity is 547,000 tons per year.

The city of Red Wing (City) operates a RDF processing plant in Red Wing. Mixed waste is sorted into processible and non-processible waste on the tipping floor, processed, and separated into three waste streams: RDF, recyclable metal, and residue. The RDF is transported for combustion to Xcel Energy's power plant in Red Wing. The facility recovers a variety of recyclable materials including paper, plastics, and ferrous and non-ferrous metals for recycling. Unprocessible waste and residue from processing is delivered to a landfill. The City's permitted capacity is 30,000 tons per year.

The four resource recovery facilities have a combined permitted processing capacity of over 1.4 million tons per year. Facility operational capacity may vary from year to year and three of the four facilities accept MMSW generated outside the TCMA. Another factor to consider is that the operating capacity of three of the four facilities is presently not being fully used due to MMSW bypassing the resource recovery facilities to go to landfills. In addition, there is available unpermitted, but installed capacity of 40,000 tons per year at HERC.

Landfills

In 2015, 23% of the TCMA MSW was land disposed. Seven landfills received TCMA MMSW, with 10% going to landfills located out of state. Figure A-2 shows which landfills received TCMA MMSW in 2015. The four Minnesota landfills receiving the majority of TCMA MMSW have a collective remaining permitted MMSW capacity of approximately 10.2 million cubic yards. If these facilities continue to receive waste at approximately the same rate in the future, the permitted capacity would range from 4.9 to 14 years. Notwithstanding, this does not take into account the additional design capacity that could potentially be permitted or practices that move materials up the waste management hierarchy.

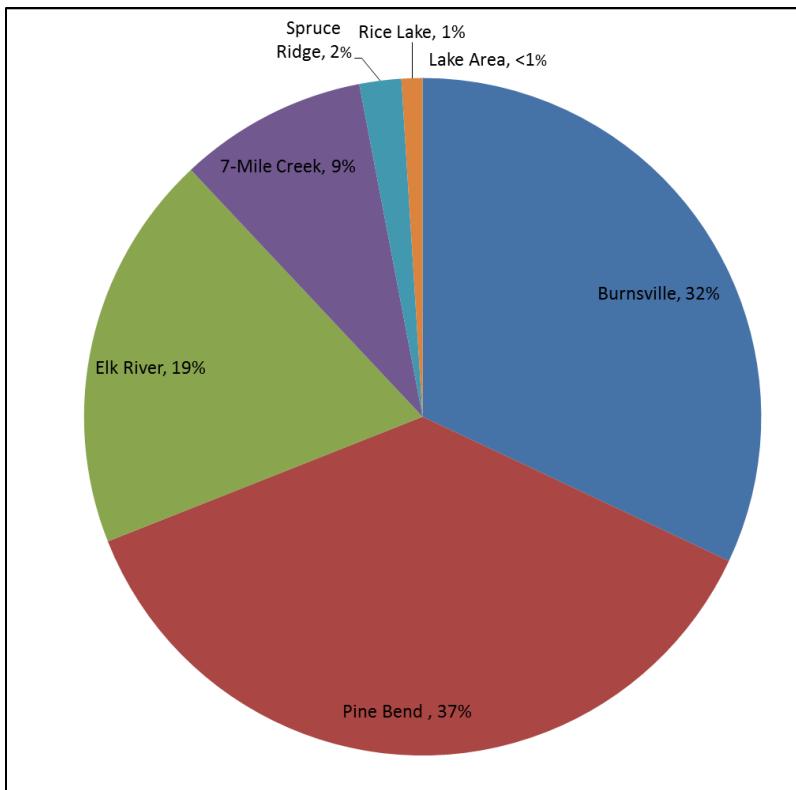


Figure A-2. Landfills receiving TCMA MMSW in 2015

The TCMA has two MMSW landfills, both located in Dakota County. The Burnsville Sanitary Landfill is located in Burnsville and is owned by Waste Management Inc. (WMI). The Pine Bend Sanitary Landfill is located in Inver Grove Heights and is owned by Allied Waste. Both landfills operate methane gas-to-energy systems that capture methane gas generated by the decaying waste. Two other Minnesota landfills that receive significant amounts of TCMA MMSW are the WMI Spruce Ridge Landfill in McLeod County and the WMI Elk River Landfill in Sherburne County. These also operate methane gas-to-energy systems. For the four Minnesota landfills that receive the majority of TCMA MMSW, while the efficiency of the gas collection systems has not been established, it is estimated that an average of 75% of the methane that is captured is used to produce electricity, and the remaining captured methane is flared.

Three out-of-state landfills received TCMA MMSW in 2015, including: the Advanced Disposal Seven Mile Creek Landfill in Eau Claire, Wisconsin, the Republic Services Lake Area Landfill in Sarona, Wisconsin, and the Rice Lake Landfill in Rice Lake, Wisconsin.

Non-MSW management

The TCMA is served by nine landfills that accept industrial wastes and/or C&D debris, or non-MSW. These landfills have approximately 25 million cubic yards of remaining capacity. Non-MSW includes nonhazardous industrial waste, C&D waste, materials banned from disposal with MMSW, problem materials, infectious waste, and other waste streams that are not MMSW or otherwise defined or regulated as hazardous waste.

Materials separated for recycling at some C&D transfer stations and landfills, include concrete, bituminous asphalt, aluminum, copper, steel, brick, mattresses, appliances, and tires. Other materials have the potential to be separated and recycled from the C&D waste. Private businesses own and operate most of the TCMA facilities that manage non-MSW. There is some public sector activity in managing certain non-MSW materials in the TCMA, such as tree waste processing and crushing, and recycling concrete or road base material.

Appendix B: Environmental justice review

The Minnesota Pollution Control Agency (MPCA) is committed to making sure that pollution does not have a disproportionate impact on any group of people — the principle of environmental justice. This means that all people — regardless of their race, color, national origin, or income — benefit from equal levels of environmental protection and have opportunities to participate in decisions that may affect their environment or health. In December 2015, the MPCA released the “Environmental Justice Framework 2015-2018” (<https://www.pca.state.mn.us/sites/default/files/p-gen5-05.pdf>), which established the vision, strategies, and implementation actions for integrating environmental justice principles into the MPCA’s work, including a commitment to evaluate the environmental justice implications of program policies. The MPCA is developing an environmental justice review tool, which can be used broadly across all of the agency’s work, as well as more detailed and thorough tools for specific program areas. The MPCA will share these tools and resources with counties once they are complete.

The following sections constitute the MPCA’s environmental justice review of the Metropolitan Solid Waste Management Policy Plan (Plan). Counties are strongly encouraged to complete an environmental justice review when developing their respective county solid waste master plans.

1. Identification of potentially affected communities: Identify facilities that are located in areas of concern for environmental justice, defined by the MPCA as census tracts (using data from the U.S. Census and American Community Survey) that meet one or both of these demographic criteria, consistent with the criteria established by the Metropolitan Council:

- Total population of people of color greater than 50%
- More than 40% of the population with income less than 185% of the federal poverty level

Research indicates that people of color and low-income people are both disproportionately exposed to pollution, and bear disproportionate health impacts from pollution, regardless of other population characteristics. For this reason, the MPCA uses these criteria, as well as tribal boundaries, as a preliminary screening to identify areas where additional review or action is needed or desired.

Additional information on variables such as language, education, and housing is considered and factored into decisions and actions for areas where the preliminary screening has indicated a need to take a closer look.

Figures B-1 and B-2 show solid waste facility locations and census tracts that are considered areas of concern for environmental justice. Areas marked with the “purple lines” are census tracts with more than 40% of the population earning income less than 185% of the federal poverty level – this translates to \$52,614 per year for a family of four (<http://familiesusa.org/product/federal-poverty-guidelines>). Areas shaded in green are census tracts with greater than 50% people of color.

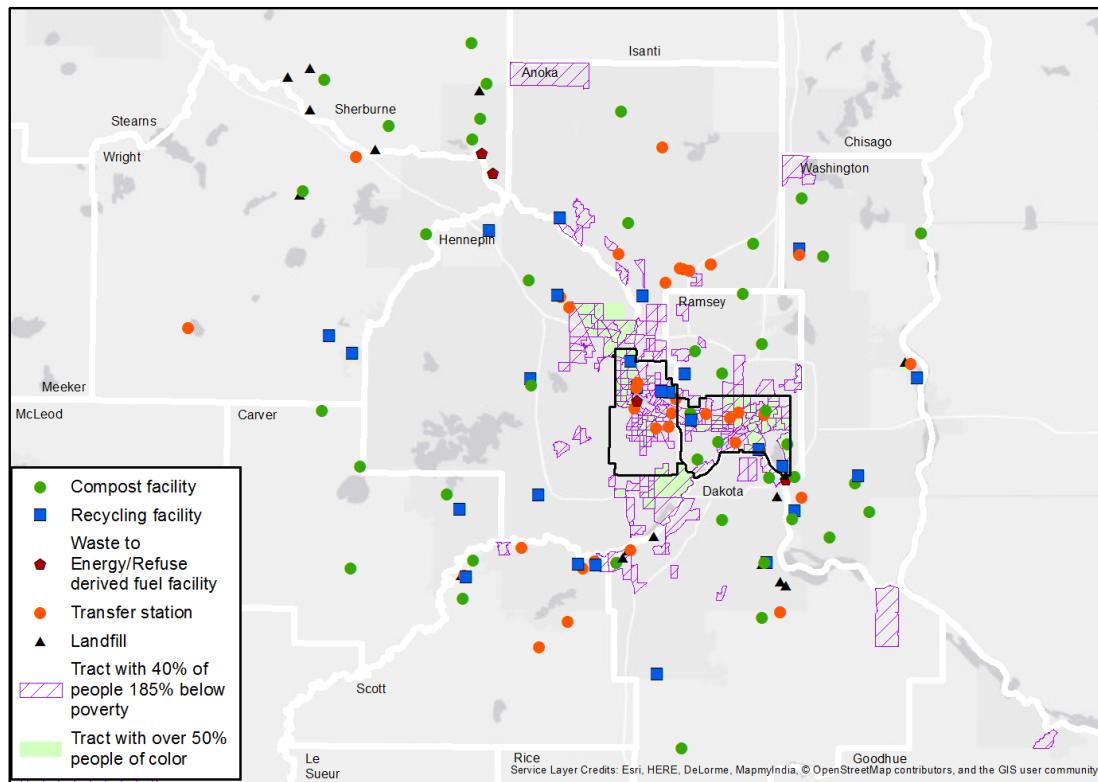


Figure B-1. Map of solid waste facilities located within the TCMA.

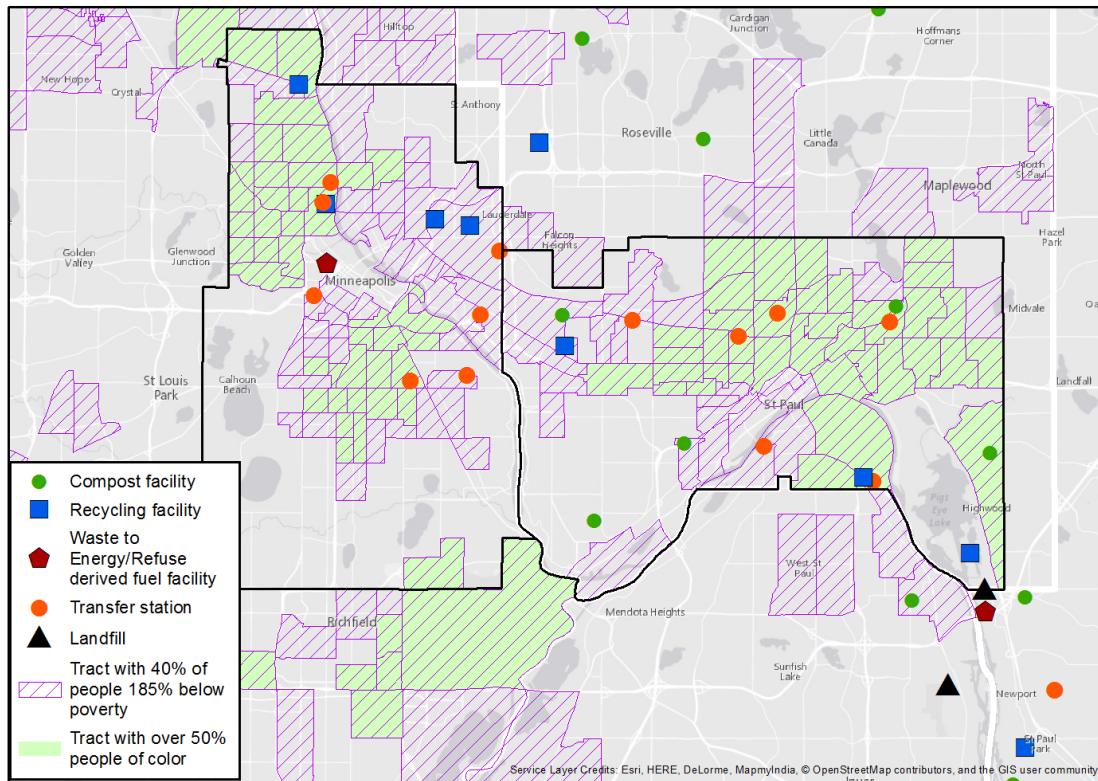


Figure B-2. Map of solid waste facilities located within Minneapolis and Saint Paul.

Table B-1 lists the facilities that the MPCA considers to be located within areas of concern for environmental justice.

Table B-1. TCMA solid waste facilities located within areas of concern for environmental justice.

Recycling facilities	Transfer stations
Allied Waste Recyclery of Minneapolis	Advanced Disposal Services Vasko Solid Waste Inc.
AMG - Alliance LLC - Saint Paul	Commercial Container Corp LLC
Broadway Resource Recovery LLC	Commercial Container Minneapolis Recycling/Transfer
Burg Electronic Recovery	Coon Rapids Recycling Drop Off Center
Eureka Recycling	Freeway Transfer Station
J&J Recycling	Hennepin County Transfer Station & Recycling Center
Northern Metal Recycling - Savage	Keith Krupenny & Son Disposal Service
Tech Dump - Saint Paul	Malcolm Avenue Recycling & Transfer
Waste Management Recycle America	Minneapolis Northside Transfer Station
Compost sites	Minneapolis Southside Transfer Station
Arden Hills Yard Waste Site	Ray Anderson & Sons - Dumpster Box Services
Burnsville Yard Waste Compost Facility	Richards Asphalt Transfer Facility
City of Newport Compost Site	Shamrock Recycling & Transfer Facility
Ramsey County Battle Creek Yard Waste Site	Tubs Inc
Ramsey County Frank & Sims Yard Waste Site	Twin City Refuse Recycling & Transfer
Ramsey County Midway Yard Waste Site	Veit Container & Transfer Facility
Ramsey County Mounds View Yard Waste Site	Veit Disposal Systems STP Recycle Facility
Ramsey County Summit Hill Yard Waste Site	Waste Management - St Paul Transfer
South Saint Paul Compost Site	Xcel Energy - A S King Transfer Station
Waste to energy/Refuse derived fuel facilities	Landfills
Covanta Hennepin Energy Resource Co LP	AS King Ash Disposal Facility
Recycling and Energy Center in Newport	Burnsville Sanitary Landfill
	Freeway Sanitary Landfill
	Gerdau Ameristeel US Inc

2. Impact and assessment: Identify who is likely to be affected by the proposed policy. What are the impacts of the proposed policy on communities of concern for environmental justice? Will it create new disproportionate impacts or make existing disproportionate impacts on minority or low-income populations worse? Examples include impacts on health, quality of life (from noise or visual impacts, etc.), personal finances, etc.

The first priority of the Plan is to ensure the proper management of waste to protect human health and the environment. The Plan also supports reducing waste and increasing recycling.

The policies and strategies proposed in the Plan are intended to reduce the environmental impacts associated with waste, because reduction in environmental impacts is beneficial to all Minnesotans.

The TCMA is home to several waste management facilities – out of 125 facilities, 42 of these are located in areas of concern for environmental justice. Reducing waste generation would mean less material would need to be managed by these facilities. Meeting the landfill diversion goals established in the Plan would likely divert material from landfills to regional recycling, organics recovery, and resource recovery facilities, including the facilities located within areas of concern for environmental justice. The potential impacts include increases in traffic and noise, as well as potential impacts to air quality due to increased vehicular traffic and facility emissions.

If the objectives in the Plan are attained, the region may need more recycling and organics recovery facilities. These facilities would be subject to the standard process for new facility development, outlined in Appendix D. In addition, as described in the MPCA's environmental justice framework when considering permit applications for new facilities and during renewal of existing permits for facilities located in areas of concern for environmental justice, the MPCA will:

- Identify facility and permit types that warrant additional actions based on the potential for adverse effects.
- Identify and evaluate additional measures, beyond meeting established permit limits, to avoid and diminish impacts.
- Increase civic engagement, public participation, and outreach for community groups and residents.
- Foster increased community involvement and actions on the part of the entities that we regulate.
- Consider ways to prioritize work in order to enhance benefits to areas of concern for environmental justice.

3. Impact review: What are the opportunities for action? If the proposed policy would result in negative environmental or socio-economic impacts, or would add to cumulative impacts to people of color and low-income populations, what steps could be taken to avoid or mitigate these impacts? Additionally, does the proposed policy present opportunities to address existing disproportionate impacts on people of color, low income, or indigenous populations? Develop a list of likely impacts and actions to ensure that negative impacts are mitigated and positive impacts are enhanced.

A large role of the MPCA is ensuring that facilities are properly permitted in order to minimize human health and environmental harm. During permitting for facilities in areas of concern for environmental justice, the MPCA can identify and evaluate additional measures, beyond meeting established permit limits, to avoid and diminish impacts. This could include changing processes or procedures, installing additional pollution control equipment, or otherwise achieving a lower level of pollutant release than required by state or federal requirements. The MPCA can also work with the permittee to incorporate these measures into the permit or supplemental documents as possible.

Compliance and enforcement are other tools the MPCA can use to mitigate potential impacts. The MPCA could determine that more frequent inspections at facilities in areas of concern for environmental justice is needed to ensure the facilities are meeting applicable regulations and permit conditions.

Consistent with the WMA hierarchy, this Plan prefers resource recovery to landfilling. Communities of concern for environmental justice have indicated their concern about air emissions from resource recovery facilities located within their boundaries. To reduce reliance on resource recovery facilities and landfills, this Plan promotes best practices designed to reduce waste and increase recycling and organics recovery. While the MPCA recognizes that waste will continue to be processed at resource recovery facilities and disposed at landfills, the aggressive objectives established in this Plan encourage the TCMA to significantly reduce reliance on these less preferable management methods.

Certain strategies proposed in this Plan would directly benefit communities in areas of concern for environmental justice. For example, the Plan recommends implementing organized collection for MMSW. Organized collection is a more efficient method of managing trash and can lead to reductions in illegal dumping, a common concern in lower income communities.

Lower mobile source emissions and reduced truck traffic are additional benefits of organized collection.

The Plan also includes an environmental justice review in the permitting process – for new and existing facilities – to ensure that environmental justice concerns are addressed.

4. **Engagement:** How have you involved community members and stakeholders? What specific measures have been taken to engage community members in areas of concern for environmental justice?

The MPCA sought feedback from members of the public through the initial pre-draft notice comment period required by state law, as well as through several public meetings. The public meetings were held in two different locations at two different times of day. The pre-draft notice, comment period opportunity, and public meeting notifications were posted on the MPCA website and emailed to multiple distribution lists, including a list of community members interested in environmental justice issues. The MPCA held three stakeholder meetings prior to releasing the draft Plan and two public meetings after the draft Plan was released. Two of these meetings were held in the evening to ensure multiple opportunities for input were available. The MPCA also took additional steps to reach out to community members in areas of concern for environmental justice.

Appendix C: Predrafting notice

Statement of subjects expected to be covered by revisions to the Metropolitan Area Solid Waste Policy Plan

Introduction

The MPCA has started the process to prepare revisions to the Metropolitan Area Solid Waste Management Policy Plan (Policy Plan). This will revise the current Policy Plan adopted by the MPCA on April 6, 2011. The new Policy Plan will be adopted by the MPCA Commissioner by December 31, 2016.

Revisions to the Policy Plan will be prepared in accordance with Minn. Stat. § 473.149. The Policy Plan must be followed in the Metropolitan Area. The Policy Plan contains goals and policies for solid waste management, including recycling and household hazardous waste management. The statute requires that the regional plan contain objectives to abate the need for and practice of landfilling of MMSW and of specific components of the solid waste stream, including residuals and ash, to the greatest extent feasible and prudent.

Overall approach and philosophy

The Policy Plan revisions will focus on:

- Reduction in the amount and toxicity of waste generated
- Separation and recovery of materials and energy from waste
- Reduction in land disposal
- Coordination of solid waste management among political subdivisions
- Broadening participation and accountability for integrated solid waste management (ISWM)
- Protection of public health and state's air, land, water, and other natural resources

The Policy Plan will continue to support: treating waste as a resource; landfill abatement; waste and toxicity reduction; the proper management of all solid waste; abatement goals; region-wide waste processing; regional operations; and minimization of negative environmental impacts associated with waste.

The Policy Plan revisions will be developed consistent with the State policies and purposes expressed in Minn. Stat. § 115A.02 of the Minnesota WMA. The Policy Plan will support the WMA hierarchy of preferred waste management methods.

The Policy Plan will evaluate the recommendations coming out of other reports including the State Solid Waste Management Policy Report (due December 31, 2015) and the Office of the Legislative Auditor Report on SCORE (February 2015).

Description of how the existing solid waste system serves the Twin Cities Metropolitan Area

The Metropolitan Area's current solid waste infrastructure has developed extensively since the passage of the 1980 WMA. In 2014, 78% of the region's mixed MMSW was managed by recycling, organics management, and at resource recovery facilities.

The Policy Plan will describe the level to which the existing Metropolitan Area solid waste system has fulfilled the legislatively mandated purposes described in the WMA, including the WMA hierarchy and the policy that favors the provision of solid waste services by private businesses.

The Policy Plan will describe how the existing solid waste system benefits the Metropolitan Area, including the environmental benefits, and how the new plan proposes to increase those benefits. The Policy Plan will identify the waste volumes and types of materials managed by the different solid waste abatement methods and technologies.

The Policy Plan will show how an integrated solid waste system, consistent with the waste management hierarchy, protects public health, supports a vibrant economy, reduces emissions of air pollutants such as greenhouse gases, conservation of energy and resources, production of renewable energy, and can be improved through more effective governance, a more efficient collection system, broadened accountability, and additional landfill abatement.

Metropolitan Area solid waste system faces some challenges

The Policy Plan will discuss some challenges that face the Metropolitan Area solid waste system, including, but not limited to: the system of local governance; integrated solid waste system accountability; collection of accurate and meaningful data; a need for effective secondary commodities management, and secondary commodities market development and opportunities to advance the concept of sustainable materials management

Solid waste management facilities and programs

The SWMCB is a joint-powers board that coordinates many of the solid waste activities of six of the seven metropolitan counties. The MPCA will consult with the SWMCB, Scott County, and other interested stakeholders in the revision of the plan.

The Policy Plan will include goals and policies for solid waste management, including recycling consistent with Minn. Stat. §115A.551, and household hazardous waste management consistent with Minn. Stat. § 115A.96, subd. 6, in the Metropolitan Area.

The Policy Plan will include specific and quantifiable regional objectives for abating waste generation and reducing reliance on the practice of landfilling of mixed MMSW and other components of the solid waste stream. The objectives will be stated for a period of at least 20 years. The Policy Plan will include objectives for waste reduction, reuse, and abatement of solid waste through recycling, source separation of organic waste for composting, and resource recovery, for a period of at least 20 years.

The Policy Plan will identify the environmental and resource management benefits of waste processing. The Policy Plan will identify the quantities and geographic origin of waste requiring processing. The Policy Plan will also identify the available processing capacity, and the inter-county regional opportunities for the development of future processing capacity and opportunities for inter-county sharing of waste.

The Policy Plan will evaluate the state and regional governance structure and make appropriate recommendations that best fulfill the needs of ISWM. The Policy Plan also will explore issues beyond the Metropolitan Area jurisdiction that affect the regional solid waste system.

Policy plan implementation tools

The Policy Plan will include procedures, standards and criteria regarding the MPCA review of: county master plans; annual waste certification reports; waste facility permits; certificates of need; waste designation, and solid waste supply contracts and processing agreements. The usefulness of these

reviews will also be examined to determine if some of them should be eliminated, changed or if others are needed.

The Policy Plan will include standards and criteria for the MPCA review of solid waste facility permits regarding the following matters: general location; capacity; waste supply; operation; processing techniques; environmental impact; effect on existing, planned, or proposed collection services and waste facilities; and economic viability.

Timeline/comment period

Comments on the predrafting notice should be sent to: peder.sandhei@state.mn.us

Comments must be received by the MPCA by 4:30 p.m., C.S.T., October 12, 2015. [Written correspondence may be sent to the following address: Peder Sandhei, Minnesota Pollution Control Agency, 520 Lafayette Rd. N., 2nd Floor, St. Paul, Minnesota 55155-4100].

If you wish to stay informed on the development of the Policy Plan, please submit a comment on the predrafting notice by the deadline indicated above. All comments will be published on the Agency's Policy Plan website page and commenters will be added to a stakeholder list and be notified of any future Policy Plan developments. If you do not submit a comment on the predrafting notice but would like to be included on future Policy Plan related distributions, please contact Mr. Sandhei.

The MPCA is required to prepare this predrafting notice to solicit public comments on the anticipated revisions to the Policy Plan. Public comments must be received within 45 days from the date of the publication in the *State Register*. Questions about the document or the process may be addressed to Peder Sandhei at 651-757-2688 or 800-657-3864 (toll-free in Minnesota).

Appendix D: Procedures, standards, and criteria

Minn. Stat. chs. 115A, 116 and 473 authorize the MPCA to formulate and set out procedures, standards, and criteria to implement the Metropolitan Solid Waste Management Policy Plan (Plan) 2016 to 2036 and facilitate the MPCA's review of:

- Solid waste facility permit applications
- Solid waste supply and processing contracts
- Waste district proposals
- Waste designation proposals
- Landfill certificates of need proposals
- County annual and waste certification reports
- County solid waste master plans (master plan)

The MPCA will implement the Plan when conducting these reviews. Public and private entities subject to review are encouraged to contact the MPCA before preparing and submitting approval requests. The MPCA will coordinate its review with other applicable state and local procedures.

Solid waste facility terms and definitions

The MPCA will administer the Plan using terms and definitions used in chapters 115A, 116 and chapter 473 and related rules.

Solid waste facility permit applications

MPCA review of solid waste facilities is governed primarily by Minn. Stat. § 473.823. Minn. Stat. § 473.823, subd. 3(b) provides that a permit may not be issued for the operation of a solid waste facility in the metropolitan area which is not "in accordance with the Plan." The statute also provides that in making this determination, "the commissioner shall consider the area wide need and benefit of the applicant facility and the effectiveness of proposed buffer areas to adequately protect surrounding land uses in accordance with the Plan, and may consider, without limitation, the effect of the applicant facility on existing and planned solid waste facilities." In this section of the Plan, the MPCA establishes the procedures that will be applied for review of new and existing solid waste facility permit applications, including the information to be submitted in particular applications, when those applications will be requested, and how the MPCA will approve, disapprove, or conditionally approve such facilities.

Minn. Stat. § 473.823 is reproduced below

473.823 RULES AND PERMITS.

§ Subd. 3. Solid waste facilities; review procedures. (a) The agency shall request applicants for solid waste facility permits to submit all information deemed relevant by the commissioner for review, including without limitation information relating to the geographic areas and population served, the need, the effect on existing facilities and services, the effectiveness of proposed buffer areas to ensure, at a minimum, protection of surrounding land uses from adverse or incompatible impacts due to landfill operation and related activities, the anticipated public cost and benefit, the anticipated rates and charges, the manner of financing, the effect on metropolitan plans and development programs, the

supply of waste, anticipated markets for any product, and alternative means of disposal or energy production.

(b) A permit may not be issued for the operation of a solid waste facility in the metropolitan area which is not in accordance with the metropolitan policy plan. The commissioner shall determine whether a permit is in accordance with the policy plan. In making this determination, the commissioner shall consider the area wide need and benefit of the applicant facility and the effectiveness of proposed buffer areas to adequately protect surrounding land uses in accordance with the policy plan, and may consider, without limitation, the effect of the applicant facility on existing and planned solid waste facilities.

(c) If the commissioner determines that a permit is in accordance with the policy plan, the commissioner shall approve the permit. If the commissioner determines that a permit is not in accordance with the policy plan, the commissioner shall disapprove the permit. Approval of permits may be subject to conditions the commissioner determines are necessary to satisfy criteria and standards in the policy plan, including conditions respecting the type, character, and quantities of waste to be processed at a solid waste facility used primarily for resource recovery and the geographic territory from which a resource recovery facility or transfer station serving such a facility may draw its waste.

(d) A permit may not be issued in the metropolitan area for a solid waste facility used primarily for resource recovery or a transfer station serving the facility, if the facility or station is owned or operated by a public agency or if the acquisition or betterment of the facility or station is secured by public funds or obligations issued by a public agency, unless the commissioner finds and determines that adequate markets exist for the products recovered and that establishment of the facility is consistent with the criteria and standards in the metropolitan and county plans respecting the protection of existing resource recovery facilities and transfer stations serving such facilities.

Procedures for obtaining MPCA approval of solid waste facility applications

Coordination of MPCA review. For existing facilities, the MPCA will request information related to the solid waste facility and information required in the Plan before the MPCA completes review and reissues the permit. The MPCA may request information from facilities after the adoption of the Plan and modify permits to require the submission of information. For new facilities, the MPCA will request information related to the proposed solid waste facility and information required in the Plan. For a solid waste disposal facility, the MPCA will request information regarding the proposed disposal facility and information required in the Plan before issuing a permit.

Basic information required. To obtain MPCA approval solid waste facilities permit applicants must include:

- Information relating to the geographic areas and population served, including highlighting areas of concern for environmental justice
- The need for the facility, including information that shows that new or expanded resource recovery and disposal facilities are consistent with MPCA most recent forecast of waste generation and waste management objectives
- The effect of the facility on existing facilities and services
- For public facilities: The effect of public facilities on existing comparable public and private facilities
- The effectiveness of proposed buffer areas to ensure, at a minimum, protection of surrounding land uses from adverse or incompatible impacts due to landfill operation and related activities

- The anticipated public costs and benefits of the facility
- The anticipated rates and charges
- The manner of financing
- The effect on metropolitan plans and development programs
- The supply of waste
- Solid waste supply contracts subject to Minn. Stat. § 473.813
- Anticipated markets for any product
- Alternative means of disposal or energy production
- Waste composition analysis including measurements of the types and the quantity, by types, of waste to be processed, transferred or landfilled
- Additional information required by the commissioner, including but not limited to, environmental justice review criteria (see Appendix B for more information)

Standards/criteria for approval of solid waste facility permits as consistent with the Plan

Following receipt of a complete application, the commissioner shall determine whether a permit is in accordance with the Plan within 90 days. In making this determination, the commissioner shall consider

- The area wide need and benefit of the applicant facility.
- The effectiveness of proposed buffer areas to adequately protect surrounding land uses in accordance with the Plan.
- The effect of the applicant facility on existing and planned solid waste facilities.
- The requirements of Restriction on Disposal in Minn. Stat. § 473.848.
- For a solid waste facility used primarily for resource recovery or a transfer station serving the facility and owned or operated by a public agency or if the acquisition or betterment of the facility or station is secured by public funds or obligations issued by a public agency (public facility), the owner must demonstrate that:
 - Adequate markets exist for the products recovered.
 - The public facility does not displace comparable private and public facilities already existing in the area unless the displacement is required in order to achieve the waste management objectives identified in the plan.
 - The public facility is consistent with the applicable county master plan.
 - The public facility is necessary to achieve the waste management objectives identified in the plan.
 - The public facility is consistent with state policy and purposes outlined in Minn. Stat. § 115a.02 and Minn. Stat. § 473.842 - .848.

Minn. Stat. § 473.149 provides that “For solid waste facilities owned or operated by public agencies or supported primarily by public funds or obligations issued by a public agency, the plan shall include additional 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 the waste management objectives identified in the plan.” For solid waste facilities owned or operated by public agencies or supported primarily by public funds or obligations issued by a public agency (public facility), the owner must demonstrate that the public facility:

- Does not displace comparable private and public facilities already existing in the area unless the displacement is required in order to achieve the waste management objectives identified in the plan.

- Is consistent with the applicable county master plan.
- Is necessary to achieve the waste management objectives identified in the plan.
- Is consistent with state policy and purposes outlined in minn. Stat. § 115a.02 and Minn. Stat. § 473.842 - .848.

If the commissioner determines that a permit is in accordance with the Plan, the commissioner shall approve the permit. If the commissioner determines that a permit is not in accordance with the Plan, the commissioner shall disapprove the permit.

Solid waste supply and processing contracts

Cities, counties and towns in the TCMA can enter into contracts for the delivery of solid waste to waste facilities and can enter into contracts for the processing of solid waste (Minn. Stat. § 473.813, subd. 1). The MPCA is required to approve local government waste management contracts if they supply waste to a facility and processing contracts that are longer than five years in duration (Minn. Stat. § 473.813, subd. 2). The success of waste facilities often depends on long-term commitments for waste supplies and processing. It is anticipated that long-term supply and processing contracts may continue to be used as new or existing contracts are renewed or renegotiated. MPCA contract approvals will remain in effect unless (1) the contract term is extended; or (2) the contract is substantially amended or revised during its term.

Minn. Stat. § 473.813 is reproduced below

473.813 CITIES, COUNTIES, TOWNS; SOLID WASTE CONTRACTS.

Subdivision 1. For up to 30 years. Notwithstanding any contrary provision of law or charter, and in addition to the powers or authority granted by any other law or charter, a city, county, or town in the metropolitan area may directly negotiate and enter into contracts, for a term not to exceed 30 years, for the delivery of solid waste to a waste facility and the processing of solid waste. Contracts made by direct negotiations shall be approved by resolution adopted by the governing body of the city, county, or town.

§ Subd. 2. Review by commissioner. Before a city, county, or town enters into any contract pursuant to subdivision 1 for a period of more than five years, the city, county, or town shall submit the proposed contract and a description of the proposed activities under the contract to the commissioner for review and approval. The commissioner shall approve the proposed contract if the commissioner determines that the contract is consistent with the metropolitan policy plan, permits issued under section 473.823, and county reports or approved master plans. The commissioner may consolidate the review of contracts submitted under this section with the review of related permit applications submitted under section 473.823 and for this purpose may delay the review required by this section.

Procedures for review of solid waste supply and processing contracts

- **Procedure:** Any city, county, or town entering into a contract for the delivery of solid waste to a waste facility and the processing of solid waste for a term longer than five years, shall submit that contract to the MPCA for review at **least 90 days** prior to the anticipated effective date of the contract. Contracts subject to this review include waste delivery agreements, organized collection contracts, host community fee agreements in lieu of fees authorized under Minn. Stat. §§ 115A.919 and 115A.921 if they include waste delivery provision, and other agreements including waste delivery provisions.

- **Application of standards to contracts:** MPCA will approve contracts if the proposed contract is consistent with the Plan, permits issued under Minn. Stat. § 473.823, and county annual reports and approved master plans. A contract to deliver waste to a facility that is not specified in the applicable master plan will not be approved. To be approved, a contract to deliver waste must have a provision that terminates the contract in 30 years.
- **Timely MPCA contract review:** All contracts submitted to the MPCA for review will be reviewed and approved or not approved within 60 days. MPCA will notify the city, county or town of its decision, and if the contract is disapproved MPCA will notify the city, county, or town of the reasons for disapproval.
- **Consolidation of contract review with permit review:** MPCA may consolidate the review of contracts submitted under this section with the review of related permit applications submitted under Minn. Stat. § 473.823 and, for this purpose, may delay the review required by this section.
- **Contracts that are inconsistent with the Plan:** If MPCA determines that a contract is not consistent with the Plan, then MPCA may require that the parties to the contract revise its terms and re-submit the revised contract for MPCA approval.

Waste management districts

The procedure, standards, and review criteria for waste management districts is set out in Minn. Stat. §§ 115A.62 to 115A.72. Minnesota counties, including metropolitan counties, can form waste management districts. This authority enables counties to implement waste management practices they may not be able to conduct independently or which can be more effectively performed jointly. The establishment of a waste management district must be approved by the MPCA. Specific conditions can be incorporated as part of the MPCA's approval. Minn. Stat. § 115A.63, subd. 3 provides that a waste management district formed by metropolitan counties has the same procedural and substantive responsibilities and duties as a metropolitan county, including requirements for preparing a comprehensive solid waste management plan. The requirements for county solid waste planning are contained in Minn. Stat. § 473.803 and in the Plan.

Waste designation proposals

The WMA, Minn. Stat. §§ 115A.80 to 115A.893 (Designation Statute), allows county or waste district to designate a facility where all MSW generated within its boundaries, or a service area thereof, is required to be delivered. Using designation to direct the waste to a particular destination is referred to as waste designation or waste assurance. MPCA approval of waste designations is required. Designation is authorized by the Minnesota Legislature to further state policies and purposes, as articulated in Minn. Stat. § 115A.02, and to advance the public purposes served by effective solid waste management. See Minn. Stat. § 115A.80.

Waste assurance is a means to assure the movement of waste from its origin to a particular facility. Waste designation is one method of waste assurance. Other methods of waste assurance include economic incentives to influence waste movement, contracting with waste collectors having direct control over waste movement, and implementing public collection.

The procedures, standards, and criteria for approval of waste designation are contained in the Designation Statute, Minn. Stat. §§ 115A.80 to 115A.893.

Landfill Certificate of Need

The Metropolitan Landfill Abatement Act, Minn. Stat. § 473.823, subd. 6, states that no new land disposal capacity for MSW shall be permitted in the TCMA without a Certificate of Need (CON) issued by the MPCA indicating that the additional disposal capacity is needed. The MPCA must certify need only to the extent that there are no feasible and prudent alternatives to land disposal. Alternatives that are speculative or conjectural cannot be deemed to be feasible and prudent. Economic considerations alone cannot justify the CON or the rejection of alternatives. Minn. Stat. § 473.823, subd. 6 requires the MPCA to include in the Plan the standards and procedures for certifying need. The standards and procedures must be based on the metropolitan disposal abatement plan and the solid waste disposal facilities development schedule, both included in the Metropolitan System Plan (Part 3), and with approved master plans that are consistent with the abatement plan and development schedule.

Minn. Stat. § 473.823, subd. 6 is reproduced below

Certification of need. No new mixed municipal solid waste disposal facility or capacity shall be permitted in the metropolitan area without a certificate of need issued by the commissioner indicating a determination that the additional disposal capacity planned for the facility is needed in the metropolitan area. The commissioner shall amend the policy plan, adopted pursuant to section 473.149, to include standards and procedures for certifying need that conform to the certification standards stated in this subdivision. The standards and procedures shall be based on the metropolitan disposal abatement plan adopted pursuant to section 473.149, subdivision 2d, the solid waste disposal facilities development schedule adopted under section 473.149, subdivision 2e, and the provisions of any master plans of counties that have been approved under section 473.803, subdivision 2, and that are consistent with the abatement plan and development schedule. The commissioner shall certify need only to the extent that there are no feasible and prudent alternatives to the disposal facility, including waste reduction, source separation and resource recovery which would minimize adverse impact upon natural resources. Alternatives that are speculative or conjectural shall not be deemed to be feasible and prudent. Economic considerations alone shall not justify the certification of need or the rejection of alternatives.

Procedures for obtaining MPCA CON for landfills in the Metropolitan Area

Scope: MPCA will apply these standards to requests for additional MMSW capacity for MMSW landfills located in the Metropolitan Area.

Timing of CON application: MPCA will notify MMSW landfills located in the Metropolitan Area of MPCA's intent to accept CON requests for additional MMSW land disposal capacity after the adoption of the Plan and after MPCA approval of all county master plans.

Submittal of CON requests: CON requests from MMSW landfills located in the Metropolitan Area must be submitted within a period of 180 days after MPCA's CON notification. A CON request must include the following:

- Annual solid waste estimates. The CON request shall include estimates of the amount (in tons) and type of solid waste to be managed annually at the facility during its design life.
- Origin of waste. The CON request shall include identification of the origin of the solid waste including estimates of the amount of solid waste to be received annually from each county or district of origin. Information about quantities of solid waste from counties or districts outside the metropolitan area shall be based on information in approved county solid waste

management plans. Information about quantities of solid waste from counties or districts within the metropolitan area shall be based on information in the Plan and approved master plans. If an approved master plan does not state that solid waste from a county or district will be managed at the proposed facility, the request shall include a letter from the county or district board of the county or district generating the solid waste indicating that in the county's or district's best estimate the amount of solid waste in question is available for management at the proposed facility. The letter must be consistent with the approved greater Minnesota comprehensive solid waste management plan, the master plan and any applicable plan amendments.

- Alternatives. The CON request shall include an analysis of alternatives to the new or expanded disposal capacity if the new capacity has not been included in the approved county solid waste management plan, the Plan, or master plan.
- Estimate errors. If the amount of new capacity needed is greater than the amount identified in the approved master plan or the Plan due to assumptions concerning the amount of solid waste generated, the application must document the basis for calculating the amount of capacity.

Public informational meeting on CON request: The MPCA may hold a public informational meeting on its preliminary determination to approve or deny the request for a CON if the commissioner determines that a public informational meeting would help to clarify and resolve issues regarding the CON request.

Standard: No new MMSW disposal facility or capacity shall be permitted in the Metropolitan Area without a CON issued by the commissioner indicating a determination that the additional disposal capacity planned for the facility is needed in the Metropolitan Area. MPCA will approve CON requests only if MPCA determines that no feasible and prudent available alternative MMSW management facilities, including existing permitted land disposal capacity, can substitute for the proposed capacity.

The MPCA will apply the following criteria to determine whether CON can be granted:

- **Restriction on disposal:** MPCA will not accept or review any request for additional land disposal capacity for a landfill located in the Metropolitan Area unless MMSW resource recovery facilities serving the metro area are functioning at full capacity and waste has been certified as unprocessable by metro counties.
- **Orderly and deliberate development of facilities:** Pursuant to Minn. Stat. § 115A.02, the MPCA must ensure the orderly and deliberate development of facilities, including landfills. To avoid a situation where the metro area is dependent on the services of a single disposal facility, MPCA will not grant all CON to one landfill.
- **Tonnage as basis of CON:** MPCA will grant CON in tons to a landfill instead of cubic yards or other volume units.
- **Alternatives:** MPCA will consider existing permitted capacity in the service area of the facility seeking the CON. The fact that a permit for a facility may expire during the expected service life of the facility seeking CON shall not be deemed to extinguish permitted capacity assuming that the existing permitted facility is likely to be re-permitted.
- **Plan consistency:** MPCA will not grant a CON unless the new landfill capacity is consistent with the Plan, with applicable master plans, applicable greater Minnesota comprehensive solid waste management plans, and applicable information from other solid waste management jurisdictions outside of the state of Minnesota.
- **Forecasting tons:** If the amount of new capacity needed is greater than the amount identified in the Plan, approved master plan or greater Minnesota comprehensive solid waste management plan due to errors in forecasting MMSW generated, the application must document the basis for calculating the amount of capacity needed and provide an analysis of alternatives.

- **Least cost alternative:** MPCA will not approve a CON request based solely on a determination that it is the least-cost alternative.

County annual report and waste certification reports

The TCMA counties are required to submit annual solid waste reports and certification reports to the MPCA for approval under Minn. Stat. §§ 473.803, subd. 3 and 473.848, subd 2. The MPCA will review these reports for consistency with the Plan and for consistency with the requirements of Minn. Stat. § 473.848, which states that no person shall dispose of unprocessable MMSW generated in the Metropolitan Area at a land disposal facility. Minn. Stat. § 473.848, subd. 4 states that the MPCA may adopt standards for determining when waste is unprocessable and procedures for expediting certification and reporting of unprocessed waste. The MPCA will use the information contained in the reports to enforce Minn. Stat. § 473.848 with respect to permitted waste facilities and public entities. MPCA permitted waste facilities, including MMSW resource recovery facilities and MMSW landfills, are required by state law to comply with Minn. Stat. § 473.848. The restriction on disposal in Minn. Stat. § 473.848, subd. 1 applies only to solid waste management and landfilling within Minnesota. Public entities that manage solid waste or contract for the management of solid waste are required by Minn. Stat. § 115A.46, subd. 5(b) to manage the waste consistent with the county plan.

The TCMA counties shall submit certification reports to the MPCA as a separate report before the deadline of April 1, of each year and include the certification report in the annual solid waste report. The TCMA counties may submit more frequent reports, such as quarterly certification reports, during each year to the MPCA to assist MPCA obtain compliance with Minn. Stat. § 473.848.

Minn. Stat. § 473.848 subd. 2 is reproduced below

Subdivision 1. Restriction. (a) For the purposes of implementing the waste management policies in section 115A.02 and metropolitan area goals related to landfill abatement established under this chapter, a person may not dispose of unprocessed mixed municipal solid waste generated in the metropolitan area at a waste disposal facility unless the waste disposal facility meets the standards in section 473.849 and:

- (1) the waste has been certified as unprocessable by a county under subdivision 2; or*
- (2)(i) the waste has been transferred to the disposal facility from a resource recovery facility;*
- (ii) no other resource recovery facility serving the metropolitan area is capable of processing the waste; and*
- (iii) the waste has been certified as unprocessable by the operator of the resource recovery facility under subdivision 3.*

(b) For purposes of this section, mixed municipal solid waste does not include street sweepings, construction debris, mining waste, foundry sand, and other materials, if they are not capable of being processed by resource recovery as determined by the council.

Subd. 2. County certification; office approval. (a) By April 1 of each year, each county shall submit an annual certification report to the office detailing:

- (1) the quantity of waste generated in the county that was not processed prior to transfer to a disposal facility during the year preceding the report;*
- (2) the reasons the waste was not processed;*
- (3) a strategy for development of techniques to ensure processing of waste including a specific timeline for implementation of those techniques; and*

(4) any progress made by the county in reducing the amount of unprocessed waste.

The report shall be included in the county report required by section 473.803, subdivision 3.

(b) The Pollution Control Agency shall approve a county's certification report if it determines that the county is reducing and will continue to reduce the amount of unprocessed waste, based on the report and the county's progress in development and implementation of techniques to reduce the amount of unprocessed waste transferred to disposal facilities. If the Pollution Control Agency does not approve a county's report, it shall negotiate with the county to develop and implement specific techniques to reduce unprocessed waste. If the Pollution Control Agency does not approve two or more consecutive reports from any one county, the Pollution Control Agency shall develop specific reduction techniques that are designed for the particular needs of the county. The county shall implement those techniques by specific dates to be determined by the Pollution Control Agency.

Standard for approval of county certification: The MPCA will approve a county's reports if it determines that the county is reducing and will continue to reduce the amount of unprocessed waste based on the report and the county's progress in development and implementation of techniques to reduce the amount of unprocessed waste transferred to disposal facilities.

Procedures

- **Required report:** MPCA will notify the TCMA counties that annual reports and certification reports are required to be submitted to the MPCA on or before April 1 each year. Additional quarterly certification reports, including the information required in Minn. Stat. § 473.848, subd. 2, items 1, 2, 3, and 4, may be submitted on or before April 30, July 31, October 31, and January 31.
- **Content and Form:** MPCA will provide forms and instructions to the TCMA counties that outline the information and data required in the annual reports/certification reports.
- **MPCA review and approval:** MPCA will review and approve or disapprove a certification report if it determines that the county's certification shows the county is reducing and will continue to reduce the amount of unprocessed waste.

The MPCA will apply the following criteria to approval of county certification reports

- **Unprocessable waste:** The MPCA will not approve a county certification if it certifies waste as unprocessable when there is reasonably available capacity in the TCMA system that could be used to process solid waste generated in the county. In determining reasonably available capacity, the MPCA will give consideration to the specific geographic area that typically supports each of the processing facilities that serves the TCMA. The TCMA processing system is described in Appendix A, but this system could change periodically. The MPCA will annually provide a list of processing facilities that serve the TCMA to the counties prior to the date the certification report is due. To be fully utilized, the processing facility must be operating at 100% of its operating capacity, taking into account outages for maintenance and repair.
- **Approval/disapproval**
 - Annual reports must enumerate the actions the county is taking and the actions taken on behalf of the county to implement the goals and objectives of the Plan.
 - Annual reports must contain sufficient detail of programs so that the MPCA can determine if programs are effective and embody best practices for the management of waste.
 - Annual reports must show that the county is taking effective actions to ensure that no unprocessable MMSW goes to land disposal facilities in accordance with the requirement of Minn. Stat. § 473.848.

- MPCA will approve annual reports if the reports describe and report on the specific barriers to implement the objectives and goals of the Plan, contain a description of the county programs that will be implemented to overcome the barriers, and contain recommendations to MPCA to assist in overcoming the barriers.

Regional and county solid waste master plans

The Metropolitan counties are required by Minn. Stat. § 473.803 to prepare and submit master plans to the MPCA for approval. The MPCA will review the master plans in accordance with the requirements of Minn. Stat. §§ 473.149, 473.803, and 473.848. In accordance with Minn. Stat. § 473.803, subd. 2, the MPCA will review the master plans for consistency with the Plan. The general content requirements for master plans are contained in Minn. Stat. § 473.803. If the MPCA disapproves a master plan, the county and/or SWMCB must within 90 days submit a revised master plan to the MPCA for approval.

Minn. Stat. § 473.803 is reproduced below

473.803 METROPOLITAN COUNTY PLANNING.

Subdivision 1. County master plans; general requirements. Each metropolitan county, following adoption or revision of the metropolitan policy plan and in accordance with the dates specified therein, and after consultation with all affected local government units, shall prepare and submit to the commissioner for approval, a county solid waste master plan to implement the policy plan. The master plan shall be revised and resubmitted at such times as the metropolitan policy plan may require. The master plan shall describe county solid waste activities, functions, and facilities; the existing system of solid waste generation, collection, and processing, and disposal within the county; proposed mechanisms for complying with the recycling requirements of section 115A.551, and the household hazardous waste management requirements of section 115A.96, subdivision 6; existing and proposed county and municipal ordinances and license and permit requirements relating to solid waste facilities and solid waste generation, collection, and processing, and disposal; 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; and any solid waste facility which the 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 each facility; an estimate of the annual cost of operation and maintenance of each facility; an estimate of the annual gross revenues which will be received from the operation of each facility; and a proposal for the use of each facility after it is no longer needed or usable as a waste facility. 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. For solid waste facilities owned or operated by public agencies or supported primarily by public funds or obligations issued 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 the waste management objectives identified in the plan.

Subd. 1a. [Repealed, 1991 c 337 s 90]

Subd. 1b. [Repealed, 1995 c 247 art 1 s 67]

Subd. 1c. County abatement plan. Each county shall revise its master plan to include a land disposal abatement element to implement the metropolitan land disposal abatement plan

adopted under section 473.149, subdivision 2d, and shall submit the revised master plan to the commissioner for review under subdivision 2 within nine months after the adoption of the metropolitan abatement plan. The county plan must implement the local abatement objectives for the county and cities within the county as stated in the metropolitan abatement plan. The county abatement plan must 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 metropolitan policy plan revisions. The plan must 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 metropolitan policy plan revisions. The performance standards must implement the metropolitan and county abatement objectives. The plan must 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 has satisfied the performance standards for local abatement. The master plan revision required by this subdivision must be prepared in consultation with the advisory committee established pursuant to subdivision 4.

Subd. 1d. Plans for required use of resource recovery facilities. Plans proposing designation of resource recovery facilities pursuant to section 473.811, subdivision 10, shall evaluate the benefits of the proposal, including the public purposes achieved by the conservation and recovery of resources, the furtherance of local, district, or regional waste management plans and policies, and the furtherance of the state policies and purposes expressed in section 115A.02, and also the costs of the proposal, including not only the direct capital and operating costs of the facility but also any indirect costs and adverse long-term effects of the designation. In particular the plan shall evaluate:

- (a) whether the required use will result in the recovery of resources or energy from materials which would otherwise be wasted;*
- (b) whether the required use will lessen the demand for and use of land disposal;*
- (c) whether the required use is necessary for the financial support of the facility;*
- (d) whether less restrictive methods for ensuring an adequate solid waste supply are available;*
- (e) all other feasible and prudent waste processing alternatives for accomplishing the purposes of the proposed designation, the direct and indirect costs of the alternatives, including capital and operating costs, and the effects of the alternatives on the cost to generators.*

Subd. 1e. [Repealed, 1995 c 247 art 1 s 67]

Subd. 2. Commissioner review. The commissioner shall review each master plan or revision thereof to determine whether it is consistent with the metropolitan policy plan. If it is not consistent, the commissioner shall disapprove and return the plan with its comments to the county for revision and resubmittal. The county shall have 90 days to revise and resubmit the plan for the commissioner's approval. Any county solid waste plan or report approved by the council prior to July 1, 1994, shall remain in effect until a new master plan is submitted to and approved by the commissioner in accordance with this section.

The commissioner shall review the household hazardous waste management portion of each county's plan.

Subd. 2a. Waste abatement. The commissioner may require any county that fails to meet the waste abatement objectives contained in the metropolitan policy plan to amend its master plan to address methods to achieve the objectives. The master plan amendment is subject to review and approval as provided in subdivision 2 and must consider at least:

- (1) minimum recycling service levels for solid waste generators;*
- (2) mandatory generator participation in recycling programs including separation of recyclable material from mixed municipal solid waste;*
- (3) use of organized solid waste collection under section 115A.94; and*
- (4) waste abatement participation incentives including provision of storage bins, weekly collection of recyclable material, expansion of the types of recyclable material for collection, collection of recyclable material on the same day as collection of solid waste, and financial incentives such as basing charges to generators for waste collection services on the volume of waste generated and discounting collection charges for generators who separate recyclable material for collection separate from their solid waste.*

Subd. 3. Annual report. By April 1 of each year, each metropolitan county shall prepare and submit to the commissioner for approval a report containing information, as prescribed in the metropolitan policy plan, concerning solid waste generation and management within the county. The report shall include a statement of progress in achieving the land disposal abatement objectives for the county and classes of cities in the county as stated in the metropolitan policy plan and county master plan. The report must list cities that have not satisfied the county performance standards for local abatement required by subdivision 1c. The report must include a schedule of rates and charges in effect or proposed for the use of any solid waste facility owned or operated by or on its behalf, together with a statement of the basis for such charges.

The report shall contain the recycling development grant report required by section 473.8441 and the annual certification report required by section 473.848.

Subd. 4. Advisory committee. Each county shall establish a solid waste management advisory committee to aid in the preparation of the county master plan, any revisions thereof, and such additional matters as the county deems appropriate. The committee must consist of citizen representatives, representatives from towns and cities within the county, and representatives from private waste management firms. The committee must include residents of towns or cities within the county containing solid waste disposal facilities. The commissioner or the commissioner's appointee is a nonvoting ex officio member of the committee.

§ Subd. 5. Role of private sector; county oversight. A county may include in its solid waste management master plan and in its plan for county land disposal abatement a determination that the private sector will achieve, either in part or in whole, the goals and requirements of sections 473.149 and 473.803, as long as the county:

- (1) retains active oversight over the efforts of the private sector and monitors performance to ensure compliance with the law and the goals and standards in the metropolitan policy plan and the county master plan;*
- (2) continues to meet its responsibilities under the law for ensuring proper waste management, including, at a minimum, enforcing waste management law, providing waste*

education, promoting waste reduction, and providing its residents the opportunity to recycle waste materials; and

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

Master plan standards and procedures

The Plan hereby sets out the following specific procedures, standards and review criteria for the administration of Metropolitan county master plans:

Procedures

- **Scope:** MPCA will review master plans submitted to MPCA for approval under Minn. Stat. § 473.803.
- **Timeline for master plans:** MPCA requires counties to formulate, submit and obtain MPCA approval of a new master plan within 12 months of the MPCA's adoption of the Plan. If a county fails to formulate and obtain MPCA approval of a new master plan within 24 months after the MPCA's adopts the Plan, then MPCA may withhold the disbursement of SCORE block grants under Minn. Stat. § 115A.557.
- **Requirements for the contents of master plans:** See statute above and additional standards outlined below.
- **MPCA review of master plans:** MPCA will review master plans and submit comments if there are any deficiencies in the master plans in accordance with the standards and criteria outlined below.

Standard. To be approved by the MPCA, the master plans contain the information contained in Minn. Stat. § 473.803, must implement the Plan, including the goals and objectives of the Plan. The MPCA will review the master plans to determine:

- Whether the master plan implements the local abatement objectives for the county and cities within the county as stated in the Metropolitan System Plan (Part 3).
- Whether the master plan includes specific and quantifiable county landfill abatement objectives, based on the objectives in the metropolitan landfill 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.
- Whether the plan includes 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.
- Whether the performance standards implement the metropolitan and county abatement objectives.
- Whether the plan includes standards and procedures to be used by the county in determining annually under Minn. Stat. § 473.803, subd. 3 whether a city within the county has implemented the plan and has satisfied the performance standards for local abatement.
- Whether the plan outlines specific and measurable actions to be taken by entities delegated by the county to implement the Policy Plan.
- Whether the county plan outlines specific measures to maintain oversight over entities delegated by the county to implement the Policy Plan.

- Whether the plan outlines accountability measures for solid waste programs delegated to the private sector.
- Whether the plan includes 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 the waste management objectives identified in the plan. Specifically, the plan must require that for all solid waste facilities owned or operated by public agencies or supported primarily by public funds or obligations issued by a public agency (public facility), the owner must demonstrate that the public facility:
 - Does not displace comparable private and public facilities already existing in the area unless the displacement is required in order to achieve the waste management objectives identified in the plan.
 - Is consistent with the applicable county master plan.
 - Is necessary to achieve the waste management objectives identified in the plan.
 - Is consistent with state policy and purpose outlined in Minn. Stat. § 115a.02 and Minn. Stat. § 473.842 - .848.

County procedures. To be approved, the MPCA must affirm that the master plan is consistent with the requirements in Minn. Stat. § 473.803 and requirements contained in the Policy Plan.

Role of private sector; county oversight. Pursuant to Minn. Stat. § 473.803, subd. 5, a county may include in its master plan and in its plan for county land disposal abatement a determination that the private sector will achieve, either in part or in whole, the goals and requirements of sections 473.149 and 473.803, as long as the county:

- 1) Retains active oversight over the efforts of the private sector and monitors performance to ensure compliance with the law and the goals and standards in the Policy Plan and the master plan.
- 2) Continues to meet its responsibilities under the law for ensuring proper waste management, including, at a minimum, enforcing waste management law, providing waste education, promoting waste reduction, and providing its residents the opportunity to recycle waste materials.
- 3) Continues to provide all required reports on the county's progress in meeting the waste management goals and standards of Minn. Stat. chs. 473 and 115A.

To approve a master plan that includes this element, the master plan must include:

- a) Specific quantifiable plans and strategies formulated and provided to the county by the private sector that shows how the private sector will implement applicable portions of the Policy Plan and master plan.
- b) Specific quantifiable methods and strategies that the county will implement to hold the private sector accountable for achieving waste management objectives. These strategies must include a description of applicable fees, subsidies, agreements, regulations, licenses, reporting requirements, and/or other institutional arrangement that are manifest in the arrangement that the county has with the private sector that will assure the private sector will implement applicable parts of the master plan and the Policy Plan.
- c) Specific measures that counties will implement to maintain oversight and measurement of outcomes of the programs delegated to the private sector. The master plan must also specify what fees, subsidies, agreements, regulations, licenses, reporting requirements, sanctions and/or other institutional arrangements that will be used to correct actions taken by the private

sector if, in measuring the actions of the private sector, the county finds that the private entity is not managing waste as specified in the Policy Plan and the master plan.

Plan approval. While a county is developing a new master plan for submittal to the MPCA, the existing master plan remains in effect until the MPCA approves or disapproves the new master plan. If the MPCA disapproves a county master plan, the county shall resubmit the master plan with changes that reflect the MPCA's comments within 90 days. If the master plan is not approvable after revision, the MPCA will disapprove the master plan and will terminate the eligibility of the county for grants pursuant to Minn. Stat. § 115A.55.

Appendix E: Glossary

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.

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)

Composting

The controlled microbial degradation of organic waste to yield a humus-like product. (Minn. R. 7035.0300, subp. 20)

Construction debris

Waste building materials, packaging and rubble resulting from construction, remodeling, repair and demolition of buildings and roads. (Minn. Stat. § 115A.03, subd. 7). Also referred to in the Plan as construction and demolition waste.

Disposal facility

A waste facility permitted by the MPCA that is designed or operated for the purpose of disposing of waste on or in the land, together with any appurtenant facilities needed to process waste for disposal or transfer to another waste facility. (Minn. Stat. 115a.03, subd. 10)

Governance

Governance is the process by which materials are managed for the public good with an emphasis on highest and best use of materials and overall system sustainability. 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) poses 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)

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 waste

Solid waste resulting from an industrial, manufacturing, service, or commercial activity that is managed as a separate waste stream. (Minn. Stat. 115A.03, subd. 13a)

Industrial solid waste

All solid waste generated from an industrial or manufacturing process and solid waste generated from nonmanufacturing activities such as service and commercial establishments. Industrial solid waste does not include office materials, restaurant and food preparation waste, discarded machinery, demolition debris, municipal solid waste combustor ash, or household refuse. (Minn. R. 7035.0300, subp. 45)

Land disposal

Depositing of materials in a land disposal facility.

Land disposal facility

Any tract or parcel of land, including any constructed facility, at which solid waste is disposed of in or on the land. (Minn. R. 7035.0300, subp. 52)

Leachate

Liquid that has percolated through solid waste and has extracted, dissolved, or suspended materials from it. (Minn. R. 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)

Facility designed for centralized sorting, processing, and/or grading of collected recyclable materials for marketing.

Twin Cities Metropolitan Area (TCMA)

Means the area over which the Metropolitan Council has jurisdiction, including only the counties of Anoka; Carver; Dakota excluding the city of Northfield; Hennepin excluding the cities of Hanover and Rockford; Ramsey; Scott excluding the city of New Prague; and Washington. (Minn. Stat. 473.121 subd. 2)

Municipal Solid Waste (MSW)

Means mixed municipal solid waste (MMSW), materials banned from MMSW such as yard waste and specific problem materials, recyclable materials, and other solid waste that is solid waste that is generated by residential, commercial, industrial, and community activities.

Mixed municipal solid waste (MMSW)

(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-MMSW)

Solid waste resulting from construction, demolition, or industrial activities which is not mixed municipal solid waste.

Organic material

Organic waste typically includes food waste, non-recyclable paper products, yard waste, and other materials that readily degrade. According to EPA, "Organic matter in landfills breaks down and releases methane, a potent greenhouse gas, and contributes to landfill leachate that can pollute waterways."

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)

Postconsumer material

A finished material that would normally be discarded as a solid waste having completed its life cycle as a consumer item. (Minn. Stat. 115A.03, subd. 24b)

Problem material

Material that, when it is processed or disposed of with mixed municipal solid waste, contributes to one of the following results: 1) the release of a hazardous substance, 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 facility. The four conditions are further defined in Minn. Stat. § 115A.03, subd. 24a.

Processing

Describes 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).

Recycling

The process of collecting and preparing recyclable materials and reusing the materials in their original form or using them in manufacturing processes that do not cause the destruction of recyclable materials in a manner that precludes further use. (Minn. Stat. § 115A.03, subd. 25b)

Recycling facility

A facility at which materials are prepared for reuse in their original form or for use in manufacturing processes that do not cause the destruction of the materials in a manner that precludes further use. (Minn. Stat. § 115A.03, subd. 25c)

Recyclable materials

Materials that are separated from mixed municipal solid waste for the purpose of recycling or composting, including paper, glass, plastics, metals, automobile oil, batteries, source-separated compostable materials, and sole source food waste streams that are managed through biodegradative processes. Refuse-derived fuel or other material that is destroyed by incineration is not a recyclable material. (Minn. Stat. § 115A.03, subd. 25a)

Refuse-derived fuel

A product resulting from the processing of MMSW in a manner that reduces the quantity of noncombustible material present in the waste, reduces the size of waste components through shredding or other mechanical means, and produces a fuel suitable for combustion in existing or new solid fuel-fired boilers. (Minn. Stat. § 115A.03, subd. 25d)

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, or 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; (2) reducing material used in production or packaging, or changing procurement, consumption, or waste generation habits to result in smaller quantities or lower toxicity of waste generated. (Minn. Stat. § 115A.03, subd. 36b)

Storage

Containment of solid or hazardous waste, in an approved manner, after generation and before collection, for ultimate recovery or disposal.

Sustainable materials management

Describes an approach to serving human needs by using/reusing resources most productively and sustainably throughout their life cycles, generally minimizing the amount of materials involved and all the associated environmental impacts (Source: EPA Sustainable Materials Management (SMM) focuses on the best use and management of materials based on how they impact the environment throughout their life cycle. SMM considers the impacts of extracting raw materials, scarcity of materials, product design, product use, and reuse.

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)

Unprocessed mixed municipal solid waste (Unprocessed MMSW)

For the purpose of Minn. Stat. § 473.848, waste is "unprocessed" if it has not, after collection and before disposal, undergone separation of materials for resource recovery through recycling, incineration for energy production, production and use of refuse-derived fuel, composting, or any combination of these

processes so that the weight of the waste remaining that must be disposed of in a mixed municipal solid waste disposal facility is not more than 35% of the weight before processing, on an annual average.

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 reduction (see also source 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; (2) reducing material used in production or packaging, or changing procurement, consumption, or waste generation habits to result in smaller quantities or lower toxicity of waste generated. (Minn. Stat. § 115A.03, subd. 36b)

Yard waste

Garden wastes, leaves, lawn cuttings, weeds, shrub and tree waste, and prunings. (Minn. Stat. § 115A.03, subd. 38)

Appendix F: Methodology for the 75% recycling rate and waste forecasts

Methodology for “Achieving the 75% recycling rate”

To assess the feasibility of achieving a 75% recycling rate, the MPCA compiled waste composition data from several different metro facilities. The 2013 Statewide Waste Characterization Report conducted by the MPCA sampled three facilities (Elk River Landfill, Pine Bend Landfill, and the Advanced Disposal Transfer Station). The Ramsey/Washington Recycling and Energy Board sampled waste deliveries at the Newport facility prior to the acquisition of the facility. Table F-1 provides waste composition by material type at each facility. The Ramsey/Washington study did not sample for the same materials as the 2013 MPCA study. Categories that were not included in the Newport study are indicated with a blank space in the Newport column. The MPCA did not include a value for Newport in those categories for the average calculation. The light gray rows denote materials that are recyclable and the dark gray rows are compostable. Material types that may not have a consistent markets were not included as recyclable or compostable, so this is a conservative estimate.

The methodology can be explained by using the material type category “Paper” as an example. An average of 22.9% of the MMSW sampled at the four Metro facilities is in the paper category. Of that paper, the light gray colored rows are considered to be readily recyclable, constituting 12.3% of the MMSW. For the purposes of this analysis, the MPCA did not consider any paper as compostable.

Although many non-recyclable paper types are currently accepted at commercial composting facilities, the waste composition studies used in this analysis did not sort the materials into categories that provide enough detail to determine which percentage would be accepted currently. In the interest of generating a conservative estimate, the MPCA excluded the “non-recyclable paper” and “compostable paper” material types from the compostable category.

After applying this approach to the other material types (e.g. plastic, metal), the MPCA estimated that 63.0% of the materials collected at these facilities is either recyclable or compostable. This estimate does not include the material that is source separated for recycling or organics recovery. If MPCA had included compostable paper, appliances, and carpet in the “recyclable” or “compostable” categories, the estimate would be 15% higher. This analysis was intended to be conservative, and the MPCA believes that 63.0% is an underestimate of the amount of recyclable and compostable material in MMSW.

Table F-1. Waste composition at four metro facilities

Material Type	AD St. Paul	Elk River	Pine Bend	Newport	Average		Recyclable or Compostable
Paper	26.2%	24.3%	23.3%	17.6%	22.9%		12.3%
Newsprint	2.3%	1.4%	0.9%	1.2%	1.5%		
High Grade Office	2.1%	0.7%	1.1%	0.6%	1.1%		
Magazine/Catalogs	1.0%	0.7%	0.6%	1.0%	0.8%		
Phone Books	0.0%	0.4%	0.0%		0.1%		
Cartons	0.2%	0.4%	0.2%	0.2%	0.3%		
OCC and Kraft Bags	3.5%	3.3%	4.6%	4.0%	3.9%		
Boxboard	1.1%	1.8%	1.3%	1.6%	1.5%		
Compostable Paper	9.5%	11.4%	8.1%	6.3%	9.8%		
Mixed recyclable paper	3.2%	2.8%	3.6%		3.2%		
Non-recyclable paper	3.2%	1.5%	2.9%	1.3%	2.2%		

Plastic	14.6%	17.8%	20.0%	15.9%	17.1%		9.5%
#1 PET Beverage Containers	0.9%	0.8%	0.7%	1.9%	1.1%		
Other PET	0.4%	0.6%	0.4%	0.2%	0.4%		
HDPE Bottles/Jars	0.3%	0.6%	0.4%	0.4%	0.4%		
Other HDPE	0.6%	0.4%	0.7%	0.2%	0.5%		
PVC #3	0.0%	0.1%	0.0%	0.1%	0.1%		
PS #6	1.4%	1.3%	0.5%	0.5%	0.9%		
LDPE (Rigids) #4	0.0%	0.0%	0.1%		0.0%		
PP #5	0.5%	0.7%	0.5%	0.5%	0.6%		
Other #7 plastics	0.1%	0.1%	0.0%	1.5%	0.4%		
PLA and Compostable Plastic	0.1%	0.0%	0.0%		0.0%		
Bag and Film	5.0%	7.2%	6.9%	6.7%	6.5%		
Other Plastic (non-packaging)	5.3%	6.1%	9.7%	4.9%	6.5%		
Metal	4.6%	5.9%	3.2%	5.3%	4.8%		4.7%
Aluminum Beverage Containers	0.5%	0.4%	0.3%	0.5%	0.4%		
Other Aluminum	1.6%	0.5%	0.2%	0.3%	0.7%		
Steel/Tin (Ferrous) Containers	0.6%	1.1%	0.3%	0.5%	0.6%		
Other Metal	1.9%	3.9%	2.3%	3.9%	3.0%		
Glass	2.9%	1.8%	2.0%	1.9%	2.2%		2.0%
Beverage Container Glass	2.3%	1.4%	0.8%	1.6%	1.5%		
Glass Containers	0.4%	0.2%	0.8%		0.5%		
Other non-container Glass	0.2%	0.3%	0.4%	0.4%	0.3%		
HHW	0.1%	1.1%	0.0%	0.6%	0.5%		0.0%
Batteries	0.0%	0.1%	0.0%	0.0%	0.0%		
Mercury Containing Lamps	0.0%	0.0%	0.0%	0.0%	0.0%		
Paint Containers	0.1%	0.6%	0.0%	0.0%	0.2%		
Oil Containers and Filters	0.0%	0.0%	0.0%	0.1%	0.0%		
Smoke Detectors	0.0%	0.0%	0.0%		0.0%		
Other HHW	0.0%	0.4%	0.0%	0.5%	0.2%		
Electronics	1.4%	1.1%	1.2%	1.2%	1.2%		1.3%
Laptops	0.0%	0.0%	0.0%		0.0%		
Computer Monitors	0.0%	0.0%	0.0%		0.0%		
TVs	0.2%	0.0%	0.0%		0.1%		
Printers	0.4%	0.0%	0.0%		0.1%		
Other Electronics	0.8%	1.1%	1.2%	1.2%	1.1%		

Organic	30.7%	33.9%	28.4%	35.7%	32.2%		28.3%
Yard Waste	1.1%	4.4%	2.4%	3.7%	2.9%		
Food Waste	19.0%	18.5%	16.2%	21.3%	18.8%		
Wood	5.3%	6.3%	5.9%	8.8%	6.6%		
Other Organic Material	5.3%	4.6%	3.9%	1.9%	3.9%		
Other Waste	19.4%	14.1%	21.9%	21.8%	19.3%		4.9%
Mattresses/Box Springs	0.9%	0.0%	0.6%		0.5%		
Appliances & Furniture	5.3%	1.0%	3.8%	6.0%	4.0%		
Textiles & Leather	4.2%	3.8%	5.3%	4.2%	4.4%		
Carpet	1.8%	2.5%	2.5%	2.5%	2.3%		
Sharps and Infectious Waste	0.0%	0.0%	0.0%	0.0%	0.0%		
Other not classified	7.3%	6.8%	9.7%	9.1%	8.2%		
							Total Recyclable or Compostable
							63.0%

In 2015, the TCMA recycled 49.9% of MSW. In 2015, the TCMA generated 3,337,071 tons of waste. 1,665,812 tons of total waste was recycled or composted and 1,698,905 tons were managed by a resource recovery facility or a landfill. In order to grow the recycling rate from 49.9% (2015) to 75% by 2030 (using 2015 generation), the region would have to manage 2,502,803 tons as either recycling or organics (roughly 840,000 tons more than was managed as recycling or organics in 2015).

Based on waste composition, 63.0% of the 1,698,905 is recyclable or compostable material. This means an estimated 1,070,310 tons of recyclable or compostable material is available in mixed municipal solid waste that is managed by resource recovery or landfill. If 100% of the discarded recyclables and organics are recovered for recycling or organics, the regional recycling rate would reach 81% or a total of 2,769,215 tons of recyclable material. The 75% statutory goal is certainly aggressive and difficult to attain, however, there is enough material (with an extra 260,000 tons) in the current waste stream to achieve the goal by implementing aggressive strategies, including targeting other material types such as carpet and appliances.

Methodology for the waste forecast

Goal of analysis

We need a model to forecast solid waste production for the next twenty years.

Data used

The data used for analysis was from the ReTRAC system. The data included four types of waste (landfill, waste to energy, recycling, and organics) from 1991 through 2015.

Preliminary data analysis

An initial plot of the data from 1991 through 2015 shows that there are two major trend changes (Figure F-1). The first occurred around 2001. Until 2000-2001, total waste increased yearly, largely driven by an increase in landfill waste. Around 2001, both landfill waste and total waste levels off.

The second trend occurs after 2007. We see a dip in the total waste starting in 2007 that seems to be led by an overall decline in landfilling, along with a temporary dip in recycling and waste to energy.

According to the National Bureau of Economic Research, the great recession lasted from December 2007 to June of 2009. In Figure F-2, we have noted the days of recession. When those days are noted, we see that the dip for landfill and recycling occurs at this time, and after 2010, we see that recycling rebounds, whereas landfill use continues to decline. Interestingly, starting at the recession, organics increased and continued to increase both through the recession and after, and waste to energy remains relatively constant.

Therefore, there are four different periods:

- 1991-2000: recycling, organics and waste to energy are all relatively constant, and landfill waste is increasing, leading to an overall increase in MSW.
- 2001-2006: all four components of MSW are relatively constant, leading to at most small increases in MSW.
- 2007-2009: the recession sees a decrease in recycling and landfill waste. Organic waste increases, and there is a decrease in MSW.
- 2010-2015: the recovery from the recession leads to a rebound in recycling and an increase in organics, but landfill waste continues to decline and there is an overall increase in MSW.

In order to create a model, I will focus on the fourth period, from 2010 on.

Statistical analysis

Figure F-3 shows the total MSW per year for 2010 through 2015.

We see continual increases in total waste between 2011 and 2014, but 2010 and 2015 appear to have the same levels of waste as the years nearest to them. In other words, there appears to be a curvature to the data. Therefore, we created three models: a linear model for 2010-2015, a quadratic model for 2010, and a linear model for 2011-2015.

Figure F-4 (A and B) below shows the linear models outlined above. Both models have R^2 values near 1, which indicate that both models explain most of the variability in solid waste production from year to year. We do see that the model without 2010

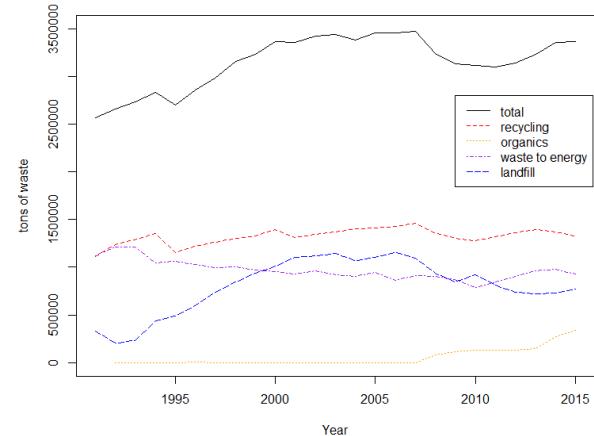


Figure F-1. Waste trends 1991-2015

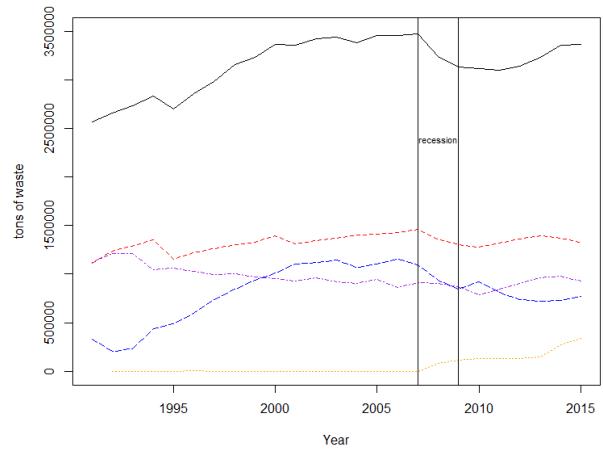


Figure F-2. Waste trends & recession

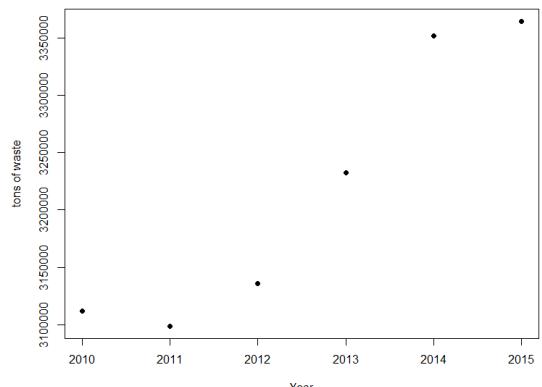


Figure F-3. MSW trends 2010-2015

is more effective ($R^2 = 0.934$). However, the model with 2010 (the first year after the recession) is still effective, with an $R^2 = 0.866$.

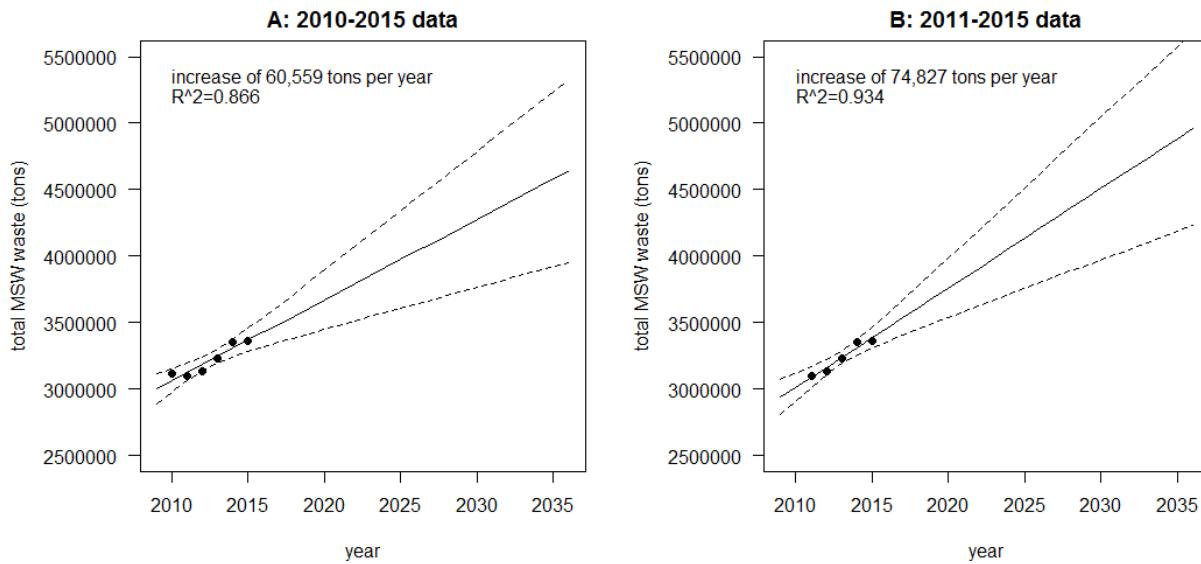


Figure F-4. Linear models to forecast MSW growth over the next 20 years

As can be seen in Figure F-3 and Figure F-4A, there appears to be a curvature to the data when we include 2010 in the dataset. Therefore, we also tried fitting a quadratic model to see if a quadratic model better describes the MSW growth from 2010 to 2015. The model is featured in Figure F-5.

When the quadratic model is graphed on the same scale as the graphs in Figure 4, we see in Figure F-5A that the model and the confidence intervals increase faster than the linear models in Figure F-4. In order to visualize the model range, Figure F-5B was created to visualize the same model as in Figure F-5A, but with an expanded axis. Comparing the linear model in Figure F-4A to the quadratic model in Figure F-5B, we see that the range of the 95% confidence interval for the quadratic model for year 2036 is 10X the range of the linear model (2 million vs 20 million tons).

We also see in Figure F-5A that the fit of the quadratic model is not notably better than the linear model ($R^2 = 0.880$ for the quadratic versus $R^2 = 0.864$ for the linear model). A test to see if the quadratic model was better did not find a significant difference between the two models ($p=0.312$), indicating that the linear model is sufficient.

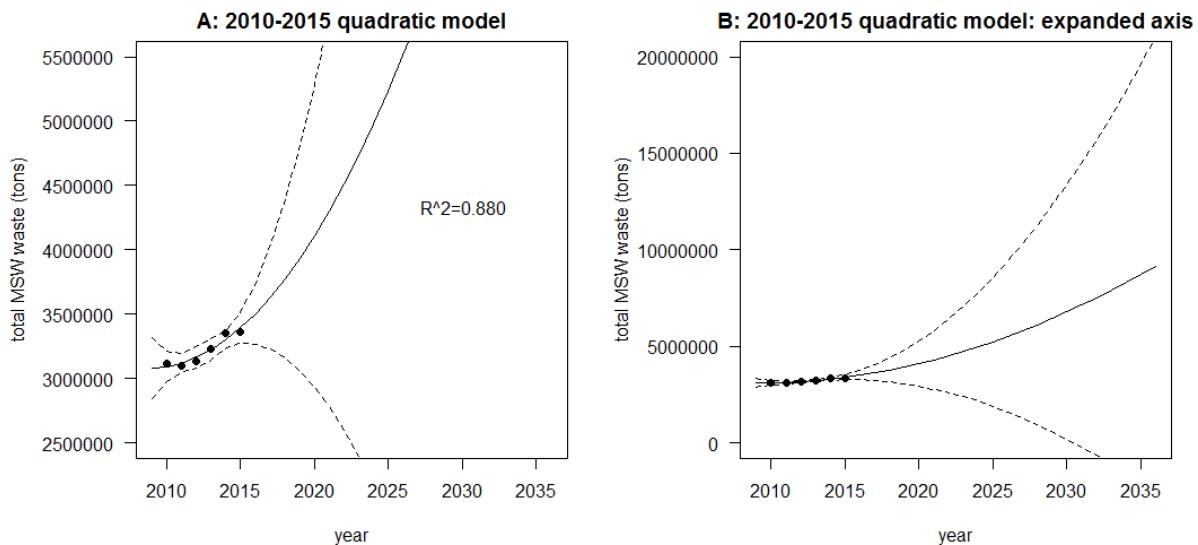


Figure F-5. The quadratic model to predict MSW

An Excel workbook is available with the forecasts for each model.

Discussion

Fitting a line to data using traditional techniques requires the data to have an overall linear upward or downward trend. Because of the dip in the trend during the recession, there isn't enough of a linear trend to fit a straight line from 1991 to 2016 without creating a more complex model. Some options include:

- Fitting a curve instead of a line from 2007-2016. A curve upward would have fit the data from the start of the recession, but because of the waste production during the recession, the predicted increase would have been higher than currently predicted, and it would have overpredicted the waste trend over the last couple of years.
- Adding additional variables to compensate (account for) the dip in waste production during the recession. We tried adding economic indicators to explain the dip, such as median housing prices, unemployment, and median wages, but none completely compensated for the dip. In addition, the forecast would have to include these economic indicators; for example: "if we assume unemployment holds steady over the next 20 years, we can predict that waste production will increase by X%".
- Creating a model with multiple lines (Breakpoint) or forecasts the median increase instead of the average increase (Mann-Kendall). These models, while effective at describing current or near future trends, are harder to extrapolate into 20 year trends, especially with confidence intervals.

Fortunately, if we choose to focus only on data since the most recent recession ended, we do see a roughly linear trend, and more complex models do not seem to be necessary. The trend becomes more linear (and therefore, with less error) if 2010 is also eliminated. However, unlike eliminating the years before and through the recession, there is no non-data-related reason to eliminate 2010, so the model using years 2010-2016 is probably the best model to use.

One more complex model attempted was to add in economic health indicators. Using US Census Bureau data, we tried adding in median income in the seven-county metro area from 2005 through 2014. While median income as an additional predictor helped the model, the diagnostics for the model still indicated that the model wasn't linear. Similar results were found with unemployment rates for Minnesota.

However, indicators of household financial liquidity (median house value, percent of homes underwater, rental market indicators) were not easily found for the seven-county metro area, and so were not used. One possibility for further analysis is to find these economic indicators for the metro area and create a more robust model that takes into account the relationship between the health of the economy and the waste generated.

In addition to seeing differing trends in the total waste generated during different time periods, there is also a difference in the type of waste generated during those time periods. In particular, an analysis of the four types of waste from 2010 to 2015 found that there was a significant decrease in landfill waste, a significant increase in organic waste, and both recycling and waste to energy showed no significant change. It may be useful in further analyses to create models for each type of waste. In addition to better defining overall waste, it will allow us to develop multiple models based on changes in one type of waste production.

Appendix G: Implementation table

The Plan outlines numerous strategies for reducing waste and increasing recycling and organics recovery. All stakeholders in the system have roles and responsibilities to ensure successful implementation of these strategies. Table G-1 serves as an accountability plan for the implementation of strategies included in Part 3 of the Plan.

Topic	Strategy	Task/Activity	Accountable party	Timing
Sustainable Materials Management	Select priority solid waste materials to focus on for reduction, reuse, and recycling based on life cycle analysis	Using existing data, the MPCA will look at life cycle assessments to create a list of materials that have large environmental impacts.	MPCA	2018
	Implement strategies for the priority materials	The MPCA will work with the counties and others to determine the number and material types as the focus for upcoming work. The groups will determine best strategies for these materials.	Counties, MPCA	2020
	Create quality standard measurements for SMM and quantify the environmental impacts from the materials/products that are targeted	The MPCA will work to create a measurement method to determine the environmental impacts from the strategies. The counties and MPCA will use the measurement tool to quantify environmental benefits.	MPCA and counties	2020
	Allocate staff time on reaching the goals in the Plan for reduction and reuse and ensure that grant funding eligibility should include reduction, reuse, and recycling (including organics)	Counties will work to ensure that if they have grant programs that reduction and reuse are eligible and not methods lower on the hierarchy.	Counties	2018
	Increase the partners involved in working on SMM	Once materials are chosen from the priority list the MPCA and counties will reach out to work with partners involved in those areas.	MPCA, counties	2020
Regional solutions	Standardize recycling messaging	Convene stakeholder group	MPCA	Complete
		Develop an implementation proposal for standardized messaging that will be shared with broader stakeholders for further comment, refinement and implementation.	Stakeholder group (MPCA, counties, cities, industry, ARM, RAM, etc.)	2017
	Building and zoning codes/ordinances should not inhibit recycling	Review 2015 changes to state building code to determine whether additional changes are necessary	MPCA, counties, cities, MN AIA, MN USGBC, DLI	2018
		Identify best practices for enclosures	SWMCB stakeholder group (counties, cities, architects, MPCA)	2018
		City zoning codes/ordinances incorporate best practices for enclosures	Cities – modify zoning codes/ordinances for recycling and waste enclosures	By 2022

Topic	Strategy	Task/Activity	Accountable party	Timing
	Standardize ordinances	Establish reciprocity for HHW across all 7 counties	Counties	By 2022
		Establish 7-county licensing of haulers	Counties	By 2022
		Standardize hauler reporting requirements	MPCA, Counties	Ongoing
Source reduction and reuse	Support financially and promote material exchange programs	Promote a business-to-business reuse exchange site to organizations in your county.	MPCA, counties	Ongoing
	Support the State's Sustainable Purchasing Program	Develop sustainable state contracts	MPCA	Ongoing
		Promote the use of sustainable state contracts throughout the county	Counties	Ongoing
	Implement at least two active programs that focus on reuse	Examples of reuse programs are listed in the Plan in more detail. Focus outreach materials for reuse on environmental benefits related to reuse not just donation Create a reuse coupon book Increase the capture rate of goods that are still usable from residences Work with cities and the reuse sector on identifying BMPs for increasing residential reuse Host Fix-it clinics Swaps or libraries Other options are acceptable upon PCA approval	Counties, cities	Ongoing
Collection best practices	Cities contract for residential recycling	Require that cities offer organized residential recycling collection	Counties – restructure funding agreements to include a requirement for organized recycling	By 2022
		Implement organized recycling programs	Cities – develop contract(s) for city-wide recycling collection	By 2025
		Provide technical assistance to cities developing organized recycling programs	MPCA, counties, cities, League of Minnesota Cities	Ongoing
	Cities contract for residential MSW collection	Implement organized MSW programs	Cities – develop contract(s) for city-wide MSW collection	By 2025
		Provide technical assistance to cities developing organized MSW programs	MPCA, counties, cities, League of Minnesota Cities	By 2025

Topic	Strategy	Task/Activity	Accountable party	Timing
Recycling management – traditional and non-traditional	Implementation of mandatory commercial recycling in the metro area shall focus on generators of large quantities of recyclables and the generators of most impactful materials	Establish a baseline for commercial recycling in the region and identify the generators of large volumes of recyclables	MPCA, counties	By 2018
		Identify materials that are most impactful to the environment	MPCA – research, prioritization Stakeholders – prioritization	By 2020
	Re-focus commercial recycling assistance on generators of large volumes of the most impactful materials	Counties		By 2022
		Implement compliance and enforcement of the commercial recycling mandate	MPCA	By 2022
	Support the collection of non-traditional recyclables such as furniture, mattresses, carpet	Develop or support an existing collection program	Counties, Cities	2020
	Continue efforts on compliance with the public entities requirements	Educate public entities about the requirements; when offering grants, incentivize efforts to encourage public entity recycling; inform MPCA about non-compliance	Counties, cities	Annually
		Respond to complaints of non-compliance	MPCA	Ongoing
	Evaluate the effectiveness and the impacts of mandatory upfront processing of waste prior to or at resource recovery facilities and landfills that accept waste from the TCMA		MPCA, counties, industry	By 2022
Organics management	When working with organizations, encourage preventing food waste and food donation first		Counties, Cities	Ongoing
	Make residential curbside organics collection available region-wide	Require all licensed haulers to offer curbside organics collection	Counties	By 2020
		Cities of the first and second class provide organized curbside organics recycling programs	Cities	By 2022
		Cities provide organized curbside organics recycling programs	Cities	By 2025
	Require organics diversion by large generators of organic material	Implement ordinances requiring organics diversion by large commercial generators	Counties, Cities	By 2022
	Support community based social marketing campaigns that educate residents on ways to reduce the amount of food that is not eaten	Integrate the use of existing community based social marketing campaigns on preventing wasted food into communications plans	Counties, Cities	By 2020

Topic	Strategy	Task/Activity	Accountable party	Timing
	Develop additional transfer capacity in the region		MPCA – provide technical assistance, coordination, and work with partners to secure necessary funding Industry and Counties – Collaborate to ensure adequate total transfer capacity exists	By 2022
	Implement organics diversion at public entity facilities and in large event venues		Counties, Cities	By 2025
	Evaluate mixed waste processing for organics recovery		MPCA, stakeholders	By 2018
Non-MSW	Ensure that projects that receive general obligation bond funding from the State of Minnesota are in compliance with the B3 guidelines	MPCA staff will work with the Department of Administration to use B3 standards for buildings being renovated, built, or demolished	MPCA	2018
	Counties should work with their cities to adopt ordinances that require waste plans for demolition/deconstruction projects	Implement a deconstruction and demolition checklist	Counties, cities	2018
	All entities implementing the solid waste system shall correctly classify MMSW and ISW	Evaluate capacity for recycling and reuse of demolition debris, so that the markets can be supported for these materials	MPCA – review existing studies	2018
		Adopt ordinances that require a waste plan with specific recycling/reuse goals	Counties, cities	2021
		Clarify the meaning and application of statutory and rule definitions of MMSW and industrial solid waste	MPCA, counties, cities, industry	2022
	Waste composition studies must be conducted at all disposal facilities that accept waste from the TCMA	Develop a rotating schedule at all landfills that accept MMSW and Non-MSW waste from the TCMA to conduct waste sorts. This will alleviate some of the burden on each facility.	MPCA, Industry	2022
	Develop more comprehensive measurement of the industrial and C&D segments of the solid waste stream	Improve the reporting of non-MSW disposal in the TCMA; work to develop better tools to collect information about recycling these materials.	MPCA, counties, industry	2022
Traditional recycling markets	Research best practices for MRF optimization	Collaborate on a study to determine the best equipment available and best operational practices to increase yield of recyclables and reduce contamination	MPCA, Counties, MRFs, and other partners	By 2021

Topic	Strategy	Task/Activity	Accountable party	Timing
	Invest in new technologies and equipment for sorting	Use the recommendations from the MRF optimization study to inform the MPCA grant and loan priorities	MPCA	By 2022
	Expand the capacity for existing markets, specifically glass, paper, and film	Coordinate material quality, collection, and markets	MPCA, Industry, Counties, and recycling organizations	Ongoing
	Establish a shared vision to build and improve local market development infrastructure and capacity	Convene a group to focus on market development needs including infrastructure development (public and private), funding, and assistance and develop recommendations on how to effectively advance statewide priorities	MPCA and partners (industry, government, non-profit, institutional, etc.)	By 2018
Organics markets	Expand the use of compost in Minnesota Department of Transportation's (MnDOT's) and in local government transportation infrastructure projects	Participate in meetings on infrastructure specifications; provide compost data as needed	MPCA – advise and assist MnDOT with spec development MnDOT – update specs, use compost in projects Counties – update specs, use compost in projects	By 2022
	Assist local governments in adopting policies that require the use of compost in new construction projects		MPCA – provide technical assistance Counties, Cities – adopt policies on use of compost in new construction projects	By 2022
Emerging technology	Evaluate anaerobic digestion for the region		MPCA, stakeholders	By 2018
	Develop a process for gathering the information necessary to make more timely and consistent policy decisions		MPCA	2019
Product stewardship	Counties report annually on the management of priority materials for product stewardship	Develop a reporting system for priority materials; submit reports to the MPCA	Counties	By 2020
	Create a regional Product Stewardship committee		Counties	By 2018

Appendix H: Response to public comments on the DRAFT Metropolitan Solid Waste Policy Plan 2016-2036

The following table is a summary of substantive comments made on the draft Metropolitan Solid Waste Policy Plan 2016-2036, and MPCA responses. Observations on the Plan that did not pose questions or suggest changes were not included in this summary. Full comment letters are included in Appendix H.

Name/Organization	Comment	Response
Paul Nelson/Scott County	Page 4 Second Bullet seems arbitrary "Traditional recycling has decreased slightly since 2008"	2008 was the base year for the last policy plan. A decrease in traditional recycling since that point is a concern. It is also important to note that the overall recycling rate in the metro area has increased despite the decrease in traditional material recycling. The growth is due to yard waste and SSO improvements.
Alice Madden & Marcus Mill/Community Power	Information on the human and environmental impacts from WTE. Change WTE and resource recovery to trash incineration in the report.	According to EPA's WARM calculator recovering energy from trash at a WTE facility is better for the environment than sending material to landfill, especially if the landfill does not have any type of gas recovery. In 2010 the MPCA prepared a Program Management Decision Memo that confirmed the Waste Management Hierarchy. In that memo, there is a brief discussion on the greenhouse gas emissions and air emissions associated with both landfills and WTE facilities. The air emissions are less documented because although WTE facilities report actual data, and landfills report only modeled data. WTE facilities also recover metal either before or after energy recovery while landfills have no recovery of metals. The WTE terminology is defined in statute and is used accordingly in the Policy Plan.
Paul Nelson/Scott County	Page 14 Priority Strategy 4 please revise to be outcome based rather than telling us how we have to do our staffing at the County.	According to Statute 115A.02, reduction and reuse are the most preferable methods, and the counties should have staff that are working on them. In §473.149, the Policy Plan governs the counties and it is expected that the counties will demonstrate that master plans are consistent with the Policy Plan. In addition, the Policy Plan is outcome based and establishes objectives for source reduction and reuse.
Rosemary Lavin/ Hennepin County	A growth rate for MSW generation is mentioned or shown that is not consistent with what we are experiencing in Hennepin County.	Although Hennepin County has the largest percentage of waste generated in the region, it does not represent the situation in all seven counties. Although Hennepin County waste generation has decreased, MPCA data indicates that on a regional level total waste generation continues to increase. The projections were based on real historical data.
John Domke/SKB	With regard to new processing facilities serving the Twin Cities Metropolitan Area (TCMA), it is concerning to SKB that there are statements made in the Plan that undermine the development of these facilities. For example, on page 17, the Plan states, "if existing resource recovery capacity is maximized, it may not be necessary to build new resource recovery facilities." Additionally, the Plan data presented in Tables 1a & 1b use permitted capacities for existing processing facilities, which far exceed their operational capacities. Therefore, it artificially minimizes the need for new processing capacity especially new, emerging processing technologies.	An analysis of available tonnage in the TCMA, indicates that if we meet our objectives in the policy plan, there may not be enough waste to utilize additional capacity. However, that doesn't mean that new technology doesn't have a role in the future of waste processing. The MPCA will need to evaluate as a system if it makes more sense to invest in new facilities or repurpose aging infrastructure. The MPCA is not making a determination on this question. The MPCA has also adjusted our assumptions of capacity for the WTE facilities and amended the Plan to reflect these capacities.
Rosemary Lavin/ Hennepin County	Nowhere in the document is a description of how the Agency will employ empirical results to: o Analyze mobile and non-mobile air pollution resulting from activities in the plan; o Map broader strategies relevant to implementing EJ practices; o Evaluate and monitor negative impacts from noise; o Monitor release of pollutants to water, land and air; and Foster positive EJ influences resulting from the adoption of this plan, including economic and environmental benefits in communities of concern.	Analyzing mobile and non-mobile air pollution is something the MPCA does statewide, and that data has given the agency an understanding of how emissions affect Minnesota's most vulnerable communities. More information on how the MPCA monitors and analyzes mobile and non-mobile sources of air pollution as well as pollutants to water and land can be found on the MPCA website. MPCA's strategies for implementing

		environmental justice practices can be found in the environmental justice framework, also found on the MPCA website.
Brad Schafer/Schafer Richardson	One point that the Policy Plan articulates is a lack of clarity of the definition of ISW, non-MSW, and mixed municipal solid waste (MMSW), in addition to a disposal fee structure that charges significantly more for MMSW than ISW. The assertion in the Policy Plan is that an increase in revenue generated from ISW is due to entities disposing of MMSW as ISW. While clarification of the definition of waste stemming from construction projects is important, we encourage careful thought as to the economic impact on projects such as the one mentioned above by changing fee structures or classifying certain waste types in a way that results in unintended consequences.	Any changes to the current system need to be mindful of possible unintended consequences.
Alice Madden & Marcus Mill/Community Power	ADD: A section with an environmental justice analysis of the solid waste plan that seeks with recommendations to more equitably share the cost and health burden of solid waste facilities	Appendix B is an environmental justice review of the Policy Plan. The MPCA does not have the authority to determine where facilities are located, or to require permit conditions on facilities that are above and beyond state and federal regulations. However, MPCA can identify and evaluate additional measures, beyond established permit limits, to avoid and diminish environmental and health impacts, and then work with the permittee to incorporate those measures. MPCA can also communicate earlier, more clearly, and more thoroughly with community members to help them understand technical aspects of regulatory decisions and keep them informed, including explaining key decision points and opportunities to influence those decisions. Appendix B makes these recommendations with regard to solid waste management facilities located in areas of concern for environmental justice.
Zack Hansen/Ramsey County	The MPCA is encouraged to include a more robust discussion of performance measurement, and take a broader approach to evaluating system performance than measuring tons of material managed in different ways.	As described in Part 3 of the Policy Plan, the MPCA is considering implementing a Sustainable Materials Management approach, which would shift the focus from tons managed to environmental outcomes. Sustainable Materials Management tools provide the option of associating environmental benefits with specific materials by management method instead of giving all methods equal credit. However, the current system of performance measurement must continue to be used until a new method is developed.
Louis Ohly/MRRA	Tables 1a and 1b are not consistent with state law regarding the amounts to be processed as compared to being landfilled. No explanation is provided as to the drop in processing in 2030 and why landfilling remains constant.	As outlined in the waste management objectives, if all waste management objectives are met, then generation of metro MMSW may be insufficient to fill out existing permitted capacity of the metro area's MMSW processing facilities. WTE capacity decreases and landfilling remains constant because we assumed that a small percentage of waste would be unprocessable.
Bill Keegan/Dem-Con	Table 1a - 1% landfill goal by 2020 is not a realistic goal. This number does not include ash from an incinerator (30% of inbound) nor residue from recycling and composting facilities. If Minn. Statute 473.848 were fully implemented the ash disposal alone would far exceed this 1% goal. It also assumes WTE facilities are operating at permitted capacity, not operational capacities which these facilities actually process based on operational constraints.	Ash disposal and processing residuals are not considered in Table 1a. The landfill objective only includes unprocessed waste sent to landfills. In 2016 the 3 out of 4 MMSW processing facilities serving the metro area received non-metro (Sherburne, Blue Earth, Goodhue, et.) MMSW thereby reducing the amount of processing capacity available for metro generated. Moreover, unprocessed metro MMSW was landfilled, bypassing processing facilities and causing 3 of the 4 processing facilities to operate significantly below permitted capacity and below minimum "operating" (not permitted) capacity. In addition, ROD enforcement will preserve landfill capacity, increase waste flow and allow the existing facilities to optimize operations.
Paul Nelson/Scott County	Pg. 14, Sustainable Materials Management Priority Strategy, "The MPCA... will select a few priority solid waste materials to focus on reduction, reuse, and recycling based on life cycle analysis": The Draft Policy Plan should provide additional details on what these materials will be	At this time the waste materials have not been identified.

Doug Carnival/NWRA	Figure 9, found on page 36, and the last paragraph on page 35, seem to imply that there are irregularities in Non-MMSW tax collection. Specifically, the text in the Draft Plan implies that Non-MMSW tax revenues previously aligned with industrial economic activity and construction investment (though neither of these indexes are clearly explained in the text) and now the tax revenues are higher. Regardless, the Figure seems to show that in fact the Non-MMSW tax revenues have never perfectly tracked the industrial and construction figures and that it has historically been much more volatile. In any case, the presentation, analysis, and conclusions derived from this section are misleading and grossly unsatisfactory to base any policy decisions on. We strongly recommend removing this section as any issues related to ISW reclassification will be much better addressed through better Non-MMSW data collection.	Better data collection is the recommendation of this section. The tax information provides context for the need for better information.
John Domke/SKB	Figure 9, found on page 36, and the last paragraph on page 35, seem to imply that there are irregularities in Non-MMSW tax collection. Specifically, the text in the Plan implies that Non-MMSW tax revenues previously aligned with industrial economic activity and construction investment (though neither of these indexes are clearly explained in the text) and now the tax revenues are higher. However, the Figure itself appears to be incorrectly labeled. Some clarification as to what "Licon_sa Index" would be helpful. Regardless, the Figure seems to show that in fact the Non-MMSW tax revenues have never perfectly tracked the industrial and construction figures and that it has historically been much more volatile. In any case, the presentation, analysis, and conclusions derived from this section are misleading and grossly unsatisfactory to base any policy decisions on. We strongly recommend removing this section as any issues related to ISW reclassification will be much better addressed through better Non-MMSW data collection.	
Doug Morris/Citizen	"... believed to be lower risk, but we have increasing evidence that demolition debris and industrial waste also carry environmental risk." First issue, MPCA has not shared this "increasing evidence" or addressed this issue as part of their Solid Waste Policy Report. The "evidence" that has been shared has not gone through a vetting or validation process. As of now this is opinion not fact.	C&D landfills have reported groundwater monitoring levels that exceed the MDH standards for several contaminants. These results have raised concerns that these facilities may be creating potential health risks for the neighboring communities.
Bill Keegan/Dem-Con	Focus on Industrial and C&D Waste: o CON – This process is not possible for industrial waste & C&D due to the nature of generation of this waste (i.e. project based generation); o CON – Implementing this process through a mandate in the Plan is overstepping the statutory authority of the MPCA; o Increased taxes – Increased taxes on C&D and industrial waste will have negative impacts on new development and brown field cleanup sites; Dem Con Plan Comments, pg.3 o Reporting & reclassification as MSW – misconception by the MPCA on the amount and significance of any waste that is being reclassified as industrial waste from MSW waste.	Certificate of need for non-MSW and tax changes are not recommendations in the Policy Plan. The recommendations in the Policy Plan are to develop better data and measurement to make more informed policy decisions in the future. The MPCA is stating that this sector of waste has been neglected and additional information is needed to further develop good policy. There is a possibility that access to cheap disposal is undermining the ability to recycle more material. Better understanding of the issue is beneficial to all participants in the system.
Paul Nelson/Scott County	This section would benefit from empirical data of other metro communities around the country have been able to achieve.	Cities such as Toronto, San Francisco, Portland, Boulder, and Seattle have achieved a 75% recycling rate; however the comparisons won't be apples to apples because each community measures differently.
Ginny Black/MNCC	As is widely detailed in the draft plan, valuable materials that are easily recyclable or compostable are increasingly being directed to industrial landfills as a means of avoiding the State Solid Waste Management Tax and applicable county fees. This needs to stop. Organics are defined as a recyclable material in the State of Minnesota. The source of origin (such as an industrial food producer) does not matter. The State needs to apply standards of reduction and recycling outlined in Minnesota Statute 115A to all waste types regardless of source of origin.	Consistent with the 2015 MPCA Policy Report, the Agency will consider applying standards of reduction and recycling outlined in Minnesota Statute 115A to all waste types. Successfully improving data collection for all waste types will help to provide direction.

Rosemary Lavin/ Hennepin County	The improper classification of industrial waste is a problem from both a tax and management perspective. The MPCA issues permits for industrial waste facilities and should assure waste going to those facilities is properly characterized before disposal and take appropriate enforcement action when a disposal facility fails to do so.	
Rosemary Lavin/ Hennepin County	We agree that Organics Management has the greatest potential to increase waste diversion efforts. Hennepin County will be considering ordinance changes that require curbside collection for many of our communities and require large generators to recycle organics. We believe that counties should be allowed to determine the approaches that best meet the organics goals. Multiple management options will be needed for organic materials including reduction, composting and anaerobic digestion. The state's role should be to expedite the permitting process for facilities as they are being developed.	Counties play a significant role as leaders in identifying best management practices that cater to their communities. The MPCA will help identify and execute these practices so long as they align with Minnesota's Waste Hierarchy to meet organics objectives. The MPCA will evaluate the prioritization system for issuing permits.
Jill Curran/MN Waste Wise	Keep and further develop the source reduction and reuse section (page 23). Service providers such as Waste Wise can be promoting this solution on a wider scale in the business community with robust tools and support for source reduction in particular. Please also include in the plan how source reduction and reuse will be counted toward the recycling rate goal.	Currently, counties receive equal credit towards their recycling rate for any reduction, reuse, and recycling they can measure. The MPCA is committed to measuring all levels of the hierarchy. The MPCA will be examining how sustainable materials management and measurement can be improved for reduction and reuse as more measurement tools and options become available.
Liz Workman/SWMCB	Due to the similarities with economics of all commodity markets, the private sector and DEED, as well as other non-waste professionals, are critical to market evaluations and development efforts. Thus, having the MPCA or counties lead this effort may not be the best approach. SWMCB is most interested in more traditional recyclables, given its predominantly urban setting, and not those listed specifically by the MPCA as film, boat wrap, and agricultural plastics.	Dakota county is currently collecting agricultural plastic. Also, there are numerous marinas in the metro area and storage facilities that use boat wrap. Although DEED is an important partner in financing these projects, it unfortunately does not provide technical assistance for product development. In order to achieve 75% goal, the Metropolitan region needs to focus on non-traditional recyclables, such as film plastic.
Paul Nelson/Scott County	• Page 40 Priority strategy about developing innovative financing. Please clarify whether MPCA will or should have this investigated by 2019.	Environmental Initiative has a clean energy project looking at non-public funding options. MPCA will consider how that may apply to this issue.
Bill Keegan/Dem-Con	The predictions made on Figures 9 & 10 and the conclusions drawn seem to discount the Great Recession in 2009. Recessions will be part of the future of the waste industry and need to be accounted for in our planning process	Figures 9 and 10 are not predictions, they are real data compiled by Minnesota Management and Budget tracking solid waste taxes and economic activity of different business sectors.
Doug Carnival/NWRA	MPCA often comments on the cost of managing closed landfills. MPCA must acknowledge the reality of the current landfills serving the Metro area. These are professionally and scientifically managed. They have modern liners and significant financial assurance. They do not pose the same risk to taxpayers. They are safe and environmentally sound.	Financial assurance, which is a requirement of landfills, lowers the risk to taxpayers. Although the risks of land disposal have been reduced with modern techniques and financial assurance, there is still inherent risk, long term monitoring, and long term costs in land disposal.
Paul Nelson/Scott County	Page 14 Priority Strategy 4 please clarify what is meant by "... ensure that grant funding eligibility always includes reduction, reuse, and recycling (including organics).11 What grants? We follow legislative language with respect to SCORE and LRD so what additional stuff is intended here?	For counties that have grant programs the eligibility requirements for grants should include reduction and reuse projects.
Bill Keegan/Dem-Con	Page 4, top states that "the recent increase....basis for this claim.	Given the reports concerning lower MMSW delivery to GRE and the City of Red Wing, MPCA will delete that sentence from the Plan.
Paul Nelson/Scott County	Now with haulers and solid waste facilities reporting directly to the MPCA, what process will the counties have to reconcile future recycling rates provided by the MPCA to the counties?	Hauler submitted data will be provided to the counties, and the SCORE process is being simplified as to the data that the counties are responsible for, ultimately only providing information about materials directly sold to end market. Since this is a new issue, the MPCA will be meeting with all stakeholders to develop solutions to these types of questions moving forward.
Alex Danovich/Eureka Recycling	SMM: When looking to target specific materials with SMM, there needs to be an understanding of the specific metrics that material represents within a classification (such as single stream recycling).	If the MPCA conducts any life cycle assessments, it will properly document all assumptions made and make those readily available to the public. The MPCA acknowledges that there are many variables and assumptions when doing a life cycle assessment. The MPCA plans on using existing life cycle analyses whenever possible and will only use life cycle analyses that follow criteria listed above.

Paul Austin/ Conservation Minnesota	We support the Plan's Waste Abatement objectives, in particular the 1% ceiling by 2020 of land disposal. However, we note that the objective for organics recovery (10-14% by 2025) (Table 1a, p. 15) seems overly conservative. Appendix A of the Draft Plan notes that 2015 data show that organics diversion is already at an all-time high of 10.2%. We think more aggressive goals would create a greater urgency in addressing the need to remove organics from the waste stream and build effective systems for organics collection and processing.	In addition to the numeric goals for organics recycling the plan calls for a broad expansion of access to curbside organics recycling and expanded efforts to include more commercial organics recycling. In addition, the 75% combined goal in statute is a stronger driver for organics collection than the 15% in this plan. That aggressive goal in statute is needed for an aggressive push into organics programs. It is also worth noting that the items included in the organics calculation now include yard waste composting. That policy change took effect in 2013 but many counties have not yet included documented yard waste in their annual reports to the MPCA. The agency is inclined to have improved data that includes yard waste prior to revising the organics recovery goal. This change in reporting process resulted in a significant increase in the combined organics/recycling rate.
Bill Keegan/Dem-Con	"Manage waste cost-effectively and internalize future costs." What does it mean to internalize costs? Does this include more government owned/operated facilities that could potentially displace private assets?	Internalize costs means that the cost of long-term care should be reflected in the cost of the service now.
Alex Danovich/Eureka Recycling	SMM: We believe that you can develop metrics that factor in social impact as part of SMM. These might include social factors such as: jobs created, living wage jobs versus use of temporary employees, local jobs versus out of state jobs, employee benefits such as paid time off and insurance, and human health factors such as disease. These are numbers that are often sited around recycling but rarely documented and used in evaluation or measurement.	It is important to associate economics with the environment. The MPCA did one of the first studies on the economics of the reuse, rental and repair industries in MN. Coupling this information with environmental benefits provides more information for better decision making.
Rosemary Lavin/ Hennepin County	Maintaining existing resource recovery capacity suggests development of new RDF capacity. We recommend exploring new processing technologies to capture more recycling.	Maintaining resource recovery does not imply the development of new RDF/WTE capacity. It simply means supporting the facilities that currently exist. The MPCA also supports improving processing technologies to capture more recyclables from MMSW.
Rosemary Lavin/ Hennepin County	Unless there is substantive policy change, counties have limited tools to ensure the needed accountability of other stakeholders. State support is needed for legislative change to ensure the necessary accountability the MPCA seeks.	Many strategies in the draft Plan can be completed without substantive state-level policy change. In the metro area, waste management is coordinated at the local government level. Therefore, most of the priority strategies in the Policy Plan are directed at the local government level. The MPCA has listed a variety of strategies that would be most effective at the State level throughout the Policy Plan.
Rosemary Lavin/ Hennepin County	The plan seems to place most of the responsibility for achieving goals and implementing the needed policies on the counties. Many of the priority strategies should be PCA actions and legislative initiatives and not just primarily county actions.	
Bill Keegan/Dem-Con	The MPCA acknowledges that enforcement of ROD "This authority applies only to solid waste management within Minnesota, so strict enforcement of these laws could result in more out of state disposal." The Plan does not discuss the counterproductive GHG, public health, and safety problems that might occur.	Metro landfills have stated to the MPCA that they desire to obtain compliance with MN Statute 473.848, instead of shifting MMSW to out of state landfills, substantially changing their operations in Minnesota. MPCA believes that an increase in MMSW export to out of state landfills is unlikely. However, if it occurred, independent haulers without landfills might find significant advantage in using a metro area processing facility instead of using a competitor's landfill. MPCA will monitor events to determine if there is an increase in out of state disposal as a result of ROD compliance actions should they occur.
Jeffrey Marone/ Republic Services	We want the MPCA to embrace the 75% goal as an aspiration, not a mandate.	Minn. Stat 115A.551 specifies the 75% recycling goal in the metro area. Although a goal is not a mandate, the Policy Plan is a roadmap to achieve the statutory goal.
John Domke/SKB	The section titled "Misaligned tax incentives" beginning on page 35 points out the differences in taxation for various waste streams for Non-MMSW and MMSW. The reason for inclusion of this discussion is unclear in the narrative of the Plan, but appears to suggest the current tax policy encourages ISW reclassification. The tax structure and the direction from the legislature to the MPCA does encourage management of Non-MSW separately from MSW. In addition to the legislature intentionally setting the tax structure in the fashion that exists in statute, the legislature has directed the MPCA in Minn. Stat. 115A.06, subd. 14 to encourage nonhazardous and industrial waste to be managed" ...	Minnesota Statute 115A.06, subd. 14 does indicate that non-hazardous waste and industrial waste should be handled separately from MMSW. There are potential economic incentives for haulers and landfills to manage (reclassify) MMSW as Industrial Solid Waste. The definitions may allow the same materials to be managed in different categories. The MPCA needs to discuss the tax structure to make this clear to the audience of the report.

	separately from mixed municipal solid waste ... ". This direction has been given to the MPCA since 1986.	
John Domke/SKB	"Disposal and tax information suggests that some of the waste classified as ISW would have traditionally been classified as MMSW, but is now being managed as ISW." What is the basis for this statement? All of these materials meet the definition of industrial waste in both Statute and Rules.	
Bill Keegan/Dem-Con	Page 35 - What are the reduced regulatory burdens on ISW landfills? The only explanation given was that the MPCA believes that there is a reduced regulatory burden on ISW facilities due to them not being subject to CON. The addition of CON to non-MMSW oversteps the MPCAs statutory authority	MN Stat 115A.917 discusses CON to restrict the amount of capacity for land disposal of MMSW. There is no CON process (or similar process) for industrial solid waste or C&D, which means that excess capacity could be built in the TCMA. Excess capacity lowers tip fees for non-MSW and makes it more economically difficult for recycling to compete. Industrial waste is also not subject to 473.848 (ROD). In addition, the tax rate is lower. Reduced regulatory burden leads to lower cost of operation and that is the reason it is discussed in the non-MSW section. There are a number of financial incentives in place to manage commercial MMSW as industrial waste.
Ginny Black/MNCC	To be economically viable, a compost facility must be able to collect a tip fee from the feed stocks delivered to the facility and be able to sell a high quality finished compost. The MNCC supports policies that enhance the construction and operation of compost facilities in an economically viable manner while still protecting the environment. The traditional recycling system can be looked to as a model. In the early years of recycling, many Materials Recycling Facilities (MRFs) were publicly owned, while today the majority of MRFs are privately owned. Using this model the MNCC would recommend policies that promote private sector ownership.	MN Statute 473.149, subd. 1 states that the plan shall include additional 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 the waste management objectives identified in the plan. There may be instances where public ownership of a facility may be needed in order to achieve the objectives that have been established for the TCMA.
Doug Morris/Citizen	Page 10, "4. Establish a ceiling on the amount of metro MMSW land disposal will be allowed to occur." Where does this authority, statute cite or rule cite, come from? Granted the WMA outline "goals" but as MPCA has told us on numerous occasions' - goals are not enforceable.	MN Statute 473.149, subd. 2e states that the MPCA must determine disposal needs for the metro area. The landfill objectives in the Policy Plan were developed assuming compliance with MN Statute 115A.551 and MN Statute 473.848.
Paul Nelson/Scott County	Page 23 Priority Strategy regarding support of MnTAP. Please clarify whether MnTAP has been successful, and whether the Minnesota Chamber of Commerce recommends further support for it?	MnTAP has been successfully exchanging items through the Materials Exchange Program for many years. The MPCA does not know how the Chamber of Commerce feels about the Materials Exchange Program but many businesses use the online exchange.
Liz Workman/SWMCB	More data is needed on how each county funding the University of Minnesota's Materials Exchange program will significantly increase MSW waste reduction activities. Only after this is received and evaluated would a decision be made to financially support or promote the program. This strategy would appear to have equal weight to other strategies, yet the volume of waste managed through a materials exchange is typically measured in pounds, not tons. The system needs to move tens of thousands of tons of recyclables from MSW to market. Counties, like the MPCA, have limited resources, and this is an example of a strategy that should have cost justification.	MnTAP recently conducted a study that illustrated how the MN Materials Exchange could become more effective. Make the exchange more proactive and staff it, especially in areas that already have reuse options available seem to increase reuse. In 2015 the Materials Exchange diverted 92,320 lbs. While this doesn't seem like a lot the environmental benefits of reuse are not a 1:1 comparison to that of recycling. Take the 7361 lbs. of computer and office equipment that was exchanged. If that material were recycled it would have saved 9 MTCO2e. If those same 7361 lbs were reused just one time it would save 186 MTCO2e. A savings of 177 MTCO2e over recycling. This is just one example of why recycling and reduction/reuse should not be compared just on a lb. to lb. basis. The MPCA has amended the plan to allow more flexibility so this is no longer required.
Sarah Helleckson/Citizen	"Cities are usually the primary contact for businesses and residents interested in salvaging products. The strategy to encourage and provide assistance for cities, libraries, communities and neighborhoods and other groups to hold reuse or repair events is a good beginning and the support is appreciated. The clean-up days hosted by cities are not normally considered recycling nor reuse events by most residents. Instead, most residents consider clean-up/drop-off events an opportunity to get rid of bulky items, hazardous waste, remodeling waste, and other waste residents often find difficult and/or expensive to dispose. The document refers to a reuse rate. Is there a current reuse rate? How is that measured and who measures it? Is it solely through the Twin Cities Free Market? Does it account for	More conversations between local units of government and reuse organizations need to happen to capture more material from being disposed and instead used again. The comment on clean-up days is well stated and the MPCA will revise the strategy accordingly. There is not a reuse rate. The MPCA is developing a means to try and attribute environmental benefits to reuse, rental and repair work.

	<p>school athletic jerseys and school band shirt collections at the end of the season to be reused by the next season players? Does it account for private business sales of reused equipment, clothing, furniture, electronics, appliances and other items? Does it measure how many times a product is traded and/or sold? The reuse rate and the repair rate could be measured concomitantly with waste reduction and the regional economy. "</p>	
Ginny Black/MNCC	<p>Another opportunity for increasing organics recovery statewide would be to expand waste designation to include organics recycling facilities and not allow organics to go to a landfill or a waste-to-energy facility until capacity at existing organics recovery facilities has been met.</p>	<p>More discussion would need to occur prior to MPCA forming a position on this issue.</p>
Bill Keegan/Dem-Con	<p>Page 40 – Regarding the development of processing capacity for non-traditional materials, the Plan states that “These materials are available in large quantities, but lack industry education and formal collection system.” Dem-Con is heavily involved and invested in the processing on these materials and our limitations are never due to industry education but rather always a lack of economically viable end markets. The collection systems are available, as well as the processing capabilities but it is absolutely necessary to have a backend market to support these efforts</p>	<p>MPCA acknowledges DEM-Con’s contributions to processing of shingles and wallboard. There are other challenges in the Metro area regarding collection, economics, and processing of Non-MSW recyclable materials. Multiple stakeholders have not had the necessary resources to make gains in this area.</p>
Paul Nelson/Scott County	<ul style="list-style-type: none"> • Page 40 Priority Strategy regarding developing additional processing capacity. Please clarify whether MPCA will or should work with industry representatives, etc.; and provide a schedule. 	
Doug Carnival/NWRA	<p>We support more work on the top of the hierarchy-on reduction and re-use. This is state law-and by law, is a higher priority than recycling, organics, or waste processing.</p>	<p>MPCA also allocates resources to reduction and reuse and believes that all parties involved should give priority to the upper end of the hierarchy.</p>
Bill Keegan/Dem-Con	<p>Page 4, bottom states that “Over 60% of MMSW sent to landfills today could be recycled” – Please provide a basis for this claim</p>	<p>MPCA analyzed waste composition from several waste composition studies that have been performed in the past several years. The conservative estimate is that 63% of the material going to disposal could be recycled or composted if it were not discarded as waste. MPCA has shown the calculations in Appendix F.</p>
Nancy Schouweiler/Dakota County	<p>Overall, cite and fully explain data that are presented. For instance, describe how the TCMA can meet a 75% recycling goal if, according to Figures 7 and A-1 (pgs. 19 and A-2), 37% of the waste stream is "non-recyclable materials/true garbage". With these data, further explain how the TCMA can achieve an 81 % recycling rate.</p>	
Paul Nelson/Scott County	<p>Page 18 - States that "...MPCA conservatively estimates that 63% of the waste disposed is either recyclable or compostable". Is this a reasonable assumption and what is the basis for this statement?</p>	
Doug Morris/Citizen	<p>Policy 10. Biggest player missing here is each individual on the residential side. They are the ones that actually throw things away or do not take the time to separate the items. Cannot hold a hauler or city accountable for their actions. Questions should be - How do you reward individuals to participate and utilize the existing and proposed programs? Volunteer only works so far; money ensures more and better compliance.</p>	<p>MPCA believes all parties involved – individuals, generator, haulers, and government entities – need to play a role in the education and promotion of recycling programs, including a regional effort to streamline messaging to all residents to reduce confusion and increase participation. Behavior change is challenging, and the Agency believes a coordinated effort is the best approach to realize this needed change.</p>
Doug Morris/Citizen	<p>Goal 2. Accountable to meet a goal. Are we talking about using accountability to enforce an unfunded mandate? How is the state going to hold itself accountable when historically it has never fully funded the solid waste program? Too often in the past when state funding failed, the state agency still held the counties accountable to meet these goals. Tired of just the counties holding up this program and then have the state finding more goals expanding the unfunded mandates.</p>	<p>MPCA believes all parties involved in implementation should be held accountable toward meeting the objectives of the Policy Plan.</p>
Doug Morris/Citizen	<p>Policy 2. This should go further and not only strengthen but ensure the recycling market covers all the expense of getting this material to market. Goes back to the issue identified above. Modify this to include - Desirable end point or goal would be a recycling industry without government subsidies. Policy 3. Should identify that organic recovery should occur within the county where the material is generated. Largest issue being the conservation of energy in transporting and greenhouse gas.</p>	<p>MPCA believes all partners need to work together to have a successful recycling and market development program, and that will require investment from all parties. Environmental and greenhouse gas emissions related to collection and transportation of organic materials in the metro area do not outweigh the environmental and greenhouse gas benefits of composting.</p>

Doug Morris/Citizen	Market development; Recycling consists of three different activities: - Collection of the recyclable materials; - Preparing those materials for market; and - Conversion of these materials by manufacturers into new products. The greatest problem facing recycling is not the ability to collect the materials. It is the ability of the markets to absorb the quantity of materials being collected and convert it into inexpensive, new products. Market development is the responsibility of the State (§115A.48 subd. 1), and a key factor that will affect the county's recycling program is the State's effort toward market development. It should be noted that the largest negative impact on a county recycling program has been the lack of expanding recycling markets, and a stabilized price paid for the materials collected.	MPCA cannot affect global prices or market demand. We can improve the availability of markets by concentrating on supporting local markets for material. The best way for a recycling program to stabilize material pricing is to enter into long term contracts for the materials. It is not our understanding that sales of recyclable material would 100 percent fund recycling collection programs, but the sale would support the programs. We agree that you cannot collect material without having a market for the material.
Nancy Schouweiler/ Dakota County	The Plan should reconcile the lack of processing capacity and provide guidance on the transportation distances that render available processing capacity "unreasonable".	MPCA currently views that all four resource recovery facilities are reasonable and available alternatives to landfills. Transfers of MMSW from one side of the metro area to the other side occur regularly and as part of regular business arrangements of waste haulers, landfills, and transfer stations. Sending public entity waste to processing facilities that have available and unused capacity may cost more than using the nearest landfill. However, public entity waste (Minn. Stat. §115A.471) already moves across the metro area and even out of state. The Policy Plan simply reflects the statutory requirement in 115A.46, subd. 5 that public entities follow the Policy Plan and County Master Plans (Minn. Stat. 473.803) thereby adopt the policy of the state to reduce dependence on land disposal and at the same time reduce the long term financial risks. If compliance with ROD is obtained, then it is likely that processing capacity at HERC, REC, GRE, and the City of Red Wing will be filled by MMSW generated in proximity to each facility.
Alex Danovich/Eureka Recycling	As part of this Plan, we believe you could strengthen your belief that there is existing capacity at current WTE facilities to handle all projected "true garbage" by also putting a ceiling on the current capacity at WTE facilities as you have proposed for landfills. Burning waste emits CO2 and N2O. In fact, incinerators produce more CO2 per unit of electricity than coal-fired power plants. The average trash incinerator in the U.S. directly emits an average of 2.5 tons of CO2 per MWh and 2.8 tons of N2O per MWh - both greenhouse gasses that contribute to global warming.	MPCA does not believe that putting a ceiling on MMSW processing advances the policy of achieving a combined 75% recycling and organics rate, maximizing recovery of energy from waste, and minimizing the amount of unprocessed waste that is landfilled. Evidence has shown that Minnesota's WTE and RDF facilities are superior to landfills in terms of GHG emissions, other air and water pollution, and recovery of energy.
Doug Carnival/NWRA	Managing demolition debris and industrial waste is according to the waste hierarchy presents many challenges; measurement of composition, measurement of reduction and diversion of materials before "waste" is generated, etc. Recommend that Policy 7 be changed to require that all aspects of demolition and industrial waste generation and management be completed before adopting a new policy directive for Non-MMSW recycling goals.	MPCA does not recommend Non-MSW recycling goals. However, Policy #7 does include several changes. First, Policy 7 on page 8 of the Plan seeks to raise the awareness of the large amounts of metro area waste categorized as demolition and industrial that are being landfilled and point out that the Metropolitan Landfill Abatement Act covers non-MSW. Second, Policy 7 includes several recommended actions that seek to clearly identify the composition of non-MSW that is landfilled. The purpose is to determine how much MSW, how much recyclable materials, and how much waste with toxic and hazardous characteristics are being landfilled as demolition and industrial waste. Third, better measurement of non-MSW composition at the landfill is necessary to determine if any new policy or goal for non-MSW management are feasible and prudent.
Doug Morris/Citizen	Page 8, Goal 1, Policy 1 The #1 goal per 115A.02 is the reduction in the amount and toxicity of the waste generated and very little is mentioned here for this. There is nothing here on MPCA being held accountable on ensuring all the existing problems material currently identified in statute are being properly managed. How successful are these programs on diverting this material from existing waste disposal systems to their own properly managed waste stream? It is critical that MPCA accomplish a data evaluation on the environmental monitoring that has been occurring for the last twenty (20) years for all the existing solid waste facilities (landfills, incinerators, and compost) on what is the problem VOC's and metals that are showing up in the	MPCA does receive monitoring data from facilities as part of the permitting and compliance programs. MPCA will put more language into the report about HHW and toxicity reduction and how it relates to SMM.

	<p>leachate, flu gases, or in the compost. This evaluation, should then identify what items/products in the waste stream that is causing the contamination of concern. This will provide a direct correlation of these products and their impacts to our solid waste infrastructure. Product stewardship is one avenue to directly highlight these products. Also, part of this can be evaluating the effectiveness of the HHW, VSQG, MDA pesticide program, etc. on keeping toxic material out of these facilities. A current issue is that MPCA doesn't take any actions once a toxicity is identified to remove it from the waste stream. An example of this is PFC's. MPCA identified this was a major issue and has forced all the landfills to test for this compound. Once found, MPCA has taken no actions on banning or reducing this compound from the waste stream. At an action level of parts per trillion, it is impossible for landfills to manage it and keep it out of a landfill.</p>	
Liz Workman/SWMCB	<p>SWMCB also believes it is important to focus more attention on non-MMSW and supports the MPCA performing capacity studies for reuse and recycling of not only demolition debris but also other industrial waste streams. To maximize recycling, comprehensive efforts need to occur by the private sector in the non-MMSW sector as well. SWMCB encourages the MPCA to take a leadership role that will result in increased investment by the private sector in following the waste hierarchy as it relates to the generation and management of non-MMSW.</p>	<p>MPCA expects improved data collection in the Non-MSW sector will result in better management practices within the region.</p>
Nancy Schouweiler/ Dakota County	<p>Insufficient processing capacity exists to allow Dakota County tons to be processed & processing requires subsidies</p>	<p>MPCA forecasts that processing capacity is available and that this will continue until all "processable MMSW" generated in the metro area is delivered to a conforming resource recovery facility. Source reduction and source separated recycling will reduce MMSW generation. For example, the Newport Recycling and Energy Center (REC) will have available unused capacity after processing MMSW generated in Ramsey, Washington and contracted greater Minnesota Counties. This will allow REC to process large amounts of MMSW generated in Dakota, Carver, and Scott Counties. \$12/ton subsidies are presently used to direct MMSW to the REC. Hennepin County also uses subsidies to direct waste to processing facilities. Dakota County and other counties without arrangements for MMSW processing may need to adopt a Master Plan that guides an orderly and deliberate shift of MMSW away from land disposal to landfill abatement alternatives including MMSW processing. Minn. Stat. § 473.848 - Restriction on Disposal, simply requires that landfills not accept metro MMSW unless it is certified as unprocessable.</p>
Doug Carnival/NWRA	<p>We have concerns with MPCA measuring capacity of processing facilities by their permitted capacity. Processing facilities themselves measure their performance by a lesser "operating" capacity. We do not see any reason for MPCA to use the higher permitted capacity number.</p>	<p>MPCA has adjusted the Policy Plan to use operating capacity in the calculations. MPCA has stated what the facilities have reported to MPCA as their long term anticipated operating capacity. The MPCA will not reduce its forecast of MMSW processing capacity due to temporal conditions, such as: 1) the lack of MMSW delivery to facilities, 2) adjusted anticipated short term operating capacity, and 3) reduction of capacity due to scheduled and unscheduled outages. In the past, varied MMSW flows at landfills and transfer stations have not caused MPCA to reduce the permitted capacity of landfills or transfer stations.</p>
Rosemary Lavin/ Hennepin County	<p>Hennepin County encourages the MPCA to use its authority to enforce Minn. Stat. § 473.848 and get waste processed.</p>	<p>MPCA has appreciated the support of the metropolitan Counties and particularly Hennepin County's considerable efforts and financial commitments to ensure that MMSW is processed instead of landfilled.</p>
Doug Carnival/NWRA	<p>What are MPCA's specific plans to enforce Restriction on Disposal (Minn. Stat. 473.848)? What is the timeframe for implementing these plans?</p>	<p>MPCA has been consistent in its efforts to enforce the statutory prohibition on landfilling of unprocessed metro generated MMSW. MPCA's ROD enforcement efforts have been laid out in the 2010 Draft Policy Plan, in a report to the Minnesota Legislature, in MPCA landfill permits, and in the 2016 draft Policy Plan.</p>
Julie Ketchum/Waste Management	<p>MPCA has yet implement ROD or to lay out a plan for ROD compliance</p>	

Doug Carnival/NWRA	<p>Please provide a list of changes from the 2011 Metro Policy Plan. While some new policies are clearly identified as "criteria and standards" (Appendices) or as "Goals and Policies (page 8 and 9), there are many directives throughout the document that are clearly policy changes. All changes to current policy, all new policy initiatives affecting the waste industry, local government, businesses and residents need to be clearly identified and listed in one section of the report so that all stakeholders have an understanding of the proposed policies and their impact. What "changes in authority" is</p> <p>MPCA seeking/supporting? [Draft Plan at page 6 states that "the authorities granted to the state and counties may not be sufficient and possible changes in authority may be needed."]</p>	MPCA has created a compared version of the 2010 and 2016 final versions and will send it out to interested parties.
Julie Ketchum/Waste Management	<p>Last, we request changes to Appendix D. Specifically, Page D-2 has unintended consequences that may not have been recognized by the MPCA when the Draft Plan was placed on Public Notice. Page D-2 of the Plan includes criteria for CON issuance that result in a competitive disadvantage for the disposal market. The reference to a landfill CON request requiring information from the Policy Plan that was in effect "at the time the applicant applies for reissuance of the permit" creates a policy that applies the 2010 policy plan to one landfill and the 2016 policy plan to another. This creates inequities in the issuance of CON and we believe, applies the 2016 1% landfill goal to Burnsville LF and not our competitor's landfill. The result is an uneven playing field that has significant business impact for WM. The Policy Plan should not proscribe different rules for different landfill operators, thereby improperly serving as a vehicle for the MPCA to pick winners and losers; rather the policy plan should support a level playing field where landfill operators are governed by the same clearly defined rules.</p>	MPCA has made revisions to attachment D to address the recommendations of WMI. Specifically, the language in Appendix D was revised to treat all facilities the same, regardless of when permit applications are submitted.
Doug Morris/Citizen	<p>Has the impact on the SWM Tax been calculated by MPCA assuming achieving the objectives (Table 1a) on the SWM Tax?</p>	<p>MPCA has not calculated the impact on the solid waste management (SWM) Tax. Estimating the impact on the taxable charges and thereby the SWM Tax in the metro area as less MMSW is generated is challenging to work out. MPCA monitors tax collections and county fees that are linked to tax collections. MPCA is interested in having a better understanding of the impacts of these policies on the SWM Tax.</p>
Doug Carnival/NWRA	<p>MPCA should include a cost benefit analysis-and specifically calculate the cost to achieve a range of recycling, organics, processing, and landfilling levels.</p>	<p>MPCA included cost/benefit information in the plan where reliable information was available. However in most cases the issue is too complex and uncertain to produce confident estimates due to many factors, including a lack of adequate data, methods, and models.</p>
Tony Kwikas/Minnesota Chamber of Commerce	<p>Cost/benefit analysis must also be applied to any of the recommendations put forth in the solid waste plan.</p>	
Doug Morris/Citizen	<p>Policy 5. As identified in the WMA - (5) orderly and deliberate development and financial security of waste facilities including disposal facilities. Plus, on page 9 – "This goal is about balance: to maintain a sustainable system of managing waste; to keep costs of our solid waste system affordable; and to recognize the market is an important driver in waste management decisions." Point being it is better to have a program that is affordable that addresses most of the issues versus having a program that addresses all but is too expensive to be build or not put into operations or an existing facility that is forced to close. Something is always better than nothing. This is an issue the counties are currently having with the MPCA concerning demolition landfills. It some cases it is better to have a facility that does not meet all standards versus having a cost prohibitive one to replace it that no one uses.</p>	<p>MPCA is currently working with counties on demolition landfill issues. One of the Agency's roles is to protect human health and the environment and ensure that these facilities are not creating negative impacts to public health or the environment.</p>
Doug Carnival/NWRA	<p>What changes to the processing system is MPCA proposing? The Draft Plan on page 16 states: "improvements to existing resource recovery facilities, new refuse-derived fuel (RDF) processing capacity, and/or other system improvements may be necessary in order to capture more recyclables from MMSW." The Draft Plan should be revised to provide a more complete analysis of the benefits and costs it is considering in concluding that it is</p>	<p>MPCA is forecasting that landfills will comply with ROD. Therefore, over the next 3 years the 4 existing MMSW facilities will be able to operate near their maximum permitted capacity. The resource recovery facilities already have been built and permitted to process over 1.2 million tons of MMSW per year.</p> <p>All of the basic essential infrastructure and facilities are already built but are being under-utilized. However, several</p>

	appropriate to suggest construction of significant additional processing capacity.	facilities have stated that technology and equipment changes may make their facilities more effective and efficient in liberating materials and energy from waste. If added amounts of MMSW are delivered for processing, then each facility may be able to implement operating and efficiency measures. In addition to the four facilities already built and operating, there is a proposed new MMSW processing facility to be located in Dakota County. However, MPCA has not assumed the development of any proposed facilities.
Tim Steinbeck/Great River Energy	Comments in detail concerning ROD, the failure of MPCA to implement a timely compliance measures, the diversion of hundreds of thousands of tons of MMSW to landfills, MPCA's failure to apply ROD to Transfer Stations and Waste Haulers, the danger that the GRE may close if MPCA fails to obtain compliance, the loss of 320,000 tons per year would be a profound and serious setback. GRE states that a more inclusive approach would result in a more level playing field.	MPCA launched its ROD compliance plan to keep unprocessed waste from being disposed of in landfills, as required by Statute 473.848 to preserve and utilize the region's processing capacity, which is higher on the Statutory preferred waste management methods, including the Elk River Resource Recovery Project. MPCA selected a ROD approach that was conservative and followed the Statute. MPCA believes this approach will be successful. MPCA experienced significant delays in implementing its ROD compliance plan. However, in 2015 MPCA amended four landfill permits to include requirements to comply with Statute 473.848. The ROD permit condition is structured to monitor MMSW flow to the landfill and resource recovery facilities during 2016. If a landfill is not in compliance with ROD, the MPCA will review its options for enforcement.
John Domke/SKB	The Plan, states that demolition debris and industrial waste should be managed according to the hierarchy and that more accurate measurement of the demolition debris and industrial portions of the waste stream is needed. SKB agrees that more accurate measurement is necessary, but it cannot be done simply by measuring waste arriving at solid waste facilities. It should also be noted that the gathering of such data will be extremely challenging and will require a much more comprehensive examination of proper methods of data collection, involving many stakeholders that have not historically been required to provide such information (contractors, building owners, etc.).	MPCA plans to collect data on the disposal of demolition and industrial solid waste. MPCA will continue to evaluate the best method to collect additional information about recycling of non-MSW.
Doug Morris/Citizen	Again, will stress the framework for change should be through an update to the Nov 1988 SCORE Report. Need all the main players to come up with goals and policies versus just a state agency – MPCA. The original SCORE Report was an excellent starting point that got the programs started, but over 25 years have passed and it is time for the main players to reassess and reevaluate on where they want this program to go. Page 8, Goals and policies 115A.02 LEGISLATIVE DECLARATION OF POLICY; PURPOSES. (a) It is the goal of this chapter to protect the state's land, air, water, and other natural resources and the public health by improving waste management in the state to serve the following purposes: (1) reduction in the amount and toxicity of waste generated; (1) reduction in the amount and toxicity of waste generated; (2) separation and recovery of materials and energy from waste; (3) reduction in indiscriminate dependence on disposal of waste; (4) coordination of solid waste management among political subdivisions; and (5) orderly and deliberate development and financial security of waste facilities including disposal facilities. (b) The waste management goal of the state is to foster an integrated waste management system in a manner appropriate to the characteristics of the waste stream and thereby protect the state's land, air, water, and other natural resources and the public health.	MPCA recognizes that changes to the SCORE program may be a future strategy to address system changes over the past 25 years; however, SCORE is a statewide program and should be examined for further discussion while transitioning to hauler and facility provided data.

Rosemary Lavin/ Hennepin County	Appendix B states that "Counties are strongly encouraged to complete an environmental justice review when developing their respective County Solid Waste Master Plans". Nonetheless, neither Appendix B, the larger Master Plan, nor the MPCA's Environmental Justice Framework: 2015-2018 ("Framework Report"), set forth procedures or strategies for the development of such a review. Hennepin County works hard to reduce disparities, promote and achieve equity in housing, transportation, employment and all aspects of living, working, playing and visiting in Hennepin County. Waste is a component in all of these aspects of life, and the county emphasizes efforts to integrate proper management and reduction of waste in these broader priorities.	MPCA staff are developing an environmental justice review tool which can be used broadly across all of the agency's work, as well as more detailed and thorough tools for specific program areas. The MPCA welcomes input on specific components community members and local government partners would like to see included in these efforts.
Zack Hansen/Ramsey County	Including an environmental justice review is applauded, but the review does not go far enough. As the agency develops further knowledge and tools, its evaluation of environmental justice and equity should be used more broadly.	
Alex Danovich/Eureka Recycling	We support your position for no new investments in WTE, no subsidies, no investment in current systems.	MPCA supports investment in existing WTE facilities that serve the metro area. MPCA believes that the existing WTE facilities are essential to implementing MN Statute 473.848. Investment, to allow facilities to function more cost-effectively, to recover materials and energy from MMSW, to improve environmental control systems is essential. The MPCA supports the waste management hierarchy which gives preference to resource recovery over landfilling.
Doug Morris/Citizen	Policy 4. As identified above, there is no mention of Hennepin County's recent efforts to maximize their WTE permit. The issue that needs to be highlighted is the blood bath Hennepin went through in their efforts to get the HERC from permitted to design capacity. They have Reps and Senator fighting them on this, even though it is state policy of what the State wants! Another issue, even if Hennepin does manage to get this changed, to date they have invested about 2 years and over \$300,000 and it is still not over. During these economic times, Counties can no longer spend these amounts to do something that the State has already stated it is within State policy. This should have been state funds; not county funds spent on this issue. This Plan should identify that the next effort to expand their permit will be fully funded by the MPCA. Maybe when MPCA has to pay for it; they will finally streamline the permitting process.	MPCA will continue to work with Hennepin County on environmental review and permitting issues.
Liz Workman/SWMCB	SWMCB recommends the MPCA review other states' regulatory frameworks for new technologies rather than spend resources and time recreating the same work that other states have done to advance technology solutions for organics and other solid waste management opportunities. An example is anaerobic digestion where California has studied the technology in depth and permitted facilities.	MPCA will evaluate information from other states as part of the evaluation process that will be developed. Currently, the process for evaluating technology is not developed. As a result, there is currently no coordinated way to make unified decisions about new technology.
Ginny Black/ MNCC	The MNCC urges the MPCA and the TCMA to use extreme caution when evaluating mixed waste processing as a means to extract recyclables, including organic materials, for processing. The industries proposing MMSW processing and anaerobic digestion need to provide scientific evidence that the materials resulting from these processes meet environmental standards set by the State and result in a saleable material.	New technology needs to be carefully assessed to ensure that technology delivers on the promises because historically, mixed waste processing has not been very successful. Each new technology will need to be evaluated on its own merits and that is why the Agency is planning to develop a process for evaluating new technology.
Paul Nelson/Scott County	Please revise the text on page 4 to show the interesting trends that reflect a decrease in land disposal and an increase in organics diversion	Page 4 of the Policy Plan discusses challenges. The successes in that figure are discussed on page 3 of the Policy Plan.
Doug Morris/Citizen	No manufacturers responsibility; a key failing in the Waste Management Act (WMA) is that 100 percent falls upon government versus any support from the manufacturers who are generating these products (excluding a few problem materials where manufacturers have been tasked by the State to become responsible for end-of-life of their products (i.e., lead acid batteries, etc.) A desirable end point or goal for the county, and no doubt the State, should be a recycling industry without government subsidies.	Page 6 the Policy Plan identifies manufacturers of products as accountable parties. In addition, the section on product stewardship addresses extended producer responsibility.

Alice Madden & Marcus Mill/Community Power	A nuance about "our" health, however, must be added. It is "our" health broadly because this affects us all, but if we look at facts it is primarily a very specific community's health: low income residents and residents of color. This is a critical and cumulative environmental justice that requires a short term AND long term response. The area code that hosts the HERC incinerator has the worst air quality in the entire state of Minnesota, and the host neighborhood is predominantly people of color (and the two-mile plume from the HERC contains over 60% of the people of color in the City of Minneapolis). This pattern of situating trash facilities in communities that are already heavily burdened in many other ways, is national. However, Minneapolis in particular has received attention in the press for having some of the worst racial disparities in a US urban area in education, employment, and health. Continuing to "maximize capacity" at an incinerator in a community whose environmental health is completely overburdened works against recent efforts and a core charge of the MPCA on environmental justice. The agency has been commendably been moving on this task through public discussions, permit revocations, and most recently through appointing an Environmental Justice Advisory team this summer.	People of color and low-income people are both disproportionately exposed to pollution, and bear disproportionate health impacts from pollution, regardless of other population characteristics. For this reason, the MPCA uses those criteria, as well as boundaries of Indian reservations, as a preliminary screening to identify areas of concern for environmental justice. Through this preliminary screening, HERC has been identified as being located in an area of concern for environmental justice and would be subject to an environmental justice review during any permitting process. The MPCA supports the waste management hierarchy established in MN Statute 115A.02, which includes a preference for resource recovery before landfilling.
Nancy Schouweiler/ Dakota County	Per capita generation needs to be evaluated instead of projected tons (Figure 2 pg. 5). Figure 1 depicts a drastic increase in organics recycling, decrease in landfill, and increase in recycling, not "stagnation" as indicated in the text (pg. 4).	Per Capita Generation is shown in Figure 5 of the Plan. The short term trends tell a lot of conflicting stories in the data. Figure 1 shows that we are recycling less tons in 2015 than we did in 1999. % of waste stream has been "stagnant" since that time hovering between 45% and 50%. Our projection of current percentages with increased waste generation is necessary for comparing our objectives and progress towards the objectives.
Liz Workman/SWMCB	SWMCB counties intend to continue their practice of advising the MPCA when one of its public entities is not complying with the public entities law. As in the past, it is critical for the MPCA to enforce the law. Until the MPCA does enforce, the counties' certification report approvals should not be tied to public entities' recycling efforts.	Public entities are required to manage their waste in compliance with county Solid Waste Master Plans per MN Statute 115A.471. Counties are well-positioned to support their public entities with meeting this requirement through assistance, education and regulation (e.g. ordinances, licenses, and contracts). MPCA will continue compliance and enforcement as needed. However, County assistance and compliance efforts are both critical to successful public entity recycling and MMSW management programs.
Paul Nelson/Scott County	Page 27 Continue efforts on compliance with public entities law first bullet. Scott County will continue to work with others in the county to try to improve compliance with this law. However, the County certification report approval should not be tied to these efforts since the county has little no authority over municipalities, and for business (as discussed above) this is a state responsibility.	
Rosemary Lavin/ Hennepin County	The Framework Report is a broadly stated list of regulatory tools the MPCA will or can use in geographical areas of concern (i.e., areas of concentrated poverty or census tracts with a large population of people of color). The Framework Report devotes only one page to pollution prevention (P2) strategies, it does not consider issues of employment in communities and does not address mobility of people living in an area of concern to jobs that exist outside the area of concern. P2 outreach with small businesses in areas of concern can lead to significant reductions in nitrogen oxides (NOx), ammonia (NH3), fine particulates, and volatile organic compounds (VOCs).	Recognizing the body of research showing that people of color and low-income people are more vulnerable to the health impacts of pollution, MPCA needs to adjust its regulatory approach in areas with these communities of people in order to provide equitable protection (adjusting from equal treatment to equitable treatment). For this reason, the Environmental Justice Framework places great emphasis on these areas of our work. However, environmental justice has been a consideration in much of the agency's pollution prevention work even before the environmental justice Framework was released (programs like MN GreenCorps and GreenStep Cities, for example). Since increasing agency attention to environmental justice, the MPCA has focused small business assistance in areas of concern for environmental justice, including a volatile organic compounds reduction grant and a parts washer exchange program. The MPCA is increasingly building in priority consideration for areas of concern for environmental justice into more agency grants. Additionally, the MPCA is partnering more closely with the City of Minneapolis and the MN Technical Assistance

		Program to target pollution prevention programs and resources in areas of concern for environmental justice.
Liz Workman/SWMCB	The SWMCB appreciates that the MPCA has attempted to address environmental justice as it relates to the draft Plan. The analysis is weak in that it focuses on only two factors, race and income, and ignores other variables that affect social vulnerability, such as language, education, and housing. Further, the analysis focuses on existing facilities, which are already permitted by the MPCA. The analysis does not analyze the impact of new systems being implemented. What, for example, is the impact on populations of concern by adding new services and new system?	Research indicates that people of color and low-income people are both disproportionately exposed to pollution, and bear disproportionate health impacts from pollution, regardless of other population characteristics. For this reason, the MPCA uses those criteria, as well as boundaries of Indian reservations, as a preliminary screening to identify areas where additional review or action is needed or desired. Additional information on variables such as language, education, and housing is considered and factored into decisions and actions for areas where the preliminary screening has indicated a need to take a closer look. Appendix D states that when considering permit applications for new facilities and during renewal of existing permits for facilities located in areas of concern for environmental justice, the MPCA will take additional measures, including identifying and evaluating additional measures, beyond meeting established permit limits, to avoid and diminish impacts.
Rosemary Lavin/ Hennepin County	Appendix B states the principle of environmental justice is that all people benefit from equal levels of environmental protection (and have opportunities to participate in decisions that may affect their environment or health). "Areas of concern" are identified, not by perceived or known risk, but by mapping areas of poverty and people of color using census tracts.	
Paul Austin/ Conservation Minnesota	Finally, we support the Plan's continued promotion of producer responsibility. In particular, local governments and citizens should not be burdened with the cost of managing hazardous materials such as mercury-containing lamps. We believe the Plan should more clearly identify a goal of developing product stewardship policies with a priority placed on materials that are hazardous to human health. Thank you for considering our comments to the Draft Metropolitan Solid Waste Management Policy Plan, 2016-2036.	Since the MPCA's product stewardship policy was adopted in 1999, the intent has been to address the prioritization of products through the lens of resource conservation, economic impacts and management within the existing solid waste and recycling infrastructure. While several products including e-waste, rechargeable batteries and oil-based architectural paint are managed within a product stewardship framework, other products such as carpet and mattresses are difficult and costly to manage, and present significant opportunities for greenhouse gas savings when recycled. The agency will continue to use the criteria put forth in the product stewardship policy document and consult with a wide variety of interested parties as to which products should be considered for product stewardship policy attention.
Liz Workman/SWMCB	It is incumbent upon the state to lead a state building code effort first as all public entities must be consistent with state code requirements. Far from being a simple fix, the state building code must incorporate design complexities to address fire prevention and other elements before recycling containers can be standardized.	Some of the text in the "city codes" section pertains to city zoning codes that require enclosures for waste collection containers. The MPCA understands that the current building code may pose challenges for evolving recycling and organics management programs. Revisions to the Universal Building Code are conducted through the Department of Labor and Industry. The MPCA will partner with the metro counties, the MN AIA, the USGBC, and DLI to identify if the 2015 changes to the building code sufficiently addressed the barriers for recycling and organics management programs.
Rosemary Lavin/ Hennepin County	City codes are not inhibiting recycling. Cities follow the State's Uniform Building Code. strategy should be to work with state building code officials and building designers through the US Green Building Council and the MN American Institute of Architects to develop effective guidelines for adoption in the Uniform Building Code.	
Sarah Helleckson/Citizen	State building code should be amended to accommodate organics recycling containers.	
Paul Nelson/Scott County	Page 10 please clarify whether 75% goal includes credit for reuse and reduction where quantifiable? It seems like it should in order to prioritize use of the hierarchy. A strategy seeking to clarify legislative intent might be appropriate.	Some quantifiable reuse activities are counted towards the 75% goal (e.g. textile reuse, food to people). However, credits are no longer a part of the equation.

Sarah Helleckson/Citizen	Previous comments about accomplish a SCORE II. Not questioning this concept, but this is a major change from what was envisioned in SCORE. Just time for all the major players to meet again to either confirm, modify or completely change the direction on where solid waste should go into the future. It now appears MPCA is trying to do this by internal policy versus through the stakeholders.	Sustainable materials management actually isn't all that different from the waste management hierarchy. In most cases sustainable materials management reaffirms the waste management hierarchy. The difference is that sustainable materials management tools provide the option of associating environmental benefits with specific materials by management method instead of giving all methods equal credit. The MPCA wouldn't stop working on reduction, reuse, recycling, composting, WTE and managing waste but sustainable materials management would become one of the influences on policies and programs.
Sarah Helleckson/Citizen	How does this tie into the existing goals? For example, new technologies. Will plastics to oil count as recycling?	Sustainable materials management will provide information on environmental benefits and help develop program and policy needs. It can be used to examine new technologies for environmental benefits to make determinations on where technology most aligns with the waste management hierarchy but it hasn't as of yet. MPCA has already made a determination that plastics to oil is not recycling.
Liz Workman/SWMCB	SWMCB has regional hauler license and reciprocity HHW agreements in place that are being used by all of its members. MPCA staff has finalized hauler reporting requirements so the only item left for the recommended standardized ordinances should be directed to Scott County specifically.	SWMCB currently licenses haulers as a region with HHW reciprocity. The plan recommends including Scott county as part of the regional licensing.
Liz Workman/SWMCB	As stated above, each municipality is unique and must select a system that works best for its residents. SWMCB counties are not in the position to mandate deadlines on collection methods for various waste streams and do not concur with the MPCA's suggestion that licensing is an appropriate vehicle to achieve these goals.	
Sarah Helleckson/Citizen	The creation of one hauler licensing system would be a consistent, cost-effective concept, depending upon the process, vetting, background checks, complaints, and the enforcement of any violations. If the region licenses haulers, the communication information should be available to local government and enforcement should be clarified.	
Doug Morris/Citizen	Policy 8. Do not disagree with the State looking at promoting all cities must provide organized collection. What is the enforcement and/or compliance with 115A.941 (cities of 1,000 shall ensure solid waste collection)? More of a bottom upward movement versus a top down movement. This has many benefits, under this concept, cities can address yard waste, curbside collection, bulky items, and other solid waste issues (i.e., flow control) in conjunction with the county solid waste management plan. Majority of the waste generated is in an urban environment, if we can control this we have made a significant impact on solid waste. This has to be addressed at the State level, for many counties will not mandate anything to other local government entities. Have no issues with the benefits of organized collection, but what needs to be addressed here is how difficult the current law is to get this done. A very painful process that since the Solid Waste Act was passed it has been used very rarely! That sends a very loud message that if the Agency is going to promote organized collection as a solution then it also needs to address the pitfalls in using the existing legal structure that is in place. Another issue, if both the State and counties are experiencing lack of personnel so are the cities. Implementing organized collection is a huge fiscal and manning requirement at a time these cities are also facing other crises. State need to come up with some way to reward cities that do go organized collection to make worth doing it. Plus the fact, almost every session, the Legislature is gaining ground to pass a "reverse condemnation" bill.	Thank you for supporting the Agency's position that organized collection can provide many environmental and financial benefits. MPCA is not aware of non-compliance in the TCMA with regards to 115A.941.

Bill Keegan/Dem-Con	Page 15, top – states that the source reduction is not counted in MMSW generation, but source reduction will affect the composition of the remaining MMSW and thus needs to be taken into account to adjust the goals (i.e. 75% recycling). For example, light weighting of packaging (source reduction) will impact the amount of materials recycled when measured by weight;	The act of source reducing waste is considered in the objectives table. The tons of waste reduced via source reduction are eliminated from the MSW total. The MPCA will clarify the text to eliminate this possible misinterpretation.
Brad Fields/Anoka County	The SMM section requirements for county master plans will be difficult to incorporate without further development. It is difficult for counties to commit to staffing levels and other program resources without knowledge of costs.	The Agency has committed to do the research for sustainable materials management and determining how sustainable materials management tools can be used to enhance the State's hierarchy. As this develops, MPCA looks forward to sharing more information and partnering with the counties and other stakeholders. The Policy Plan asks for the counties support on finding new partners to help with waste solutions and implementing sustainable materials management which would not differ from the current waste management hierarchy.
Rosemary Lavin/ Hennepin County	In addition to transportation markets for finished compost, we would encourage the MPCA to prioritize higher value horticultural and agricultural utilization of compost rather be wholly reliant on government markets.	The Agency recognizes the importance of diversifying end markets. The Agency welcomes additional information or partnerships that could result in the utilization of compost for horticultural and agricultural purposes. The plan does not specifically call for expanded use of compost in agriculture because the agency wants to first focus on projects with direct state involvement. Thus, the immediate focus for agency market development staff will be on use in transportation projects, use at closed landfills and use of compost as a storm water management tool. The agency will also support and/or partner with organizations to encourage expanded use of compost in agricultural, landscaping, private sector construction projects and other applications.
Alex Danovich/Eureka Recycling	Market development for compost needs to go further and encourage compost used to rebuild nutrient depleted soil and to grow food to maximize the benefit of compost. In addition, work should be done to increase the processing capacity for sites which produce compost that have the ability to go to local food uses.	The Agency shares your concerns for maximizing the benefits of compost by growing markets for quality compost product. This is an initiative that the Agency is working towards (for example by encouraging the increase of compost use in state projects). The MPCA is also fulfilling the waste management hierarchy by encouraging the reduction, then reuse of food waste before it's sent to a composting facility as according to the waste management hierarchy. The plan does not specifically call for expanded use of compost in agriculture because the agency wants to first focus on projects with direct state involvement. Thus, the immediate focus for agency market development staff will be on use in transportation projects, use at closed landfills and use of compost as a storm water management tool. The agency will also support and/or partner with organizations to encourage expanded use of compost in agricultural, landscaping, private sector construction projects and other applications.
Liz Workman/SWMCB	First, we encourage the MPCA to review all data being used in the Draft Plan including appendices to address any internal inconsistencies.	The approach and assumptions used to reach this conclusion have been included in Appendix F. The MPCA welcomes specific feedback about data inconsistencies.
Jeffrey Marone/Republic Services	We also encourage the MPCA to clarify that the Plan's goals should be modified if the required infrastructure (processing capacity, organics facilities, etc.) is not present. MPCA should also be prepared to permit the necessary infrastructure needed to achieve the goals of this plan. Additionally, state policy should always first support the private sector investing its own resources in infrastructure-before allowing government to invest tax dollars in competing infrastructure.	The comments are supported by MN Statute 473.841 - 473.849 "Metropolitan Landfill Abatement Act". The MPCA will evaluate capacity needs on an ongoing basis.
Rosemary Lavin/ Hennepin County	The feasibility of Achieving a 75% recycling rate is highly overstated. Our citizens have access to recycling and have chosen to not participate	The commercial recycling mandate was recently passed and the full effect of that law has not yet been realized. There is substantial potential for recycling gains in the commercial sector. In addition, the Agency does not think that there is enough access to organics collection in the metro area, and a large portion of the gains toward 75% will be made by diverting food waste and other organic material.

Liz Workman/SWMCB	Page D-13 and D-14, criteria added, not present, oversight, far reaching, significant change, does not appear to be justified, SWMCB would like MPCA to justify.	<p>The draft Plan makes two necessary changes to the criteria and standards for approval of metropolitan county solid waste management Master Plans compared to the current Metro Plan (2010 to 2030). First, the draft plan reflects the requirement that metro counties have an approved Master Plan as a condition of obtaining SCORE block grants. This pre-condition, among others for obtaining SCORE block grants, are present in several Statutes (e.g. Minn. Stat. 115A.551 and 115A.557) Second, the draft Plan clarifies the statutory requirements in Minn. Stat. 473.803, subd. 5. The law requires counties to outline the solid waste programs that are delegated to the waste industry and what oversight and accountability measures will assure achievement of the objectives of the Policy Plan. MPCA spelled out the statutory standard (so that all seven counties address this matter in a clear and consistent way). The large role of the waste industry demands that each respective county Master Plan address this requirement. MPCA views effective delegation and accountability measures as essential. If delegation occurs without accountability, no one can reasonably determine if the opportunity to recycle, opportunities to reduce the amount and toxicity of waste, or any other objectives of the Policy Plan are achieved. MPCA believes the standards for delegation and oversight outlined in the standard is not a change. These provisions have been in statute for decades. Delegation and oversight as outlined in the standard is manifest in the basic duties of counties such as licensing, reporting, contracts, fees, and other institutional arrangements. County's oversight of outcomes delegated to the private sector is necessary and essential to measure and assure accountability. MPCA expects that no counties have ongoing delegations without oversight and accountability. The specific justification for the standards contained on page D14 include: 1. They are outlined in separate section of 473.803, subd. 5. 2. All seven county Master Plans need to deal with delegations and oversight in a consistent manner. 3. The metro solid waste management system outcomes are highly dependent on private sector and waste industry actions. 4. When changes to outcomes are anticipated, then oversight and accountability are more important and changes to county institutional arrangement in place for long periods of time may be warranted. Effective and efficient oversight and accountability measures are essential to determine results.</p>
Zack Hansen/Ramsey County	Appendix D contains a number of new standards for County Master Plans. Some are a clarification of statutory requirements, but others are not based in statute. The MPCA should justify these new standards, and provide more clarity on these new mandates.	
Nancy Schouweiler/Dakota County	The prioritization of strategies in the draft Plan does not take into account the amount of waste that would diverted by each strategy.	<p>The draft Plan provides a mix of strategies that would decrease waste generation and increase reuse and the recovery of recyclables and organics. Source reduction and reuse are higher on the waste management hierarchy and provide significant environmental benefits. Despite the fact that these activities do not count toward the 75% recycling rate, the MPCA believes it is imperative to support these activities since they help the region meet the intent of the WMA. Although the MPCA did not include quantities of waste diverted for each strategy, the strategies were selected because they have been demonstrated to be effective locally in MN and nationally. In addition, the MPCA is interested in maximizing environmental benefits not just tons diverted. Based on additional comments regarding needing more info on costs and benefits of strategies, the MPCA will add information, as available, on the benefits of the strategies.</p>

Doug Carnival/NWRA	The Priority Strategy found on page 25 states, "By 2025, all cities in the TCMA must provide organized recycling collection for residents. To implement this strategy, counties may: require that cities offer organized residential recycling collection in order to receive funding for recycling programs." The decision to organize collection in a community is often very contentious, eliciting significant input from concerned citizens. In fact, numerous cities that have explored organized collection and, after a thorough process with engaged citizen input, have decided not to implement organized collection. This strategy would penalize these communities and ultimately affect their ability to recycle by withholding funding for recycling programs. NWRA does not support this strategy and believes these decisions should be left for each community to decide what the appropriate collection system is for their community.	The draft Plan references several reports that support organized collection as a best practice. The Plan also identifies the many environmental and cost benefits associated with the implementation of organized collection. Although the process to organize collection may be contentious, the MPCA believes the environmental and cost benefits make the process worthwhile. The MPCA has also adapted the approach to the strategies in the plan to allow for more flexibility. Counties will not be required to implement organized recycling, but the strategy is recommended as one of several best practices.
Rosemary Lavin/ Hennepin County	The potential impact of reduced waste generation is described as an opportunity to reduce the amount of garbage requiring landfill. The potential to meet landfill diversion goals is described as likely to divert greater volumes from landfills to regional recycling, organics recovery and waste to energy facilities and create increased traffic, noise and air pollution within areas of concern. Noise is not defined in measurable terms, such as decibels. The value of keeping jobs in neighborhoods, reducing overall traffic (and vehicle emissions) by managing waste closer to the source of generation, and attracting businesses that generally emit fewer air, land and water pollutants is not explored. If the MPCA truly believes waste can be reduced to such an extent that it will eliminate the need for landfill, waste to energy, organics recovery and recycling processing facilities it needs to lay out that proposed solution in this plan.	The Environmental Justice Review included in Appendix B was a high level review intended to encourage the MPCA and partners to consider the impacts of policies in areas of concern for environmental justice. Although this review was qualitative, future environmental justice reviews may be more robust and include both qualitative and quantitative elements.
Rosemary Lavin/ Hennepin County	The section on "Impact & Assessment" begins with the statement "Identify who is likely to be affected by the proposed policy." While the paragraph attempts to describe what this is supposed to mean and the purpose of such an assessment, the examples, "impacts on health, quality of life (from noise or visual impacts, etc.), personal finances, etc., " are vague at best. Health, quality of life, noise, visual impacts, personal finances, and even the catch-all "etc." must be defined to achieve any meaningful purpose.	
Nancy Schouweiler/ Dakota County	Pg. 26, Traditional Recycling Management Priority Strategy, "Implementation of mandatory commercial recycling in the metro area shall focus on generators of large quantities of recyclables and the generators of most impactful materials": The Draft Policy Plan should define "large quantities of recyclables and "most impactful materials."	The first 2 sections of the commercial recycling priority strategy outline the plan for identifying large volume generators and the most impactful materials. Sustainable Materials Management will consider materials with the greatest environmental impact across the entire life cycle. This does not pertain only to recycling. The MPCA is evaluating existing data on generators of large volumes of specific materials and will work with counties to interpret this data for use in implementation.
Rosemary Lavin/ Hennepin County	Priority strategy number four in the Sustainable Materials Management section refers to counties allocating staff time and ensuring that SCORE grant funding eligibility always includes reduction, reuse and recycling. Hennepin County has several grants and direct program funding available that target all these different objectives. We would suggest this strategy be clarified or eliminated since the intent is unclear.	The intent of this strategy is to encourage dedicating resources to the upper end of the hierarchy. MPCA commends Hennepin County for already making all upper levels of the hierarchy eligible.
Bill Keegan/Dem-Con	Overall, the Plan draws unsubstantiated conclusions and posits statements based on limited and often inaccurate and unsubstantiated information and assumptions.	The majority of the data used in development of this plan was provided directly by facility annual reports and counties. The MPCA uses the best available data to ensure the best possible forecast and policy recommendations.

Doug Morris/Citizen	Goal 3. "This goal is about balance; to maintain a sustainable system of managing waste; to keep costs of our solid waste system affordable; and to recognize the market is an important driver in waste management decisions." This should have been stated as one or the primary goals versus being buried here. As such, many of the suggested new initiatives fail to meet this. May also need to expand on this. MPCA compliance division in the recent years have lost their direction and have gotten lost due to looking to closely at the trees and lost their vision of the forest. It is too much of this – I got you attitude. Especially in the more rural areas. Just having any type of solid waste program is a significant challenge. It doesn't help being hit with a bunch of minor compliance issues that then may force the program to close. It is a fine line, but we need to error on the side of having a program versus not. Of course speaking of red tape issues versus safety issues To many benefits on have any type of program even if it has minor issue versus no program. The old 80/20 rule. 80 percent is much better than zero.	The metropolitan counties have strong compliance and enforcement of their local solid waste regulations. MPCA is available to assist the counties with compliance issues, as needed. Because this plan only applies to the metro area, it does not include recommendation for rural counties in Minnesota.
Julie Ketchum/Waste Management	WM supports Sustainable Materials Management (SMM) with the exception of an Extended Producer Responsibility (EPR) component. WM supports the elements of SMM that recommend measuring recycling from a climate change, GHG reductions standpoint. The 25 states that currently have electronics recycling programs are a good example of how a rigid regulatory approach cannot respond to rapidly changing commodities markets and changes in computer technology. After nearly 10 years of e-waste programs, "early entrants" to the business have exited the market, commodities have dropped by 30-50%, and CRT's that have been stockpiled have been discovered stranded in warehouses. Changes to regulatory requirements by rulemaking or legislation can take years and cannot respond nimbly to changing market conditions. As stated earlier, the current weight based recycling rate may have the state, cities and counties recycling the wrong materials from a life cycle perspective. Minnesota needs to be a leader and a partner to industry in its pursuit of establishing SMM as a policy, but the policy needs to be researched from a partnership standpoint and created in a manner that can be supported through the legislative process. From WM's standpoint, this will require excluding the EPR component from an SMM legislative initiative.	The Minnesota Electronics Recycling Act has resulted in the collection for recycling of over 300 million pounds of covered electronic devices from Minnesota residents. This weight has diverted significant amounts of lead and other heavy metals to recycling as well as commodities such as steel and aluminum and has produced greenhouse gas savings. There are currently 64 recyclers registered with the program despite the drop in commodity markets and challenging market conditions for managing cathode ray tube glass. While Minnesota has experienced a few sites with problems with cathode ray tube storage, none of these sites has been comparable in scope or size to sites that have been discovered in states without extended producer responsibility laws or other comprehensive collection and management programs for waste electronics. The Minnesota Electronics Recycling Act is premised on providing significant flexibility to manufacturers, recyclers and collectors of waste electronics. For example, manufacturers of products that carry an obligation have flexibility to meet that obligation by working with any of the registered collectors and recyclers, through permanent, collection events or mail-back programs and can collect any of the products listed as covered electronic devices. The framework of the law serves as a market-based approach to ensuring that Minnesota residents have access to collection opportunities and that local governments and citizens are not bearing the full cost of collecting and recycling waste electronics.
Doug Morris/Citizen	Policy 6. Should expand and say State support will be an increase in State funding through the SWMT to ensure the existing system remains strong. For our county HHW program, the county was shouldering 90 percent of the cost with the state grant only covering 10 percent.	The MPCA acknowledges that additional resources will be needed for some of the policies within the Policy Plan, both at the local and state level. The MPCA will ask the legislature for resources where appropriate and where approved as part of the Governor's priorities.
Doug Morris/Citizen	There is insufficient information in the draft Plan about how or who is going to fund all of the landfill abatement programs that are recommended.	
Ginny Black/MNCC	The MNCC feels that all units of government in the TCMA, including the MPCA, should include increasing SCORE funding in their legislative priorities for 2017.	
Ginny Black/MNCC	The draft plan suggests performing life-cycle analysis (LCA) for many different activities as a way to prioritize materials that have the greatest environmental impact. There is no question that information from LCAs would be very valuable, however, a funding source for the analyses is not identified. The MNCC is concerned that funding would be taken from existing local programs or staffing allocations at the state level, and requests that funding for additional studies be taken instead from SCORE funds not allocated to local programs or state staff complements.	

Nancy Schouweiler/ Dakota County	Achieving the goals and objectives within the Draft Policy Plan will require additional resources. <ul style="list-style-type: none"> Increased SCORE funding to assist with the implementation of the mandated curbside organics collection by 2025 Legislative mandates for organics diversion from specific high volume organics generators Identification of best management practices for cost-effective organics collection 	
Rosemary Lavin/ Hennepin County	Moving to a sustainable materials management model is a key theme of the plan. Counties are dependent on MPCA resources to develop the guidance necessary to apply these principles to the programs counties operate and ensure that sustainable materials management moves from a concept to actionable activity.	
Rosemary Lavin/ Hennepin County	There is very little discussion about financial resources that will be needed to achieve these outcomes. The strategies and outcomes need to be aligned with current and future available resources. The plan needs to clearly state and advocate for additional resources and outcomes are contingent upon that.	
Alex Danovich/Eureka Recycling	We believe that 25% waste is not inevitable and that we can completely eliminate waste going to WTE or landfills. We can accomplish this goal by using a Sustainable Materials Management approach that utilizes a Zero Waste Framework instead of an Integrated Solid Waste framework that continues to focus investments on diverting material between the bottom of the hierarchy (from landfills to WTE). Once we reach a 75% diversion rate, reducing the remaining 25% waste through redesign and rethinking our consumption habits along with extended producer policy and regulations is a feasible and cost effective alternative to disposal.	The MPCA agrees with the concept of zero waste and reducing waste as much as possible. Therefore, the Plan has established aggressive waste reduction and recycling goals for the next 20 years. MPCA does not think that it is likely that we will achieve zero waste in the timeframe of this plan. Due to this, we need to ensure that there are facilities available to manage MMSW safely.
Doug Carnival/NWRA	We believe MPCA should put an equal amount of focus on the top of the hierarchy (reduction and re-use).	The MPCA allocates staff and resources to reduction and reuse.
Bill Keegan/Dem-Con	Page A2, Figure A1...The recovery rates for recyclables are unrealistic	The MPCA analyzed waste composition from several waste composition studies completed in the past several years. The conservative estimate is that 63% of the material going to disposal could be recycled or composted if it were not discarded as waste. The approach and assumptions used to reach this conclusion have been included in Appendix F.
Bill Keegan/Dem-Con	Page 16, bottom, regarding Table 1b - "MPCA believes the floor objectives are achievable." that are stated in the table. These floor objectives seem aggressive and we believe they will be difficult to achieve, if even possible. What is the basis for the MPCA "belief" that they are achievable?;	
Paul Nelson/Scott County	The document does not provide data or citation for many of the conclusions in the Policy Plan, or the Policy Plan states that "MPCA believes." For example, page 18 last paragraph states that "... MPCA conservatively estimates that 63% of the waste disposed is either recyclable or compostable.;" but no citation or data analysis supporting this is included. Please review the document and revise so that readers know the source of estimates and make an informed decision of whether they concur.	
Paul Nelson/Scott County	Evaluate mixed waste processing for organics recovery. Who will complete this assessment and by when?	The MPCA and stakeholders will evaluate this technology. Timing is dependent upon funding
Alex Danovich/Eureka Recycling	As part of the need for increased measurement and baseline data, we need to include closer monitoring of residual rates within MRFs as well as residual rates from end market users of recycled commodities. Understanding the composition and volumes of materials (potentially recyclable) that go to the wrong markets and end up as waste will be an important indicator of the success of MRF efficiency improvements.	The MPCA annual reports tracks the level of residuals from material recovery facilities. We do not have any entity right now that must report the composition of incoming material for manufacturing. The MPCA agrees that this would be a useful thing to measure and understand. The MPCA does not have the authority to do so at this time.
Louis Ohly/MRRA	MRRA believes Tables Ia and Ib in years 2030 and 2036 are inconsistent with state law regarding the amounts to be processed as compared to being landfilled. No explanation is provided as to the drop in processing in 2030 and why landfilling remains constant. MRRA recommends these tables show both tonnages and percentages. Waste being landfilled should be delivered for processing until the facilities are fully utilized.	The MPCA assumes that some waste will remain unprocessable through 2036. Therefore, a small percentage of waste will continue to be landfilled, even if resource recovery facilities are not fully utilized.

Liz Workman/SWMCB	For example, in the residential recycling section, a priority strategy in the Draft Plan decrees that by 2022 all residents must have organized curbside collection of organics even though earlier in the Draft Plan it is acknowledged that the best management practice for collection is yet to be determined. Each county's reality is that every municipality is unique and must select a recycling or organics collection system that works best for its residents. Five of the six SWMCB counties have significant areas of land mass that are rural in nature and curbside or organized collection may not be appropriate. Further, curbside collection does not take into account participation rates as a result of such collection. As a result, drop-off opportunities may be the appropriate management option for more rural settings that still exist in Anoka, Carver, Dakota, western Hennepin and Washington Counties. Contrary to Draft Plan assumptions, in at least one SWMCB county, open hauling systems offer the best recycling rates. Given these facts, SWMCB and its member counties are not in the position to mandate certain collection methods or deadlines without the support of municipalities.	The MPCA believes that curbside collection of organics is a best practice. The Plan recommends that communities assess which method of curbside collection is best for their local program (e.g. blue bag, co-collection with yard waste). The strategy to offer organized curbside organics collection would not apply to rural areas; rather it would be modeled after the existing opportunity to recycle requirement established under the Waste Management Act. The Plan recommends that only the largest cities have curbside organics collection by 2022. The agency is skeptical that the goals can be met without widespread curbside organic collection. Drop-off sites do not offer the same convenience as curbside collection, and thus should be the long term strategy only in communities with low population densities. Minneapolis has already achieved over a 40% participation rate despite the program only having been offered citywide for approximately six months.
Paul Austin/ Conservation Minnesota	The draft Plan needs to encourage innovative local government policies that provide effective incentives for increased recycling and disincentives for the use of non-recyclable or problem materials.	The MPCA believes that policies that provide disincentives for the use of non-recyclable should be evaluated on a case-by-case basis (reference the product ban white paper). The MPCA's Product Stewardship program is focused on addressing problem materials (see Product Stewardship section in Part 3) and the counties are encouraged to participate in a working group that could potentially develop innovative policies.
Bill Keegan/Dem-Con	Page 40 states that the MPCA will "Invest in new technologies and equipment for sorting" using the grant and loan program. Historically, these have only been provided to the public sector which competes with private sector and displaces private businesses. Will this money be available to the private sector? Why does the MPCA feel this investment is needed? An equal distribution of funds between the public & private would be required to have Dem-Con, and industry, support this strategy;	The MPCA committed to research alternative ways to raise money from the public and private sector such as green bonds and other non-profit grants. MPCA staff will inventory what is currently available through public and private groups to support our projects. This will be done in calendar year 2107. Findings will be advertised and distributed to interested parties.
Kenneth Hedberg/City of Prior Lake	MPCA should work with cities and counties who implement the Plan to maximize effectiveness.	The MPCA conducted several stakeholder meetings to gather input prior to drafting the Policy Plan. Cities and counties attended these meetings. The MPCA also met with the metropolitan counties throughout the development of the draft Plan. The MPCA will also continue to work with cities and counties to implement the Plan and develop county Master Plans once the Plan is adopted.
Kenneth Hedberg/City of Prior Lake	Please give consideration to the comments made by Mr. Nelson and Scott County as you finalize the policy plan.	The MPCA considers all comments received during the public comment period.
Paul Nelson/Scott County	Pages 4 & 5 for Figure 2 and accompanying text please cite source of data and describe the analysis used to produce the graph. We disagree with this presentation if it was completed the same as other future projections graphs in the Policy Plan where the effects of the recession were disregarded.	The MPCA consulted a statistician for the development of the waste forecast. Should the forecast prove to be significantly off, the MPCA will revise in the next Plan in six years. The MPCA amended the plan to include data sources and clarify the methodology. The recession was not ignored, because we started the trend line after the recession with the reduced waste generated during that period. There was an increase before and after the recession. Waste growth resumed after the recession reached a level that was similar to the prerecession rate.
Paul Nelson/Scott County	Page 4 please provide the source of the data for Figure 1.	
Paul Nelson/Scott County	Page 16 Table 1b. We don't see these numbers as very meaningful since they were generated using "worst case" without consideration of the recession. Please revise to present a range.	

Bill Keegan/Dem-Con	Total Waste Generation – It is not a realistic assumption to assume straight line growth over the next 20 years, which results in a 38% growth, given the historical generation of waste which has recessions and regrowth periods. A more realistic projection would be to look at the last 20 years, 1995-2015, which shows a 24% growth and use that to predict the next 20-years. Additionally, given our ongoing focus on reduction, reuse, and recycling it would be safe to assume that the next 20-years would have less increase in generation than the past 20-years;	
Paul Nelson/Scott County	Page 10 last paragraph. We disagree with ignoring the effects of the recession. There will be recessions in the future. Please revise to present a range of possible future conditions.	
Alex Danovich/Eureka Recycling	Focus on reuse has to incentivize higher quality manufacturing that is conducive to reuse and repair. For instance, the trend towards fast fashion and inexpensive clothing has greatly impacted the textile recycling market since it is much more expensive to sort out useable clothing at this point.	The MPCA does encourage people to buy durable, long lasting clothing. As an example this was one of the main messages at the State Fair exhibit this summer. The MPCA has also promoted purchasing used clothing as well.
Paul Nelson/Scott County	Page 23 Strategy to standardize ordinances, second and third bullet points. Scott County definitely sees the positives of licensing of haulers for all seven counties in the metro area. Scott County has been licensing haulers separately from the other 6 metro counties since 1998. Scott County recognizes that a seven county regional license could help to provide a more unified message from counties and haulers, and we will be happy to review our ordinance and revise where it makes sense. However, we if believe it does not address our individual county concerns we may not be able to participate.	The MPCA encourages all 7 counties to have a discussion on regional licensing and ordinances.
Paul Nelson/Scott County	Page 23 Strategy to standardize ordinances first bullet point regarding reciprocity for HHW programs. We would be happy to discuss with the other 6 metro counties and SWMCB the possibility of a regional reciprocal use agreement. Currently there is a wide-ranging variety of policies and pricing structures within the various HHW programs in the metro area. An example of this is the fact that we currently take e-waste for free, while most or all of the other counties in the metro charge some sort of a fee for most e-waste items. We could likely find ourselves overwhelmed, both operationally and financially, if we entered into such an all-encompassing RUA with those variations in the fee structure for different waste streams, etc.	The MPCA encourages all 7 counties to have a discussion on regional reciprocity for HHW and other materials. Standard pricing could eliminate the concerns regarding operations and finance.
Alex Danovich/Eureka Recycling	The standardization of ordinances and messaging for recycling may help with the standard commodities. However, the plan should be clearer about where this helps and where it doesn't help – the generalization makes it a potential inhibitor of increased recycling through innovative programs or unique recycling opportunities.	The MPCA has been working with a stakeholder group made up of county, industry, institutional and other stakeholders to come to develop a draft plan of action that will promote the use of standardized recycling outreach and education that builds on work already ongoing (e.g. Association of Recycling Managers/SWMCB "yes/no" recycling list") including identification of actions, funding needs and an agreed upon list of roles and responsibilities of stakeholders for sustainable and effective implementation. This work is ongoing and a the group's straw proposal will be shared with the broader stakeholder community for input, adoption and implementation when it is complete.
Doug Carnival/NWRA	Most importantly, we all need to invest in a coordinated recycling message with more consumer recycling education. The public and private sectors have made great efforts here. However, the waste stream is always changing-and our education efforts need to also evolve and improve. This is the absolute best way to move the needle.	
Jeffrey Marone/ Republic Services	We support the Policy Plan's direction on better consumer education. Consumers and businesses want to recycle. Republic has industry-leading recycling education programs and we will continue to work with MPCA to educate our commercial accounts, and make progress on the new Metro area mandatory commercial recycling requirement in Minn. Stat. Sec. 115A.151. Working together, public and private sector recycling educators can leverage each other's work. Better recycling education is the "low hanging fruit" and the biggest opportunity to make significant improvements in recycling in Minnesota.	

Liz Workman/SWMCB	The Draft Plan does not appear to acknowledge the sophistication with which county and SWMCB community engagement processes have been designed and implemented. Education is but one part of community engagement, and the Draft Plan underestimates the challenges associated with changing behaviors related to waste and resource management. Further, the Draft Plan essentially ignores the vastly diverse nature of the region's demographics, which counties have been working on for years. SWMCB agrees there are many 'voices' delivering overlapping messages in the region. This is inevitable in a public/private services environment. SWMCB agrees that standardized messaging within the context of a complex regional system can have value. Further, SWMCB will participate in any group focused on standardizing messaging but it needs to be emphasized that such work is extremely time intensive and requires professional assistance and large budgets to be effective. SWMCB will continue to strategically work on select regional pieces in order not to duplicate individual counties' work in the same area where significant additional dollars are also being spent.	
Paul Nelson/Scott County	Page 21 strategy about standardized messaging provides no timeframe for when MPCA will complete the "yes-no" lists.	
Rosemary Lavin/ Hennepin County	As previously mentioned, standardized messaging regarding recycling is key to effectiveness and great effort has gone into this in the past. Cities, haulers, facility operators and others have been involved. Hennepin County had a sub-group that worked on this and came up with a standard list of recyclable items. Subsequent to that the SWMCB has done the same. Implementation however has not been widespread with branding frequently trumping consistency. The strategy should be to take and update what has been done in the past and get widespread adoption across the region.	
Rosemary Lavin/ Hennepin County	Hennepin County has made major progress with our cities and SWMCB to focus standardized messaging. Such work is extremely time intensive and requires professional assistance and significant resources to be effective. Action by the waste haulers to use the standardized messaging is also a key to effectiveness but conflicts with their branding. That conflict must be resolved to achieve this important goal.	
Sarah Helleckson/ Citizen	One of the difficulties at all levels of government has been obtaining data and information from haulers and facilities, and subsequently consistently interpreting that data. One standardized system would save resources for both government and businesses and ensure more available, consistent, useful data.	The MPCA has been working with haulers and counties to develop a single-standard data reporting system that will be housed at the State. This reporting system began to be used starting in January 2017.
Alex Danovich/Eureka Recycling	SMM: Policies must be put in place to internalize the social and environmental costs identified through SMM and level the playing field to allow key stakeholders to invest in these actions. This could be done for instance, through contract requirements in the RFP process.	The MPCA has been working with the Dept. of Admin. To rework state contracts to include sustainable purchasing requirements and has seen many successful environmental benefits as well as social and economic benefits. These contracts are available for many levels of government to use.
Bill Keegan/Dem-Con	We strongly encourage the MPCA to issue a revised draft for review based on comments received by all impacted parties prior to finalizing the Plan.	The MPCA has decided to not seek additional comments on the draft plan due to several reasons. The year-long process for the Plan included numerous stakeholder engagement opportunities and public comment periods. Many of the topics addressed in the Plan were also addressed in the Minnesota Solid Waste Policy Report. The proposed changes to the Plan are believed to address many of the comments raised during the comment period. Some of the additional concerns raised can be addressed as part of the County Master Plan process.

Doug Carnival/NWRA	Despite an exemption from rulemaking provided by Minn. Stat. § 473.149, subd. 3(b), we believe it is incumbent upon the MPCA to make more effort to meet the spirit of public engagement and to provide additional opportunity for the public to affect state policy such as is provided by Administrative Rulemaking process in Chapter 14. We believe the process for development of the Draft Plan, as stated in Minn. Stat. § 473.149, is the minimal requirement and we strongly encourage the MPCA to provide a second draft for additional review and comment.	
Doug Carnival/NWRA	The goals in this Draft Plan risk a significant negative effect to the bottom-line of scores of businesses. This means real consequences to the jobs and careers of hard-working Minnesotans. In addition, the Draft Plan lays out significant changes to how we serve our customers. We were not invited to the table to help write this plan. Instead, industry is given one opportunity to comment of plan written by MPCA. The statutory Draft Plan process does not provide a robust method for addressing for stakeholder concerns (such as found in the state's Rulemaking process).	
Jeffrey Marone/ Republic Services	Finally, we encourage the MPCA to examine its process for creating the Metropolitan Policy Plan. We understand that the plan is exempt from the Rulemaking process per Minn. Stat. Sec. 473.149 (subd.3(b)). Nonetheless, this plan needs to have strong stakeholder input. We ask the MPCA to (1) submit a second draft of this plan for public review and comments, and (2) voluntarily submit this plan to the Rulemaking process in the Minnesota Administrative Procedures Act (Minn. Chapter 14).	
Julie Ketchum/Waste Management	WM has given careful consideration to the comments provided herein and the comments that are being developed by others. Given the extensive nature of all comments, it is clear that there is a high level of interest in having more public process in the form of a second draft and public comment period.	
Paul Nelson/Scott County	We ask for substantial revision addressing County staffs overall comments provided below, and specific technical comments provided in the attachment; and for the opportunity to review another draft.	
Bill Keegan/Dem-Con	Page 26, Table 5 – The arguments in the Plan citing this table to conclude that organized collection is cheaper do not take into consideration the percentage of each size container that is used in the TCMA. For example, if most of the containers are 90 gallon containers then subscription would be less expensive;	The MPCA has determined that the implementation of organized collection for MMSW achieves environmental benefits. The draft Plan references several reports that show why organized collection for MMSW is considered a best practice, including a study conducted by the Macalester-Groveland Community Council (MGCC) that was conducted with the use of MPCA grant funds. The MGCC study included robust stakeholder engagement, including input from the hauling community. The Plan also identifies the many environmental and cost benefits associated with the implementation of organized collection for MMSW. Table 5 does not take into account any of the associated environmental benefits or other potential cost savings to the city due to reduced wear and tear on streets. The average cost of a 90-gallon cart is similar in both open and organized collection systems, so if the majority of containers in an organized system were 90 gallon carts, cost savings may not be achieved. However, one benefit of organized collection for MMSW is the ability to implement true volume-based pricing which can lead to waste reduction and increases in recycling and organics diversion. This would lead to the use of smaller trash carts.
Doug Carnival/NWRA	In the past, MPCA stated that it did not have a position on OC for MMSW. When and why did MPCA's position on OC change?	

Hauler group	Before declaring Organized Collection an industry "best practice," MPCA should establish a thorough and robust process to collect input from stakeholders, particularly private sector industry actors. Private market actors in the waste and recycling industry provide thousands of jobs and make strategic business decisions that involve large, long-term commitments of capital. To simply announce support for Organized Collection in such a cavalier fashion has injected even more uncertainty into the TCMA waste and recycling market and has the potential to be deeply disruptive if not rescinded and stricken from future drafts and the final plan.	
Jeffrey Marone/ Republic Services	The Policy Plan provides support for cities moving to "organized collection." Many Minnesota cities have already made this transition-often decades ago. We are a proud partner in many organized collection cities. However, we also understand that some cities are not interested in making the transition to organized collection. We do not ever proactively push cities to organize, but if a city is interested in making this transition, we are always willing to come to the table as a partner and trusted advisor. We believe each city should retain the right to make their own decision to organize-or not - based upon their own interests and needs.	
Zack Hansen/Ramsey County	The development of recycling markets is an absolute priority to the success of a robust recycling system in the State. The MPCA is encouraged to expand the Policy Plan's approach to market development, and include comprehensive, long range planning for market development.	The MPCA has developed long range plans that are material specific and we are looking to all stakeholders to work on implementing and financing these long range efforts. These plans have been shared with the Solid Waste Management Coordinating Board and with other counties in the updates document that we share regularly.
Bill Keegan/Dem-Con	Page 8, Policy 2, "Strengthen recycling markets..." - A significant portion of the end markets depend upon national and global economics of which the MPCA has little to no control over. Given that the MPCA has had limited success at developing end markets in the past, what will be the new approach to successfully implement this strategy? Will efforts to improve end market opportunities be a collaborative effort with the private sector?	The MPCA has no control over global market pricing. However, the MPCA has had positive effects on local markets. Examples include Liberty Paper, Verso deinking mill, Pactiv egg cartons, Mastermark Plastics, Bedford Industries, Renewal by Anderson. The MPCA supported these companies either through financial assistance or consulting services. MPCA staff is always willing to work on projects with the private sector.
Doug Carnival/NWRA	We appreciate MPCA discussing the need for more market development for recyclable materials. However, a state-run effort here may not be the best solution. In fact, there are recent examples of MPCA struggling to make this work. The market for recyclable is affected by numerous geo-political factors. Ultimately, we cannot control economics-or the value the market places on specific commodities.	
Paul Nelson/Scott County	• Page 40 Priority strategy for expanding existing markets we're not sure how the Counties or MPCA affects these markets or whether state and local government should lead.	
Doug Carnival/NWRA	MPCA's mistaken thinking had led to a desire for a Certificate of Need for landfill accepting Industrial and C&D waste. We do not believe this conclusion is allowed without a formal rule-making processing. This approach only discourages less brownfield clean-up. Contaminated soils make up 80% of this waste stream. We need policies to encourage more brownfield clean-up-not policies that make this more expensive. Finally, given the nature of these projects, it is very difficult to forecast inbound volume for contaminated soils	The MPCA has not recommended in the Policy Plan a certificate of need process for non-MSW landfills. The recommendations in the Policy Plan are to develop better data and measurement to make more informed policy decisions in the future.
John Domke/SKB	Several statements in the Non-MMSW section of the Plan imply that Class 111/ISW facilities should have to go through the Certificate of Need (CON) process, which MMSW facilities go through for approving permitted capacity. This suggestion is not appropriate for Class 111/ISW facilities.	
Tony Kwiolas/Minnesota Chamber of Commerce	The Policy Plan also sets unprecedented policies related to non-mixed municipal solid waste streams that are based on data and analysis that need further verification and explanation. We thank the MPCA staff which has held two public meetings to seek input from stakeholders, but additional meetings are needed to clarify the data, procedures of implementation and enforcement of the plan, as well as to answer and questions as to whether the actions recommended in the Policy Plan are voluntary and/or mandatory.	The MPCA has received several comments on this issue and is going to revise the Non-MSW section to clearly state that additional information gathering is the current recommendation.

Louis Ohly/MRRA	MRRA member insist that MPCA delay enforcement of ROD no longer. Without enforcement millions of tons of will continue to be landfilled losing renewable energy, recyclable materials, and increasing pollution.	The MPCA has updated the Plan to include a discussion of our current status with respect to ROD compliance and updated timeline.
Brad Fields/Anoka County	The Policy Plan would require the County to submit to the State a list of commercial entities who are not in compliance with recycling requirements. Anoka County has worked with area businesses to develop strong relationships which has allowed cooperative work on waste diversion. By assigning a regulatory role to the County, those relationships would be jeopardized.	The MPCA is asking the counties to partner with the State on the enforcement of the commercial recycling statute. The MPCA understands that relationship building is important and would not expect the county to report an entity that is working on compliance. However, the MPCA does expect counties to inform the State of entities who are not making a good faith effort to comply.
Liz Workman/SWMCB	Regarding the individual counties' work with commercial recyclers, as mentioned earlier, this section of the Draft Plan that includes a priority strategy that counties are obligated to include in their master plans creates concern that the MPCA has placed no regard on current strategies where the public sector is partnering with private businesses for success. To ask the counties to act in a compliance role at any level is inconsistent with current county programming.	The MPCA is asking the counties to partner with the State on the enforcement of the commercial recycling statute. The MPCA understands that relationship building is important and would not expect the county to report an entity that is working on compliance. However, the MPCA does expect counties to inform the State of entities who are not making a good faith effort to comply.
Ginny Black/MNCC	Recent efforts to revise permitting rules failed to reduce barriers to constructing environmentally sound composting facilities. This is evidenced by the fact that no new facility permit requests have come to the MPCA using the newly amended sections governing source separated organic material (SSOM) compost facilities. The MNCC believes valid scientific evidence presented during the development of the current SSOM Compost Rule was disregarded and resulted in the current rule being more stringent than necessary to protect the environment. The MNCC provided testimony in a report commissioned by the MNCC and written by American Engineering Testing (AET) which documented the flaws in the data used by the MPCA to develop the current SSOM Facility rule. Among those flaws were the MPCA's use of data from compost piles that were at saturation capacity for water holding, the use of drinking water standards on water samples that were not tested using the proper protocol for drinking water test methods, and the inconsistency in the MPCA's application of what is defined as a hard-packed all-weather surface. These errors and omissions in the MPCA's evaluation resulted in an overly restrictive Rule which greatly increases the cost of locating and constructing an SSOM compost facility. These rules need to be modified to reflect science-based research and set requirements that will allow more composting facilities to be built at a reasonable cost while still affording the necessary safeguards that protect our water, land, and inhabitants. For full comments from the MNCC on the SSOM Compost Rule revision see the attached AET report.	The MPCA is committed to doing additional research to further evaluate the potential impacts of composting on groundwater. There are a number of facilities that are at various stages of the permitting process that have indicated to the agency an intent to operate within the new source-separated organic material designation. The agency may pursue additional changes to the rule within the timeframe of the metro policy plan, but over the next several years our assessment is that additional data is needed before changes to the rules are revisited. It is not the Agency's intention to limit the number of compost facilities being built and operated at reasonable cost. We are committed to working with facilities to ensure their specific design and operational requirements are protective of the environment while allowing for the lowest possible cost that complies with the rule.
Paul Austin/ Conservation Minnesota	We support the Plan's objective to expand recycling market development, but note that the Plan fails to identify a source of funds to invest and support this effort. The Plan notes that in the 1990s the state and private industry invested heavily in developing recycling end markets (p. 40). Since then, this investment has dramatically declined and the result has been a lack of stable domestic markets that could absorb materials when the demand from international markets evaporated. The Plan should acknowledge the fact that the state stands to benefit from the economic development and jobs created by recycling markets and must commit to investing more in this area.	The MPCA is committed to improving local market development infrastructure and capacity. The Plan proposes the creation of a group to investigate market development needs including infrastructure development (public and private), funding, and assistance and develop recommendations on how to effectively advance statewide priorities.
Bill Keegan/Dem-Con	The MPCA is concerned about the "...fast growth of non-MMSW land disposal...". Why is the MPCA concerned about this growth? Further, this pages posits that "...we have evidence that demolition debris and industrial waste also carry environmental risks.". What evidence does the MPCA have that disposal in a modern day, lined industrial waste landfill carries any more risk than a MMSW landfill?	The MPCA is concerned about the fast growth of Non-MMSW land disposal because most of it is identified as "Other" industrial waste. This points to the need for better data in this area, and the MPCA plans to conduct more thorough data analysis with Department of Revenue. As for the environmental risk, all land disposal carries environmental risk. It is important to ensure that the risk is such that it needs to be managed appropriately.

Tony Kivilas/Minnesota Chamber of Commerce	This has led to reduction in the weight of products, the decrease in hazardous components of items and more streamlining and efficiency in solid waste processing. Data must take into account these changes in the industry, as well as consumer purchasing trends, to be considered reliable in setting goals.	The MPCA is considering light-weighting trends as part of the waste forecasts. Also, the sustainable materials management approach discussed in the Policy Plan is analyzing the best path to measure progress. The Toxics and Pollution Prevention Evaluation Report (TPPER) will address the toxicity reduction in more detail. The next TPPER is due to the Legislature December 2017.
Paul Nelson/Scott County	Collect and make useable better and more comprehensive data available regarding the current status of Solid Waste Management in the Metropolitan Area	The MPCA is currently working on this through improved data collection through hauler reporting, reuse tracking, annual reports, and consolidation in one system (ReTRAC). The MPCA will work with all stakeholders to identify data gaps and areas that need improvement.
Paul Nelson/Scott County	Overall we think the Policy Plan needs to be more strategic by focusing on addressing the data gaps identified in the legislative audit and generally acknowledged across the industry.	
Liz Workman/SWMCB	SWMCB and its members will continue to encourage moving organics higher on the hierarchy for donation and food to livestock. SWMCB is curious why the MPCA has not advocated for or adopted the U.S. EPA's food waste hierarchy.	The MPCA is evaluating a hierarchy specific to food and as part of that evaluation will look at the EPA's food-specific waste hierarchy.
Ginny Black/MNCC	The draft plan does not adequately address organics recycling programs beyond collection. The MNCC does not believe that there is sufficient capacity in the TCMA to process all of the residential and commercial organic materials generated in the TCMA. The issue of processing capacity becomes an even larger problem if organics from industrial sources are added to the mix. The MNCC therefore recommends that the MPCA conduct a study of existing organics processing facilities to determine what additional capacity is required to reach the state's 75 percent recycling goal for the Metro Area.	The MPCA is mindful of the fact that facility capacity will have to match collection and states that additional transfer capacity and more composting facilities will be necessary. An analysis of current and future capacity needs is appropriate and the report will be amended to include a commitment to complete a capacity analysis.
Doug Carnival/NWRA	The Draft Plan discusses the need for a Certificate of Need for industrial and C&D (construction & demolition) waste. We again repeat our concerns with MPCA's misconception of this problem. MMSW is not being improperly classified as Industrial and C&D waste. We challenge MPCA to provide any evidence to support this claim.	The MPCA is not stating that there is a need for a CON process at this time. The MPCA is stating that more research needs to be conducted and better data needs to be collected on non MSW.
Doug Morris/Citizen	Policy 7. Through a stakeholder's effort a Demolition Guidance was written to act as a bridge till rules can be made. Now MPCA is avoiding the rule process and is going after each individual permit as it comes due. Should modify this goal to state – "MPCA along with the stakeholder will utilize the information gathered since the implementation of the Demolition Guidance Document to come up with propose new rules for demolition and industrial landfills."	The MPCA is planning to begin a rule making for C&D landfills in the near future. In the interim, facilities need permit authorization to continue to operate, modify or expand. For facilities that need permits for additional capacity in particular, this issue must be addressed in some manner. The MPCA is discussing with several facilities how to allow continued operation and expanded capacity while minimizing the potential environmental impacts. This rule could take several years to complete due to the anticipated controversial nature. MPCA will involve stakeholders as the rule is developed to ensure that the new rule is workable for industry and protective of human health and the environment.
Liz Workman/SWMCB	We also acknowledge the MPCA's leadership with the addition of a sustainable materials management (SMM) initiative but need more clarity on the framework for SMM, and the call for more county resources, including staff, which may be needed to support the MPCA initiative. As you are aware, counties are dependent on MPCA resources to develop the guidance necessary to apply these principles to the programs counties operate.	The MPCA is researching next steps for sustainable materials management. One of the priorities is to look at measuring the environmental impacts associated with how we manage specific materials. The MPCA isn't asking for the counties to do any additional work in this area. The next priority would be to do some Life Cycle Analysis work to determine if there are materials that should be captured that do not have a good capture rate. These materials could become more of a focus. The MPCA doesn't foresee this being outside the current activities that the counties already work on and would work with the counties if new materials are selected to determine how best to move forward.

Liz Workman/SWMCB	"SWMCB welcomes the opportunity to participate with other stakeholders in a sustainable materials management analysis to help identify materials that are most impactful to the environment. However, if counties are expected to devote staff to this work, a better understanding of the framework for SMM and specific activities that the MPCA expects of counties are needed. Regarding the individual counties' work with commercial recyclers, as mentioned earlier, this section of the Draft Plan that includes a priority strategy that counties are obligated to include in their master plans creates concern that the MPCA has placed no regard on current strategies where the public sector is partnering with private businesses for success. To ask the counties to act in a compliance role at any level is inconsistent with current county programming."	
Jeffrey Marone/ Republic Services	The state's solid waste hierarchy is set forth in Minn. Stat. Sec. 115A.02(b). This hierarchy clearly sets forth MPCA's priorities. Organics is #3 on the list. Recycling is #2. The #1 priority is reduction and re-use. We encourage MPCA to follow state law, and put more focus on the top-not the bottom of the hierarchy.	The MPCA is responsible for ensuring that that statutory waste management goals are implemented. More focus on the top of the hierarchy is necessary. The draft Plan introduces the Sustainable Materials Management approach which would likely lead to more source reduction and reuse. In addition, the draft Plan includes several source reduction and reuse strategies. The MPCA welcomes additional recommendations for source reduction and reuse efforts.
Louis Ohly/MRRA	MRRA believes the MPCA should give more consideration in the Draft Plan to developing industrial waste management options other than landfilling. There is a role for resource recovery but only to the extent the industrial waste cannot be reduced, reused or recycled. All waste to energy facilities have industrial solid waste plans approved by the MPCA to manage certain industrial wastes where combustion is the preferred and safest management option and our facilities will continue to be available for those services to businesses.	The MPCA is supportive of managing all solid waste higher on the waste management hierarchy. In addition to improving data, the majority of the strategies for non-MSW pertain to reuse and recycling.
Ginny Black/ MNCC	The MPCA should use research to lead a consistent market development program for the use of finished compost. The MPCA should work with MNDOT to define the environmental and end use requirements for compost used in road projects.	The MPCA is working with the Minnesota Department of Transportation and other pertinent departments to increase the use of composting in construction and landscaping projects statewide, specifically by changing the multiple specifications to expand the market.
Julie Ketchum/Waste Management	WM agrees that more representative, accurate data is needed to establish policies that reflect our waste management system; however, we are very concerned with the proposed requirement to complete industrial waste composition studies. Due to the heterogeneity of the industrial waste stream, the expense of a statistically sound study will be astronomical for all parties, particularly businesses and industries that generate the waste in the first place. More importantly, the disruption in operations at our landfills while these waste composition studies are being conducted will affect the daily operations of our facilities. This will compromise the safety of our employees and the third party vendors.	The MPCA needs to better understand the composition of material going into industrial and C&D landfills. This is important to track compliance with industrial solid waste plans as well as develop policy around Non-MSW that makes sense for all stakeholders. Occasional composition analysis will greatly benefit the system with minimum disruption to the landfills. Waste composition studies are common and have led to little disruption of operations and have not compromised safety of employees.
Alex Danovich/Eureka Recycling	"SMM should look beyond the environmental indicator of Carbon and look at other pollutant indicators that have both environmental and social impact. There is work to date by groups such as Sound Resource Management that have developed methodologies that look at a more diverse range of impacts and connects a dollar value for damage to society of such impacts.	The MPCA plans on trying to incorporate more environmental indicators in the future.
John Domke/SKB	SKB supports the MPCA's effort to address emerging technologies (beginning on page 42) and how they would fit into the existing solid waste hierarchy. Amending the solid waste hierarchy to include such technologies would help to encourage the development of these innovative, next-generation technologies.	The MPCA plans to develop a process to more effectively analyze and decide on where new technologies fall on the hierarchy. The hierarchy is established in Minn Stat 115A.02. The MPCA can issue program management decisions as where the new technologies fall on the hierarchy after scientific evidence has been evaluated.
Paul Nelson/Scott County	Page 14. Priority Strategies 1, 3, 5 and 6 please include a schedule for when these will be completed by the MPCA.	The MPCA has included a table that outlines responsibilities and timelines in the plan. At this time the MPCA has already begun discussions on sustainable materials management.

Paul Nelson/Scott County	<ul style="list-style-type: none"> • Page 40 What will be the mechanism and the targeted completion date for researching best practices for MRF optimization? Shouldn't this be industry led? 	The MPCA recently completed a MRF and solid waste system analysis. In conversations with end markets, their number one complaint is condition and contamination of commodities. We are open to industry representatives leading this discussion. We feel that there are opportunities to increase yield and reduce contamination in the processing of the recycling stream.
John Domke/SKB	SKB does have significant concerns with the section related to Non-MMSW, found on pages 32-39 of the Plan. Broadly, this section uses inaccurate data and analysis as the basis for the Plan's policy statements and strategies. Furthermore, the proposed policies detailed in the Plan will have enumerable negative consequences on generators, contractors, and facilities.	The MPCA recognizes that there are gaps in the data for this section. That is why the recommendations emphasize gathering better data in the future to base policy decisions on.
Doug Carnival/NWRA	Figure 8, found on page 33, implies that the growth in Non-MMSW generation and flatline in MMSW generation is evidence of ISW reclassification. However, Figure 1 (found on page 4) clearly shows a correlation between the growth in materials managed as recyclables and organics and the fall in MMSW generation. In addition, it is very important to recognize that the recession of 2007-2008 dramatically reduced the amount of C&D generated as very little new construction and renovation occurred during those years, artificially lowering the baseline. It is also very important to recognize that the vast majority of ISW is contaminated soil; therefore, growth in overall ISW generation is likely the result of large development and redevelopment projects and not reclassification.	The MPCA recognizes that this may in fact be the case, however, there is no way to know for sure without more rigorous data collection on non-MSW, which we plan to gather as stated in the Policy Plan.
John Domke/SKB	Figure 8, found on page 33, implies that the growth in Non-MSW generation and flatline in MSW generation is evidence of ISW reclassification. However, Figure 1 (found on page 4) clearly shows a correlation between the growth in materials managed as recyclables and organics and the fall in MSW generation. In addition, it is very important to recognize that the recession of 2007-2008 dramatically reduced the amount of C&D generated as very little new construction and renovation occurred during those years, artificially lowering the baseline. It is also very important to recognize that the vast majority of ISW is contaminated soil; therefore, growth in overall ISW generation is likely the result of large development and redevelopment projects and not reclassification.	
Nancy Schouweiler/ Dakota County	Numerous transfers have been made from this account by the Legislature to fund other programs and initiatives. The most recent transfer in 2015 was repaid. The other transfers, totaling approximately \$14M since 2003, have not been repaid. The existing and estimated future balance in the MLCAT account will likely be insufficient to support the necessary post-closure actions of the seven eligible landfills. Post-closure care accounts such as MLCAT, must be fully funded to ensure the proper protection of public health and the environment into the future. A Priority Strategy for the MPCA should be to ensure that MLCAT is fully funded.	The MPCA recognizes the importance of metropolitan landfill contingency action trust and has in the past testified to keep funding in the account.
Paul Nelson/Scott County	<ul style="list-style-type: none"> • Page 42 Emerging technologies is important and we encourage MPCA embrace flexibility and encourage experimentation. 	The MPCA recognizes the potential for new technology to help manage material that is currently being disposed in a better way. However, the MPCA also has a responsibility to ensure that the new technology performs as promised and to determine the potential impact of the new technology on the solid waste system. This sometimes results in a lengthier process, but it is necessary to proceed with caution in areas where technology has failed in the past. In an effort to respond more quickly, the MPCA will develop a process to more effectively analyze and decide on technologies that arise.

Tim Steinbeck/Great River Energy	<p>The Draft Plan acknowledges that meeting the 75% TCMA recycling goal will require a broad range of programs. Yet when it comes to residential organics collection the Draft Plan requires each county to require all licensed haulers to offer curbside organics collection by 2020. GRE feels that more emphasis should be placed on encouraging, studying and advancing Mixed Waste Processing (MWP) as a solution to the organics challenge facing the region. Finding a way to use the existing RDF processing infrastructure to accomplish a portion of the organics management goal should be a top priority. With this infrastructure in place the region is in a strong position to be a leader in Mixed Waste Processing and organics management. Page 32 of the Draft Report it is states that MWP raises questions about how to account for and report captured materials. We fail to understand the concerns discussed in this statement. For three decades waste processing facilities have been selling valuable recyclable materials into the scrap metal markets, providing this material to a facility that will complete the recycling process. Separating organics through MWP is no different. GRE does not think it is appropriate to require region wide curbside organics collection when MWP has the potential to provide a more cost effective and environmentally friendly solution to the same problem. The reality is that the TCMA contains a variety of different communities with vastly different characteristics. While curbside collection of organics may make sense in some areas it may be completely impractical in others.</p>	
Zack Hansen/Ramsey County	<p>The MPCA is encouraged to recognize the evolution of the waste stream and emergence of new technologies, and more aggressively pursue evaluation and allowance of new technologies that divert waste from landfills and value the material as a local resource. Further, the MPCA is encouraged to approach strategies in the Policy Plan that view the hierarchy as a dynamic guide, not a static yardstick, acknowledge change, and evaluate the effectiveness of the integrated solid waste management system in the context of that change.</p>	
Rosemary Lavin/ Hennepin County	<p>We agree with the strategy that cities shall contract for residential recycling by 2025 in order to yield a higher recycling rate. However, the current organized collection statute is murky on whether a city can organize recycling and organics recycling without following the process laid out in statute. Very few cities will be willing to proceed without clarification or assurance that organized recycling and organized organics can be implemented without a legal challenge. The counties should not be forced to require cities to organize collection to receive SCORE funding until a clear statutory authority for cities to do so, without challenge, is established.</p>	<p>The MPCA recommends that cities obtain legal advice from their own city attorneys as to the process for implementation of organized collection.</p>
Paul Nelson/Scott County	<p>Page 16 paragraph about "floor objectives" and expectations to meet them, we do not agree that the Policy Plan has made a sufficient case that they are achievable, particularly: The numbers in Table 1b since they are "worst case", and Table 1a reduction of Max landfill (last row of the table) from 23% to 1% in just 3.5 years is clearly not achievable.</p>	<p>The MPCA re-evaluated the assumptions for the 1% landfill goal and adjusted the table accordingly. It is important to note that the 1% landfill objective is waste from the curb that has gone straight to landfill. It does not include process residuals, but only the material that is truly unprocessable. See the sub-section in the draft Plan titled "Achieving a 75% recycling rate is challenging but possible" which includes a more detailed assessment on the achievability of the recycling and organics objectives.</p>
Doug Carnival/NWRA	<p>Given the inaccurate information and assumptions that were used to support much of the discussion and recommendations pertaining to ISW in the Draft Plan, NWRA feels that it would not be prudent, nor warranted, for MPCA to include these sections in the final Plan. Therefore, NWRA requests that the MPCA remove the non-MSW sections.</p>	<p>The MPCA strongly feels that it is important to collect better data on non-MSW in order to make informed policy decisions. This section is vital to that need.</p>

Nancy Schouweiler/ Dakota County	The first priority strategy identified in the Draft Policy Plan related to product stewardship provides a list of materials that have been identified by the MPCA as priority materials. The Draft Plan should place an emphasis on product stewardship for those products that pose a public health or safety risk. The second priority strategy identified in the Draft Policy Plan related to Product Stewardship is the reconstitution of the Solid Waste Management Coordinating Board's Product Stewardship committee. This strategy states, "A committee, composed of a representative from each metropolitan county, could focus on advancing the product stewardship agenda in the TCMA." The metro counties have consistently supported product stewardship legislation and were largely instrumental in recent changes to the paint product stewardship and electronics product stewardship laws. A committee to address this issue is not required, and this priority strategy should be rewritten to indicate that the counties should work together, in whatever format is most efficient, to advance product stewardship initiatives.	The MPCA strongly supports collaboration among the counties to identify products for consideration under a product stewardship approach. This should be done in a way that sufficiently engages the Metropolitan Counties in order to allow a consistent message regarding product stewardship initiatives in the state. Since the MPCA's product stewardship policy was adopted in 1999, the intent has been to address the prioritization of products through the lens of resource conservation, economic impacts and management within the existing solid waste and recycling infrastructure.
Alice Madden & Marcus Mill/Community Power	Would like an aggressive phase out of WTE and assurance that we continue to focus on the upper end of the hierarchy.	The MPCA supports the Waste Management Hierarchy, of which waste-to-energy is a part. The MPCA has taken an aggressive approach with the waste management objectives. A goal of 4-6% reduction in trash generation, 75% from composting and recycling leaving only 25% left for other management methods. Remaining items that can't be managed through reduction, recycling or composting would fall to the next level of the hierarchy, WTE, which capture materials and energy from waste. The strategies in the plan are focused on the upper end of the hierarchy.
Liz Workman/SWMCB	The Draft Plan includes Goals and Policies, as required by law, which have been modified from those in the current Policy Plan. These are important tools for counties to use in developing solid waste master plans, but a number of policies read more like strategies, and	The MPCA used the following definition of policy: "definite course of action adopted for the sake of expediency, facility, etc.; a course of action adopted and pursued by a government, ruler, political party, etc." The Goals & Policies in the draft Plan were designed to be more focused and actionable than in the previous plan.
Paul Nelson/Scott County	Part Two: Framework for Change is confusing. The policies are confusing mixing tactics, strategies and definitions with policy. For example, under Goal 1, Policy 1 second sentence is trying to define the SMM; while the second sentence of Policy 5 is a strategy. Policies should state intent. Please clarify this section.	The MPCA used the following definition of policy: "definite course of action adopted for the sake of expediency, facility, etc.; a course of action adopted and pursued by a government, ruler, political party, etc." The Goals & Policies in the draft Plan were designed to be more focused and actionable than in the previous plan.
Paul Nelson/Scott County	Pages 8 and 9 Goals and Policies are very confusing mixing policies with strategies and definitions. Please revise.	
Bill Keegan/Dem-Con	Figure 11 predicts a straight line growth in non-MMSW for the next 20-years. This is an unrealistic assumption which shows a 350% growth in non-MMSW. Since the MPCA only has data back to 2009, which is the recovery period from the Great Recession, it is unreliable to use the growth trend line from that period of time to predict the next 20 years of non-MMSW generation. The MPCA should wait until more reliable data is obtained regarding non-MMSW generation before making unrealistic predictions for the next 20-years in the Plan which will impact the policy decisions being made	The MPCA uses the most up-to-date and accurate information possible in our forecasts. We do not have non-MSW data in our database prior to 2009. As to the credibility of the forecast, the baseline was established post-recession. This is a 20-year plan that is revised every 6 years. If the trend changes in non-MSW growth in the next 6 years, it will be reflected in the next iteration of the Policy Plan.
Doug Carnival/NWRA	Figure 11, found on page 38, projects Non-MMSW tonnage growth that is simply unrealistic. This forecast needs to be revised based on long-term historical trends.	
John Domke/SKB	Figure 11, found on page 38, projects Non-MMSW tonnage growth that is simply unrealistic, including an estimate of 13 million tons/yr by 2036. Such an unrealistic figure shows that the development of these sections was not approached with objective analysis. In fact, it appears the MPCA has selectively chosen to not use broad historical trends as the basis for their projections, but has rather used a brief snapshot of post-Great Recession growth data-which merely returns the waste generation rate to normal-as the basis for their growth projections.	

Ginny Black/MNCC	The MNCC supports the draft plan's priority strategy of making residential curbside organics collection available in the TCMA by 2025. The MNCC encourages the report to elaborate on this requirement and state that source-separated organics collection must be available region-wide by 2025. As mixed-municipal solid waste (MMSW) composting has failed in the past to produce a sellable product, ensuring quality feedstocks are collected for composting facilities in Minnesota is key a factor in assuring their success.	The MPCA will clarify the language in the Plan to specifically call out source separation.
Doug Carnival/NWRA/Julie Ketchum WM	Please provide more details on mandatory upfront processing (page 27). Throughout several drafts of the Minnesota Climate Change Advisory Group (MCCAG) Climate Action Plan, upfront processing costs/ton of Greenhouse Gas (GHG) emissions reduction were presented in comparison to other waste management methods, including recycling. The cost effectiveness of upfront processing at a WTE or RDF facility is a cost of \$32 per million metric ton of CO2 emissions reduced. For recycling, there is a credit or gain of \$5 per every million metric ton of CO2 emissions reduced. The cost differential is \$4.7 per million metric ton to install upfront processing at a processing facility compared to curbside and drop-off recycling. This demonstrates the high return for the environment and the economy from reaching high recycling levels and the high cost of upfront processing for the same GHG emission benefit. For waste systems that are already at a high level of recycling and waste processing, it is critical to analyze the socioeconomic impacts and environmental improvement from this perspective. In essence, this type of analysis needs to be completed for those waste systems that are at a tipping point for making a decision about whether there is value in adding upfront processing. These systems will add upfront processing to retrieve the small amount of remaining recyclables from the waste stream at a very high cost to the public.	The MPCA edited the plan to allow for more flexibility. Instead of requiring counties to implement all of the strategies we categorized as "priority", we will require that they choose between 1-3 of the strategies (priority and recommended will be lumped together) in each category (e.g. collection practices, organics management, etc.) to incorporate into their master plans. MPCA included cost/benefit information in the plan where reliable information was available. However in most cases the issue is too complex and uncertain to produce confident estimates due to many factors, including a lack of adequate data, methods, and models.
Jeffrey Marone/ Republic Services	We do our best work when we sit down with our government partner and design a public/private partnership. Our planning process starts with good data. We lay out all the options-and the cost for each. Some options will require additional infrastructure-and this may mean additional public/private investment, or additional government permits and approvals. Using this data, our public partners can then make informed decisions-and create the system that meets all of their goals: environmental, level of service, and cost. We urge MPCA to approach the Policy Plan in the same manner-and to include estimates on cost, environmental impact, and additional facilities and permits needed.	
Liz Workman/SWMCB	In their master plans, counties certainly will include at least two programs to address reuse objectives but do not want to be restricted to the list of three provided in the Draft Plan. This is an example of a prescriptive approach that could be interpreted to preclude better alternatives. If, however, the choices are limited to the three programs, please share the best management practice data on how these programs significantly increase MSW waste reduction activities.	
Paul Nelson/Scott County	Page 22 Recommended Strategies, City Codes second paragraph says "Counties shall ... " However, this is a recommended strategy. Please clarify whether the Counties shall or should ... ?	
Paul Nelson/Scott County	• Page 29 Priority Strategy to "Make residential curbside organics collection available ... " second paragraph is confusing as this is listed as a priority strategy, but language in the paragraph states things that "should" be done. Please clarify.	
Paul Nelson/Scott County	Page 23 Priority Strategy regarding support of MnTAP. A strategy is not clearly stated in this paragraph. Please clarify if the MPCA is saying that the Counties need to fund staffing at another entity?	

Paul Nelson/Scott County	Page 23/24 Priority strategy to "Implement at least two ..." Scott County supports the reuse of products that will help to reach the goals of State and Scott County to reduce landfilling of waste and the reduction of materials purchased. Scott County is certainly willing to develop or use established programs already being used but we think this list is too restrictive. Scott County would rather look at all the available options or develop our own programs to reuse materials thereby reducing the landfill of items. Please provide more flexibility and options, or delete and focus on outcomes rather than prescribed solutions. Also clarify third sentence of the paragraph with respect to use of the word "should."	
Paul Nelson/Scott County	• Page 42 Priority strategy to develop a process for gathering information necessary to make more timely and consistent policy by 2020. First please clarify whether MPCA will or should complete this strategy. Second we feel that MPCA should do more than just develop a process by 2020. The strategy should also have started information gathering and policy development in order to have information and policy discussions to inform the development of the next Policy Plan.	
Paul Nelson/Scott County	Please revise the Policy Plan to either: 1) be less prescriptive and allow more flexibility; or 2) complete and vet a cost effectiveness analysis. We argue that the first option is preferred since this Plan starts us on the road to some aspirational goals.	
Paul Nelson/Scott County	When will the comprehensive measurement, and education programs called for in the first and third bullets under Recommended strategies be completed and by who?	The MPCA edited the plan to allow for more flexibility. Instead of requiring counties to implement all of the strategies we categorized as "priority", we will require that they choose between 1-3 of the strategies (priority and recommended will be lumped together) in each category (e.g. collection practices, organics management, etc.) to incorporate into their master plans. The Plan will also include a table with responsible parties and rough timelines established.
Paul Nelson/Scott County	Priority strategy to "Evaluate the effectiveness and impacts of mandatory upfront processing ..." is listed as a Priority Strategy yet wording throughout the description says it " ... should be evaluated ... " or " ... should be focused on ... " Please clarify whether this is a required Priority Strategy or a Recommended Strategy. Also identify who will complete this assessment and provide a schedule.	
Rosemary Lavin/ Hennepin County	The State should support financially material exchanges, if results warrant expansion. We believe the passive nature of the Minnesota Materials Exchange hinders its ability to be an effective solution for significantly reducing business waste. Businesses are unwilling to scan a website, find or list a material, and make the arrangements to get material transferred on an ongoing, frequent basis.	The MPCA edited the plan to allow for more flexibility. Instead of requiring counties to implement all of the strategies we categorized as "priority", we will require that they choose between 1-3 of the strategies (priority and recommended will be lumped together) in each category (e.g. collection practices, organics management, etc.) to incorporate into their master plans. The MPCA has an annual grant to MNTAP for \$900,000. Coordination of the MN Materials Exchange is part of the MNTAP workplan to promote reuse in the State of Minnesota. Recently, MnTAP analyzed the Maerials Exchange website and found that if the site were staffed and able to place pictures, establish a culture of reuse and allocate time to connecting businesses that need with businesses that have the exchange would be more effective. These changes would result in more reuse happening at the business level. That being said the MPCA is changing the plan to allow more flexibility.
Nancy Schouweiler/ Dakota County	The Plan should identify whether or not new privately owned processing facilities will be considered contributors within the TCMA Solid Waste Management System.	The MPCA will evaluate any new proposed MMSW processing facility located in the metro area using the applicable Minnesota Statutes and Rules. If approved, the new processing facility would become part of the metropolitan area solid waste management system.

Louis Ohly/MRRA	<p>On page 5 of the Plan it should be noted that "resource recovery capacity continues to be under-utilized in the region because the MMSW is diverted to landfills by private waste haulers. This loss will result in a reduction of: renewable energy capacity, ferrous and non-ferrous recovery, and other resource savings while increasing pollution</p>	<p>The MPCA will make several changes to the Plan to reflect the status of resource recovery in the metro area</p>
Tony Kwiolas/Minnesota Chamber of Commerce	<p>The primary concern of the Chamber is that the Policy Plan establishes public policy without the benefit of a fully vetted public process. While the exemption from rulemaking for this Policy Plan is allowed under Minnesota Statute 473.149, we feel that the MPCA goes far beyond simply setting policy for solid waste management. The Policy Plan establishes goals, standards and mandates activities that "shall" be followed in the metropolitan area. The plan is very far reaching and may impact such decisions as solid waste supply and purchasing contracts, solid waste permits and certificates of need.</p>	<p>The MPCA's 2016-2036 Metro Policy Plan is not establishing new public policy. The Minnesota Legislature has established the waste hierarchy in Minn. Stat. 115A.02 and set goals for recycling and organic materials recovery in the metro area in Minn. Stat. § 115A.551. The Legislature has established a mandate to stop land disposal of unprocessed waste generated in the metro area in Minn. Stat. § 473.848. The Legislature set a process for MPCA and Metropolitan Counties to formulate plans to accomplish these public policies throughout the Metropolitan Landfill Abatement Act (MN Stat 473.841 - 473.849). The Act contains public policy and directs MPCA to follow that public policy when establishing criteria and standards for review and approval of waste facility permits, County Master Plans, long term public waste supply contracts, and other institutional arrangements that together implement the Act.</p>
Kristopher Wilson/ dina Garbageman	<p>My only real comment is that the plan does absolutely nothing (unless I am just missing something) to address the difference between SSCM and yard waste which you lump together as "organics" or "compostable." While lumping them together surely makes reasonable sense to me (and to other haulers), the MPCA stands in the way of this being the case as to date there is only ONE facility within the Emerald Ash Borer quarantine zone that can even take co-mingled yard waste and food waste together due to MPCA's unreasonable standards and permitting process. How EXACTLY is it "green" to increase carbon footprint by running a completely separate truck/route to collect a small amount of food waste per household in order to handle it separately from MSW and yardwaste? On a commercial level, yes, the volume is there when you have restaurants and workplace cafeterias that generate substantial amounts of food waste and little to no yard waste. On a residential level, the failure of MPCA to make set a reasonable standard and issue permits to processing facilities means that haulers are required to increase costs and environmental impact by 30 - 50%, by having to either run a separate route or truck co-mingled yard waste over much longer distances. This makes it a pointless goal to drive more food waste out of the residential MSW stream. Worse still, this combination of lack of MPCA permitted facilities along-side MPCA championed county mandates effectively encourages haulers or facilities to flout waste site regulations and/or DNR quarantines. Your overview plan gives you guys a nice pat on the back for accomplishing "separating" "organics" from MSW up to this point... but that stance is only relevant from an historically land-fill centric perspective. Where does your plan account for the negative environmental impact from the increased hauling traffic? Are you working from the assumption that if it takes two trucks to haul 40 tonnes of combined yardwaste, and SSCM that logically you are adding no additional traffic to separate these three commodities into three separate trucks? Well, that's fine, IF in the real world, the loads divided so neatly, but this completely ignores seasonal and even monthly variations in volumes. Furthermore, that math still would not account for route miles traveled per truck, or that there would even be enough hours in the day for each truck to touch twice as many household stops! Basically, you guys need to stop discriminating against plants by "source." Why is a house plant or a Christmas tree "ornamental" and OK to process as MSW because it "comes" from a house? Why is a bunch of fruit tree fruit or an over-abundance of back yard garden zucchini "yardwaste" but if they go through a distribution chain it's now "sscm?" FURTHERMORE: where in</p>	<p>The MPCA's facility regulations do not restrict facilities from accepting co-mingled yard waste with SSO. In fact, a number of communities and haulers including St Louis Park, the City of Hutchinson and haulers in open hauling communities do co-collect yard waste with food scraps, compostable plastics and non-recyclable paper. However, the co-collection with yard waste model does present challenges including the seasonal nature of yard waste collection, facility operational considerations and regulatory issues associated with the transport of invasive species such as Emerald Ash Borer (EAB). As such, the draft Plan calls for a study of collection methods to provide communities with more information to assess how to best structure collection in their particular setting. It should be noted that three of the four methods proposed for study (co-collection with yard waste, co-collection with recyclables, co-collection with MSW in a durable compostable bag) involve use of trucks that are already on TCMA road servicing households. The draft Plan also calls for an emphasis on food waste prevention and the agency agrees with the commentary that prevention efforts should be the top priority which is consistent with the waste management hierarchy.</p>

	your plan is there any mention of trying to get people to STOP generating so much "organic" waste to begin with? Do people REALLY need to mow and bag their grass and throw out 40-80 pounds of "pre-manure" fertilizer every week or two? And if we were to somehow educate and reduce the amount of "organics" thrown out every year by just changing their yard habits, would that ruin your percentages and make your charts look bad?	
Doug Carnival/NWRA	We should focus on (and measure) effort and not only on outcomes. we can educate, encourage, and incentivize Minnesotans to do the right thing (recycle more, compost more, etc.).	The MPCA's focus is on outcome based measures. The MPCA values outreach and education and its role in measurable behavior change.
Doug Carnival/NWRA	MPCA should specifically address whether current goals are realistic or aspirational. This includes both statutory goals, and goals stated in the Draft Plan. If they are not realistic, MPCA should work with all stakeholders to set realistic goals.	The objectives in the draft Plan and the associated statutory goals are aggressive, but the MPCA believes they are achievable. The draft Plan incorporated more specific strategies to achieve the objectives and looks forward to partnering with industry on implementation.
Doug Carnival/NWRA	NWRA members want a Draft Plan that is both aggressive & doable. The industry wants a Policy Plan with goals we all embrace. We seek a partner, not more regulation. We want to move the ball forward on recycling-and moving things up the hierarchy. We want a plan with specifics-and a degree of regulatory certainty-for our customers, our employees, and to encourage risk-taking and innovation.	
Doug Carnival/NWRA	Setting high goals is laudable. It is also laudable that the legislature has established goals in state law that many legislators consider more aspirational than realistic. Given that the Draft Plan is a directive to Metropolitan area governments and the Draft Plan repeatedly states that many entities "must be held accountable," (page 6) it is important that goals of the Draft Plan are reasonable and achievable.	The objectives in the draft Plan were developed assuming compliance with existing state law, specifically MN Statute 473.848 and MN 115A.551. The MPCA understands the concern regarding the amount of time available for program implementation, since county master plans will not be approved until Fall 2017 at the earliest. The MPCA re-evaluated the assumptions in the objectives table and adjusted the table accordingly.
Doug Carnival/NWRA	Is a 75% recycling and organics goal realistic? If not, what is a realistic goal for the next 20 years? Is 1 % landfilling by 2020 realistic? Is it reasonable that cities will have curbside organics by 2025? Unrealistic goals will not spur the action required-by citizens or industry stakeholders. Realistic and achievable goals can unify stakeholders and drive positive change.	
Liz Workman/SWMCB	Table 1a provides MMSW Management System Objectives in Percentages with all solid waste management options reflecting a linear progression towards the goals in 2036 with the exception of landfilling. We believe a linear graph is appropriate to reflect the same progress for an aggressive landfill diversion rate.	
Nancy Schouweiler/ Dakota County	The 1% landfill goal is not achievable, waste composition shows that 7.8% is not recyclable or organics, timeline for approval of county plans would leave only 20 months to achieve 1%, more realistic to use a linear model.	
Tony Kwikas/Minnesota Chamber of Commerce	Another Chamber concern is the goals that are detailed in the Policy Plan recommendations. It is the Chamber's view that the goals set forth for solid waste management are aggressive and unachievable. A reduction of landfilling to 1% by 2020 from the current estimate of 23%, a 75% recycling and organic collection goal and curbside recycling of organics by 2025 for all cities in the metropolitan area, are laudable goals, but unrealistic. Goals should be set that are realistic and achievable and take into account the costs to meet these goals by taxpayers and businesses.	
Bill Keegan/Dem-Con	Dem-Con supports the waste management hierarchy and commends the MPCA for the focus on reduction, reuse, and recycling. However, the impacts of focusing higher on the hierarchy, reduction and reuse, need to be accounted for and taken into consideration when setting goals for things lower on the hierarchy such as the 75% recycling goal and landfill diversion goals.	The objectives table does factor in the reduction in amount of material available for recycling and organics. Reduction and reuse may reduce the amount of recyclables in the waste stream but opportunities to recycle new materials may also arise, making formerly non-recyclable materials recyclable. This illustrates the fact that waste composition data will continue to be crucial in evaluating the system.
Doug Carnival/NWRA	The Policy Plan does not highlight the renewable energy obtained from landfill gas systems at landfills.	The Plan does highlight landfill gas systems operating at landfills serving the metro area on Page A-6 and Page A-7.

Doug Morris/Citizen	This upcoming Plan should have provided an excellent opportunity for State and county officials to assess these priorities and alternatives. To be viable, solid waste management policy needs to be a joint effort between both the State and county officials prior to the involvement of MPCA and county solid waste staff. The counties are an integral part, since the majority of integrated solid waste management programs are being administered by the counties. For the Plan to be viable, counties must be an integral part throughout the process from concept up to finalizing the actual Plan.	The Plan followed the process for public input established in statute and included additional stakeholder input sessions. The final plan will make changes based on the comments received. In addition, several meetings were held with the seven metro counties, whose master plans must be consistent with this plan, to provide additional opportunity for input.
Alex Danovich/Eureka Recycling	Environmental Justice needs to be more strongly defined as a goal with actionable items that not only prevent further injustices but also begin to acknowledge and remove the existing sources of damage. We can't look at the overall impact to a region without addressing the negative disproportional impact that some disposal methods have on specific communities. For example, the impact of particulate matter pollution in relation to WTE and the impact on respiratory disease rates in communities located near WTE facilities should be looked at in addition to other indicators such as carbon.	The Plan has been amended to include a policy on environmental justice under Goal 1.
Dakota County/ SWMCB/Scott County	The draft Plan does not specifically address the roles and responsibilities of each stakeholder group, how each group will be held accountable, who will hold each group accountable, or the mechanisms for establishing the authority to hold other entities accountable for implementing the various strategies identified. Add a simple table outlining roles and responsibilities, timelines, accountability tools, etc.	The Plan has been amended to include a table outlining roles and responsibilities in Part 3 of the Plan.
Paul Nelson/Scott County	<ul style="list-style-type: none"> Page 29 call out box about evaluating organics collection states that "A continuing effort to evaluate and document the pros and cons of each collection method will be needed ... " Who will complete this needed effort and by when? And how will it be funded? 	
Paul Nelson/Scott County	Page 26/27 Priority Strategy 1. 2 and 3. What is the schedule for implementing these?	
Paul Nelson/Scott County	<ul style="list-style-type: none"> Page 32 Evaluate mixed waste processing for organics recovery. Who will complete this assessment and by when? 	
Paul Nelson/Scott County	Page 44. Implementation. Please provide a comprehensive description of when different elements, studies, etc. in the Policy Plan will be completed by the MPCA and are expected to be completed by others. This could take the form of a summary table listing each priority strategic with roles and a schedule identified. It will be very difficult for us to complete a local plan when we don't know the complete schedule for when the MPCA will be completing their responsibilities.	
Bill Keegan/Dem-Con	Page 19, bottom – report states that TCMA counties may need to consider burning C&D and Industrial Waste. Is this reasonable given that 80% of industrial waste is contaminated soils, sludges, and slags?	The Plan has been amended to provide detail that appropriate materials from C&D and Industrial be diverted to WTE.
Rosemary Lavin/ Hennepin County	The section on "Impact & Assessment" states (in the middle of a paragraph), "The first priority of the Plan is to ensure the proper management of waste to protect human health and the environment." If this is the first priority, state it up front.	The Plan has been amended to reflect this recommended change. This priority is also outlined on page 2 of the Plan under "Purpose of the Plan".
Bill Keegan/Dem-Con	Page 25 – States that "By 2025, all cities in the TCMA must provide organized recycling collection for residents" which is a mandate in a report that "must" be followed. As stated above, we believe that placing mandates in the Plan oversteps the statutory authority of the MPCA and that this is a local governmental decision;	The Plan has been revised to allow for more flexibility. Instead of requiring counties to implement all of the strategies categorized as "priority" in the draft Plan, counties will be required to choose between 1-3 of the strategies in each category (e.g. collection practices, organics management, etc.) to incorporate into their master plans. Counties may also propose alternate strategies that have been demonstrated effective. The number of strategies counties will be required to implement in each category will depend on the total number of strategies in that category. The strategies included in the best management practices section were selected for their ability to move waste up the hierarchy. The MPCA believes that many of these strategies will be essential to achieving the 75% recycling goal.

Bill Keegan/Dem-Con	Page 29 – States that “By 2022, cities of the first and second class (as defined in Minn. Stat. 410.01) should provide an organized residential organics collection program. By 2025, all residents in the TCMA should have access to organized curbside organics collection” Is this a strategy, goal, or mandate? Would there be any requirements to implement this given that the plan “must” be followed?	
Bill Keegan/Dem-Con	Page 8 - On Page 8 and throughout the Plan, it is unclear what is a “goal” vs. a “policy” or a “mandate” – do these mandates in the Plan have the effect of rule or law since Page 2 of the Plan states “This Plan will and must be followed in the TCMA” ?	
Brad Fields/Anoka County	The Policy plan also calls on counties to mandate organics diversion by large quantity generators by 2022. In the same way that putting the County in a compliance role would harm our public-private partnerships, so too would this mandate. If either of these commercial recycling requirements were to be implemented, further cooperation between the County and the private sector on solid waste issues would be far more challenging.	
Brad Fields/Anoka County	The county would like to emphasize it is critical to allow counties and municipalities the freedom to implement creative and specifically tailored solutions on a case-by-case basis. This is especially true concerning the Policy Plan's proposed mandating of organized collection for recycling in order to increase recycling. Contrary to that assertion, Anoka County municipalities with open hauling actually offer higher recycling rates than those with organized collection. Given the recycling data of our County, the draft Policy Plan's one-size-fits-all approach to mandated organized collection is not justified. Each municipality is unique with its own characteristics, capabilities, and resources, and each municipality must choose the best methods available to meet their recycling and waste management goals.	
Doug Carnival/NWRA	We believe that the Draft Plan includes directives to cities, counties, businesses, and the waste industry, for which the Agency has no authority to regulate. The MPCA is overstepping its statutory authority and in several cases requiring other parties, such as counties, to overstep their authority in carrying out these directives.	
Doug Carnival/NWRA	We commend the Solid Waste Management Coordinating Board for its comments on Draft Plan provisions that create mandates without justification. They properly point out that the Draft Plan contains "priority strategies" that appear to mandate actions in the metropolitan area. The Draft Plan should be revised throughout to make very clear to all parties the actions that the MPCA is mandating. For other provisions the Draft Plan should make it very clear that those provisions are meant to generate discussion and should not be viewed as mandatory. The Draft Plan should also include the language from the current Plan clearly acknowledging that "costs and how these strategies rank compared to other priorities have not been analyzed for all of these potential strategies."	
Julie Ketchum/Waste Management	WM has concerns with the structure of the plan, the process for development of the plan, and the lack of public process, despite the exemption from rulemaking in Minn. Stat. 473.149 subd. 3 (b). There are several policy recommendations where we believe MPCA has taken this authority to an extreme; that the Agency did not exercise prudent use of the statutory exemption from rulemaking. We are concerned that the only way to affect the Final Plan is through the Court of Appeals. The result is a negative and contentious process that is destructive to the private-public sector partnership. To this end, WM requests the review of a new draft of the policy plan and additional public process to fully vet the proposed policies in this Draft Policy Plan. A more rigorous public process is imperative to the development of a well vetted, needed and reasonable policy, for which there are no unintended consequences. The lack of a “plan” for gaining compliance with the Restrictions on Disposal policy in the 2010 Policy Plan demonstrates the need for	

	<p>valuable input from all stakeholders and a process that includes greater checks and balances. The new ROD policy was effective on January 1, 2016, and the Agency has yet to provide a clear, equitable and successful plan that results in all processors operating at capacity. The 2016 Draft Policy Plan includes new policies such as the 1% goal for land disposal that are designed to augment the 2010 ROD; however, the Agency admits in the Draft Plan, that while the intent of this new policy is to meet higher waste processing, recycling and source reduction goals, that the policy could result in more waste going out of state. This is a clear demonstration of how the exemption from rulemaking results in the unilateral development of state policy absent the understanding of the waste system and market forces affecting our business. The Policy Proposals that are clearly identified on pages 8 and 9 of the plan are very high level policies which lead the reader to believe that the seventeen policy recommendations represent all policy recommendations. However, there are many policies, many directives to various parties, and significant, impactful policies that are inconspicuously included throughout the body of the report and in the appendices. All policies should be presented in one section of the plan so that all parties impacted have an opportunity to research and analyze their impacts. Further, we support a Policy Plan that recommends that MPCA staff resources be directed to evaluating the implementation of existing laws and policies, including the effectiveness of the Restrictions on Disposal policy from the 2010 Policy Plan. We believe that this work should be completed prior to moving on to establishing any new policies. To that end, WM would like to continue working as a partner with MPCA, counties, and all waste industry representatives, to support getting more waste to processing facilities.</p>	
Liz Workman/SWMCB	<p>For example, in the residential recycling section, a priority strategy in the Draft Plan decrees that by 2022 all residents must have organized curbside collection of organics even though earlier in the Draft Plan it is acknowledged that the best management practice for collection is yet to be determined. Each county's reality is that every municipality is unique and must select a recycling or organics collection system that works best for its residents. Five of the six SWMCB counties have significant areas of land mass that are rural in nature and curbside or organized collection may not be appropriate. Further, curbside collection does not take into account participation rates as a result of such collection. As a result, drop-off opportunities may be the appropriate management option for more rural settings that still exist in Anoka, Carver, Dakota, western Hennepin and Washington Counties. Contrary to Draft Plan assumptions, in at least one SWMCB county, open hauling systems offer the best recycling rates. Given these facts, SWMCB and its member counties are not in the position to mandate certain collection methods or deadlines without the support of municipalities.</p>	
Liz Workman/SWMCB	<p>The Draft Plan also includes "priority strategies," which appear to be mandated approaches that stakeholders must implement. The current Policy Plan includes "Potential Strategies and Implementations Guide" in Table 3. This includes that statement that "the following strategies are meant to generate discussion and should not be viewed as mandatory or exhaustive. In addition, costs and how these strategies rank compared to other priorities have not been analyzed for all of these potential strategies." The Draft Plan includes 25 priority strategies, some being very specific, with a mandate that implies the list is exhaustive. This prescriptive approach would appear to preclude local initiative in seeking creative and more effective solutions. If the MPCA intends to consider these Priority Strategies as mandates, the SWMCB and counties believe that justification is needed for a number of them.</p>	

Paul Nelson/Scott County	Page 24 Priority strategy for cities to contract for residential recycling. Scott County works more directly with haulers than through the cities. Please provide a private hauler option that could be implemented through licensing such as requiring opt out instead of opt in. Also please note that much of Scott County is unincorporated, which highlights the need for flexible local solutions.	
Paul Nelson/Scott County	Page 24 The plan states that by 2025, all cities in the TMCA must provide organized recycling collection for residents. To implement this strategy, the County's should offer grants for those that participate and provide technical assistance. The MPCA is also going to provide technical assistance. The plan does not clearly state who will enforce the cities to participate and under what authority that entity has to enforce this strategy. If the MPCA determines that the Counties must enforce cities to participate please explain very specifically under what statute or rule.	
Paul Nelson/Scott County	The County recognizes per Minnesota Statutes 473.149 subd. 3.(b) that revision of the policy plan is exempt from rulemaking provisions. However, nowhere in Minn. Statute 473.149 is the MPCA provided the authority to impose new rules through revision of the policy plan. MPCA is directed to include criteria and standards for solid waste facilities and sites, and include specific and quantifiable objectives. The MPCA through this planning process cannot impose new requirements, or award new authorities to Cities and Counties unless specifically provided by other statutes. Please review the document and provide specific statute reference for each priority statute in the plan, and if not found revise the strategy to be a best practice recommendation by the agency.	
Paul Nelson/Scott County	The Policy Plan is rather prescriptive with respect to doing things certain ways. We prefer that the agency set outcomes and then holds us accountable to achieving those outcomes rather than prescribing how to do things. Prescriptive approaches limit creativity. This is not what is needed as we start reaching for goals that are more aspirational. In addition, communities are different and need the flexibility to adopt approaches that work best for them. For example, most of the land in Scott County is unincorporated versus some of the other metro area counties that are entirely incorporated. A flexible "systems thinking" approach is needed rather than a reductive or prescriptive approach. Please revise to allow significant flexibility, but hold us accountable. To this end, we would be open to requiring us to identify (and use) metrics in the county plan showing how well we are doing reaching identified outcomes.	
Rosemary Lavin/ Hennepin County	The Draft Plan also includes "priority strategies," which appear to be mandated approaches that stakeholders must implement. If the M PCA intends to consider these Priority Strategies as mandates, Hennepin County agrees with the SWMCB that justification is needed for a number of them.	
Ginny Black/MNCC	When traditional recycling programs were first launched, education was acknowledged as a key activity. The draft plan fails to mention how important education is to ensuring that clean materials are collected for both traditional and organics recycling. The MNCC believes that increased education efforts are imperative to the success of these programs.	The Plan identifies education as a priority (see "priority Strategies" on page 21 and "Recommended Strategies" on page 39.)
Bill Keegan/Dem-Con	Page 11 & graph on 12, "stating that per capita waste generation has only decreased 2% since 1993, however, if you look at the peak generation in 1999, it has decreased 13%. This is a success story, a decrease of 13%, but it is stated to sound like a failure by not comparing to the peak per capita generation. Again, this is reflective of the negative and biased "tone" of the report;	The Plan identifies various accomplishments on page 3. With regards to waste generation, much of the decrease since peak generation in 1999 can be attributed to the recession, not targeted waste reduction activities. The MPCA believes that waste generation trends, given the effects of the recessions, are best examined on a longer time scale, but the Plan is being revised to be more clear on these points so as to not sound too negative.

Paul Nelson/Scott County	Page 6 the "Vision" as worded is not a Vision. Please revise or delete.	The Plan includes a revised vision.
Sarah Helleckson/ Citizen	On page 7, under How the Plan will be used by stakeholders. The stakeholders are listed in some instances, but not others. More to the point, is the intent to truly to move waste reduction to the top of the hierarchy? If so, where do the current reuse and repair stakeholders fit in this plan other than third hand from the state through the county to the public, or from the state through the cities to the public (on page 23)? The recycling infrastructure already exists, but it is the reduction, reuse and repair part of the hierarchy that should be the focus of the plan. More of those stakeholders should be involved, including manufacturers (which are included in this plan), reuse retailers and industry, and the repair industry. In addition, social media appears to play a big part in reuse and repair by connecting people with instructions, concepts, and events.	The plan was revised to include language that reflects the role of reuse organizations. In addition, our strategies will reflect MPCA partnerships with ReUse organizations.
Bill Keegan/Dem-Con	Plan does not give credit to existing system and private/public partnerships for reaching the previous recycling goal in 2015 of 50% - one of the highest in the nation. The impact of this negative perspective is the incorrect assumption that the existing system is broken and needs to be replaced.	The Plan is intended to provide direction for the next 20 years. The Plan identifies various accomplishments on page 3. While the text in Part 1 does note that the 50% goal was achieved, the text was kept brief since the focus on the document is on planning.
Ginny Black/MNCC	A robust organics recovery effort can lead to source reduction in waste. When generators separate organics for collection, the amount of "waste" they are producing becomes a visible cost. This awareness frequently leads generators to implement strategies to reduce materials being "wasted." Residents who participate in both traditional and organics recycling programs are more aware of the waste they produce and are more likely to avoid purchasing items with packaging that cannot be recycled or composted. This behavior change results in even greater environmental benefits associated with waste reduction. Additionally, cities with organics recycling programs such as Seattle, San Francisco, Minneapolis, and St. Louis Park have enacted ordinances that further reduces the non-recyclable and non-compostable waste stream by requiring certain types of food packaging to be recyclable or compostable. There are several cities in the TCMA that are considering environmental packaging ordinances similar to those in Minneapolis and St. Louis Park.	The Plan recognizes the benefits to composting; when community members compost, they are more likely to internalize the environmental and financial costs of that waste. In addition to efforts to expand composting the agency is committed to prioritizing waste prevention and supporting other forms of organic recycling like food-to-livestock programs. There are conflicting studies on the impacts of organics programs on generation of wasted food. The recognition that waste streams change when SSO collection is introduced is also an important consideration. Waste composition does change over time, and can be designed to be more compatible with recycling and composting programs.
Rosemary Lavin/ Hennepin County	The county does not contract for or regulate MRF's. Therefore, the MPCA should work directly with the private MRF operators to optimize and encourage investment in new technologies and sorting equipment.	The Plan speaks to all stakeholders having a role in market development including counties and the private sector. MPCA would be interested in county ideas that improve technology such as a model processing contract.
Doug Carnival/NWRA	We would appreciate the Draft Plan's acknowledgement that: <ul style="list-style-type: none"> o Private-sector competition is good for consumers (and their pocketbooks). o Private-sector solid waste jobs are some of the best in the state and these jobs should be encouraged and supported. o MPCA supports additional private sector innovation and investment. o MPCA will work to reduce bureaucracy that might stifle innovation. New technology (e.g. organics collection) will likely not fit well into the existing solid waste system. Government will need to be flexible as we design the solid waste system of the future. o Government should support a level playing field, where all players follow clearly defined rules. Government should remain neutral, and not pick winners and losers. 	The Plan states on page 7 the importance of the private sector in implementing the Plan. The MPCA supports a level playing field within levels of the waste hierarchy. The MPCA will be as flexible as possible with regards to new technology, but we are also charged with protecting human health and the environment, so often are not able to be as flexible as the private sector would like us to be.
Doug Carnival/NWRA	MPCA should not support additional capacity for recycling in the metro area. Currently, the metro area has too much capacity and is leading to challenges for industry.	The Plan states that additional capacity may be needed in order to meet the objectives in the plan. In addition, additional capacity will be needed for organics.
Liz Workman/SWMCB	There are gaps in the goals and policies. For example, there is no policy on performance measurement, yet measuring results is critical to making progress in the system and to accountability.	The Plan will be amended to include a policy on performance measurement.

Louis Ohly/MRRA	Notwithstanding the state's, Minn. Stat. 115A.02, which prefers managing source separated compostable materials over resource recovery, we remind MPCA that the same statute states the legislative goals of Minnesota's Solid Waste Management Act are to protect the State's land, air, water, and other natural resources and the public health by improving waste management to realize the: 1) reduction in the amount and toxicity of waste generated; 2) Separation and recovery of materials and energy from waste; 3) reduction in Indiscriminate dependence on disposal of waste; 4) coordination of solid waste management among political subdivisions; and 5) orderly and deliberate development and financial security of waste facilities, including disposal facilities.	The Plan will be amended to include the goals outlined in Minn. Stat. 115A.02: (a) It is the goal of this chapter to protect the state's land, air, water, and other natural resources and the public health by improving waste management in the state to serve the following purposes: (1) reduction in the amount and toxicity of waste generated; (2) separation and recovery of materials and energy from waste; (3) reduction in indiscriminate dependence on disposal of waste; (4) coordination of solid waste management among political subdivisions; and (5) orderly and deliberate development and financial security of waste facilities including disposal facilities.
Liz Workman/SWMCB	SWMCB suggests that the MPCA add into its list of initiatives the following: • Reviewing technologies utilizing research and permitting decisions of colleagues around the nation in order to reinstate Minnesota once again in the forefront of solid waste management; • Taking the lead for state agency support for compost use; • Providing more focus and staff time on Non-MSW and clarifying definitions and preferred management options consistent with the hierarchy; and • Evaluating capacity for organics management.	The Plan will be amended to include these initiatives with some revisions.
Nancy Schouweiler/ Dakota County	Pg. 9, Policy 12, "Continue to pursue product stewardship for problem materials": The Draft Policy Plan should clearly identify what those "problem materials" are.	The Plan will be amended to make Policy 12 consistent with the language in the Product Stewardship section. Specifically, "problem materials" will be changed to "priority materials", which are defined in the Product Stewardship section of the Plan and in the 2015 Solid Waste Policy Report.
Louis Ohly/MRRA	In Goal 2, resource recovery (waste to energy) has not been included. It is highlighted below where it should be added. Goal 2 states that "to achieve the aggressive goals established in this Plan and by the Legislature, all parties in the solid waste system must be held accountable. Cities and counties must ensure the systems are in place for the proper management of waste. Generators must use the tools provided to reduce, reuse, recycle, resource recover or dispose of waste." This addition properly recognizes the State's solid waste management hierarchy.	The Plan was revised to include resource recovery in Goal 2.
John Domke/SKB	This Plan directs Metro Counties as to the development of their solid waste plans and the Counties do not have any authority to address State tax issues and long standing legislative policy directives. For these reasons, this language should be removed from the Plan.	The Policy Plan also sets out roles and responsibilities for the MPCA. Minn Stat 473.149 directs that the plan addresses all solid waste types. The Policy Plan does not suggest increasing tax on C&D waste. The Policy Plan calls for better information about this waste stream so that better policy can be created to ensure that more C&D material is recycled. The Policy Plan recommends creating statutory goals for C&D and Industrial Waste.
Bill Keegan/Dem-Con	Page 7 states that "The goals and policies in this Plan are designed to steer the TCMA toward a new vision for solid waste management, with government leading the way." This is directly in conflict with Minnesota Statute 473.149 which states "The 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". What is the "new vision" of waste management and why are we stating that government will lead this new system?	The Policy Plan describes Government leading by example, not a government-led system. The MPCA fully supports private/public partnership and on page 7 of the plan it is highlighted that the private sector has a significant role in implementing the Plan and has a major responsibility for meeting the goals of the WMA hierarchy.
Bill Keegan/Dem-Con	Despite this positive public/private working relationship, we believe that the current draft Plan is biased toward public sector investment and not only portrays the private sector in a negative light but also threatens our existing businesses that have been created to provide the local waste and recycling needs within the existing regulatory environment.	
Bill Keegan/Dem-Con	Focus on government led system, not private/public partnership: o Displaces private assets & investments; o Damages existing public/private partnership; o Discourages private investment into waste reduction, recycling, etc.	

Doug Carnival/NWRA	The Draft Plan describes a government-led system. We seek a public/private partnership. This model has served us well. Minnesota leads the nation in recycling-and we can do even better. We need more cooperation, not more central planning.	
Dave Semerad/Association of General Contractors	AGC would also like to reiterate the findings of the Office of Environmental Assistance Report from 2005 which states that there was no conclusive evidence that a significant amount of Construction and Demolition (C&D) Waste was being diverted to an Industrial Solid Waste Facility (ISW) from a Mixed Municipal Solid Waste (MMSW) facility. The MPCA's proposal to increase the Solid Waste Management Tax, the application of Certificate of Need requirements of the alteration of regulatory definitions will negatively impact the ability of the construction industry to safely dispose of these materials by driving up costs.	The Policy Plan does not suggest increasing tax on C&D waste nor applying CON to non-MMSW. The plan calls for better information about this waste stream so that better policy can be created to ensure that more C&D material is recycled. The Policy Plan recommends creating statutory goals for C&D and Industrial Waste.
Doug Carnival/NWRA	The entire integrated solid waste system in Minnesota, including NWRA members' facilities, has been built upon the existing tax structure, which does encourage the management of different waste streams at different facilities. Modifying the existing tax structure would have a devastating impact on not just NWRA members, but also many industries around the State, including building owners, builders, developers, industries, hospitals, to name just a few. Moreover, this section is inappropriate for this Draft Plan and is outside the statutory authority granted to the MPCA as it relates to the Draft Plan that is being developed. This Draft Plan directs Metro Counties as to the development of their solid waste plans and the counties do not have any authority to address state tax issues and long standing legislative policy directives.	
Paul Reinke/IRET Properties	I've reviewed the Metropolitan Solid Waste Management Policy Plan 2016-2036 and have concerns about the proposal which significantly increases the taxes on solid waste removal and the taxes on contaminated soil removal.	
Quinn Cheney/NAIOP	The MPCA proposes to raise taxes on ISW to equal those levied on MMSW, that is, from the current \$0.60-per-cubic-yard cost to 17-percent of the overall hauler bill. The following hypothetical project illustrates the significant impact this tax increase could impose Solid Waste removal taxes: • A 25,000-square-foot office remodeling job may generate 300 cubic yards of waste at a cost of approximately \$3,500 for disposal. Under the current tax rate of \$0.60 per cubic yard, a \$180 fee would need to be paid to the MPCA. But under the MPCA's proposal, a 17 percent tax would be applied to the overall cost for disposal – a \$600 fee would now need to be paid. This represents more than a 200-percent increase in solid waste disposal taxes.	
Rob Loftus/Cushman & Wakefield	The purpose of this message is to ask that the MPCA refrain from increasing the waste fees associated with construction demolition and contaminated soils. There is currently such a heavy tax burden on property owners and developers, it is continually making investment or reinvestment in infill areas more difficult to complete.	
Steve Schwanke/Inland Development Partners	I am a partner with Inland Development Partners (IDP) and just learned of the MPCA's policy consideration/proposed action to raise fees on the disposal of industrial solid waste, specifically contaminated soils. In short, I firmly believe this policy/proposed action will have a very negative impact on redevelopment activities in Minnesota.	
Trent Mayberry/TOLD Development	My understanding is that there is a proposed tax increase for disposing of contaminated soils.	

John Domke/SKB	SKB supports the MPCA's effort to address emerging technologies and how they would fit into the existing solid waste hierarchy. SKB is currently pursuing partnering with a company to convert refuse-derived fuel into cellulosic ethanol. Although a current category does not exist, after a thorough life-cycle evaluation, SKB is confident this waste processing technology would rank higher than conventional waste-to-energy. Amending the solid waste hierarchy to include such technologies would help to encourage the development of these innovative, next-generation technologies. With regards to new processing facilities serving the TCMA, it is concerning to SKB that there are statements made in the Plan that undermine the development of these facilities. SKB recommends the MPCA edit these sections of the Plan to allow for and encourage new processing capacity in the TCMA. SKB supports the MPCA's effort to enforce ROD. However, in order to enforce this equitably among all haulers, SKB recommends the MPCA convene meetings with stakeholders to develop a more equitable and effective method of enforcement. The current enforcement strategy places an unfair burden on cooperating hauler and rewards haulers that do not participate.	The Policy Plan includes a strategy in the emerging technology section to develop a process for evaluating new technologies. Throughout 2016, three of the four resource recovery facilities serving the metropolitan area have reported available and unused processing capacity. In addition, information provided by Counties and landfills indicates that unprocessed waste has been disposed at landfills serving the metropolitan area. As a result, the metropolitan area has yet to achieve compliance with the ROD statute. MPCA's ROD framework holds landfills accountable for the prohibition on landfilling unprocessed MMSW. On December 5, 2016, MPCA convened a meeting with MMSW system stakeholders to try to get agreement and commitment to implementing ROD voluntarily. If compliance with ROD is not achieved by the end of the year, as indicated by the annual county certification reports, the MPCA will consider using the enforcement process.
Doug Morris/Citizen	Is the purpose of this Plan to use the "worst case scenario"? Question that the economy has recovered to the point to generate garbage as shown.	The Policy Plan is using historical data to forecast waste generation out 20 years to the best of our ability. The forecast is updated with the most current data available every six years.
Nancy Schouweiler/ Dakota County	New technologies in solid waste management have arisen that do not fit precisely within the identified waste hierarchy. These include anaerobic digestion and bio-gas generation. The Draft Policy Plan should provide direction on how new technologies will be defined and how they fit into the Twin Cities Metropolitan Area Solid Waste Management System.	The Policy Plan states that the MPCA needs to develop a process to evaluate new technology. In addition, we need better data to assess technology more effectively.
Doug Carnival/NWRA	Should the MPCA even focus on tracking by percentage? Instead, MPCA should consider per capita measurement of the production of waste.	The reason that MPCA wants to measure each management method is to attribute environmental benefit based on how the material is managed. An increase in per capita recycling is not necessarily a positive environmental outcome.
Rosemary Lavin/ Hennepin County	Section "Impact & Assessment" also states "Reducing waste generation would mean less material would need to be managed by these facilities," yet does not quantify a percent reduction that is considered significant or acceptable, and how the State of Minnesota proposes to assist local governments in this task. To be clear: waste reduction is most often accomplished by private company's efforts to reduce purchasing, reusing - products, etc., or by the establishment of goals and statutory requirements successfully pursued by states, provinces and nations.	The Source Reduction section of the Plan discusses specific source reduction strategies and includes quantifiable source reduction objectives. This section is also being amended to more clearly highlight the environmental impact of reducing waste. The MPCA recognizes that many stakeholders play a role in source reduction.
Rosemary Lavin/ Hennepin County	We would suggest it's time to create a landfill diversion goal which is more measurable rather than trying to measure waste by how much is recycled, composted, etc.	The statutory waste hierarchy involves more than landfill diversion. It is about ensuring highest and best use for materials that are generated as waste. In addition, the Office of the Legislative Auditor recommended that progress should continue to be tracked for all portions of the hierarchy. Therefore, it is necessary to understand how much material is managed by each individual hierarchy method. A diversion goal would only show how much material did not go to land disposal. It would not provide detail of whether diverted material is recycled, composted, or converted to energy. The data currently collected provides a diversion rate and additional information to better manage and understand the system. In addition to tracking the weight of the material, the MPCA is also interested in better environmental outcomes that can only be achieved when there is understanding of how the material has been managed.

Paul Nelson/Scott County	Page 22 not sure what compliance with Minn. Statute 115A.552 subd.3a. has to do with standardized messaging. It influences the frequency of messaging, but not sure if it affects standardizing of messaging.	The steps for educating the public that are described in Minn. Stat. 115A.552 subd. 3a will be an important connection to the work the stakeholder group is doing to provide standardized educational resources to the public. This statute 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, industrial, and institutional materials." Counties will need to be in step with the agreed to standardization list and process developed by the stakeholder group for effective implementation.
Doug Carnival/NWRA	We worry that the Draft Plan will lead to more regulation-but will fail to move the needle on Minnesota's solid waste system goals.	The strategies outlined the draft Plan were selected for their ability to move waste up the hierarchy. While some may require new regulation, others will not.
Rosemary Lavin/ Hennepin County	The strategy to focus on large generators is off-base. Most medium and large generators are already in compliance. Hennepin's grant program has had great success. MPCA must commit staff and monetary resources to helping the counties obtain better data on generation and recovery of commercial waste, recycling and organics.	The strategy recommends focusing on large generators of the most impactful materials. The MPCA agrees that Hennepin's program has been effective but also believes that given limited resources, the region will be best served by prioritizing efforts on large generators of the most impactful materials. The MPCA is also committed to improving data – see Part 3, "Improving the reliability of the data" section.
Jill Curran/MN Waste Wise	Keep and further develop the recycling market development section (starts on page 39). Buyers for the end recycled material is critical to keeping recycling programs afloat. A strong sustainable materials advisory group will be essential to getting the recycling market development effort off to a good start.	The strategy referenced in the comment has been revised in the final Plan. The new strategy is titled "Establish a shared vision to build and improve local market development infrastructure and capacity". The MPCA plans to coordinate with stakeholders to advance strategies that increase recycling markets in MN including a focus on priority materials and sectors, infrastructure needs, funding, etc. Priorities will be based in part on additional research into what materials present the greatest impact from a life-cycle perspective.
Rosemary Lavin/ Hennepin County	Creation of a sustainable materials advisory group is a good strategy but we would encourage it to be small and lean to stay focused and quickly capitalize on opportunities to develop new markets.	
Liz Workman/SWMCB	SWMCB calculates that 67% is the greatest amount possible.	The SWMCB study that assumes that 67% is the greatest rate achievable also assumes that only 30% of the available organics can be diverted. This assumption if adjusted could lead to a feasible route to 75%. There are not enough programs in the Metro area to determine that 30% of the organics is the maximum that can be achieved. There is a large potential for success in this area.
Bill Keegan/Dem-Con	Organized curbside organics by 2025 – lack of infrastructure, participation, or end use for the product make this mandate difficult, if not impossible, to achieve	The Agency recognizes the current challenges in reaching curbside organics collection for the metro area by 2025. As the Plan states, access to curbside collection that is equivalent to the accessibility of trash and recycling, is critical in following Minnesota's waste hierarchy (page 6-7). The MPCA will work to augment existing infrastructure, increase organics recycling participation (which will inherently increase as it becomes more accessible through curbside pickup), and prioritize market development to achieving an equitable collection system. The legislature has tasked the region with meeting the 75% recycling goal by the year 2030. That goal is unlikely to be met if communities are still not providing access to curbside organics collection only five years prior to the target date.
Doug Carnival/NWRA	Increase opportunities for cities to implement organized collection for recycling and mixed municipal solid waste." NWRA members, citizens and local governments have differing positions on whether cities should transition from an open market to an Organized Collection (OC) system for MMSW. In fact, several municipalities have already done their own evaluation. Nonetheless, NWRA vehemently opposes MPCA inserting itself into a decision that, per statute, is left to cities and counties.	There are clear reasons to implement more organized recycling and MMSW collection opportunities to help achieve the 75% goal, which is the focus of this plan. The MPCA is simply stating that recycling rates are better in organized recycling communities. MPCA understands the concerns of the hauling community around this issue.

Alex Danovich/Eureka Recycling	SMM: Life Cycle analysis can be hard to come to agreement on because the size of the circle drawn around/scope of any lifecycle measurement tool can change how a product or materials is ranked in terms of sustainable materials management. Representation of interests needs to be fairly allotted.	There are criteria that help evaluate life cycle assessments. A good life cycle assessment clearly defines what is included and what is not, the scope and measurement, who funded the life cycle assessment, the year in which it was completed and any assumptions that were made. Life cycle assessments can be very different if these criteria are not followed. The MPCA will use life cycle assessments that follow these criteria.
Manuel Castillo/Xcel Energy	Does not believe King Landfill and King Transfer Station should be included in areas of concern for environmental justice, since they are located in the City of Oak Park Heights which does not meet either of the criteria established.	There is a census tract within a ½ mile of the facility that meets the threshold for low income. Our preliminary screening indicates where there is a need to take a closer look at the demographics, health and environmental conditions of a community. In this case, the MPCA would encourage the King Landfill and Transfer Station to gather more information about the community that lives in that census tract, other sources of pollution and other non-chemical stressors that might be negatively impacting their health, and what concerns they might have about the facility. Consider how operations might be adjusted to address community concerns, mitigate impacts of the facility, or address existing disparities in this community, and how the facility might enhance communication and engagement with residents in the area.
Bill Keegan/Dem-Con	All cities to have organized recycling by 2025 – lack of infrastructure or a plan to achieve this mandate	There is sufficient infrastructure (haulers, materials recovery facility capacity) to achieve organized recycling region-wide by 2025. The county Master Plans will be complete by 2018, allowing enough time for planning and implementation in each county. The MPCA has also adapted the approach to the strategies in the plan to allow for more flexibility. Counties will not be required to implement organized recycling, but the strategy is recommended as one of several best practices.
Paul Nelson/Scott County	Page 17 Table 2 how were these estimates developed? Are these again the "worst case."	These estimates are the amount of additional recyclables that would be needed in order to achieve the objectives in the Plan. This is not a best or worst case scenario.
Paul Nelson/Scott County	When will the studies and clarifications called for in the first and third bullet points be completed by MPCA?	These studies will be conducted by landfills. The timing of these studies will need to be negotiated with the affected facilities.
Julie Ketchum/Waste Management	We support a change in the way recycling is measured because we do not believe weight based recycling rates are a true representation of the environmental benefits of recycling. WM advocates for a Greenhouse Gas (GHG) emissions reduction based measurement for recycling. We believe that this type of measurement will allow for better decisions about the materials that are recovered and the environmental benefit derived.	This aligns with the goals of sustainable materials management very well. The MPCA is researching ways to determine the environmental benefits from the weight of material that we managed. Until a new measurement method is determined we will continue to use weights.
Bill Keegan/Dem-Con	Figure 8 – This chart, and the arguments on this page assume that the increase in non-MSW over the last three years is due to reclassification of MSW to industrial waste. What is the basis for the claim that the reclassification is occurring? Further, we believe the increase can be attributed to positive factors such as more stringent environmental cleanup standards (i.e. more contaminated soils) and increased development due to economic growth as we transitioned out of the Great Recession of 2009 to name a few.	This chart along with tax data that shows that discards are increasing at a rate that outpaces industry growth in construction and demo, which leads the MPCA to believe that shifting may be occurring. That does not mean that it is, and it is why the Policy Plan is seeking to improve data collection so that this issue can be more closely monitored. The concern revolves around possible misinterpretations of the definitions of ISW, IW and MSW, not non-compliance.
Ginny Black/MNCC	The MNCC also supports the enforcement of current MN Statute §115A.93 which states: "A licensing authority shall prohibit MMSW collectors from imposing a greater charge on residents who recycle than on residents who do not recycle." Under current law, source-separated organic materials are considered a recyclable material.	This has the potential to cause issues in communities where they have open collection of organics, and haulers are charging for that service. The best way for organics to grow would be for cities to require all residents to pay for the service.
Doug Morris/Citizen	For counties, a key challenge has and remains funding an integrated solid waste management program primarily from local funds versus state assistance through the Solid Waste Management Tax (SWMT). Between this Policy Plan and the other Report it should be highlighted how this has been derailed - 30% is reallocated by the Legislature to other programs. Remaining 70% is transferred into the "Environmental Fund". Where the MPCA has been utilizing a portion of these funds for air, water and other non solid waste issues.	This is ultimately a legislative change/decision. The MPCA has proposed and supported additional dollars for solid waste activities in the past and believe that additional resources would be helpful.

Paul Austin/ Conservation Minnesota	The draft Plan fails to note the role of state government in providing financial support for these efforts. Minnesota's Solid Waste Tax was created to provide a stable source of state support for recycling, waste reduction, and solid waste management programs. However, 30% of this revenue stream is currently sent to the state's General Fund rather than used to support the efforts of local governments to meet the recycling goals created in statute and to execute the strategies outlined in the Solid Waste Policy Plan.	
Elizabeth Knaeble/ Citizen	Zero waste plan that eliminates WTE	This Plan takes the position that the preferences for the various components of the waste hierarchy are not equally weighted. There is a "gap" between the environmental benefits attained from using management methods at the upper end of the hierarchy (source reduction, reuse, recycling, and organics recovery) compared to those benefits attained from using management methods at the lower end of the hierarchy (waste to energy and landfilling). A chart will be added to the Plan that illustrates the point and the Plan will be modified as appropriate to ensure the distinction is drawn that WTE is preferable to landfilling, but that source reduction, recycling, and organics recovery are much more preferable.
Rosemary Lavin/ Hennepin County	The discussion lists five points of extra scrutiny that will be applied to facilities in areas of concern. If a facility does not meet the increased standard within the area of concern and therefore locates elsewhere in a neighborhood that is not considered an area of concern, how will that neighborhood react to being subject to less scrutiny than another? Is the Agency proposing that all recycling processing, organics composting and waste processing be shipped long distances? Is the Agency, in effect, drawing lines around areas of concern, preventing the creation of new or maintenance of existing local jobs?	Under the current Policy Plan, solid waste management facilities are all subject to the same scrutiny, regardless of location or demographics of the surrounding community. Recognizing the body of research showing that people of color and low-income people are more vulnerable to the health impacts of pollution, MPCA needs to adjust its approach in areas with these communities of people in order to provide equitable protection. The MPCA is identifying areas of concern, but is not drawing lines, preventing job creation, or preventing maintenance of jobs. Rather, it is increasing scrutiny of emissions and waste management processes in areas of concern, in recognition that people in these communities should not have to experience disproportionate health impacts in order to have local jobs.
Doug Carnival/NWRA	NWRA is opposed to a blanket requirement of conducting waste sorts at all landfills.	Waste composition studies are critical to understanding what is being disposed at landfills. Otherwise the MPCA is trying to understand what 50% "other" industrial waste is. MPCA is open to discussing variable timelines so that not all landfills would be subject to the waste sort every time.
John Domke/SKB	While SKB has been a pioneer in C&D recycling, SKB opposes the strategy found on page 39 which directs counties or cities to adopt ordinances requiring waste plans with specific recycling/reuse goals. Such requirements should not occur without a thorough stakeholder involvement process that needs to include property owners, contractors, haulers, recyclers, and disposal facilities. Additionally, there is no statutory basis justifying such sweeping changes to the existing system.	WasteCap in Wisconsin, has demonstrated that having deconstruction plans greatly improves diversion of recyclable C&D materials. The MPCA agrees that viable end-markets need to be available for successful diversion of materials. The MPCA will modify the plan to allow for more flexibility. Instead of requiring counties to implement all of the strategies we categorized as "priority", we will require that they choose between 1-3 of the strategies (priority and recommended will be lumped together) in each category (e.g. collection practices, organics management, etc.) to incorporate into their master plans.
Doug Carnival/NWRA	Of the Priority Strategies for Non-MMSW, found on pages 38 and 39, NWRA supports the recycling requirements for State buildings and projects that receive general obligation bond funding. NWRA has concerns regarding the requirement placed on counties regarding demolition/remodeling projects of more than 1500 sq. ft. This would include almost all demolition projects (including many small home demolitions) as well as remodeling projects. The increased costs and difficulty in reporting may cause negative consequences for future property improvement and development in the Metro area. NWRA opposes the establishment of recycling/reuse goals to be used as mandates without having a plan to address the lack of end markets for C&D materials.	

Tim Steinbeck/Great River Energy	Setting unrealistic goals distracts from policies that could be more readily met. Goal 2 should include WTE, 1% landfill is a good goal, but not realistic, waste processing will be critical to get above 50%	We re-evaluated our assumptions for our 1% landfill goal and have adjusted the date by which we can get to that number. It is important to note that the 1% landfill objective is waste from the curb that has gone straight to landfill. It does not include process residuals; but only the material that is truly non-processable.
Rosemary Lavin/Hennepin County	Table 1a. in the Solid Waste Management Objectives - Source Reduction and Reuse section shows management objectives in five year increments and has a large jump in the recycling objective and decrease in landfilling from 2015 to 2020. This is simply not realistic and achievable and the objectives should be revised to reflect a reasonable incremental growth.	We re-evaluated our assumptions in the objectives table and have adjusted the dates by which we achieve various objectives.
Doug Carnival/NWRA	We support focus on laws currently on the books-before the state adds new regulation. One example is the new Metro area mandatory commercial recycling law.	While state legislation might expedite the implementation of certain policies, the MPCA has not proposed new state legislation/regulation in this Plan.
Paul Nelson/ Scott County	Page 45 Legislative Reports first paragraph. Please provide a preliminary list of legislation the may be necessary to implement this Policy Plan.	
Quinn Cheney/NAIOP	The MPCA's Solid Waste Management Policy Plan, among other issues, deals with construction and demolition materials, as well as industrial waste such as contaminated soils. Taxes on mixed municipal solid waste (MMSW) are much higher than for industrial solid waste (ISW). The MPCA has reported a significant increase in ISW disposal since 2009 while MMSW has remained constant. MPCA contends, without substantial evidence, that much of the increase in ISW contains MMSW that could be removed from the landfilling stream and recycled or otherwise reprocessed.	Without more accurate data about the composition of non-MSW being discarded, it is impossible to say what is causing the increase in non-MSW while MMSW is not showing growth. The MPCA is stating that more research needs to be conducted and better data needs to be collected.

Appendix I: Public comment letters on the DRAFT Metropolitan Solid Waste Policy Plan 2016-2036



Since 1919

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AGC of Minnesota

September 16th, 2016

Johanna Kertesz
Minnesota Pollution Control Agency
520 Lafayette Road North
St. Paul, MN 55155

Dear Ms. Kertesz:

The Associated General Contractors of Minnesota (AGC) is a non-profit professional trade association dedicated to promoting opportunity and excellence in the building and highway construction industry throughout the State of Minnesota. Members include General Contractors, Specialty Contractors, and Affiliated businesses that have a vested interest in these industries.

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Thank you for allowing AGC and its members to respond and provide input on the Minnesota Pollution Control Agency's (MPCA) Metropolitan Solid Waste Policy Plan (Policy Plan). We believe it is critical that affected public parties have the opportunity to comment on regulatory issues that will impact their industries and the state's economy. AGC would like to offer a few comments on issues that will affect how its members conduct business if the Policy Plan as submitted requires municipalities and businesses to operate under what AGC considers requirements and mandates.

AGC appreciates that Minn. Stat. 473.149, subd. 3(b) requires the MPCA to adopt the Policy Plan and that it "shall be followed in the metropolitan area" even though the statute exempts the MPCA from having to follow the Administrative Procedures Act (Minn. Stat. 14) in adopting the Policy Plan. With that said, AGC believes the Policy Plan far outsteps its statutory authority to establish "the metropolitan long range policy plan for solid waste management" by establishing goals, standards, and mandates for activities that "shall" be followed in the metropolitan area. AGC strongly encourages the MPCA to continue working with the business community and affected municipalities on policy plans that will encourage continued private industry investment in the MPCA's goals to reduce waste.

AGC would also like to reiterate the findings of the Office of Environmental Assistance Report from 2005 which states that there was no conclusive evidence that a significant amount of Construction and Demolition (C&D) Waste was being diverted to an Industrial Solid Waste Facility



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(ISW) from a Mixed Municipal Solid Waste (MMSW) Facility. While we agree that it would be useful to have reasonable information on C&D waste collected by disposal facilities, the MPCA does not present data that C&D waste is being diverted from an MMSW, due to cost, to an ISW.

ISW facilities that take in C&D waste from a job site provide a safe disposal system for materials like brownfield cleanup, asbestos-containing materials, and C&D material that cannot be recycled. The MPCA's proposal to increase the Solid Waste Management Tax, the application of Certificate of Need requirements or the alteration of regulatory definitions will negatively impact the ability of the construction industry to safely dispose of these materials by driving up costs.

AGC believes that private industry is most capable of operating waste facilities. Instituting proposed measures will negatively impact their ability to operate and could possibly shut them down entirely. Furthermore, these changes would burden our already limited MMSW disposal capacity and may easily lead to an MMSW capacity crisis. Moreover, the data collection by municipalities, if applied to every project over 1500 sq. ft., would certainly drive up the costs on these job sites projects and would require more staffing to coordinate collection and reporting of data. AGC respectfully requests that the sections of the report dealing with reclassification of C&D waste be removed or modified to reflect the true cost the MPCA recommendations will have on our industry and development projects around Minnesota.

AGC members take the recycling of Construction and Demolition (C&D) materials seriously. Our members are exposed on a daily basis to materials that have the potential to cause harm to their employees as well as the environment. As an example, AGC has been working closely with the Department of Health (MDH) and the MPCA on the draft asbestos rules. We understand that this material is sensitive to people; as well as the environment. This type of material, along with contaminated soils and lead products, must be transported to a facility that can ensure the safety of the public and the environment. The MPCA's Policy plan will only make it more difficult and more expensive to reduce, recycle and reuse C&D.

AGC appreciates opportunity to submit comments on how the Policy Plan will impact the industry. We would be happy to sit down and further discuss the Policy Plan. In lieu of a conversation on the impacts to the construction industry, we encourage the MPCA to clarify the procedures they will use for the implementation and enforcement of the Policy Plan and to

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answer the fundamental question that has been raised as to whether the actions recommended in the plan are voluntary and/or mandatory.

Sincerely,

Dave Semerad
CEO



Anoka County

PARKS & COMMUNITY SERVICES DIVISION

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Resource Solutions

License Bureau

September 15, 2016

Mr. John Linc Stine
Commissioner, Minnesota Pollution Control Agency
520 Lafayette Road N.
St. Paul, MN 55155

Dear Commissioner Stine:

SUBJECT: Draft Metropolitan Solid Waste Management Policy Plan

Anoka County supports the Solid Waste Management Coordinating Board's (SWMCB) comments on the State's draft Metropolitan Solid Waste Management Policy Plan (Policy Plan). The County also supports the State's efforts in the Policy Plan to encourage proper resource management in accordance with the established waste management hierarchy.

Additionally, the County would like to emphasize it is critical to allow counties and municipalities the freedom to implement creative and specifically tailored solutions on a case-by-case basis. This is especially true concerning the Policy Plan's proposed mandating of organized collection for recycling in order to increase recycling. Contrary to that assertion, Anoka County municipalities with open hauling actually offer higher recycling rates than those with organized collection. Given the recycling data of our County, the draft Policy Plan's one-size-fits-all approach to mandated organized collection is not justified. Each municipality is unique with its own characteristics, capabilities and resources, and each municipality must choose the best methods available to meet their recycling and waste management goals.

Similarly, the Policy Plan states all municipalities in the Twin Cities Metropolitan Area should have access to organized curbside organics collection by 2025. In addition to Anoka County's previously mentioned concerns pertaining to mandatory organized collection, this goal also poses problems due to the rural nature of several municipalities in the County. Given the low population density of these areas, the best strategy for organics may be drop-off locations rather than curbside collection.

It would be best if the Policy Plan focused on developing appropriate management opportunities before determining specific requirements in terms of organics management and organized collection.

Commissioner Linc Stine
September 15, 2016
Page 2

The Policy Plan provides several strategies for increasing waste diversion in the private sector. While Anoka County supports some of these directives, such as increased market development for recyclables, some of them would prove counterproductive to our efforts. First, the Policy Plan would require the County to submit to the State a list of commercial entities who are not in compliance with recycling requirements. Anoka County has worked with area businesses to develop strong relationships which has allowed cooperative work on waste diversion. By assigning a regulatory role to the County, those relationships would be jeopardized.

Furthermore, the Policy Plan also calls on counties to mandate organics diversion by large quantity generators by 2022. In the same way that putting the County in a compliance role would harm our public-private partnerships, so too would this mandate. If either of these commercial recycling requirements were to be implemented, further cooperation between the County and private sector on solid waste issues would be far more challenging.

The SMM section requirements for county master plans will be difficult to incorporate without further development and definition. It is very difficult for counties to commit to staffing levels and other program resources without having any knowledge of what these costs may entail.

Anoka County values the waste management planning work being completed by State staff. We appreciate the MPCA's full consideration of these comments as the work continues on the final Policy Plan.

Sincerely,



Brad Fields
Director, Recycling & Resource Solutions Department
Anoka County

BF:kr

September 16, 2016

Johanna Kertesz
Minnesota Pollution Control Agency
520 Lafayette Road North
St. Paul, Minnesota 55155-4100

Dear Johanna,

Thank you for the opportunity to comment on the Minnesota Pollution Control Agency's (MPCA) Metropolitan Solid Waste Management Policy Plan (Policy Plan). The Minnesota Chamber of Commerce (Chamber) is the state's largest and premier business advocacy organization. As the statewide voice of business, the Chamber represents more than 2,300 businesses of all types and sizes across Minnesota who employ over 500,000 people. The Chamber supports a solid waste management program that protects the environment and relies on private sector competition to provide cost effective waste management options, while also promoting private/public sector collaborations as warranted.

Minnesota, by most statistical analysis, is among the nation's leaders in recycling programs and recycling rates. Strong recycling programs and significant investment by private industry have been a large part of this success. When discussing solid waste policy recommendations for the state or for the metropolitan area, investments made by private businesses must be taken into account. Most of the recycling opportunities in the metropolitan area are provided by private industry. The recycling industry is a high volume, low margin industry and global economics must be taken into consideration when making solid waste policy recommendations. Investing in publicly owned facilities and programs without the consideration of current private and public facilities, and their capacities, could lead to unwarranted circumstances in the future, including stranded public assets with taxpayer liability.

The primary concern of the Chamber is that the Policy Plan establishes public policy without the benefit of a fully vetted public process. While the exemption from rulemaking for this Policy Plan is allowed under Minnesota Statute 473.149, we feel that the MPCA goes far beyond simply setting policy for solid waste management. The Policy Plan establishes goals, standards and mandates activities that "shall" be followed in the metropolitan area. The plan is very far reaching and may impact such decisions as solid waste supply and purchasing contracts, solid waste permits and certificates of need.

The Policy Plan also sets unprecedented policies related to non-mixed municipal solid waste streams that are based on data and analysis that need further verification and explanation. We thank the MPCA staff which has held two public meetings to seek input from stakeholders, but additional meetings are needed to clarify the data, procedures of implementation and enforcement of the plan, as well as to

answer and questions as to whether the actions recommended in the Policy Plan are voluntary and/or mandatory.

Another Chamber concern is the goals that are detailed in the Policy Plan recommendations. It is the Chamber's view that the goals set forth for solid waste management are aggressive and unachievable. A reduction of landfilling to 1% by 2020 from the current estimate of 23%, a 75% recycling and organic collection goal and curbside recycling of organics by 2025 for all cities in the metropolitan area, are laudable goals, but unrealistic. Goals should be set that are realistic and achievable and take into account the costs to meet these goals by taxpayers and businesses.

An additional component in the establishment of goals is to ensure that accurate data is being considered. The solid waste industry, as well as manufacturers and other businesses, are constantly changing and adapting to market trends and consumer demands. This has led to reduction in the weight of products, the decrease in hazardous components of items and more streamlining and efficiency in solid waste processing. Data must take into account these changes in the industry, as well as consumer purchasing trends, to be considered reliable in setting goals.

Key components to any successful solid waste management plan must also include an education component and a cost/benefit analysis on the impacts to businesses and individual taxpayers. A dedicated educational outreach program and the establishment of a consistent and coordinated message on solid waste recycling are needed. Minnesota Waste Wise's partnership with Ramsey, Washington, Carver, Anoka and Dakota to establish recycling programs for each county to meet their solid waste goals is a great example of a coordinated, effective recycling message. Cost/benefit analysis must also be applied to any of the recommendations put forth in the solid waste plan. Market development plans for recycled materials is a recommendation in the Policy Plan that should include a cost/benefit analysis. Markets for recycled materials are influenced by the global economy and therefore should be carefully analyzed before any recommendation should proceed.

Finally, building on existing infrastructure to optimize consumer and business convenience and minimizing costs should be encouraged in any solid waste plan. Eliminating regulatory barriers and promoting public/private partnerships should also be encouraged. Developing a system in an orderly fashion, without raising taxes and coordinating a consistent educational message, would establish a strong, fundamental image to citizens and businesses.

Thank you for allowing the Chamber to comment on the Metropolitan Solid Waste Management Policy Plan. If you have any questions, please feel free to contact me.



Tony Kwilas
Director, Environmental Policy



September 16th, 2016

Minnesota Pollution Control Agency
520 Lafayette Rd,
St Paul, MN 55155

RE: The TWMA 6-year Metropolitan Solid Waste Management Policy Plan

To Whom it May Concern --

The board and staff at Community Power would like to add our appreciation for the continued placement of reduction and reuse at the top of the waste management hierarchy. We applaud the MPCA and stakeholders for including innovative strategies such as targeting the specific needs of industry to increase recycling and reuse in that area, as well as growing businesses that use recyclables as a core business element. The aggressive reduction of landfilling from 23% in 2015 to 1% in 2020 and beyond is an immense shift that we are proud to see being done with such urgency in the the Twin Cities Metro region.

This same urgency with which the MPCA and stakeholders are eliminating the need for landfills is the same needed for the elimination of “resource recovery,” a name which is, at best, a euphemism for a public health crisis and, put quite simply, dirty energy.

It is deeply troubling to see this costly measure (in terms of both money and health) built into this plan as both a short-term and long-term strategy. Target levels of “resource recovery” first increase from 28% in 2015 to 36% by 2020, hover between 31 and 43% until 2030, and then stay stagnant at 24-28% through 2036.

Planning to maintain and in some years increase levels of incineration this far into the future is contrary to the purpose of the MPCA and the stated goals of the TCMA solid waste plan to “protect the environment and public health, reduce greenhouse gas emissions and conserve energy and natural resources [...] and] internalize future costs to minimize long-term financial liability and maximize environmental benefits.” Further, there are no mentions of the harms, challenges or trade-offs of “resource recovery” in the documents and hearings easily accessible to the public. Landfills are portrayed again and again as the only pariah, the sole bad choice, while the resource recovery or “landfills in the sky,” as some have called the, are neutral. It does not escape us that the aggressive reduction in landfilling

requires other alternatives to reduce or divert trash. In addition to other severe consequences, incineration “solution” still relies on the landfill “problem” - approximately one third of the total mass of the waste burned in an incinerator ends up as toxic ash, fit only for landfills. **Reliance on waste-to-energy undermines reduction & recycling because it relies on the facility to be “at capacity” not only to comply with the incineration company’s contract, but to also be a stable producer of energy on the grid. Incineration requires us to plan on relying on garbage regardless of innovation.** Our option should not be the lesser of two evils, but a transformation in how we do business if we intend to achieve our solid waste goals.

A nuance about “our” health, however, must be added. It is “our” health broadly because this affects us all, but if we look at facts it is primarily a very specific community’s health: low-income residents and residents of color. This is a critical and cumulative environmental justice that requires a short-term AND long-term response. The area code that hosts the HERC incinerator has the worst air quality in the entire state of Minnesota, and the host neighborhood is predominantly people of color (and the two-mile plume from the HERC contains over 60% of the people of color in the City of Minneapolis). This pattern of situating trash facilities in communities that are already heavily burdened in many other ways, is national. However, Minneapolis in particular has received attention in the press for having some of the worst racial disparities in a US urban area in education, employment, and health. Continuing to “maximize capacity” at an incinerator in a community whose environmental health is completely overburdened works against recent efforts and a core charge of the MPCA on environmental justice. The agency has been commendably been moving on this task through public discussions, permit revocations, and most recently through appointing an Environmental Justice Advisory team this summer.

We know , as a region, that zero waste is possible. We can see other cities across the country and the world committing to significant benchmarks on a blazing timescale:

1. San Francisco 100% by 2020
2. Dallas, TX 100% by 2040
3. Seattle, WA 72% by 2025
4. Kauai HI 70% by 2013

In summary, we would like to see the following added to the TCMA Solid Waste Plan:

- A section with an environmental justice analysis of the solid waste plan that seeks with recommendations to more equitably share the cost and health burden of solid waste facilities
- A plan to phase out waste incineration that is as aggressive as the phase-out of landfilling
- Proportional disclosure and mention of the harms, challenges, climate contribution, and risks of the planned incineration (particularly in the executive summary document and the public hearing presentations). This is critical education in order for informed stakeholders feedback and evaluation of this plan. This would likely include replacing the

industry terms “waste-to-energy” or “resource recovery” with the more transparent version “trash incineration”

We need MPCA and metro leadership that steps boldly into the challenge and responsibility who do not doubt the capability, expertise, and commitment of their constituents to act.

Thank you very much for your time.

Sincerely,

Alice Madden & Marcus Mills
on behalf of the Board and Staff of Community Power
Community Power
2720 E 22nd St
Minneapolis, MN 55406

More on health impacts of incineration:

A 27-year medical study found cancer rates higher in children living near incinerators. The child cancer/leukemia risks within 3 miles of these sites were doubled.

(Childhood cancers, birthplaces, incinerators and landfill sites. Int J Epidemiol 29 (3): 391-7 June 2000)

Another study found that thyroid hormones are reduced in children exposed to toxic waste incineration in their environment.

(Thyroid hormone level in children in the area of a toxic waste incinerator in South Essen [Germany] Gesundheitswesen 60(2):107-12 Feb 1998)

A third study of children living near 72 incinerators found a statistically significant increase in risk from incinerators for all cancers of the stomach, colorectal areas, liver and lungs.

(Cancer incidence near municipal solid waste incinerators in Great Britain. Br J Cancer 73(5):702-710 Mar1996)



**CONSERVATION
MINNESOTA**
Protect the Minnesota you love.

September 13, 2016

Ms. Johanna Kertesz
Minnesota Pollution Control Agency
520 Lafayette Road
St. Paul, MN 55155

Re: Comments to the Draft Metropolitan Solid Waste Management Policy Plan, 2016-2036

Dear Ms. Kertesz,

Conservation Minnesota is a statewide nonprofit organization focused on finding constructive solutions to problems that affect our land, water, air and quality of life. In communicating with our network of over 65,000 Minnesotans, we consistently find that waste reduction and recycling is a broadly held concern. We find that citizens across the state strongly support access to effective recycling programs, eliminating toxins and problem materials from the waste stream, and dramatically reducing landfilling. We appreciate the opportunity to provide comments to the draft Metropolitan Solid Waste Management Policy Plan, 2016-2036.

We strongly support the vision and goals outlined in Part Two of the draft Policy Plan (Framework for Change)(p. 6). With respect to Goal 3 (p. 9), we agree with the Plan's goal of minimizing the long term risks and ongoing costs associated with continued reliance on landfilling. While maintenance and monitoring of landfills is critical to ensuring they do not threaten the safety of nearby water supplies, the Legislature has struggled to provide the long term funding needed to maintain old landfills. Focusing on the top of the waste management hierarchy and eliminating our dependence on landfills will save long term costs and reduce the potential health risks associated with land disposal.

However, we note that while the policies and strategies outlined in the report as a whole require significant new efforts by local governments to achieve the Plan's goals, the draft Plan fails to note the role of state government in providing financial support for these efforts. Minnesota's Solid Waste Tax was created to provide a stable source of state support for recycling, waste reduction, and solid waste management programs. However, 30% of this revenue stream is currently sent to the state's General Fund rather than used to support the efforts of local governments to meet the recycling goals created in statute and to execute the strategies outlined in the Solid Waste Policy Plan. The Plan should acknowledge the role of the executive branch and Legislature in ensuring that Solid Waste Tax funds are used as intended and are supporting local recycling and waste reduction programs.

We support the Plan's Waste Abatement objectives, in particular the 1% ceiling by 2020 of land disposal. However, we note that the objective for organics recovery (10-14% by 2025) (Table 1a, p. 15) seems overly conservative. Appendix A of the Draft Plan notes that 2015

Conservation Minnesota Comments, Page Two...

data show that organics diversion is already at an all-time high of 10.2%. We think more aggressive goals would create a greater urgency in addressing the need to remove organics from the waste stream and build effective systems for organics collection and processing.

We also support the Plan's objective to meet the state's 75% recycling goal by 2030 (p.21). However, we question whether the identified BMPs (standardizing recycling messages, modifying city codes that are not flexible enough for recycling infrastructure, and standardizing ordinances relating to haulers) as well as other strategies (such as focusing on high volume commercial generators) are sufficient to lead to the necessary increase in recycling. The plan should also encourage innovation by local governments that is designed to fully achieve recycling goals. For example, local governments should explore policies that would provide effective incentives for increased recycling and disincentives for the use of non-recyclable or problem materials. These innovative policies could support the increased interest in a sustainable, circular economy in which products are designed and marketed in a way that does not deplete natural resources or create unrecoverable waste. The Plan correctly highlights the largest environmental value of recycling lies primarily in providing feedstocks to manufacturing and reduced need for extraction and processing of virgin raw materials.

We support the Plan's objective to expand recycling market development, but note that the Plan fails to identify a source of funds to invest and support this effort. The Plan notes that in the 1990s the state and private industry invested heavily in developing recycling end markets (p. 40). Since then, this investment has dramatically declined and the result has been a lack of stable domestic markets that could absorb materials when the demand from international markets evaporated. The Plan should acknowledge the fact that the state stands to benefit from the economic development and jobs created by recycling markets and must commit to investing more in this area.

Finally, we support the Plan's continued promotion of producer responsibility. In particular, local governments and citizens should not be burdened with the cost of managing hazardous materials such as mercury-containing lamps. We believe the Plan should more clearly identify a goal of developing product stewardship policies with a priority placed on materials that are hazardous to human health.

Thank you for considering our comments to the Draft Metropolitan Solid Waste Management Policy Plan, 2016-2036.

Sincerely,



Paul Austin
Executive Director

Metropolitan Solid Waste Policy Plan public meeting comments

If you would like your comments from today's meeting to be considered part of the official record and public notice of the Plan, please complete this form and return it to an MPCA staff member. If you require assistance completing the form, staff will assist you. Additional written comments can be submitted to Johanna Kertesz until September 16, 2016 via email (johanna.kertesz@state.mn.us) or U.S. Mail (Johanna Kertesz, Minnesota Pollution Control Agency, 520 Lafayette Road North, St. Paul, MN 55155-4100).

Name	Jill Curran	Organization	Minnesota Waste Wise Foundation
Email	jcurran@mncbaber.com	Phone	651-292-4653

Comments:

Keep and further develop the source reduction and reuse section (page 23). Service providers such as Waste Wise can be promoting this solution on a wider scale in the business community with robust tools and support for plan source reduction in particular. Please also include how source reduction and reuse will be counted toward the recycling rate goal.

Metropolitan Solid Waste Policy Plan public meeting comments

If you would like your comments from today's meeting to be considered part of the official record and public notice of the Plan, please complete this form and return it to an MPCA staff member. If you require assistance completing the form, staff will assist you. Additional written comments can be submitted to Johanna Kertesz until September 16, 2016 via email (johanna.kertesz@state.mn.us) or U.S. Mail (Johanna Kertesz, Minnesota Pollution Control Agency, 520 Lafayette Road North, St. Paul, MN 55155-4100).

Name	Jill Curran	Organization	Minnesota Waste Wise Foundation
Email	jcurran@mncbaber.com	Phone	651-292-4653

Comments:

Keep and further develop the recycling market development section (starts on page 39). Buyers of the end recycled material is critical to keeping recycling programs afloat. A strong sustainable materials advisory group will be essential in getting the recycling market development effort off to a good start.



RECEIVED

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County Board

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August 23, 2016

AUG 24 2016

MPCA COMMISSIONERS
OFFICE

Commissioner John Linc Stine
Minnesota Pollution Control Agency
520 Lafayette Road North
St. Paul, MN 55155

Dear Commissioner Stine,

On behalf of the Dakota County Board of Commissioners, thank you for the opportunity to comment on the Draft Metropolitan Solid Waste Management Policy Plan 2016-2036 (Policy Plan). The County recognizes the need for aggressive strategies to meet the current statutory waste management goals and appreciates the aggressive nature of many of the strategies identified by the Minnesota Pollution Control Agency (MPCA) within the Policy Plan.

The Dakota County 2012 Strategic Plan includes "A Clean and Green Place" as one of five strategic goals. A strategy to create less waste and manage it well is one of the key elements toward meeting that goal, and the Dakota County Solid Waste Master Plan is the primary tool for identifying implementation steps to address that strategy. Minnesota Statute §473.803 requires metropolitan county Solid Waste Master Plans to implement the Policy Plan. Therefore, the content of the Policy Plan is extremely important to the citizens of Dakota County.

Dakota County is a member of the Solid Waste Management Coordinating Board (SWMCB). The SWMCB will also be providing comments on the Draft Policy Plan in a separate letter.

Focus on Waste Management Hierarchy: The MPCA must enforce the commercial and public entity recycling requirements (Minn. Stat. §115A.151) along with enforcing the restriction on disposal (Minn. Stat. §473.848). Moving recyclables out of the waste stream will lessen the need to enforce the restriction on disposal and demonstrate the MPCA's commitment to moving waste higher on the waste hierarchy.

Accountability: The Draft Policy Plan identifies accountability as one of the key themes that underlie all elements of the plan (pg. 6).

"Many entities, public and private, are responsible for implementing this Plan, including state and local governments; private waste and recycling businesses; citizens; manufacturers of products; retailers and other businesses; and environmental groups. All must be held accountable."

However, the Draft Policy Plan does not specifically address the roles and responsibilities of each stakeholder group, how each group will be held accountable, who will hold each group accountable, or the mechanisms for establishing the authority to hold other entities accountable for implementing the various strategies identified throughout the Draft Policy Plan.



Please clearly identify each stakeholder group (e.g., cities, counties, MPCA, SWMCB, haulers, residents, businesses, schools, non-profits), the activities they are accountable for completing under this plan, the recommended mechanism to ensure accountability, the timeline to complete the activities, the methods to measure success, and the ramifications if success is not achieved. A simple table is preferred.

Land Disposal Objectives: The Draft Policy Plan identifies Mixed Municipal Solid Waste (MMSW) System Objectives (Table 1a on pg. 15). This table shows a 1% landfilling goal for the Twin Cities Metropolitan Area (TCMA) by 2020. This goal is not achievable.

- According to the MPCA's 2015 *Solid Waste Policy Report*, 26% of the MMSW sent to landfills in 2013 was not recyclable or organics. That same year, 30% of the total MMSW stream was landfilled. Based on these numbers, 7.8% of the total MMSW waste stream is currently not recyclable or compostable.
- Following the timeline for the Draft Policy Plan revision, the 2016-2036 Policy Plan would be approved March 2017, the MPCA would approve County Master Plans in May 2018, and Twin Cities Metropolitan Area land disposal would need to be reduced from 23% to 1% in just 20 months.

A more realistic approach would identify goals through 2036 using a linear reduction rate from the 2015 landfill rate of 23% to the MPCA's suggested Maximum Landfill rate of 1% in 2036. A linear projection was used to produce Figure 4. *Projected MMSW tonnage growth in the TCMA 2015-2035* in Draft Policy Plan (pg. 11). A similar model should be employed to project the TCMA MMSW System Objectives. This method would result in the following Landfill Percentage Objectives:

	Current System (2015)	2020	2025	2030	2036
Max Landfill	23%	17.5%	12.0%	6.6%	1%

Solid Waste Processing Capacity: The Draft Policy Plan recognizes the contributions of the private sector in implementing the plan through the provision of solid waste services, yet restricts the ability of the private sector to generate additional processing capacity within the region. Policy 4 promotes renewable energy and conservation, which includes recovering energy from waste (pg. 8). Then the plan identifies a solid waste abatement objective of maintaining existing resource recovery facility capacity. The existing resource recovery facilities identified as serving the Twin Cities Metropolitan Area Solid Waste Management System includes four resource recovery facilities:

- Hennepin Energy Recovery Center (HERC): This facility is not accepting additional waste.
- Ramsey/Washington County Resource Recovery Facility (Recycling and Energy Center): This facility was recently purchased by a Joint Powers Board between Ramsey and Washington Counties and the Ramsey/Washington Recycling & Energy Board, and tipping fees for out-of-county haulers were increased substantially. This will have significant economic impacts on other Metro Counties and haulers. In addition, if Washington and Ramsey County move forward with waste designation, there will be little, if any, capacity for waste from other counties.
- Elk River Resource Recovery Project (GRE-Elk River): This facility is located across the Metropolitan Area, a considerable distance from Dakota County.
- Red Wing: This small, limited capacity, refuse-derived fuel facility is owned and operated by the city of Red Wing.

All of these options create barriers to processing wastes from Dakota County without the implementation of significant financial incentives. Under the current system, although some of the tons delivered to resource recovery facilities are generated in Dakota County, there is limited opportunity to significantly contribute to the TCMA objective for resource recovery.

In order to be effective, support for waste processing must go beyond fully utilizing existing permitted TCMA resource recovery system capacity. It must apply a lifecycle approach that considers other environmental issues related to waste transportation. These issues are detailed in the Key Themes section of the Draft Policy Plan under "Environmental Benefits" and include greenhouse gas emissions, toxicity, and energy and water use (pg. 7). Transporting wastes across the TCMA to an existing processing facility may help that facility reach capacity, but the overall environmental benefit may be negligible when other environmental issues related to that transportation are considered. The Draft Policy Plan recognizes this issue for organics management when it states, "The number of commercial compost facilities is still relatively small and collectors are often obligated to travel longer distances to access the facilities."

The Draft Policy Plan should identify whether or not the addition of new privately-owned processing facilities will be considered contributors within the TCMA Solid Waste Management System or provide additional guidance on how to reconcile the state law requirement for public entity waste to be processed when there may not be capacity or the travel distance is unreasonable.

Prioritization of Strategies: The Draft Policy Plan provides numerous strategies for achieving the 75% Recycling Goal. These strategies are divided into two categories: Priority and Recommended. The Draft Policy Plan indicates that the "MPCA expects that all counties will integrate implementation of the 'priority strategies' directly into their master plans." Although the identified "Priority Strategies" address most of the best management practices identified for achieving the 75% recycling goal, they do not appear to take into account the amount of waste that will be diverted by each strategy. For instance, a specific priority strategy is to financially support and promote material exchange programs (pg. 23). How does the anticipated diversion from that strategy compare to the "Recommended Strategy" of implementing organics diversion at public entity facilities and in large event venues (pg. 31)?

The strategies within the Draft Policy Plan should be prioritized by planned implementation year and include the anticipated cost/tons diverted for each activity to assist counties in allocating appropriate resources to each priority strategy. Prioritization of specific strategies should also take into account the varying demographics of the counties. For example, a large portion of Dakota County is rural. Will curbside residential organics collection be required in rural areas by 2025, as suggested on pg. 29 of the Draft Policy Plan? If that is the intent, a threshold should be determined through lifecycle cost/demographic analysis for widely dispersed rural populations, or an extended timeframe for rural implementation may be warranted.

Metropolitan Landfill Contingency Action Trust: The Draft Policy Plan just touches on the subject of addressing potential future liability associated with solid waste facilities. Policy 15 provides for the determination of anticipated future costs and potential liability associated with currently operating disposal facilities (pg. 9). The Draft Policy Plan does not address potential future liability associated with closed solid waste facilities within the metropolitan area. The Metropolitan Landfill Contingency Action Trust (MLCAT) is a landfill cleanup account funded entirely by landfill fees. This account is intended to address future costs associated with seven eligible metropolitan area landfills, including the two open Municipal Solid Waste Landfills in Dakota County.

Numerous transfers have been made from this account by the Legislature to fund other programs and initiatives. The most recent transfer in 2015 was repaid. The other transfers, totaling approximately \$14M since 2003, have not been repaid. The existing and estimated future balance in the MLCAT account will likely be insufficient to support the necessary post-closure actions of the seven eligible landfills.

Post-closure care accounts such as MLCAT, must be fully funded to ensure the proper protection of public health and the environment into the future. A Priority Strategy for the MPCA should be to ensure that MLCAT is fully funded.

Resources: Dakota County strongly supports the enforcement of existing state solid waste laws by the MPCA. However, achieving the goals and objectives within the Draft Policy Plan will require additional resources. Below is a short list of additional resources that the MPCA could provide to the Counties to assist in meeting these aggressive goals:

- Increased SCORE funding to assist with the implementation of the mandated curbside organics collection by 2025
- Legislative mandates for organics diversion from specific high volume organics generators
- Identification of best management practices for cost-effective organics collection

New Technology: New technologies in solid waste management have arisen that do not fit precisely within the identified waste hierarchy. These include anaerobic digestion and bio-gas generation. The Draft Policy Plan should provide direction on how new technologies will be defined and how they fit into the Twin Cities Metropolitan Area Solid Waste Management System.

Data presentation: Overall, cite and fully explain data that are presented. For instance, describe how the TCMA can meet a 75% recycling goal if, according to Figures 7 and A-1 (pgs. 19 and A-2), 37% of the waste stream is "non-recoverable materials/true garbage". With these data, further explain how the TCMA can achieve an 81% recycling rate. Also, evaluate if it is truly recyclable or just in a recycling category. For example, the 2013 MPCA Waste Composition Study suggests that 24.5% of the waste stream is paper. However, this category is dominated by compostable paper (paper products including wax-coated paper, napkins, paper towels, frozen food packaging, tissues, paper plates, cups, and pizza boxes [excludes aseptic packaging]), which includes the plastic-lined products that are neither compostable nor recyclable. The paper category also includes 2.3% non-recyclable paper (plastic or metal coated paper) (excluding gable top and aseptic containers/cartons). So, even though nearly 25% of the waste stream is paper, not all of it can be recycled.

Per capita generation needs to be evaluated instead of projected tons (Figure 2 pg. 5). Figure 1 depicts a drastic increase in organics recycling, decrease in landfill, and increase in recycling, not "stagnation" as indicated in the text (pg. 4).

Clarifications and Definitions: Throughout the Draft Policy Plan, terms are used that have not yet been defined, and policies are identified that do not provide a sufficient level of detail to assist with implementation. Examples include:

- Pg. 9, Policy 12, "Continue to pursue product stewardship for problem materials": The Draft Policy Plan should clearly identify what those "problem materials" are.
- Pg. 14, Sustainable Materials Management Priority Strategy, "The MPCA...will select a few priority solid waste materials to focus on reduction, reuse, and recycling based on life cycle analysis": The Draft Policy Plan should provide additional details on what these materials will be.

- Pg. 26, Traditional Recycling Management Priority Strategy, "Implementation of mandatory commercial recycling in the metro area shall focus on generators of large quantities of recyclables and the generators of most impactful materials": The Draft Policy Plan should define "large quantities of recyclables and "most impactful materials."
- Pg. 30, Organics Management Priority Strategy, "Require organics diversion by large generators of organic material by 2022": The Draft Policy Plan should define "large generators". Is this defined by quantities or by North American Industrial Classification System (NAICS) codes?

Product Stewardship: The first priority strategy identified in the Draft Policy Plan related to product stewardship provides a list of materials that have been identified by the MPCA as priority materials. The Draft Plan should place an emphasis product stewardship for those products that pose a public health or safety risk.

The second priority strategies identified in the Draft Policy Plan related to Product Stewardship is the reconstitution of the Solid Waste Management Coordinating Board's Product Stewardship committee. This strategy states, "A committee, composed of a representative from each metropolitan county, could focus on advancing the product stewardship agenda in the TCMA." The metro counties have consistently supported product stewardship legislation and were largely instrumental in recent changes to the paint product stewardship and electronics product stewardship laws. A committee to address this issue is not required, and this priority strategy should be rewritten to indicate that the counties should work together, in whatever format is most efficient, to advance product stewardship initiatives.

Thank you for your consideration. We appreciate your attention to these comments and look forward to working with you towards a final version of the Metropolitan Solid waste Management Policy Plan 2016-2036 that will best serve the diverse needs of the Twin Cities region through 2036.

Sincerely,



Nancy Schouweiler, Chair
Dakota County Board of Commissioners

Cc: Dakota County Board of Commissioners
Matt Smith, Dakota County Manager
Steve Mielke, Physical Development Director



September 14, 2016

Anna Kerr
Minnesota Pollution Control Agency
520 Lafayette Road North
St. Paul, MN 55155-4194

RE: Draft Metropolitan Solid Waste Management Policy Plan 2016-2036

Dear Ms. Kerr:

Dem-Con Companies (Dem-Con) appreciates the opportunity to provide comments on the draft Metropolitan Solid Waste Management Policy Plan 2016-2036 (Plan) and offers the comments in this letter for your consideration. Dem-Con has a long history of working closely with the Minnesota Pollution Control Agency (MPCA) to provide collaborative solutions to the solid waste and recycling issues faced by our state. The coordinated recycling message focus group, unlined C&D landfill meetings, ongoing quarterly meetings between the MPCA and the National Waste & Recycling Association (NWRA) to discuss current solid waste and recycling issues are just a few of the recent examples of this collaboration. However, despite this positive public/private working relationship, we believe that the current draft Plan is biased toward public sector investment and not only portrays the private sector in a negative light but also threatens our existing businesses that have been created to provide the local waste and recycling needs within the existing regulatory environment. Overall, the Plan draws unsubstantiated conclusions and posits statements based on limited and often inaccurate and unsubstantiated information and assumptions. A detailed list of our specific comments are as follows:

Positives components of the Draft Plan:

- **Collection of better data:**
 - o The draft Plan calls for the collection of better data regarding recycling, waste composition, waste generation, and accurate accounting of materials. Dem-Con believes that this is a laudable goal and will lead to more sound policy decisions in the future;
- **Life Cycle Analysis (LCA) goals;**
 - o Dem-Con believes that moving away from weight based goals and shifting toward a LCA approach will allow for more accurate accounting of the environmental and economic impacts of our waste management system. The Environmental Protection Agency (EPA) has recommended a similar approach.
- **Focus on reuse and reduction (but need to adjust recycling goals):**

- Dem-Con supports the waste management hierarchy and commends the MPCA for the focus on reduction, reuse, and recycling. However, the impacts of focusing higher on the hierarchy, reduction and reuse, need to be accounted for and taken into consideration when setting goals for things lower on the hierarchy such as the 75% recycling goal and landfill diversion goals.
- **Focus on education:**
 - There is a general lack of understanding within the community regarding the waste management system. Further, we believe that outreach and education is the key to a successful waste management system. To this extent, Dem-Con has developed our “Green Grades” education program dedicated to educating the community and waste generators on the entire waste management system. We support the efforts of the MPCA to further the educational efforts as a coordinated effort between service providers, cities, counties, and state regulators.

Broad Based Comments:

- **The “Tone” of the Plan is negative;**
 - Plan does not give credit to existing system and private/public partnerships for reaching the previous recycling goal in 2015 of 50% - one of the highest in the nation;
 - The impact of this negative perspective is the incorrect assumption that the existing system is broken and needs to be replaced;
- **Aspirational goals w/o a strategy to get there – unsupported by the facts:**
 - 1% landfill by 2020 – lack of infrastructure, plan to achieve this mandate, or time to allow the infrastructure and end markets to develop is not accounted for in this mandate;
 - All cities to have organized recycling by 2025 – lack of infrastructure or a plan to achieve this mandate;
 - Organized curbside organics by 2025 – lack of infrastructure, participation, or end use for the product make this mandate difficult, if not impossible, to achieve.
- **Focus on government led system, not private/public partnership:**
 - Displaces private assets & investments;
 - Damages existing public/private partnership;
 - Discourages private investment into waste reduction, recycling, etc.
- **Focus on Industrial and C&D Waste:**
 - CON – This process is not possible for industrial waste & C&D due to the nature of generation of this waste (i.e. project based generation);
 - CON – Implementing this process through a mandate in the Plan is overstepping the statutory authority of the MPCA;
 - Increased taxes – Increased taxes on C&D and industrial waste will have negative impacts on new development and brown field cleanup sites;

- Reporting & reclassification as MSW – misconception by the MPCA on the amount and significance of any waste that is being reclassified as industrial waste from MSW waste.

Detailed Comments:

- **Plan is biased toward public sector investment:**
 - Page 7 states that “*The goals and policies in this Plan are designed to steer the TCMA toward a new vision for solid waste management, with government leading the way.*” This is directly in conflict with Minnesota Statute 473.149 which states “*The 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*”. What is the “new vision” of waste management and why are we stating that government will lead this new system?;
 - Page 40 states that the MPCA will “*Invest in new technologies and equipment for sorting*” using the grant and loan program. Historically, these have only been provided to the public sector which competes with private sector and displaces private businesses. Will this money be available to the private sector? Why does the MPCA feel this investment is needed? An equal distribution of funds between the public & private would be required to have Dem-Con, and industry, support this strategy;
 - Plan portrays the private sector in a negative light and implies that the private sector is part of the problem rather than the solution;
- **Page 4, top** states that “*the recent increase in resource recovery over the last six years can likely be attributed to the MPCA’s increased attention to enforcement of 473.848 and county support of that initiative*”. How could the increase in resource recovery over the “last six years” be due to 473.848 when implementation started January 1, 2016 and enforcement has yet to begin? What is the basis for this claim?
- **Page 4, bottom** states that “*Over 60% of MMSW sent to landfills today could be recycled*” – Please provide a basis for this claim as is appears to be over stated based on the true waste composition and the current industry technologies and infrastructure.
- **Page 8** - On Page 8 and throughout the Plan, it is unclear what is a “goal” vs. a “policy” or a “mandate” – do these mandates in the Plan have the effect of rule or law since Page 2 of the Plan states “*This Plan will and must be followed in the TCMA*” ?
- **Page 8, Policy 2**, “*Strengthen recycling markets...*” - A significant portion of the end markets depend upon national and global economics of which the MPCA has little to no control over. Given that the MPCA has had limited success at developing end markets in the past, what will be the new approach to successfully implement this strategy? Will efforts to improve end market opportunities be a collaborative effort with the private sector?

- **Page 9, Goal 3**, “*Manage waste cost-effectively and internalize future costs.*” What does it mean to internalize costs? Does this include more government owned/operated facilities that could potentially displace private assets?
- **Page 11, Total Waste Generation** – It is not a realistic assumption to assume straight line growth over the next 20 years, which results in a 38% growth, given the historical generation of waste which has recessions and regrowth periods. A more realistic projection would be to look at the last 20 years, 1995-2015, which shows a 24% growth and use that to predict the next 20-years. Additionally, given our ongoing focus on reduction, reuse, and recycling it would be safe to assume that the next 20-years would have less increase in generation than the past 20-years;
- **Page 11 & graph on 12**, “stating that per capita waste generation has only decreased 2% since 1993, however, if you look at the peak generation in 1999, it has decreased 13%. This is a success story, a decrease of 13%, but it is stated to sound like a failure by not comparing to the peak per capita generation. Again, this is reflective of the negative and biased “tone” of the report;
- **Page 15, top** – states that the source reduction is not counted in MMSW generation, but source reduction will affect the composition of the remaining MMSW and thus needs to be taken into account to adjust the goals (i.e. 75% recycling). For example, light weighting of packaging (source reduction) will impact the amount of materials recycled when measured by weight;
- **Page 15, Table 1a** - 1% landfill goal by 2020 is not a realistic goal. This number does not include ash from an incinerator (30% of inbound) nor residue from recycling and composting facilities. If Minn Statute 473.848 were fully implemented the ash disposal alone would far exceed this 1% goal. It also assumes WTE facilities are operating at permitted capacity, not operational capacities which these facilities actually process based on operational constraints. Finally, on the organics side, there is a lack of infrastructure to meet these goals.
- **Page 16, bottom, regarding Table 1b** - “*MPCA believes the floor objectives are achievable.*” that are stated in the table. These floor objectives seem aggressive and we believe they will be difficult to achieve, if even possible. What is the basis for the MPCA “belief” that they are achievable?;
- **Page 17**, - The MPCA acknowledges that enforcement of these policies “*...could result in more out of state disposal*”. However, the Plan does not include a discussion about the increased GHG emissions from this or how the policies would therefore be counterproductive to reducing impacts to human health and the environment;
- **Page 18** - States that “*...MPCA conservatively estimates that 63% of the waste disposed is either recyclable or compostable*”. Is this a reasonable assumption and what is the basis for this statement? This seems to be greatly overstated given our knowledge of the

waste materials being disposed of currently. This page also states that TCMA could achieve a 81% recycling rate if “all” material that could be recyclable or composted were captured. We do not believe it is possible, or even a valid argument to assume that all materials can be captured. Further, the basis for this number, 63% of waste disposed is either recyclable or compostable, is also over optimistic based on the realities of processing technologies and the characteristics of the waste stream;

- **Page 19, bottom** – report states that TCMA counties may need to consider burning C&D and Industrial Waste. Is this reasonable given that 80% of industrial waste is contaminated soils, sludges, and slags? We think the MPCA is over estimating the BTU value and composition of industrial wastes and this leads to inaccurate assumptions in the Plan;
- **Page 25** – States that “*By 2025, all cities in the TCMA must provide organized recycling collection for residents*” which is a mandate in a report that “must” be followed. As stated above, we believe that placing mandates in the Plan oversteps the statutory authority of the MPCA and that this is a local governmental decision;
- **Page 26, Table 5** – The arguments in the Plan citing this table to conclude that organized collection is cheaper do not take into consideration the percentage of each size container that is used in the TCMA. For example, if most of the containers are 90 gallon containers then subscription would be less expensive;
- **Page 29** – States that “*By 2022, cities of the first and second class (as defined in Minn Stat. 410.01) should provide an organized residential organics collection program. By 2025, all residents in the TCMA should have access to organized curbside organics collection*” Is this a strategy, goal, or mandate? Would there be any requirements to implement this given that the plan “must” be followed?
- **Page 31** – States that “*The MPCA has made funding for transfer capacity and/or sorting of durable compostable bags a priority in its 2016-2017 Environmental Assistance Grant round.*” Are these grants also available to the private sector or only the public sector? Dem-Con is currently sorting compostable bags and has plans to invest in infrastructure to expand the program. If the grant money is only available to public sector and displaces the investments Dem-Con has made, we would be very concerned about this approach as it displaces private infrastructure and would be inconsistent with the Minn. Statute 473.149 as stated above;
- **Page 32, Figure 8** – This chart, and the arguments on this page assume that the increase in non-MSW over the last three years is due to reclassification of MSW to industrial waste. What is the basis for the claim that the reclassification is occurring? Based on the materials being delivered to our site, Dem-Con does not believe that this is occurring to any appreciable amount. Further, we believe the increase can be attributed to positive factors such as more stringent environmental cleanup standards (i.e. more contaminated soils) and increased development due to economic growth as we transitioned out of the Great Recession of 2009 to name a few.

- **Page 34** – The arguments presented on this page state that the MPCA is concerned about the “*...fast growth of non-MMSW land disposal...*”. Why is the MPCA concerned about this growth? Dem-Con believes that industrial waste should be in an industrial waste landfill rather than filling up valuable MMSW land disposal capacity with contaminated soils and other industrial wastes. Further, this page posits that “*...we have evidence that demolition debris and industrial waste also carry environmental risks.*”. What evidence does the MPCA have that disposal in a modern day, lined industrial waste landfill carries any more risk than a MMSW landfill?
- **Page 35** - What are the reduced regulatory burdens on ISW landfills? The only explanation given was that the MPCA believes that there is a reduced regulatory burden on ISW facilities due to them not being subject to CON. Dem-Con does not believe CON would be appropriate, or even possible, with industrial waste as it is project based and generation cannot be predicted. For example, large re-development projects occur on a regular basis which generate unanticipated and unknown quantities of contaminated soils. New industries start up that begin to produce new industrial wastes, etc. The addition of CON to non-MMSW oversteps the MPCAs statutory authority;
- **Page 36 & 37** – The predictions made on Figures 9 & 10 and the conclusions drawn seem to discount the Great Recession in 2009. Recessions will be part of the future of the waste industry and need to be accounted for in our planning process;
- **Page 38** – Figure 11 predicts a straight line growth in non-MMSW for the next 20-years. This is an unrealistic assumption which shows a 350% growth in non-MMSW. Since the MPCA only has data back to 2009, which is the recovery period from the Great Recession, it is unreliable to use the growth trend line from that period of time to predict the next 20 years of non-MMSW generation. The MPCA should wait until more reliable data is obtained regarding non-MMSW generation before making unrealistic predictions for the next 20-years in the Plan which will impact the policy decisions being made;
- **Page 40** – Regarding the development of processing capacity for non-traditional materials, the Plan states that “*These materials are available in large quantities, but lack industry education and formal collection system.*” Dem-Con is heavily involved and invested in the processing on these materials and our limitations are never due to industry education but rather always a lack of economically viable end markets. The collection systems are available, as well as the processing capabilities but it is absolutely necessary to have a backend market to support these efforts;
- **Page A-2, Figure A-1** - This table assumes ideal sorting conditions and is not representative of what is actually available for recovery. For example, the 12% of the paper listed is likely not all recoverable due to contamination of the paper from other wastes. Further, the 28% of organics are not only not all recoverable, but much of it would likely not be saleable due to contamination such as glass and other wastes. We have toured several organics facilities around the country and the organics that have been removed contain unacceptable amounts of contamination and the products are not

marketable. We recommend that a more realistic approach would be to include the current technologies and capture efficiencies to capture an estimated percentage of each of these categories;

In summary, we believe that the success of the waste management system in Minnesota to date, one of the leading systems in the country, and the future success of our system is dependent upon a collaborative private/public relationship. To foster this relationship, and to be consistent with statutory authority of the MPCA, the current Plan needs to be substantially revised such that it is not stating mandates but rather goals, objectives, and a potential path to reach our goals. We strongly encourage the MPCA to issue a revised draft for review based on comments received by all impacted parties prior to finalizing the Plan. If you have any questions or need any additional information please feel free to contact me directly at 952-224-7102.

Sincerely,



William P. Keegan, P. E.
President
Dem-Con Companies



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Metropolitan Solid Waste Management Policy Plan 2016 - 2036
Douglas R. Morris
September 6, 2016

Below are comments concerning this Plan:

Summary:

An overall issue, it is critical that county officials are an integral part of the initial Plan preparations versus obtaining county comments through a public comment period. In the January 2002, *Office of the Legislative Auditors Program Evaluation Report, Recycling and Waste Reduction* which states,

"before deciding if and how to pursue options to divert more waste, however, state and County officials need to assess priorities, agree on funding, and better understand the cost and benefits of various alternatives."

This upcoming Plan should have provided an excellent opportunity for **State and county officials** to assess these priorities and alternatives. To be viable, solid waste management policy needs to be a joint effort between both the State and county officials prior to the involvement of MPCA and county solid waste staff. The counties are an integral part, since the majority of integrated solid waste management programs are being administered by the counties. For the Plan to be viable, counties must be an integral part throughout the process from concept up to finalizing the actual Plan.

As the quote in the movie *The Right Stuff*, "No bucks no Buck Rogers." Many counties are seeing the solid waste program becoming just another unfunded mandate coming down from the State. Throughout this Plan there are many recommendation for increasing programs, but very little is mentioned concerning how or who is going to fund them.

Another huge issue throughout the Plan, MPCA is treating goals as if they are rules and are enforceable. Interesting when you consider when MPCA is tasked to meet a goal, how they use bureaucracy to avoid and ignore that goal. Example, the goal to issue permits in 180 days. Over 50 percent of all the existing demolition permits are expired; some by more than 10 years. If anything, MPCA now seems to be going out of their way to make the process even more difficult to renew a solid waste permit.

Part One: Introduction and background:

Page 4 - What challenges still exist?

An overarching issue that should be addressed in this Plan is the success and the failures of the existing policies, regulations, and laws concerning the existing integrated solid waste system. It is important to evaluate what is working and what is not, and why some programs are more successful than others. The information obtained through this evaluation would be critical on providing guidance on if and where additional action is needed, and provide guidance on any potential future policy modifications or course adjustments. For example:

1. **Funding.** For counties, a key challenge has and remains funding an integrated solid waste management program primarily from local funds versus state assistance through the Solid Waste Management Tax (SWMT).
 - Counties have expended considerable resources of both; staff time and funding (primarily local dollars) to implement a very effective integrated solid waste management program for their county. Counties have not felt that this partnership between them and the State (MPCA and OEA) was a short term temporary thing and that one day the counties would be on our own financially. Certainly the revenue source does not appear to be temporary. There is no sun setting of the SWMT, just a shortfall in utilizing all of this funding source to counties to assist them in funding their integrated solid waste management system.

On Page 4, first full paragraph of the August 2012 Metropolitan Waste Disposal Restriction Report, it states;

"Pursuant to this purpose, the Legislature put in place a policy structure to support it, **including the solid waste management tax, . . .**"

Between this Policy Plan and the other Report it should be highlighted how this has been derailed - 30% is reallocated by the Legislature to other programs. Remaining 70% is transferred into the "Environmental Fund". Where the MPCA has been utilizing a portion of these funds for air, water and other non solid waste issues.

Level of funding (SCORE grants); - the 2002 Legislature reduced the baseline from \$55,000 to \$49,500, and reduced the overall SCORE funding by \$1,401,000 or 10% for FY 2003, 2004 and 2005 in the Omnibus Budget Reduction Bill to \$12.6 million. This action was prompted by the announcement of the \$2 billion state budget shortfall for 2002-2003 biennium. The 2003 Legislature reduced the SCORE funds slightly to \$12.5 million. The projected shortfall for the 2004-2005 biennium was \$4.6 billion. For the 2008-2009 biennium the SCORE grant was increased back to the 2001 level of \$14 million and reestablished the baseline back to \$55,000. The Solid Waste Management Tax generated \$63.7 million in FY2010. Even with the projected shortfall for the 2010-2011 biennium of \$4.8 billion, the Legislature increased the SCORE funding by \$250,000. For the 2015-2016 biennium, the Legislature increased the SCORE

funding to \$18,250,000 and \$17,250,000 – the very first time this funding went over the "flat" \$14 million level since 1991. Every budget year, counties are threatened with these funds being taken away. These manipulations have challenged the concept for this being a "stable" source of State funding and the States continuity or long term commitment to support the solid waste program.

The following is a brief overview of the State's SCORE programs. Minnesota counties spent \$63 million in State and local funds for SCORE-related programs in 2013. This includes the \$18.25 million paid directly to counties from the State as a block grant. Counties spent an additional \$49.1 million in 2013 on SCORE related programs. Counties spent more than 13 times the matching funds (by law they must match 25 percent or \$4.5625 million) they are required to provide under statute. It should be noted, the block grant of \$14 million provided by the State was flat from 1991 to 2013. Initially during the same period, Minnesota's recycling volumes increased 90 percent even though State funding stayed level. In addition, the buying power of that \$14 million, as measured by the national Consumer Price Index, declined over 43 percent or to \$8 million by 2013. So with the 2015 increase, in real dollars the counties are still operating at a deficit compared to 1991 funding. This flat investment by the State has in turn resulted in the tonnage of recyclables processed by the counties to also flatten.

2. **No manufactures responsibility**: a key failing in the Waste Management Act (WMA) is that 100 percent falls upon government versus any support from the manufacturers who are generating these products (excluding a few problem materials where manufacturers have been tasked by the State to become responsible for end-of-life of their products (i.e., lead acid batteries, etc.)

A desirable end point or goal for the county, and no doubt the State, should be a recycling industry without government subsidies. Need to develop a new mechanism to ensure there is enough profit in managing this material so government can get out of this and recycling efforts can be totally run by private industry. Currently many businesses enter and exit a specific recycling market to insure a profit margin. This indicates a position of fiscal responsibility by the business community. Recyclers tend to compete for items having a high market price and ignore items whose volume, cost of preparation, and price makes them less attractive. The following risks are associated with the loss of profitable materials to the recycling market: the county can be left with the remaining less valuable products in county-sponsored programs and increased operating costs. Recyclable materials are usually considered property, not waste, under law. Thus, the ability to legally control recyclables at the county level is restrictive. When the markets are strong, a county will see significant quantities of valuable materials diverted from the normal county-sponsored recycling programs. A county cannot interfere with these activities since recyclables are considered property and are generally exempt from municipal solid waste regulations.

Under the existing system, a county-sponsored recycling programs will never have a level playing field. The county must provide financial incentives for these programs when markets are weak and face stiff competition for products when the prices are firm. With today's mandated programs, the natural market mechanisms of supply and demand no longer work. The market was not generated by the private sector. Bottom line is that mandated recycling will not be self-sustaining, and needs to be considered a service - like water, sewer, police and fire protection. Funding a program currently from revenue raised by selling recyclables is not possible, and a service fee through local property tax and State grants will be required to pay for recycling programs into the foreseeable future. With past and future budget shortfall at both the State and county level will lead to additional negative recycling reassessments at the local level. The reality is that recycling competes for taxpayers dollars which is finite.

3. **Recycling as a service**; a key issue is the reality of limited resources. There is rarely enough funding to pay for everything a county would like to have or do. Thus, a decision to start up a new program or expand an existing service has the ripple effect of reducing resources available for all the other programs a county residents want or need.

Perhaps most important is the fact that financial health is at the core of providing a good public service. Both the State and county's recognize it is not practical to rely mainly on county's revenue sources (property tax and service charges) to fund an integrated solid waste system that implements the WMA hierarchy.

Another problem is that the benefits of recycling accrue globally while the costs are borne locally. Recycling is a resource conservation issue, not a public health issue. As a service, it is difficult to compete against immediate local public health issues, road issue, etc.

4. **Market development**; Recycling consists of three different activities:

- Collection of the recyclable materials;
- Preparing those materials for market; and
- Conversion of these materials by manufacturers into new products.

The greatest problem facing recycling is not the ability to collect the materials. It is the ability of the markets to absorb the quantity of materials being collected and convert it into inexpensive, new products. Market development is the responsibility of the State (§115A.48 subd. 1), and a key factor that will affect the county's recycling program is the State's effort toward market development. It should be noted that the largest negative impact on a county recycling program has been the lack of expanding recycling markets, and a stabilized price paid for the materials collected. Providing increased economic incentive for collection activities without simultaneous market development will exacerbate the situation and ultimately end in failure.

County programs can increase the recycling rate but the question is, "Can it be done at a reasonable cost?" Initially, recycling programs were sold on the basis that markets would be developed for recyclable material and market revenue would eventually pay for the programs. Market development has not progressed to a point where the materials can fully support these programs - and it is questionable if this would ever be reached. In Greater Minnesota, another large cost component is shipping - moving the materials to the market. Currently the recycling industry is experiencing a paradigm shift; overall value of the incoming recycling stream is decreasing. The industry is seeing some of the higher value material being lightweighted out of the recycling stream, and that is impacting the overall value of the recycling stream.

Recycling's fatal paradox is that increased demand for recyclables does not necessarily equal higher prices for recyclables. Manufacturers do not want to pay top dollar for their raw materials. Many times the low price's manufacturer's pay for recyclables is the key to their profitability.

Increased education, public advertising, and increased hours of operation can increase overall participation. However, a point will be reached when recycling practices mature and costs associated with increasing yields exceed the benefits. The recycling rate will become flat because it will reach an inevitable plateau. There is some room to improve the existing county system, but there is a limit. Any significant gains in recycling will come from either development of markets for materials presently being thrown away or development of cheaper ways to recycle. After all, waste is waste - materials for, which there is no longer sufficient economic value to be rescued from disposal.

Page 4, 2nd paragraph – “lost opportunity” issue. Is this really “lost” or just not cost effective to go after? As mentioned above, is this just highlighting the fact this material lacks sufficient economic value to go after. The last sentence of this paragraph has not gone through a cost/benefit evaluation. This is an option versus a fact, and should be stated that way.

Page 5, 1st paragraph – “Resource recovery capacity continues to be under-utilized in the region.” There is no mention of Hennepin County’s recent efforts to maximize their WTE permit so their facility could operate at design capacity versus permit capacity. After years of expended considerable resources of both; staff time and funding (primarily local dollars) and getting nowhere on the permit modification, they were forced to withdrawal their request.

Page 5, Last sentence;

“More needs to be done to ensure that the activities of the private sector and the public sector are aligned to reach state goals.”

This point to the fact the original SCORE Report is dated November 1988; it may be time to have a SCORE II. Need to get all the main players back together to update this report and maybe come up with new goals based to current priorities and issues.

Part two: Framework for change

Again, will stress the framework for change should be through an update to the Nov 1988 SCORE Report. Need all the main players to come up with goals and policies versus just a state agency – MPCA. The original SCORE Report was an excellent starting point that got the programs started, but over 25 years have passed and it is time for the main players to reassess and reevaluate on where they want this program to go.

Page 8, Goals and policies

115A.02 LEGISLATIVE DECLARATION OF POLICY; PURPOSES.

(a) It is the goal of this chapter to protect the state's land, air, water, and other natural resources and the public health by improving waste management in the state to serve the following purposes:

- (1) reduction in the amount and toxicity of waste generated;
- (2) separation and recovery of materials and energy from waste;
- (3) reduction in indiscriminate dependence on disposal of waste;
- (4) coordination of solid waste management among political subdivisions; and
- (5) orderly and deliberate development and financial security of waste facilities including disposal facilities.

(b) The waste management goal of the state is to foster an integrated waste management system in a manner appropriate to the characteristics of the waste stream and thereby protect the state's land, air, water, and other natural resources and the public health.

Page 8, Goal 1

Policy 1

The #1 goal per 115A.02 is the reduction in the amount and toxicity of the waste generated and very little is mentioned here for this. There is nothing here on MPCA being held accountable on ensuring all the existing problems material currently identified in statute are being properly managed. How successful are these programs on diverting this material from existing waste disposal systems to their own properly managed waste stream?

It is critical that MPCA accomplish a data evaluation on the environmental monitoring that has been occurring for the last twenty (20) years for all the existing solid waste facilities (landfills, incinerators, and compost) on what is the problem VOC's and metals that are showing up in the leachate, flu gases, or in the compost. This evaluation, should then identify what items/products in the waste stream that is causing the contamination of concern. This will provide a direct correlation of these products and their impacts to our solid waste infrastructure. Product stewardship is one avenue to directly highlight these products. Also, part of this can be evaluating the effectiveness of the HHW, VSQG, MDA pesticide program, etc on keeping toxic material out of these facilities. A current issue is that MPCA doesn't take any actions once a toxicity is identified to remove it from the waste stream. An example of this is PFC's. MPCA identified this was a major issue and has forced all the landfills to test for this compound. Once

found, MPCA has taken no actions on banning or reducing this compound from the waste stream. At an action level of parts per trillion, it is impossible for landfills to manage it and keep it out of a landfill.

Policy 2

This should go further and not only strengthen but ensure the recycling market covers all the expense of getting this material to market. Goes back to the issue identified above. Modify this to include - Desirable end point or goal would be a recycling industry without government subsidies.

Policy 3

Should identify that organic recovery should occur within the county where the material is generated. Largest issue being the conservation of energy in transporting and greenhouse gas.

Policy 4

As identified above, there is no mention of Hennepin County's recent efforts to maximize their WTE permit. The issue that needs to be highlighted is the blood bath Hennepin went through in their efforts to get the HERC from permitted to design capacity. They have Reps and Senator fighting them on this, even though it is state policy of what the State wants!

Another issue, even if Hennepin does manage to get this changed, to date they have invested about 2 years and over \$300,000 and it is still not over. During these economic times, Counties can no longer spend these amounts to do something that the State has already stated it is within State policy. This should have been state funds, not county funds spend on this issue. This Plan should identify that the next effort to expand their permit will be fully funded by the MPCA. Maybe when MPCA has to pay for it; they will finally streamline the permitting process.

Policy 5

As identified in the WMA - (5) orderly and deliberate development and **financial security** of waste facilities **including disposal facilities**. Plus on the page 9 – “This goal is about balance: to maintain a sustainable system of managing waste; to keep costs of our solid waste system affordable; and to recognize the market is an important driver in waste management decisions.” Point being it is better to have a program that is affordable that addresses most of the issues versus having a program that addresses all but is too expensive to be build or not put into operations or an existing facility that is forced to close. Something is always better than nothing.

This is an issue the counties are currently having with the MPCA concerning demolition landfills. In some cases it is better to have a facility that does not meet all standards versus having a cost prohibitive one to replace it that no one uses.

Policy 6

Should expand and say State support will be an increase in State funding through the SWMT to ensure the existing system remains strong. For our county HHW program, the county was shouldering 90 percent of the cost with the state grant only covering 10 percent.

Goal 2

Accountable to meet a goal. Are we talking about using accountability to enforce an unfunded mandate? How is the state going to hold itself accountable when historically it has never fully funded the solid waste program? Too often in the past when state funding failed, the state agency still held the counties accountable to meet these goals. Tired of just the counties holding up this program and then have the state finding more goals expanding the unfunded mandates.

Policy 7

Through a stakeholders effort a Demolition Guidance was written to act as a bridge till rules can be made. Now MPCA is avoiding the rule process and is going after each individual permit as it comes due.

Should modify this goal to state – “MPCA along with the stakeholder will utilize the information gathered since the implementation of the Demolition Guidance Document to come up with propose new rules for demolition and industrial landfills.”

Policy 8

Do not disagree with the State looking at promoting all cities must provide organized collection. What is the enforcement and/or compliance with 115A.941 (cities of 1,000 shall ensure solid waste collection)? More of a bottom upward movement versus a top down movement. This has many benefits, under this concept cities can address yard waste, curbside collection, bulky items, and other solid waste issues (i.e., flow control) in conjunction with the county solid waste management plan. Majority of the waste generated is in an urban environment, if we can control this we have made a significant impact on solid waste. This has to be addressed at the State level, for many counties will not mandate anything to other local government entities.

Have no issues with the benefits of organized collection, but what needs to be addressed here is how difficult the current law is to get this done. A very painful process that since the Solid Waste Act was passed it has been used very rarely! That sends a very loud message that if the Agency is going to promote organized collection as a solution then it also needs to address the pitfalls in using the existing legal structure that is in place. Another issue, if both the State and counties are experiencing lack of personnel so are the cities. Implementing organized collection is a huge fiscal and manning requirement at a time these cities are also facing other crises. State need to come up with some way to reward cities that do go organized collection to make worth doing it.

Plus the fact, almost every session, the Legislature is gaining ground to pass a “reverse condemnation” bill.

Policy 10

Biggest player missing here is each individual on the residential side. They are the ones that actually throw things away or do not take the time to separate the items. Cannot hold a hauler or city accountable for their actions. Questions should be - How do you reward individuals to participate and utilize the existing and proposed programs? Volunteer only works so far; money ensures more and better compliance.

Policy 12

The Minnesota Electronics Recycling Act, a product stewardship approach, the majority of counties would define this Act as just another unfunded mandate (“ban without a plan”) by the State. The history of these efforts in the State has always ended up costing the counties money. What the Agency needs to remember is that in Greater Minnesota the solid waste disposal system is owned primarily by counties. Due the economics of scale, there is not enough profits for business to establish waste disposal facilities, so most landfills, transfer stations and WTE in Greater Minnesota are owned by counties. So when things are banned either the county has to address them at these facilities or by illegal dumping. Plus the fact, how many manufactures are located in Greater Minnesota to take back any aspect of the solid waste stream? So in many cases, it just gets dumped back on the county system to address and manage.

After our recent experience with the Legislature to modify the existing Minnesota Electronics Recycling Act strengthens the fact of having a SCORE II effort. Need the lawmakers to commit their support to this concept. As of now, there is little to no support of product stewardship in either the Senate or House, so why pursue this initiative?

Goal 3

“This goal is about balance; to maintain a sustainable system of managing waste; to keep costs of our solid waste system affordable; and to recognize the market is an important driver in waste management decisions.”

This should have been stated as one or the primary goals versus being buried here. As such, many of the suggested new initiatives fail to meet this.

May also need to expand on this. MPCA compliance division in the recent years have lost their direction and have gotten lost due to looking to closely at the trees and lost their vision of the forest. It is too much of this – I got you attitude. Especially in the more rural areas. Just having any type of solid waste program is a significant challenge. It doesn’t help being hit with a bunch of minor compliance issues that then may force the program to close. It is a fine line, but we need to error on the side of having a program versus not. Of course speaking of red tape issues

versus safety issues To many benefits on have any type of program even if it has minor issue versus no program. The old 80/20 rule. 80 percent is much better than zero.

Policy 15

Again, per the WMA “(1) reduction in the amount and toxicity of waste generated;” A significant factor in future liability will be related to the waste being disposed at these facilities. As shown in the closed landfill program, the toxicity of the waste placed in a facility relates directly with the groundwater issues each site is now observing Through both Federal RCRA and the State WMA much of this potential liability will be due to the failure of both ensuring minimal or no toxicity even reaching these facilities. Be nice to know the cost of the government failing to accomplish their duties. We have already seen MPCA fail to take proactive actions in addressing PFC’s. All they are doing are initiatives that are reactive – testing to see the extent of it. No proactive initiatives to prevent it from even entering the waste stream has been taken. So any PFC’s entering any disposal facility now is due to the failure of MPCA and not that facility.

If we already know what areas are potential liabilities; why are we not taking action now to minimize them? For example, maybe the State should be promoting leachate recirculation as a method to reduce these future cost and potential liability. With an active gas system this address the gas generation issues. We have been seeing our leachate quality improving. Rather see a proactive approach versus a reactive one. MPCA is not currently set up to address proactive initiatives. Now it is a very long, expensive and frustrating to propose doing something different.

Policy 17

“. . . including minimizing risk and managing for long-term care of disposal facilities.” See my comments on Policy 15 above.

PART Three: Metropolitan System Plan 2016 – 2036

Page 10,

“4. Establish a ceiling on the amount of metro MMSW land disposal will be allowed to occur.”

Where does this authority, statue cite or rule cite, come from? Granted the WMA outline “goals” but as MPCA has told us on numerous occasions’ - goals are not enforceable.

Page 11, Figure 4.

Is the purpose of this Plan to use the “worst case scenario”? Question that the economy has recovered to the point to generate garbage as shown.

Page 12, Sustainable Materials Management.

Previous comments about accomplish a SCORE II. Not questioning this concept, but this is a major change from what was envisioned in SCORE. Just time for all the major players to meet again to either confirm, modify or completely change the direction on where solid waste should go into the future. It now appears MPCA is trying to do this by internal policy versus through the stakeholders.

How does this tie into the existing goals? For example new technologies. What is not mentioned is how the Agency going to address this? Will they allow it to be counted as recycling? For example plastics. A huge cost for plastic recycling is transportation – shipping mostly air. If plants that can make plastic into fuel are perfected and can be sized to deal with the volume a county or a region of counties generate, this would be a great market for our plastics and even increasing our promotion of getting more plastic into our recycling system. Will address the plastic issue, but unless it is counted as “recycling” it has a negative effect on meeting the recycling goal.

Are we getting too fixated on a minor goal that may not matter in reaching the ultimate goal?

Page 15, Table 1a.

Has the issue of reduced revenues been addressed? Showing landfilling going from 23% down to 1% by 2020. Plus WTE going from 28% to 24% by 2030. The SCORE tax was modified in 1996 to become the SWMT under §297H. The tax rate for municipal solid waste collection is 9.75 percent for residential customers and 17 percent for commercial customers. SCORE related actives are not taxed under SWMT

SWMT has a dependency on landfill and WTE tipping fee for its revenues. These revenues then in-turn support Solid Waste/SCORE programs. As such, it puts all the other SCORE related programs in direct competition with their source of funding. When all aspects of an integrated solid waste program are incorporated into a single tax, it allows little flexibility for change. As demand increases for additional funds the source of those funds will be decreasing.

Page 34, Past and present systems

Under current, third bullet;

“. . . believed to be lower risk, but we have increasing evidence that demolition debris and industrial waste also carry environmental risk.”

First issue, MPCA has not shared this “increasing evidence” or addressed this issue as part of their Solid Waste Policy Report. The “evidence” that has been shared has not gone through a vetting or validation process. As of now this is opinion not fact.

Second, reason they were less restrictive was not that they had no environmental risk but as stated ‘lower risk’! Now if anything is found it just may confirm it does have lower risk and the current rules are adequate in addressing them. Current rules WAS NOT based on zero environmental risk but on a lower risk level. Which appears to have been a correct assumption.

Overall, the MPCA need to verify and provide an in-depth report on this before stating opinions. A plan should be based on fact not innuendos.

The rest is best left to the metro countries for it is their tasking. They can best comment on what they can or cannot do.

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From: Kristopher Wilson <kristopher@edinaarbageman.com>
Sent: Tuesday, August 30, 2016 7:09 PM
To: Sandhei, Peder (MPCA)
Subject: RE: Metropolitan Solid Waste Policy Plan Public Notice

My only real comment is that the plan does absolutely nothing (unless I am just missing something) to address the difference between SSCM and yard waste which you lump together as "organics" or "compostable." While lumping them together surely makes reasonable sense to me (and to other haulers), the MPCA stands in the way of this being the case as to date there is only ONE facility within the Emerald Ash Borer quarantine zone that can even take co-mingled yard waste and food waste together due to MPCA's unreasonable standards and permitting process.

How EXACTLY is it "green" to increase carbon footprint by running a completely separate truck/route to collect a small amount of food waste per household in order to handle it separately from MSW and yardwaste? On a commercial level, yes, the volume is there when you have restaurants and workplace cafeterias that generate substantial amounts of food waste and little to no yard waste. On a residential level, the failure of MPCA to make set a reasonable standard and issue permits to processing facilities means that haulers are required to increase costs and environmental impact by 30 - 50%, by having to either run a separate route or truck co-mingled yard waste over much longer distances. This makes it a pointless goal to drive more food waste out of the residential MSW stream. Worse still, this combination of lack of MPCA permitted facilities alongside MPCA championed county mandates effectively encourages haulers or facilities to flout waste site regulations and/or DNR quarantines.

Your overview plan gives you guys a nice pat on the back for accomplishing "separating" "organics" from MSW up to this point... but that stance is only relevant from an historically land-fill centric perspective. Where does your plan account for the negative environmental impact from the increased hauling traffic? Are you working from the assumption that if it takes two trucks to haul 40 tonnes of combined yardwaste, and SSCM that logically you are adding no additional traffic to separate these three commodities into three separate trucks? Well, that's fine, IF in the real world, the loads divided so neatly, but this completely ignores seasonal and even monthly variations in volumes. Furthermore, that math still would not account for route miles traveled per truck, or that there would even be enough hours in the day for each truck to touch twice as many household stops!

Basically, you guys need to stop discriminating against plants by "source." Why is a house plant or a Christmas tree "ornamental" and OK to process as MSW because it "comes" from a house? Why is a bunch of fruit tree fruit or an over-abundance of back yard garden zucchini "yardwaste" but if they go through a distribution chain it's now "sscm?"

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FURTHERMORE: where in your plan is there any mention of trying to get people to STOP generating so much "organic" waste to begin with? Do people REALLY need to mow and bag their grass and throw out 40-80 pounds of "pre-manure" fertilizer every week or two? And if we were to somehow educate and reduce the amount of "organics" thrown out every year by just changing their yard habits, would that ruin your percentages and make your charts look bad?

Look, if I am TOTALLY missing these points in the document, please highlight to me where they are because I don't see them anywhere.

Feel free to call me at 612. 804. 7646 to discuss.

KW

From: Sandhei, Peder (MPCA) [mailto:peder.sandhei@state.mn.us]
Sent: Tuesday, August 30, 2016 10:32 AM
Subject: FW: Metropolitan Solid Waste Policy Plan Public Notice

Hi All,

Thank you to those of you who attended the two public meetings in August. This is a quick reminder that comments on the draft policy plan must be received no later than 4:30 pm on September 16, 2016.

For more information, to request a paper copy of the draft policy plan, or to submit comments on the proposed policy plan revisions, contact Johanna Kertesz. A draft version of the policy plan was placed on public notice on July 11, 2016. A copy of the draft is available at <https://www.pca.state.mn.us/public-notices> (search for notices from July 11, 2016). The direct link to the draft is <https://www.pca.state.mn.us/sites/default/files/w-sw7-21a.pdf>.
Thanks,
Metro Policy Plan Team

Peder Sandhei
Principal Planner
Minnesota Pollution Control Agency
520 Lafayette Road
St. Paul, MN 55155
651-757-2688

From: Sandhei, Peder (MPCA)
Sent: Monday, July 11, 2016 8:57 AM
Subject: Metropolitan Solid Waste Policy Plan Public Notice

You are receiving this e-mail because you have expressed interest in receiving notices or updates about the Metropolitan Solid Waste Policy Plan. A draft version of the policy plan was placed on public notice on July 11, 2016. A copy of the draft is available at <https://www.pca.state.mn.us/public-notices> (search for notices

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from July 11, 2016). The direct link to the draft is <https://www.pca.state.mn.us/sites/default/files/w-sw7-21a.pdf>. The MPCA is hosting two public meetings to discuss the draft policy plan. Dates, times, and locations are listed below.

* Wednesday, August 10, 2016
1:30 – 3:30 pm
Minnesota Pollution Control Agency (520 Lafayette Road, Saint Paul, MN 55155)
RSVP requested to Johanna Kertesz (johanna.kertesz@state.mn.us or 651-757-2489)

* Thursday, August 11, 2016
5:00 – 7:00 pm
Minneapolis Urban League (2100 Plymouth Avenue North, Minneapolis, MN 55411)
RSVP not necessary
The purpose of the meetings is to present information and collect feedback on the proposed policy plan revisions. Comments on the draft policy plan must be received no later than 4:30 pm on September 16, 2016.
For more information, to request a paper copy of the draft policy plan, or to submit comments on the proposed policy plan revisions, contact Johanna Kertesz.

* johanna.kertesz@state.mn.us (preferred) or
* Johanna Kertesz
Minnesota Pollution Control Agency
520 Lafayette Road North
St. Paul, MN 55155-4100
651-757-2489 or 1-800-657-3864

Peder Sandhei
Principal Planner
Minnesota Pollution Control Agency
520 Lafayette Road
St. Paul, MN 55155
651-757-2688



Our mission is to reduce waste today through innovative resource management and to reach a waste-free tomorrow by demonstrating that waste is preventable, not inevitable.

September 16, 2016

Minnesota Pollution Control Agency
Attn: Johanna Kertesz
520 Lafayette Road N Saint Paul, MN 55155

Dear Ms. Kertesz,

Thank you for the opportunity to comment on the 2016 Metropolitan Solid Waste Management Policy Plan. Eureka Recycling has served the Twin Cities community for over 15 years as a nonprofit social enterprise and is currently Minnesota's only zero waste organization. Zero waste has been shown to be one of the fastest, least expensive, and most impactful strategies available for combating climate change. Focused on changing systems that perpetuate waste, Eureka's programs and demonstrations highlight Zero Waste as a strategy that addresses climate change, local economic development, and justice. The organization's services, programs, and policy work present solutions to the social, environmental, economic, and health problems caused by wasting.

We agree that a 75% recovery goal is an achievable goal and that the efforts should be made to focus on the top of the hierarchy (reuse and reduction) as we achieve this goal. We support many of the efforts outlined in this document aimed at increasing access to recycling and composting collection for all residents and businesses and maximizing the amount of materials collected to capture the remaining recyclable and compostable portions of the waste stream.

We believe that 25% waste is not inevitable and that we can completely eliminate waste going to WTE or landfills. We can accomplish this goal by using a Sustainable Materials Management approach that utilizes a Zero Waste Framework instead of an Integrated Solid Waste framework that continues to focus investments on diverting material between the bottom of the hierarchy (from landfills to WTE). Once we reach a 75% diversion rate, reducing the remaining 25% waste through redesign and rethinking our consumption habits along with extended producer policy and regulations is a feasible and cost effective alternative to disposal.

We support your positions for no new investments in WTE capacity. Further investment in WTE resource recovery that focuses on moving material from landfills to burners doesn't accomplish our 75% reduction goals. Increasing WTE capacity in any form or subsidies that make it more competitive with landfilling reduces financial incentives for reduction. To allow further reductions towards zero in future waste plans, any investments in maintaining existing WTE capacity through maintenance and facility improvements should not assume continued waste levels beyond the current plan as part of the return on investment.

As part of this plan, we believe you could strengthen your belief that there is existing capacity at current WTE facilities to handle all projected "true garbage" by also putting a ceiling on the current capacity at Waste to Energy (WTE) facilities as you have proposed for

landfills. Burning waste emits carbon dioxide (CO₂) and nitrous oxide (N₂O.) In fact, incinerators produce more carbon dioxide (CO₂) per unit of electricity than coal-fired power plants. The average trash incinerator in the U.S. directly emits an average of 2.5 tons of carbon dioxide per MWh and 2.8 tons of nitrous oxide per MWh—both greenhouse gases that contribute to global warming.

Environmental Justice needs to be more strongly defined as a goal with actionable items that not only prevent further injustices but also begin to acknowledge and remove the existing sources of damage. We can't look at the overall impact to a region without addressing the negative disproportional impact that some disposal methods have on specific communities. For example, the impact of particulate matter pollution in relation to WTE and the impact on respiratory disease rates in communities located near WTE facilities should be looked at in addition to other indicators such as carbon.

The use of Sustainable Materials Management can be a powerful tool, as you've outlined in this report. There are several points that we would like to highlight related to the use of SMM.

- Life Cycle analysis can be hard to come to agreement on because the size of the circle drawn around/scope of any lifecycle measurement tool can change how a product or materials is ranked in terms of sustainable materials management. Representation of interests needs to be fairly allotted.
- When looking to target specific materials with SMM, there needs to be an understanding of the specific metrics that material represents within a classification (such as single stream recycling). For instance, while a facility residual rate may be 5-10%, the capture rate for a specific item may be only 60-80% in that facility. You can't assume the average applies to all materials. Also, the addition or removal of the material may drastically change the averages used for the overall stream.
- We believe that you can develop metrics that factor in social impact as part of SMM. These might include social factors such as: jobs created, living wage jobs versus use of temporary employees, local jobs versus out of state jobs, employee benefits such as paid time off and insurance, and human health factors such as disease.. These are numbers that are often sited around recycling but rarely documented and used in evaluation or measurement.
- SMM should look beyond the environmental indicator of Carbon and look at other pollutant indicators that have both environmental and social impact. There is work to date by groups such as Sound Resource Management that have developed methodologies that look at a more diverse range of impacts and connects a dollar value for damage to society of such impacts. These include
 - Sulfur Dioxide as related to Acidification
 - Nitrogen as related to Eutrophication
 - Particulate Matter 2.5 as related to Respiratory Disease
 - Toluene as related to Non- Cancer diseases
 - Benzene as related to Cancers
 - 2,4 D as related to Ecotoxicity
- Policies must be put in place to internalize the social and environmental costs identified through SMM and level the playing field to allow key stakeholders to invest in these actions. This could be done for instance, through contract requirements in the RFP process.

- Eureka Recycling strongly recommends a precautionary principle approach to risk management which assures that if an action or policy has a suspected risk of causing harm to the public or to the environment, in the absence of scientific consensus that the action or policy is not harmful, the burden of proof that it is not harmful falls on those taking the action or creating the policy.

As part of the need for increased measurement and baseline data, we need to include closer monitoring of residual rates within MRFs as well as residual rates from end market users of recycled commodities. Understanding the composition and volumes of materials (potentially recyclable) that go to the wrong markets and end up as waste will be an important indicator of the success of MRF efficiency improvements.

Focus on reuse has to incentivize higher quality manufacturing that is conducive to reuse and repair. For instance, the trend towards fast fashion and inexpensive clothing has greatly impacted the textile recycling market since it is much more expensive to sort out useable clothing at this point.

If accountability efforts are ineffective in reaching the goals, there are many demonstrated ways that EPR can be effectively legislated. Bottle bills have been proven highly effective in drastically increasing recovery rates of bottles and can be structured to support the current investments and capacity in MRFs. These could be strategies that are invoked if recycling rates are unable to increase to the levels outlined in the report.

Market development for compost needs to go further and encourage compost used to rebuild nutrient depleted soil and to grow food to maximize the benefit of compost. In addition, work should be done to increase the processing capacity for sites which produce compost that have the ability to go to local food uses.

The standardization of ordinances and messaging for recycling may help with the standard commodities. However, the plan should be clearer about where this helps and where it doesn't help – the generalization makes it a potential inhibitor of increased recycling through innovative programs or unique recycling opportunities.

Please let us know if you have any additional questions or would like to discuss further.

Thank you,



Alex Danovitch
Director Of Special Projects

Eureka Recycling

August 29, 2016

Mr. John Linc Stine
Commissioner, Minnesota Pollution Control Agency
520 Lafayette Road N.
St. Paul, MN 55155

Dear Commissioner Stine:

The Solid Waste Management Coordinating Board (SWMCB) is pleased to comment on the State's proposed Metropolitan Solid Waste Management Policy Plan 2016-2036 (Draft Plan). These comments are offered by the SWMCB member counties; individual counties may comment as well.

SWMCB Counties participated in and acknowledge that MPCA staff consulted with all seven counties in the Metropolitan Area while preparing this Draft Plan. During these consultations, county staff offered comments, concerns and suggested changes and improvements, but recognized that the Commissioner, pursuant to statute, is responsible for the contents of the final Plan, notwithstanding the counties' input. As such, the following comments are part of the ongoing conversations with MPCA and the six SWMCB member counties to offer input on the Draft Plan. The SWMCB's goal is for the Policy Plan to be structured in a way to maximize its usefulness and effectiveness in providing policy guidance to the region and to provide clarity to SWMCB and its individual county members in the development of county master plans.

Support for Product Stewardship and SMM

Before offering specific comments on sections of the Draft Plan, SWMCB wants to thank the MPCA for its focus on the importance of product stewardship. We appreciate our partnership for many years at the legislature to address product stewardship initiatives. We also acknowledge the MPCA's leadership with the addition of a sustainable materials management (SMM) initiative but need more clarity on the framework for SMM, and the call for more county resources, including staff, which may be needed to support the MPCA initiative. As you are aware, counties are dependent on MPCA resources to develop the guidance necessary to apply these principles to the programs counties operate.

Continued Support for Resource Management

SWMCB and its members continue to support resource management rather than waste management. We have consistently advocated for less focus on measuring tons and for more emphasis on the full spectrum of resource management offered when following the State's solid waste management hierarchy. Our ultimate goal is to measure activity based upon accomplishing an aggressive landfill diversion rate.

Commissioner Liz Workman
Chair
Dakota County

Commissioner Jan Callison
Vice Chair
Hennepin County

Commissioner Scott Schulte
Secretary/Treasurer
Anoka County

Commissioner Matt Look
Anoka County

Commissioner Jim Ische
Carver County

Commissioner Tom Workman
Carver County

Commissioner Chris Gerlach
Dakota County

Commissioner Peter McLaughlin
Hennepin County

Commissioner Janice Rettman
Ramsey County

Commissioner Victoria Reinhardt
Ramsey County

Commissioner Fran Miron
Washington County

Commissioner Gary Kriesel
Washington County

David Benke
Minnesota Pollution Control Agency



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St. Paul, Minnesota 55102



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Resource management, in conjunction with a landfill diversion rate, offers a strategy to successfully address the goals of Minnesota's Solid Waste Management Act (the Act) to protect the state's land, air, water and other natural resources and public health. SWMCB continues to work in a deliberate and orderly fashion to coordinate solid waste management regionally to realize the purposes of the Act through:

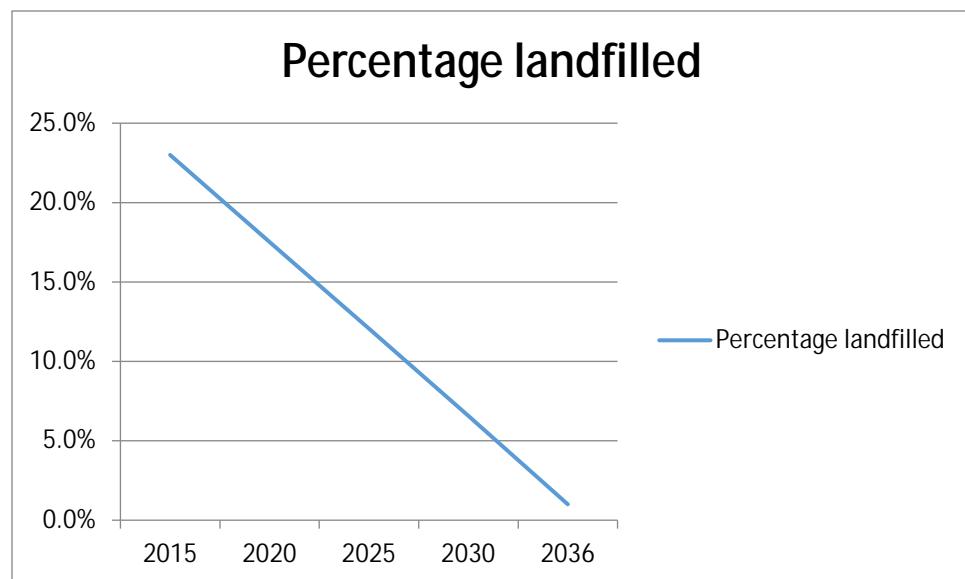
- 1) Reduction in the amount and toxicity of waste generated.
- 2) Separation and recovery of materials and energy from waste.
- 3) Reduction in indiscriminate dependence on disposal of waste.

SWMCB appreciates the Policy Plan's strategy to conduct waste composition studies at all disposal facilities in the same manner that is currently required for resource recovery facilities. This approach to measuring system performance has been a SWMCB policy position, and MPCA's support for that approach is welcomed.

Goal Setting Clarification Needed

SWMCB and its members seek a Policy Plan that will guide the development of the county six year master plans. To help guide the preparation of these master plans, and so that counties can design appropriate strategies, MPCA should set achievable system objectives for the next six years that lead to the longer term goals of the MPCA. First, we encourage the MPCA to review all data being used in the Draft Plan including appendices to address any internal inconsistencies. Second, table 1a provides MMSW Management System Objectives in Percentages with all solid waste management options reflecting a linear progression towards the goals in 2036 with the exception of landfilling. We believe a linear graph is appropriate to reflect the same progress for an aggressive landfill diversion rate, as follows.

Table 1a



Plan Structure

The Draft Plan includes Goals and Policies, as required by law, which have been modified from those in the current Policy Plan. These are important tools for counties to use in developing solid waste master plans, but a number of policies read more like strategies, and there are gaps. For example, there is no policy on performance measurement, yet measuring results is critical to making progress in the system and to accountability.

The Draft Plan also includes "priority strategies," which appear to be mandated approaches that stakeholders must implement. The current Policy Plan includes "Potential Strategies and Implementations Guide" in Table 3. This includes that statement that "the following strategies are meant to generate discussion and should not be viewed as mandatory or exhaustive. In addition, costs and how these strategies rank compared to other priorities have not been analyzed for all of these potential strategies." The Draft Plan includes 25 priority strategies, some being very specific, with a mandate that implies the list is exhaustive. This prescriptive approach would appear to preclude local initiative in seeking creative and more effective solutions. If the MPCA intends to consider these Priority Strategies as mandates, the SWMCB and counties believe that justification is needed for a number of them.

Roles and Responsibility Clarification Needed

SWMCB and its members need a Draft Plan that clearly states the various roles and responsibilities of each stakeholder to reach these goals and how MPCA will measure progress to achieving the goals, including consideration of incentives or rewards for progress achieved. The MPCA should identify who is responsible for certain activities, detail the criteria by which stakeholders' efforts will be measured as well as how specific stakeholders will be held accountable. SWMCB concurs that accountability is key, but unless there is substantive policy change, counties have limited tools to ensure the needed accountability of other stakeholders, and that is likely true of cities as well. State support is needed for legislative change to ensure the necessary accountability the MPCA seeks. Any such changes will need the support of all stakeholders.

For example, in the residential recycling section, a priority strategy in the Draft Plan decrees that by 2022 all residents must have organized curbside collection of organics even though earlier in the Draft Plan it is acknowledged that the best management practice for collection is yet to be determined. Each county's reality is that every municipality is unique and must select a recycling or organics collection system that works best for its residents. Five of the six SWMCB counties have significant areas of land mass that are rural in nature and curbside or organized collection may not be appropriate. Further, curbside collection does not take into account participation rates as a result of such collection. As a result, drop-off opportunities may be the appropriate management option for more rural settings that still exist in Anoka, Carver, Dakota, western Hennepin and Washington Counties. Contrary to Draft Plan assumptions, in at least one SWMCB county, open hauling systems offer the best recycling rates. Given these facts, SWMCB and its member counties are not in the position to mandate certain collection methods or deadlines without the support of municipalities.

Importantly, with all stakeholders (public and private) sharing the goal to increase recycling, it is critical to focus the next six years on tested strategies and activities that will have the greatest impact on recycling results so that both the private and public sectors can focus their resources. The Draft Plan should acknowledge the current strategies that are being implemented to improve recycling. For SWMCB counties working with businesses, this includes considerable investment in outreach and education and technical and financial support. Counties are collaborating with their business communities, building relationships and reinforcing increased reduction, reuse and recycling behaviors.

The MPCA has placed no regard on these current strategies where the public sector is partnering with private businesses for success. Counties, through SWMCB, continue to identify and share best management practices and utilize research results such as the SERA's 2013 Commercial Cost and Billing research. This research provided SWMCB with recommendations for increasing commercial recycling and included, among other recommendations, many resource based options. Counties need the opportunity to continue current activities without being mandated to implement specific activities without regard to effectiveness or cost or if such activity might jeopardize current business outreach and recycling efforts.

Best Management Practices to Achieve the 75 percent Recycling Goal:

Prior to commenting on individual best management practices, SWMCB encourages the MPCA to consider further and offer its guidance on the likelihood of reaching a 75 percent recycling goal. Using 2013 data from the recently adopted Policy Report and the 2015 data presented in the Draft Plan, as well as various counties' research on this issue, SWMCB calculates that a maximum diversion rate of no greater than 67 percent is possible but only if **all** organics and recyclables currently being landfilled are recycled.

Regional Solutions for Public Education:

SWMCB, as well as its individual member counties, has spent significant financial and staff resources on public education and outreach. The Draft Plan does not appear to acknowledge the sophistication with which county and SWMCB community engagement processes have been designed and implemented. Education is but one part of community engagement, and the Draft Plan underestimates the challenges associated with changing behaviors related to waste and resource management. Further, the Draft Plan essentially ignores the vastly diverse nature of the region's demographics, which counties have been working on for years.

SWMCB has developed various educational pieces with a research basis, in an effort to standardize messaging. Most recently, a Know What to Throw™ pamphlet was completed with Spanish and Somali versions also available. SWMCB has recently worked closely with regional haulers who serve multi-unit housing to identify additional needs and has prepared a pamphlet for property managers to assist in their recycling efforts. SWMCB agrees there are many 'voices' delivering overlapping messages in the region. This is inevitable in a public/private services environment. SWMCB agrees that standardized messaging within the context of a complex regional system can have value. Further, SWMCB will participate in any group focused on standardizing messaging but it needs to be emphasized that such work is extremely time intensive and requires professional assistance and large budgets to be effective.

SWMCB will continue to strategically work on select regional pieces in order not to duplicate individual counties' work in the same area where significant additional dollars are also being spent.

Building Codes

Regarding standardizing city codes for recycling containers, it is incumbent upon the state to lead a state building code effort first as all public entities must be consistent with state code requirements. Far from being a simple fix, the state building code must incorporate design complexities to address fire prevention and other elements before recycling containers can be standardized. Although it may be appropriate to make suggestions for city code changes, SWMCB's approach will be to continue to work with relevant stakeholders for design options. SWMCB is currently developing an important relationship with Minnesota's AIA community of architects to find a solution that provides options to cities when addressing garbage, recycling and organics management issues within their existing codes.

Ordinances

SWMCB has regional hauler license and reciprocity HHW agreements in place that are being used by all of its members. MPCA staff has finalized hauler reporting requirements so the only item left for the recommended standardized ordinances should be directed to Scott County specifically.

Source Reduction and Reuse:

Counties make program improvements based on evidence-based data and best practices information. For making budgetary and program decisions, SWMCB and member Counties require sufficient data. More data is needed on how each county funding the University of Minnesota's Materials Exchange program will significantly increase MSW waste reduction activities. Only after this is received and evaluated would a decision be made to financially support or promote the program. This strategy would appear to have equal weight to other strategies, yet the volume of waste managed through a materials exchange is typically measured in pounds, not tons. The system needs to move tens of thousands of tons of recyclables from MSW to market. Counties, like the MPCA, have limited resources, and this is an example of a strategy that should have cost justification.

Counties support the State's Sustainable Purchasing Program.

In their master plans, counties certainly will include at least two programs to address reuse objectives but do not want to be restricted to the list of three provided in the Draft Plan. This is an example of a prescriptive approach that could be interpreted to preclude better alternatives. If, however, the choices are limited to the three programs, please share the best management practice data on how these programs significantly increase MSW waste reduction activities.

Collection Best Practices

As stated above, each municipality is unique and must select a system that works best for its residents. SWMCB counties are not in the position to mandate deadlines on collection methods for various waste streams and do not concur with the MPCA's suggestion that licensing is an appropriate vehicle to achieve these goals.

Traditional Recycling Management

SWMCB welcomes the opportunity to participate with other stakeholders in a sustainable materials management analysis to help identify materials that are most impactful to the environment. However, if counties are expected to devote staff to this work, a better understanding of the framework for SMM and specific activities that the MPCA expects of counties are needed.

Regarding the individual counties' work with commercial recyclers, as mentioned earlier, this section of the Draft Plan that includes a priority strategy that counties are obligated to include in their master plans creates concern that the MPCA has placed no regard on current strategies where the public sector is partnering with private businesses for success. To ask the counties to act in a compliance role at any level is inconsistent with current county programming.

Continue Efforts on Compliance with Public Entities Law

SWMCB counties intend to continue their practice of advising the MPCA when one of its public entities is not complying with the public entities law. As in the past, it is critical for the MPCA to enforce the law. Until the MPCA does enforce, the counties' certification report approvals should not be tied to public entities' recycling efforts.

Organics Management

SWMCB and its members will continue to encourage moving organics higher on the hierarchy for donation and food to livestock. SWMCB is curious why the MPCA has not advocated for or adopted the U.S. EPA's food waste hierarchy.

SWMCB continues to advocate for a clear permitting path and timeline for alternative technologies to address organics and will continue to do its part in supporting the implementation of social marketing campaigns, organics diversion at public entities and in large private and public event venues, evaluating transfer station needs with the private sector and evaluating mixed waste processing for organics recovery.

Non-MMSW

SWMCB supports the MPCA taking the lead in addressing the definitional concerns related to Non MMSW as well as the misaligned tax incentives. SWMCB also believes it is important to focus more attention on non-MMSW and supports the MPCA performing capacity studies for reuse and recycling of not only demolition debris but also other industrial waste streams. To maximize recycling, comprehensive efforts need to occur by the private sector in the non-MMSW sector as well. SWMCB encourages the MPCA to take a leadership role that will result in increased investment by the private sector in following the waste hierarchy as it relates to the generation and management of non-MMSW.

SWMCB will cooperate with efforts led by the MPCA to develop more comprehensive measurement of industrial and construction and demolition waste streams and with its member counties, the SWMCB will participate on a Sustainable Materials Advisory Group, if developed.

Consistent with SWMCB's efforts to share best management practices, its member counties are studying Ramsey County's pre-demolition waste program for SWMCB-wide implementation.

Recycling Market Development

SWMCB has a strong policy position on market development and fully understands that success in achieving high recycling rates depends on consistently strong markets, preferably local. SWMCB supports the State and private sector's investment in market development. With the experience gained from China's entry and then exit from recyclable markets, Minnesota needs to support its local economy and jobs and minimize the environmental impacts of transportation while recognizing recyclables are like commodities and it remains a worldwide marketplace. Due to the similarities with economics of all commodity markets, the private sector and DEED, as well as other non-waste professionals, are critical to market evaluations and development efforts. Thus, having the MPCA or counties lead this effort may not be the best approach. SWMCB is most interested in more traditional recyclables, given its predominantly urban setting, and not those listed specifically by the MPCA as film, boat wrap, and agricultural plastics. SWMCB looks forward to other stakeholders' comments to this section, particularly those operating recycling MRFs and compost facilities, who deal regularly with the marketplace.

SWMCB encourages the MPCA to explore innovative financing options and partnerships particularly within the energy sector. The St. Paul Port Authority with its Trillion BTU program and the Metropolitan Council Environmental Services financing lease concept merit further examination by the MPCA to expand financing infrastructure for the solid waste sector.

Emerging Technologies

SWMCB recommends the MPCA review other states' regulatory frameworks for new technologies rather than spend resources and time recreating the same work that other states have done to advance technology solutions for organics and other solid waste management opportunities. An example is anaerobic digestion where California has studied the technology in depth and permitted facilities. Consulting regulatory colleagues elsewhere is an efficient and cost effective approach to moving the State back into the lead as a state of the art setting for new technology advances. MPCA's approach is unnecessarily cautious, and is a strong argument for the status quo, rather than welcoming new technologies and businesses to Minnesota.

Product Stewardship

As stated earlier, SWMCB will continue to partner with the MPCA on product stewardship initiatives. Sustainable Materials Management evaluations could be useful for prioritizing products for product stewardship efforts. MPCA has requested data on the collection of certain items. To the extent they are collected by county programs, this data is available but county data will not necessarily include private or non-profit collection data. SWMCB will work with MPCA to evaluate the best way to support product stewardship efforts which may be reinstating SWMCB's product stewardship committee.

Environmental Justice Review

The SWMCB appreciates that the MPCA has attempted to address environmental justice as it relates to the draft Plan. The analysis is weak in that it focuses on only two factors, race and income, and ignores other variables that affect social vulnerability, such as language, education, and housing. Further, the analysis focuses on existing facilities, which are already permitted by the MPCA. The analysis does not analyze the impact of new systems being implemented. What, for example, is the impact on populations of concern by adding new services and new system?

Master Plan Standards and Procedures

Page D-13 and D-14 include the standards to be used by the MPCA in reviewing county master plans. It appears that several criteria have been added by the MPCA that have not been present in the past, specifically related to the role of the private sector in providing services. The MPCA has developed new standards for county oversight of the private sector, outlined on page D-14, which are far reaching and represent a significant change in county roles. It does not appear that this is justified, and SWMCB would like the MPCA to justify this level of regulation.

Implementing the Plan

SWMCB suggests that the MPCA add into its list of initiatives the following:

- Reviewing technologies utilizing research and permitting decisions of colleagues around the nation in order to reinstate Minnesota once again in the forefront of solid waste management;
- Taking the lead for state agency support for compost use;
- Providing more focus and staff time on Non-MSW and clarifying definitions and preferred management options consistent with the hierarchy; and
- Evaluating capacity for organics management.

These additions would also contribute to restoring accountability to our state's waste management systems as would MPCA's continued regulation of facilities and activities.

Once again, thank you for the opportunity to comment and we look forward to the MPCA incorporating these comments into the final Policy Plan or otherwise responding.

Sincerely.



Commissioner Liz Workman
SWMCB Chair
Dakota County Commissioner
1590 Highway 55
Hastings, MN 55033-2343

Cc: SWMCB



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September 16, 2016

Sent via email to
Johanna.Kertesz@state.mn.us

Johanna Kertesz
Minnesota Pollution Control Agency
520 Lafayette Road North
Saint Paul, MN 55155

Dear Johanna:

RE: Draft Metropolitan Area Solid Waste Management Policy Plan Comments

Thank you for the opportunity to comment on MPCA's draft Metropolitan Area Solid Waste Management Policy Plan for the years 2016 – 2036 ("Policy Plan"). Our comments are primarily technical in nature suggesting MPCA has the opportunity with the Policy Plan to elevate the research and development of recycling measurement to the next generation of industry standards. Based on almost 40 years of experience in the recycling industry, we believe our recommendations for improvements to the Policy Plan will be non-controversial and benefit all stakeholders.

The Metro Area recycling goal of 75 percent by 2030 will be extremely challenging to attain. Further refinements of standard means of defining and measuring commodity-specific "capture rates" will help significantly enhance strategic planning to improve recycling program performance.

This point is already included as part of MPCA's 2015 statewide Solid Waste Report (January 2016). The return on investment in attaining higher recycling rates will be much greater if public agencies focus more on the high value, high volume recyclables remaining in the waste stream. For example, the Foth consultant team just completed a waste composition analysis for Hennepin County measuring the amount of recyclables remaining in the Minneapolis residential waste as disposed.

This Hennepin County study indicates the following commodity-specific capture rates as a percent of the total amount of each material as generated in the residential sector:

- ◆ Newspaper =91 percent
- ◆ Tin = 58 percent
- ◆ HDPE = 55 percent
- ◆ PET = 51 percent
- ◆ Old corrugated cardboard (OCC) = 49 percent
- ◆ Aluminum = 41 percent

Johanna Kertesz
Minnesota Pollution Control Agency
September 16, 2016
Page 2

Please note that these are example capture rates particular to the methods and protocols of this Hennepin County study.

Each of these materials listed have relatively diverse end markets and ample processing capacity exists in the Twin Cities Metro Area. Therefore, recycling rates (as a percent of total solid waste) can be improved if commodities such as OCC, aluminum, PET and HDPE are recovered at increasingly higher capture rates. MPCA should consider setting capture rate goals by commodity in addition to the traditional recycling rates.

The data cited above is specific to the residential sector which is estimated to generate about 45 percent of the total recyclables available. Similar capture rate studies for the commercial sector would help inform future decisions about both public and private investments in increased recycling rates. MPCA should consider funding a pilot waste composition project with the objectives of not only measuring residential and commercial recyclables capture rates by commodity, but also developing standard definitions and analytical protocols that can be readily repeated by other Minnesota communities and in future waste composition studies. We hope that Metro Area counties may be interested in partnering in such a pilot project.

Thank you for the opportunity to comment.

Sincerely,

Foth Infrastructure & Environment, LLC



Dan Krivit
Senior Project Manager

Cc: Susan Young, Foth



10700 165th Avenue NW,
Elk River, Minnesota 55330
763-441-3800
greatriverenergy.com

August 31, 2016

Johanna Kertesz
MPCA
520 Lafayette Road N
St. Paul, MN 55155-4194

Re: Metropolitan Solid Waste Management Policy Plan

Dear Ms. Kertesz:

Great River Energy (GRE) appreciates the opportunity to provide comments on the Metropolitan Solid Waste Management Policy Plan 2016-2036 (Draft Plan). GRE is a not-for-profit electricity provider owned by our 28 distribution cooperatives in Minnesota and Wisconsin for which we generate and transmit electricity. We provide wholesale electric service to our member owners who distribute electricity to approximately 660,000 member consumers - or about 1.7 million people.

GRE owns and operates the Elk River Resource Recovery Project which is currently operated to process 320,000 tons of mixed municipal solid waste (MMSW) into a clean, renewable fuel that will provide electricity to as many as 25,000 homes and small businesses. During the waste processing we also separate 12,800 tons or 25,600,000 pounds of ferrous and nonferrous metal for recycling each and every year. The facilities Solid Waste Management Facility Permit (SW-305) allows the facility to process 1,526 tons off MMSW per day for a maximum annual capacity of 556,990 tons.

This important document establishes the framework for state and local government policy that will have a significant impact on GRE and the entire solid waste industry. With so much at stake with this document we suggest that the MPCA allow for at least one more draft document and public meeting to share input. The draft document is sure to generate a very large number of comments from a wide variety stakeholders and we believe the best course of action is for the MPCA to process those comments into a revised draft and present that in a public hearing for additional comment.

GRE supports the majority of the goals and strategies outlined in the draft policy plan. We have specific suggestions and concerns related to 1) the enforcement of Minn. Statute 473.848, Restriction on Disposal (ROD) 2) the setting of achievable realistic goals and 3) establishing an organics management framework that is flexible enough to accomplish the stated goal.

1. MN Stat 473.848; Restriction on Disposal (ROD)

The draft plan should be amended to add more discussion on the MPCA's enforcement strategy under MN Stat 473.848. The current draft pays little attention to this significant policy area which will have an impact on whether or not the state meets its stated waste management goals.

GRE's Elk River Resource Recovery Project continues to operate below capacity; in 2015 we were approximately 50,000 tons short of our capacity and we are projecting to process even less waste in 2016. The draft report correctly states on page 5 that "resource recovery capacity continues to be under-utilized because the MMSW is being diverted to landfills by private haulers". While this statement is accurate, it is the MPCA and not the hauling industry that has the statutory obligation to enforce state law. The current ROD enforcement strategy has failed to prevent significant volumes of unprocessed metropolitan area MMSW from being landfilled.

If the MPCA does not act quickly and decisively to create a ROD enforcement strategy that achieves the statutory goal, the Twin Cities Metropolitan Area (TCMA) runs the risk of losing a significant portion of its processing and recycling capacity. Closing the Elk River Resource Recovery Project would result in the annual transfer of 320,000 tons of TCMA MMSW to landfills and a loss of 25,600,000 pounds of ferrous and nonferrous metal that is currently being recycled. It is difficult to imagine a scenario where the region is able to meet the aggressive goals outlined in the draft policy plan after absorbing such a large loss of recycling and processing capacity.

GRE encourages the MPCA to set the expectation that all entities that participate in the solid waste system in Minnesota have a role and obligation in the implementation of ROD. We support the continued enforcement of the statute at the landfills that receive this unprocessed TCMA MMSW but participation from all haulers and transfer stations is also critical for the enforcement strategy to be effective and fair.

Minn. Statute 473.848 states that "*a person may not dispose of unprocessed mixed municipal solid waste generated in the metropolitan area at a waste disposal facility unless...*" The controlling statutes clearly define person to include "*any human being, any municipality, or other government or political subdivision or other public agency, any public or private corporation, any partnership, firm, association...*" This definition is sufficient to include waste haulers and transfer stations as entities with a statutory obligation to comply with ROD. It is also very clear that the Legislature envisioned an ROD compliance system that encompassed more than just the landfills. The original language adopted in 1985 states that "*...waste disposal facilities located in the metropolitan area may not accept unprocessed mixed municipal solid waste ...*" The language was amended in 1989 to "*a person may not dispose of unprocessed mixed municipal solid waste*". This change clearly expands the scope of activities that the legislature considered to be regulated under the statute.

The MPCA should use this statutory authority to amend transfer station permits in a manner similar to how the landfill permits were recently changed. The landfill and transfer station permits should be amended to clearly identify that they are not allowed to receive unprocessed MMSW from any hauler who is not fairly participating in the TCMA processing system.

The policy plan documents the data to determine a benchmark for "fair participation". Using the data presented in table 1b (substituting known processing capacity for permitted capacity) we can calculate

that 67% of the MMSW generated in the metropolitan area (2015 data) is required to fulfill the existing processing capacity. Therefore, no transfer station or land disposal facility should be allowed to accept TCMA MSW from any hauler that is not participating in processing at the regionally required processing percentage (the percentage may need to change as recycling and/or waste generation changes). An enforcement system with this type of benchmark would address the industry concern over creating a level playing field.

Using data from Table 1b	Current system (2015)		Utilizing existing processing capacity	
Total tons generated	3,365	100%	3,365	100%
Recycling	1,324	39%	1,324	39%
Organics recovery	342	10%	342	10%
Resource recovery	931	28%	1135 ^a	34% of total 67% of non-recycled
Landfill	768	23%	564	17% of total 33% of non-recycled

^a Assumed annual operating capacities: REC – 420k; HERC – 365k; GRE – 320k; RW – 30k

We offer the above strategy as one example of an implementation structure that we see as likely to succeed. Other potential strategies exist that include, a regional certified transfer station system, unified county licensing, state hauler licensing, state financial support in the form of incentives, increased landfill fees or better use of the landfill abatement funds collected under MN Statute 473.843, to name a few. If the MPCA does not act quickly and decisively to create an ROD enforcement strategy that achieves the statutory goal the region runs the risk of losing a significant portion of its processing and recycling capacity.

2. Goal Setting Clarifications

The Draft plan sets ambitious goals that may be difficult, if not impossible, to achieve. Setting unachievable goals distracts the industry and stakeholders from actual accomplishments that could be more readily met. GRE feels the plan should focus on realistic goals and creating an enforceable and reliable strategy for achieving those goals.

One important goal is missing from the draft report. Goal 2 states that “to achieve the aggressive goals established in this Plan and by the Legislature, all parties in the solid waste system must be held accountable. Cities and counties must ensure the systems are in place for the proper management of waste. Generators must use the tools provided to reduce, reuse, recycle or dispose of waste.” The processing of waste should be included in this sentence. (“Generators must use the tools provided to reduce, reuse, recycle, PROCESS or dispose of waste.”) This addition properly recognizes the State’s solid waste management hierarchy.

GRE supports the stated goal of reducing the landfilling of TCMA MMSW to 1% by 2020 (page 15) but we question if this goal is feasible. What steps will the MPCA take, or direct local governments to take, in order to achieve this goal? Since 1985 state law has prohibited TCMA MMSW from being disposed of in a landfill if processing capacity is available. To date little action has been taken by the MPCA to enforce this statute and MMSW continues to be disposed of at landfills. The Draft Plan should more clearly address the steps that will be taken to achieve this goal.

GRE supports the continued growth of recycling across the region. As an RDF facility we play a significant role in the region's recycling system, recycling an estimated 25,600,000 pounds of scrap metal per year when operating at capacity. The Draft Plan should adopt a region wide recycling goal that is reasonable and achievable. Using 2013 data from the recently adopted Policy Report and the 2015 data presented in the Draft Plan, as well as various county's research on this issue, the Solid Waste Management Coordinating Board (SWMCB) has calculated that a maximum diversion rate of no greater than 67 percent is possible but only if **all** organics and recyclables currently being landfilled are recycled.

Nationwide residential recycling rates reach their peak around 50%. Separating additional recyclable materials at processing facilities will be critical in achieving the 75% recycling goal. With continued innovation GRE feels that the existing TCMA processing facilities can be modified to separate more and higher value recyclable material. In fact, the Ramsey/Washington Recycling and Energy Board and GRE are currently evaluating the ability to separate high volumes of compostable organic material from MMSW. This type of mixed waste processing represents the only likely way the TCMA will make significant increases in waste diversion for the region.

3. Organics Collection Framework

The Draft Plan acknowledges that meeting the 75% TCMA recycling goal will require a broad range of programs. Yet when it comes to residential organics collection the Draft Plan requires each county to require all licensed haulers to offer curbside organics collection by 2020.

GRE feels that more emphasis should be placed on encouraging, studying and advancing Mixed Waste Processing (MWP) as a solution to the organics challenge facing the region. Finding a way to use the existing RDF processing infrastructure to accomplish a portion of the organics management goal should be a top priority. With this infrastructure in place the region is in a strong position to be a leader in Mixed Waste Processing and organics management.

Page 32 of the Draft Report it is states that MWP raises questions about how to account for and report captured materials. We fail to understand the concerns discussed in this statement. For three decades waste processing facilities have been selling valuable recyclable materials into the scrap metal markets, providing this material to a facility that will complete the recycling process. Separating organics through MWP is no different.

GRE does not think it is appropriate to require region wide curbside organics collection when MWP has the potential to provide a more cost effective and environmentally friendly solution to the same problem. The reality is that the TCMA contains a variety of different communities with vastly different characteristics. While curbside collection of organics may make sense in some areas it may be completely impractical in others.

GRE shares the State's desire to build a thriving solid waste management system that meets the goals identified in the Draft Plan. Unfortunately the region's waste management system continues to be controlled by landfilling leaving most of the MMSW to be managed at the bottom of the waste hierarchy.

GRE encourages the MPCA to use the Draft Plan to clearly explain the tangible steps that can be used to manage more waste at a higher level on the hierarchy. This point was also made by the Office of the

Legislative Auditor in its 2015 Evaluation Report on Recycling and Waste Reduction. This report identified that the *"incentives for disposing of waste do not align with the states waste management preferences."* We strongly support the Draft Plan's push to drastically reduce the amount of MMSW managed at landfills in the TCMA. If MPCA cannot act in a timely manner to implement an effective and fair ROD compliance structure we encourage the MPCA to ask the legislature to consider adopting a statutory framework that provides the necessary clarity or incentives.

Thank you,

A handwritten signature in black ink, appearing to read "Timothy P. Steinbeck".

Tim Steinbeck, Director
Elk River Resource Recovery Project
17845 E Highway 10
Elk River, MN 55330
(763) 241-2495

September 16, 2016

Commissioner John Linc Stine
Minnesota Pollution Control Agency
520 Lafayette Road N.
Saint Paul, MN 55155-4194

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SEP 19 2016

Dear Commissioner Stine,

MPCA COMMISSIONERS
OFFICE

We, the undersigned waste haulers, are pleased to provide comments regarding your agency's ("MPCA") draft 2016 - 2036 Metropolitan Solid Waste Policy Plan (the "Plan").

We are compelled to write these comments in response to the Plan's alarming and concerning viewpoint regarding government-directed waste collection, referred to in law and rule as "Organized Collection."

Specifically, we disagree with the following aspects of the Plan:

- Goal 2, Policy 8: Increase opportunities for cities to implement organized collection for recycling and mixed municipal solid waste (page 8);
- Organized Collection's description as a waste collection "best practice" (Page 24);
- Priority strategy: All cities shall contract for residential recycling by 2025 (page 24,25);
- Recommended strategy: Cities contract for residential MMSW collection (page 25).

Recognizing Organized Collection as a "best practice" is a significant policy change

We are surprised to learn of MPCA's newly minted position in favor of Organized Collection, as expressed in the Plan.

It has been MPCA's long-standing practice, if not official policy, to remain neutral regarding how waste and recycling are collected. We know this because of our decades of collective experience in dealing with MPCA as a waste and recycling regulator.

To read of this radical and substantive change in practice/policy through a draft document, with no other notice, is deeply frustrating.

Moreover, the Plan offers scant empirical support for this policy change. The few authorities cited in this section of the Plan are either unknown to us, or worse, are known to us because we have long disputed their methods.

To rely on unknown or clearly biased authorities as the basis for significant policy change does a disservice to the governing process and those who must operate under it.

Before declaring Organized Collection an industry “best practice,” MPCA should establish a thorough and robust process to collect input from stakeholders, particularly private sector industry actors. Private market actors in the waste and recycling industry provide thousands of jobs and make strategic business decisions that involve large, long-term commitments of capital. To simply announce support for Organized Collection in such a cavalier fashion has injected even more uncertainty into the TCMA waste and recycling market and has the potential to be deeply disruptive if not rescinded and stricken from future drafts and the final plan.

Evidence Supporting Organized Collection is Disputed, Controversial, and often Unproven

It is disappointing to see advocates for Organized Collection rely on controversial and disputed data, which is often represented as factual and well-settled.

It is similarly disappointing to see information and data presented in one-sided fashion.

An example is that the public often hears of the local governmental units that have adopted Organized Collection, while the many local governmental units that have considered and rejected this collection method are omitted from the debate.

The arguments supporting Organized Collection are not new and always center on a few issues. Namely, that Organized Collection reduces road wear and tear, increases public safety, and provides benefits to consumers.

MPCA often mimics and propagates these arguments in favor of Organized Collection.

We are thus pleased to use this letter as an opportunity to respond and offer an alternative viewpoint.

ROAD DAMAGE

Garbage trucks have become a popular scapegoat to explain away road damage complaints raised by citizens. More often than not, the blame is misplaced. Road damage is due to factors such as weather, soil, and the excessive driving of vehicles that are beyond the weight limit rating of a particular road. But it is environmental factors, weather and soil, that are the primary factors that determine road life expectancy on local use roads in Minnesota, not vehicle use. Far too often, the freeze-thaw cycle of Minnesota weather, road construction quality, base materials, drainage, and maintenance is overlooked. URS, Inc. working for the City of Arden Hills, stated, “Environmental factors are generally responsible for the majority of pavement wear and deterioration for Arden Hills streets.” University of Minnesota / Department of Civil Engineering, in a report dated March 2005, commenting on a study in the City of Crystal, stated, “Spring Load Restriction policy produces no benefit to the road owners in the City of Crystal, as it does not extend the life of the pavement within its normal lifetime. The roads would fail for other reasons before they would fail due to excessive loadings in the springtime.” The Roseville City Engineer, in an April 15, 2015 report to the city council, discussed accelerated deterioration

of the top layer of street pavement. The technical term is called delamination. Staff stated that many other cities in the metro area and around Minnesota have been experiencing this issue. The cause, according to MnDOT researchers, is related to poor field construction methods. Nothing in their report even hinted that garbage trucks were the cause. The City of Fridley ran their road statistics through a mathematical formula and proclaimed that a few garbage trucks traveling down city streets one day a week reduced road life by approximately 20%. A closer examination of the data though revealed that many of the city's streets were built on thin base material that is up to 8 inches less than today's industry standards. In addition, the report provided no indication that the city's data had been verified through field inspection and it could not be confirmed that any normal maintenance was factored into the calculation. Also there was no analysis as to whether the city had maintained an adequate road maintenance program throughout the lifecycle of their local road system. The Fridley report as written also appeared to contemplate the removal of all garbage trucks from city streets in order to see a reduction in road damage. Unless the city plans to require all residents to personally haul their own trash, recycling, and yard waste to appropriate disposal sites, no solid waste plan would ever contemplate the removal of all trucks. As the numbers of trucks are reduced through government managed collection, the preferred scenario of multiple trucks with lighter loads is replaced with fewer trucks with heavier loads. In the City of Lexington, in October 2014, Mayor Mark Kurth responded to citizens who claimed that garbage trucks were destroying city roads. He said, "I served on the citizens committee for whether or not the city was going to make a decision concerning (organized) solid waste. I was against it, and I still am against it. It turned out, the people say that the garbage trucks destroy the roads. I looked at how old the roads were and every single road in Lexington, all of those roads were lasting 30 years. And that was with all the garbage trucks driving on it. That was with deferred maintenance. So overall our roads are lasting as long as they need to..."

ROAD SAVINGS

Many claims have been made about there being a significant cost savings on road maintenance if a handful of garbage trucks were removed from the local roads one day a week. To date, no city has reduced or modified their road maintenance program after instituting government managed trash collection. No city has been able to demonstrate reduced road maintenance due to having a government managed trash collection program. In a March 2011 report prepared by Moore Engineering, Inc., titled City Street Budgets – Cost Comparison Analysis, they stated that, "Generally, it appears that there is not a definitive correlation between the type of garbage collection system and the cost per mile to maintain streets." In a February 26, 2015 article in ABC Newspapers, Anoka County Commissioner Scott Schulte discussed his time on the Coon Rapids City Council when they studied government managed trash collection and rejected it. He said that they compared street maintenance budgets with the City of Blaine, which has government managed trash collection. They found that the City of Coon Rapids had a lower road-costs-per-mile than Blaine, so the premise that open hauling was causing undue damage to the streets did not hold up for him. He said, "It didn't make sense that a single-hauler system is easier on our roads." In a letter to the Bloomington City Council dated July 11, 2014, Bloomington Public Works Director Karl Keel discounted all claims that government managed collection would reduce road maintenance costs. He stated, "The reduction of garbage trucks

realized by organizing collection...would not likely have a noticeable impact on actual safety or result in the need for less roadway maintenance."

SAFETY

Garbage trucks, most likely due to their size, are often targets of false claims of being safety hazards in the community, therefore necessitating government managed collection in order to reduce their numbers. Actually an open market trash collection system improves safety in the community. Garbage truck drivers, unlike most motor vehicle drivers, are professional career drivers who must meet stringent state and federal licensing standards. Drivers are subjected to random drug testing, and cannot operate vehicles with DWI's, careless driving, or reckless driving convictions on their record. In fact, on a first violation a driver's commercial driver license (CDL) is suspended for one year. A second violation results in a permanent suspension. Drivers are also required to be trained in first aid and fire safety. Trucks are maintained on a regular basis by professional mechanics. With new garbage trucks costing over \$300,000 each, drivers are held responsible for their proper use. In the City of Bloomington, in response to the claim that garbage trucks are a safety hazard, Bloomington Public Works Director Karl Keel stated in a July 11, 2014 memo to the City Council that, "Historically, garbage trucks have not contributed to the accident history in Bloomington. In fact, staff is not aware of a single incident involving a garbage truck in recent history." Garbage Haulers for Citizen Choice (GHCC) confirmed Keel's findings, failing to find any garbage truck accidents dating back to the beginning of the city's computerized records management system in November 2004. As a comparison, GHCC chose to review the accident history of city vehicles. During the same time period, city vehicles had been involved in accidents with bicycles three times and in accidents with motor vehicles over one-hundred times. Bloomington city employees caused accidents due to being distracted by phones, computers, etc. and rear ended vehicles stopped at red lights or yielding to cross traffic before making turns. One employee crashed a city vehicle into their own personal vehicle, and another crashed into an overhead street light because their box was up. In one instance, a city truck drove off the road and had to be rescued by another city truck. When chaining the trucks up to tow the first vehicle out, the driver of the towing vehicle got out without setting the emergency break. That vehicle went down the hill and crashed also. At the Mall of America, a city employee decided to drive the wrong way into a restricted area, triggering a terrorism barrier which they promptly crashed into. Why open market trash hauling actually improves safety in the community is due to the relationships that develop between drivers and customers, no different than those that develop between mail carriers and residents. Many customers select a garbage hauler because their route brings them to their residence at a certain time of the day when they are home. Many route drivers are on a first name basis with their customers and speak with them on a regular basis. An open market system provides an incentive for a company to maintain these relationships. Garbage truck drivers, like mail carriers, are often times the first people in the community to notice if there is a problem at a particular residence. Under government managed trash collection, government dictates which hauler a resident must use. There is no incentive to connect with residents in the community, unless they sit in the city council, because the city is the customer, not the homeowner.

PRICE

There is a mistaken belief that government managed collection will provide savings for all. Savings only occur for some, and is accomplished by forcing others to pay more and by providing less service. Also there is the incorrect assumption that all residents value saving a few dollars over freedom of choice and the ability to find the best value. In the City of Fridley, government managed collection was voted down by the city council when citizen after citizen held up their bills stating that the city's proposed price was actually higher than the price that they paid, or that the city's proposal included less services and more hidden fees. Involved citizens in the community, who pay attention to the actions of their city council, are the same citizens who pay attention to their bills and do price comparison shopping for services. In most cases, those who do price comparison shopping with trash hauling services, will receive better value than any government negotiated option. In the trash collection industry, many costs are fixed or determined by outside forces, such as tipping fees, capital equipment, labor, and fuel. When the base rate of trash service is negotiated down through a government managed trash collection system, it is done by forcing others to pay more or by charging for extra services which typically were included in the base rate. The City of St. Anthony and the City of Maplewood lowered their base rate for trash service by forcing hundreds if not thousands of residents to purchase trash service they did not need or want. In the City of St. Anthony a consultant informed City Manager Mark Casey on April 4, 2014 that they should expect that a "significant portion of Saint Anthony residents do not have regular trash / recycling collection service by a commercial hauler." This same consultant also said that the City of Maplewood, "found that up to 25% of their residents did not have trash service before they went organized." The residents that did not have their own trash service primarily fell into two categories. Some hauled their residential trash to their work places. Many were senior citizens who shared a single trash container with a neighbor. In both cities, government was able to negotiate a lower base rate by guaranteeing to a contractor that all citizens would be forced to pay for service that many did not need or want, and that sharing services would be prohibited. This is how these cities were able to provide a lower base rate for some residents. In Maplewood under limited circumstances, for a fee they will allow a resident to opt-out of their government managed trash collection plan if for example they wanted to haul their residential trash to a business which they owned. In cities with significant senior populations, there has been an uproar when seniors learn that they must have trash service and thus pay for it individually. As mentioned above, many seniors generate little trash, so they find other ways to dispose of it, such as sharing a can or having a family member dispose of it in their own can. Since most are on a fixed income, every penny counts. In addition to forcing all residents to have trash service as described above, another way the base rate is lowered is by charging more for extras. Under a free market trash collection system, haulers may take a certain number of extra bags in order to keep a customer's business. With government managed trash collection, fees are applied to everything unless negotiated in the government contract, which then increases the base rate as more services are added. In some cities, tax dollars artificially lower the base rate of trash service. In Maplewood, over a half-million dollars of property tax money was invested in the purchase of carts, which artificially lowered the base rate, because in an open market trash collection system, the hauler always purchases, owns, replaces, and manages the carts. In some cities, the base rate is lowered because

the cost of government employees used to manage the government managed trash collection system is billed to property taxes. In other cases, the city guarantees payment to their contractor by using government as a bill collection agency, or by simply using property tax dollars to cover uncollected trash bills. If government uses their employees to do work typically performed by the hauler in an open market trash collection system, such as customer service and debt collection, and covers all bad debt, the base rate of trash service is lowered through this government subsidy. In some cities such as St. Louis Park, their government managed trash collection system has become a tool to raise revenue outside of property taxes. They overcharge citizens for trash collection in order to provide some funding for their parks department. In Bloomington, they plan on using government managed trash collection as a way to justify and potentially fund a new \$150,000/yr solid waste management employee. At many public hearings held on this issue, citizens speak about how an open market trash collection system allows them to find best value for trash hauling services, not unlike finding the best value for new carpeting or a remodeling project. Under government managed trash collection, it is about government ordering citizens to use the hauler who provides the lowest base price, regardless of the quality of service, and the cost of extra services.

Given the above, it is disappointing to see MPCA embrace Organized Collection as a “best practice.” Any “best practice” identified by MPCA should receive that designation only after thorough scientific and empirical analysis that establishes the practice by clear and convincing evidence.

Because Organized Collection has not come close to satisfying that standard, any reference to Organized Collection as a “best practice” and any language encouraging its implementation should, again, be stricken from future drafts and the final document.

Cities are NOT required to provided Organized Collection for recycling by 2025

In two places within the Plan, MPCA asserts that cities “shall” or “must” provide Organized Collection for residential recycling by 2025.

We are unaware of any statute, rule, or other law mandating this requirement.

Therefore, we are left to wonder what MPCA means when making this assertion.

Under what authority does the agency make this claim?

Because this statement is simply untrue, it should likewise be stricken from future drafts and the final document.

In closing, we note that this letter only addresses our primary concern with the Plan, that being Organized Collection. Other aspects of the Plan are also problematic, as noted in the comment letter submitted by the National Waste and Recycling Association – Minnesota Chapter.

We also support those comments in addition our own contained herein.

Respectfully Submitted,



Dave Wiggins
Ace Solid Waste

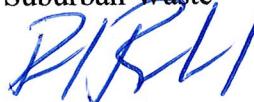


Don Williamson
West Central Sanitation



Clint LePage
LePage and Sons

Paul Rosland
Suburban Waste



George Walter
Walter's Recycling and Refuse



David Domack
Tennis Sanitation



Brett Anderson
Dick's Sanitation



Minnesota Pollution Control Agency
Johanna Kertesz
johanna.kertesz@state.mn.us
651-757-2489.

Re: Comments on the Metropolitan Solid Waste Management Policy Plan 2016-2030

September 14, 2016

Dear Johanna:

Thank you for the opportunity to participate in the stakeholder session and to comment on the Policy Plan. Some of my comments are below. My comments are submitted not as an employee of a government entity, but as a private citizen and metropolitan area resident.

Stakeholders – Who are they?

On page 7, under *How the Plan will be used by stakeholders*. The stakeholders are listed in some instances, but not others. More to the point, is the intent to truly move waste reduction to the top of the hierarchy? If so, where do the current reuse and repair stakeholders fit in this plan other than third hand from the state through the county to the public, or from the state through the cities to the public (on page 23)? The recycling infrastructure already exists, but it is the reduction, reuse and repair part of the hierarchy that should be the focus of the plan. More of those stakeholders should be involved, including manufacturers (which are included in this plan), reuse retailers and industry, and the repair industry. In addition, social media appears to play a big part in reuse and repair by connecting people with instructions, concepts, and events.

Reuse and Repair – Top of the Waste Hierarchy

Cities are usually the primary contact for businesses and residents interested in salvaging products. The strategy to encourage and provide assistance for cities, libraries, communities and neighborhoods and other groups to hold reuse or repair events is a good beginning and the support is appreciated. The clean-up days hosted by cities are not normally considered recycling nor reuse events by most residents. Instead, most residents consider clean-up/drop-off events an opportunity to get rid of bulky items, hazardous waste, remodeling waste, and other waste residents often find difficult and/or expensive to dispose.

The document refers to a reuse rate. Is there a current reuse rate? How is that measured and who measures it? Is it solely through the TwinCities Free Market? Does it account for school athletic jerseys and school band shirt collections at the end of the season to be reused by the next season players? Does it account for private business sales of reused equipment, clothing, furniture, electronics, appliances and other items? Does it measure how many times a product is traded and/or sold? The reuse rate and the repair rate could be measured concomitantly with waste reduction and the regional economy.

City codes and the addition of recycling containers

As some cities have adopted the state building code, the state building code should be amended to accommodate organics recycling containers, as one cannot assume that developers, architects, builders, and city planners will all know to include the space for two different types of recycling containers in addition to trash containers for commercial and high-density residential buildings.

Consistent Information

One of the difficulties at all levels of government has been obtaining data and information from haulers and facilities, and subsequently consistently interpreting that data. Even within the hauler business, the data is difficult to obtain. One standardized system that allows for individual business variables when appropriate would save resources for both government and businesses and ensure more available, consistent, useful data.

Licensing of haulers

The creation of one hauler licensing system would be a consistent, cost-effective concept, depending upon the process, vetting, background checks, complaints, and the enforcement of any violations by haulers and their representatives. As it currently stands, any local government that currently licenses haulers has the ability to remove that hauler's license for violations. In addition, the city has the information to communicate with the hauler staff directly when residents have complaints, issues and questions regarding that haulers service. That hauler can receive notices regarding construction, water main breaks, and other local issues. If the region licenses haulers, the communication information should be available to local government and enforcement should be clarified.

Sincerely,

Sarah Hellekson
Metro Region Resident



Hennepin County
Public Works

Environment and Energy Department
701 Fourth Avenue South, Suite 700
Minneapolis, MN 55415-1842

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612-348-8532, Fax
www.hennepin.us/environment

September 12, 2016

Johanna Kertesz
Minnesota Pollution Control Agency

RE: Hennepin County Comments on Draft Metropolitan Solid Waste Management Policy Plan

Dear Johanna:

Hennepin County would like to submit the following comments regarding the draft Metropolitan Solid Waste Management Policy Plan 2016-2036. We hope these comments can help craft a more thorough and robust plan that will aid the county and other stakeholders reach the outcomes of the plan. County staff would be happy to discuss any of these comments.

Over-arching themes of plan:

- We agree with and support the theme of shared responsibility that require PCA leadership and action achieving the outcomes of the plan. However, the plan seems to place most of the responsibility for achieving goals and implementing the needed policies on the counties. Many of the priority strategies should be PCA actions and legislative initiatives and not just primarily county actions.
- There is very little discussion about financial resources that will be needed to achieve these outcomes. Hennepin County and cities already contribute millions of dollars over and above what is received through SCORE funding for recycling and organics recycling. Curbside organics recycling for instance will cost several million dollars per year to implement just in our county. The strategies and outcomes need to be aligned with current and future available resources. The plan needs to clearly state and advocate for additional resources and outcomes are contingent upon that.

Reiterate comments from the SMWCB:

The Solid Waste Management Coordinating Board has already submitted comments on the plan. We would like to reiterate some of those comments:

- Moving to a sustainable materials management model is a key theme of the plan. Counties are dependent on MPCA resources to develop the guidance necessary to apply these principles to the programs counties operate and ensure that sustainable materials management moves from a concept to actionable activity.
- Hennepin County is required to conduct waste composition studies at our resource recovery facility and we support, along with the SWMBC, expanding this requirement to all solid waste facilities including

landfills. This approach to measure system performance has been a SWMCB policy position, and MPCA's support for that approach is welcomed.

- The Draft Plan also includes "priority strategies," which appear to be mandated approaches that stakeholders must implement. If the MPCA intends to consider these Priority Strategies as mandates, Hennepin County agrees with the SWMCB that justification is needed for a number of them.
- Hennepin County concurs with the SWMCB and PCA that accountability is key. Unless there is substantive policy change, counties have limited tools to ensure the needed accountability of other stakeholders. State support is needed for legislative change to ensure the necessary accountability the MPCA seeks
- Hennepin County has made major progress with our cities and SWMCB to focus standardized messaging. Such work is extremely time intensive and requires professional assistance and significant resources to be effective. Action by the waste haulers to use the standardized messaging is also a key to effectiveness but conflicts with their branding. That conflict must be resolved to achieve this important goal.

County Specific Comments on Various Plan Sections:

Mentioned multiple times in **Parts I and II** and as shown in **Figure 4** in the regional forecast section of the plan, a growth rate for MSW generation is mentioned or shown that is not consistent with what we are experiencing in Hennepin County. Hennepin County has seen no growth in waste generation since 2009 and in fact, per capita waste generation has gone down. We suggest the forecast for total waste generation be revisited and adjusted to current rates.

We have several comments on sections in **Part III** including:

- Priority strategy number four in the **Sustainable Materials Management** section refers to counties allocating staff time and ensuring that SCORE grant funding eligibility always includes reduction, reuse and recycling. Hennepin County has several grants and direct program funding available that target all these different objectives. We would suggest this strategy be clarified or eliminated since the intent is unclear.
- Table 1a. in the **Solid Waste Management Objectives – Source Reduction and Reuse** section shows management objectives in five year increments and has a large jump in the recycling objective and decrease in landfilling from 2015 to 2020. This is simply not realistic and achievable and the objectives should be revised to reflect a reasonable incremental growth.
- **Maintaining existing resource recovery capacity** suggests development of new RDF capacity. We recommend exploring new processing technologies to capture more recycling.
- Hennepin also highly encourages the MPCA to continue using its authority to enforce MN Statute 473.848 to get waste processed.
- Much discussion is included about **improving the reliability of the data**. We would suggest it's time to create a landfill diversion goal which is more measurable rather than trying to measure waste by how much is recycled, composted, etc. Data collection should be **simple, easy, accurate, reliable, and consistent over time, with minimal transaction cost**. We are pleased the MPCA has taken a more active role in collecting data directly from haulers but are concerned that sufficient resources have not been committed to verify, manage and report this data in a timely fashion.

- The feasibility of **Achieving a 75% recycling rate** is highly overstated. The vast majority of our citizenry have recycling readily available to them and chose to simply not utilize the programs they have available at their homes, business and public places. We have made major strides in the last several years to increase the availability and improve education on what to recycle and yet the recycling rate has edged up only slightly. The county has conducted a Recycle Everywhere public education campaign for the last four years, a major education campaign aimed at increasing recycling. Results have been modest at best. Therefore we purport that a 75% recycling rate is not only a challenge but will be very difficult to achieve.

The following comments address **Best management practices to achieve the 75% recycling goal:**

- As previously mentioned, **standardized messaging regarding recycling** is key to effectiveness and great effort has gone into this in the past. Cities, haulers, facility operators and others have been involved. Hennepin County had a sub-group that worked on this and came up with a standard list of recyclable items. Subsequent to that the SWMCB has done the same. Implementation however has not been widespread with branding frequently trumping consistency. The strategy should be to take and update what has been done in the past and get widespread adoption across the region.
- **City codes shall not inhibit the addition of recycling containers** is not the issue that results in space constraints hindering recycling. Cities follow the state's Uniform Building Code which does not effectively address space for recycling and organics recycling. Hennepin County has little to no authority to require cities to address recycling space in their building codes. Therefore, the strategy should be to work with state building code officials and building designers through the US Green Building Council and the MN American Institute of Architects to develop effective guidelines for adoption in the Uniform Building Code. The county would then be happy to promote the new code to cities and builders.
- The State should **support financially material exchanges**, if results warrant expansion. We believe the passive nature of the Minnesota Materials Exchange hinders its ability to be an effective solution for significantly reducing business waste. Businesses are unwilling to scan a website, find or list a material, and make the arrangements to get material transferred on an ongoing, frequent basis.
- We agree with the strategy that **cities shall contract for residential recycling by 2025** in order to yield a higher recycling rate. However, the current organized collection statute is murky on whether a city can organize recycling and organics recycling without following the process laid out in statute. Very few cities will be willing to proceed without clarification or assurance that organized recycling and organized organics can be implemented without a legal challenge. The counties should not be forced to require cities to organize collection to receive SCORE funding until a clear statutory authority for cities to do so, without challenge, is established.
- The strategy to **Refocus commercial recycling assistance** and concentrate on large generators is off base and not supported by any data from results of commercial recycling assistance. Hennepin County's business recycling grants program has yielded tremendous results in working with businesses to improve (recycling and implement organics collection. Most large and medium businesses are already in compliance with the state statutory requirements to offer recycling. The focus should be on assistance and education to improve their recycling program effectiveness and increase the capture rate of materials. Hennepin County works with chambers of commerce's and other business groups to promote the assistance that we can provide businesses. We have granted over \$1.5 million directly to businesses to enhance recycling and plan to continue to do so unless the need is no longer there. After close to three decades of trying to measure commercial recycling and collect other data on waste and recycling coming

from commercial businesses, we continue to work with incomplete and inaccurate information. It is imperative that the MPCA commit staff and monetary resources to helping the counties obtain better data on generation and recovery of commercial waste, recycling and organics.

- We agree that **Organics Management** has the greatest potential to increase waste diversion efforts. Hennepin County will be considering ordinance changes that require curbside collection for many of our communities and require large generators to recycle organics. We believe that counties should be allowed to determine the approaches that best meet the organics goals. Multiple management options will be needed for organic materials including reduction, composting and anaerobic digestion. The state's role should be to expedite the permitting process for facilities as they are being developed.

We have several comments on the **Non-MMSW** strategies:

- The improper classification of industrial waste is a problem from both a tax and management perspective. The MPCA issues permits for industrial waste facilities and should assure waste going to those facilities is properly characterized before disposal and take appropriate enforcement action when a disposal facility fails to do so.
- Hennepin County is committed to reducing C & D waste and implementing actions. Finding financial and staff resources to focus on non-msw will be challenging. Hennepin County recently completed a C & D waste capacity study which we would be happy to share with the MPCA. It's available on our website at www.hennepin.us/solidwasteplanning.

We encourage the MPCA to pursue several of the **Market Development** strategies with the following suggestions:

- The county does not contract for or regulate MRF's. Therefore the MPCA should work directly with the private MRF operators to optimize and encourage investment in new technologies and sorting equipment.
- Creation of a sustainable materials advisory group is a good strategy but we would encourage it to be small and lean to stay focused and quickly capitalize on opportunities to develop new markets.
- In addition to transportation markets for finished compost, we would encourage the MPCA to prioritize higher value horticultural and agricultural utilization of compost rather be wholly reliant on government markets.
- One of the first product stewardship strategies requires the counties to report on the weight of specific materials. For the most part these materials are managed by private sector collectors and recyclers. The MPCA has recently assumed responsibility for collecting recycling data from haulers and should that same responsibility for collecting data from these collectors.
- We would encourage the MPCA to review priority materials for product stewardship efforts and consider revising the list of included materials so that it represents a larger portion of the solid waste stream.
- Rather than reform the SWMCB's product stewardship committee, we would suggest the MPCA work with the already existing Minnesota Product Stewardship Council to advancing product stewardship. This council has a direct connection to the metro counties as well as a representative from Hennepin and it would be counter-productive and duplicative to have a SWMCB product stewardship committee as well.

Lastly, we have several comments on **Appendix B: Environmental Justice Review**:

- Appendix B states that "Counties are strongly encouraged to complete an environmental justice review when developing their respective County Solid Waste Master Plans". Nonetheless, neither Appendix B, the larger Master Plan, nor the MPCA's Environmental Justice Framework: 2015-2018 ("Framework Report"), set forth

procedures or strategies for the development of such a review. Hennepin County works hard to reduce disparities, promote and achieve equity in housing, transportation, employment and all aspects of living, working, playing and visiting in Hennepin County. Waste is a component in all of these aspects of life, and the county emphasizes efforts to integrate proper management and reduction of waste in these broader priorities.

- Appendix B states the principle of environmental justice is that all people benefit from equal levels of environmental protection (and have opportunities to participate in decisions that may affect their environment or health). “Areas of concern” are identified, not by perceived or known risk, but by mapping areas of poverty and people of color using census tracts.
- The Framework Report is a broadly stated list of regulatory tools the MPCA will or can use in geographical areas of concern (i.e., areas of concentrated poverty or census tracts with a large population of people of color). The Framework Report devotes only one page to pollution prevention (P2) strategies, it does not consider issues of employment in communities and does not address mobility of people living in an area of concern to jobs that exist outside the area of concern. P2 outreach with small businesses in areas of concern can lead to significant reductions in nitrogen oxides (NOx), ammonia (NH3), fine particulates, and volatile organic compounds (VOCs).
- P2 can significantly reduce water and energy consumption, waste and hazardous wastes generation, and contamination to air, land and water, including the generation of greenhouse gases (GHGs). This can be accomplished using a standard approach to an environmental protection hierarchy that emphasizes source reduction, reuse, recycling and waste processing.
- The section on “Impact & Assessment” begins with the statement “Identify who is likely to be affected by the proposed policy.” While the paragraph attempts to describe what this is supposed to mean and the purpose of such an assessment, the examples, “impacts on health, quality of life (from noise or visual impacts, etc.), personal finances, etc.,” are vague at best. Health, quality of life, noise, visual impacts, personal finances, and even the catch-all “etc.” must be defined to achieve any meaningful purpose.
- The section on “Impact & Assessment” states (in the middle of a paragraph), “The first priority of the Plan is to ensure the proper management of waste to protect human health and the environment.” If this is the first priority, state it up front.
- Section “Impact & Assessment” also states “Reducing waste generation would mean less material would need to be managed by these facilities,” yet does not quantify a percent reduction that is considered significant or acceptable, and how the State of Minnesota proposes to assist local governments in this task. To be clear: waste reduction is most often accomplished by private company’s efforts to reduce purchasing, reusing - products, etc., or by the establishment of goals and statutory requirements successfully pursued by states, provinces and nations.
- The potential impact of reduced waste generation is described as an opportunity to reduce the amount of garbage requiring landfill. The potential to meet landfill diversion goals is described as likely to divert greater volumes from landfills to regional recycling, organics recovery and waste to energy facilities and create increased traffic, noise and air pollution within areas of concern. Noise is not defined in measurable terms, such as decibels. The value of keeping jobs in neighborhoods, reducing overall traffic (and vehicle emissions) by managing waste closer to the source of generation, and attracting businesses that generally emit fewer air, land and water pollutants is not explored. If the MPCA truly believes waste can be reduced to such an extent that it will eliminate the need for landfill, waste to energy, organics recovery and recycling processing facilities it needs to lay out that proposed solution in this plan.
- The discussion lists five points of extra scrutiny that will be applied to facilities in areas of concern. If a facility does not meet the increased standard within the area of concern and therefore locates elsewhere in a neighborhood that is not considered an area of concern, how will that neighborhood react to being subject to less scrutiny than another? Is the Agency proposing that all recycling processing, organics composting and

waste processing be shipped long distances? Is the Agency, in effect, drawing lines around areas of concern, preventing the creation of new or maintenance of existing local jobs?

- Nowhere in the document is a description of how the Agency will employ empirical results to:
 - Analyze mobile and non-mobile air pollution resulting from activities in the plan;
 - Map broader strategies relevant to implementing EJ practices;
 - Evaluate and monitor negative impacts from noise;
 - Monitor release of pollutants to water, land and air; and
 - Foster positive EJ influences resulting from the adoption of this plan, including economic and environmental benefits in communities of concern.

We would be happy to discuss and provide more information pertaining to our comments. Please contact David McNary (david.mcnary@hennepin.us; 612-348-5906) or myself (rosemary.lavin@hennepin.us; 612-348-8596) to arrange a discussion. Thanks for the opportunity to comment.

Sincerely,



Rosemary Lavin
Acting Director

Knaebl e_ci_ti_zen_comments_email.txt

From: Elizabeth Knaeble <Elizabeth.Knaeble@gmail.com>
Sent: Thursday, August 11, 2016 6:55 PM
To: Kertesz, Johanna (MPCA)
Subject: Solid waste Plan

Dear State Representatives:

It is imperative that the Metropolitan Solid Waste Plan be focused on a zero waste strategy that includes solid waste recycling, organics recycling and no waste burning. The health of the community depends on this. The air quality in many neighborhoods is making us sick and burning waste shows a lack of concern and respect for the people of this area.

Sincerely,
Elizabeth Knaeble

Mayberry_TOLD_Development_comments_2016MPP.txt

From: Trent Mayberry <tmayberry@toldmn.com>
Sent: Wednesday, September 14, 2016 11:44 AM
To: Kertesz, Johanna (MPCA)
Subject: Solid Waste Disposal Taxes - Inquiry

Hi Johanna,

I just received a forwarded e-mail from NAIOP that raises some concerns about the proposed Solid Waste Disposal Tax increase. It indicates the following:

Contaminated soil removal taxes:
A medium-sized project might generate 25,000 cubic yards of contaminated soils, which could cost approximately \$1,120,000 to remove. Under the current tax of \$0.60 per cubic yard, a developer would have to pay \$15,000 in fees. Under the proposed tax of 17 percent of the total cost, the developer would now have to pay \$190,400 – an increase of more than 1,000 percent.

My understanding is that there is a proposed tax increase for disposing of contaminated soils. My opinion as a developer that has redeveloped former fuel stations, etc. with contaminated soils is that this kind of tax and the example outlined above could have profound impacts on projects. It could make it so long-vacant contaminated sites/buildings are no longer redeveloped and remain underutilized property which are also eyesores for residents/businesses living/working in the surrounding community.

Please take this into consideration as you discuss these kinds of legislative changes.

Sincerely,

Trent Mayberry
Vice President

Two Carlson Parkway, Suite 220 • Minneapolis, MN 55447
Direct: 952.278.0112 • Fax: 952.278.7574 • Mobile: 612.812.4533
tmayberry@toldmn.com • www.tolddelopmentcompany.com



CONSULTANTS
• ENVIRONMENTAL
• GEOTECHNICAL
• MATERIALS
• FORENSICS

April 10, 2014

Ms. Ginny Black
Minnesota Composting Council
11410 49th Place North
Plymouth, MN 55442

RE: Comments Regarding the Proposed MPCA Rules for SSOM Compost Sites
AET Project No. 02-02099

Dear Ms. Black:

As requested, American Engineering Testing, Inc. (AET) has completed our review of the MPCA proposed rules and SONAR for SSOM Compost Sites, the MPCA report titled Source Separated Compost Study Preliminary Summary and Data dated March 2014, and the statement of the National Waste & Recycling Association (NW&RA) presented at the hearing on March 24, 2014. You requested AET focus its review on the specific issues of compost contact water quality data, the permeability of a hard packed, all weather surface as described in the proposed rule, and comments on the NW&RA statement.

Our comments are organized into the following categories:

- I. Compost Contact Water Data Evaluation**
- II. Permeability of a Hard Packed, All-Weather Surface**
- III. Impact of the Removal of Loam, Silt Loam, and Silt**
- IV. Comments on the Testimony of James S. Aiken, PG on Behalf of National Waste & Recycling Association, March 24, 2014**

I. COMPOST CONTACT WATER DATA EVALUATION

We undertook an evaluation of compost contact water based on the data reported in the Minnesota Pollution Control Agency document "Source Separated Compost Study Preliminary Summary and Data" dated March 2014. The preliminary data reported in this study was generated at the University of Minnesota Arboretum's Organic Composting Demonstration compost facility (Arboretum) located in Chanhassen, Minnesota and operated by Specialized Environmental Technology (SET) in partnership with Carver County. The Arboretum's Organics Composting Demonstration Site was used to conduct a demonstration/research study to develop an understanding of the environmental implications of contact and storm water from source-separated organic material (SSOM) and yard waste. The demonstration\research study was funded through an Environmental Assistance Grant administered by the Minnesota Pollution Control Agency.



Appendix C, Table C1 of the Source Separated Compost Study Preliminary Summary and Data report contains the water quality results of the Test Cell Rain Simulation. The Test Cells were constructed of three different mixtures of organic materials in compost piles. A Purdue rain simulator was used to apply water to the Test Cells in sufficient quantities (essentially saturating the compost) to generate subsurface contact water that was collected, sampled, and analyzed.

The applicability of the contact water data from the Test Cell Rain Simulation to the actual contact water generated at a SSOM compost facility is highly questionable as compost piles generally are not saturated, would not have free flowing water moving vertically through the compost pile, and would not have a hydraulic head build up at the base of the compost pile.

Drinking Water Standards

Drinking water standards have been used throughout the demonstration/research project as a basis for comparison for contact water generated at the Arboretum compost facility. Federal Primary Drinking Water Standards include a limit on turbidity of 1 NTU, basically clear water. Turbidity is a measure of the cloudiness of water and is primarily due to suspended solids in the water. Removal of turbidity and suspended solids is necessary for aesthetics; people just do not want cloudy water coming out of the tap. Turbidity and suspended solids can also be associated with disease causing micro-organisms such as: viruses, parasites, and bacteria and can interfere with the effectiveness of disinfection processes. As a result, drinking water standards are based on sediment free water or water that has been filtered.

It is well documented that soils in Minnesota contain many elements including lead, arsenic, selenium, etc. These elements are naturally occurring and are present in the suspended solids that occur in water samples. When unfiltered water samples are analyzed, the presence of suspended solids will bias the sample results providing higher values.

Comparison of Contact Water Data to Drinking Water Standards

As noted above drinking water standards are based on water that has been filtered; removing the suspended solids and turbidity to 1 NTU. It is important to note that the contact water samples collected from the Test Cell rain simulation were not filtered prior to analysis. Thus, the contact water results are considered “total” contaminant measurements which include contaminants that are contained in suspended solids as well as contaminants dissolved in the water. As a result, it is misleading and not an accurate to compare unfiltered water sample data from the Arboretum compost facility Test Cells to drinking water standards derived from filtered water.

It is not appropriate to consider contaminants associated with sediment when evaluating ground water impacts because sediment in water moving through soil is easily and quickly removed by soil filtration and other attenuation processes. The appropriate practice for characterization of compost contact water is to filter the water samples prior to analysis in order to obtain a more representative chemical characterization of the water for comparison to drinking water standards or to the landfill leachate data presented at the March 24th hearing.

In order to provide an appropriate and meaningful evaluation of the data, we plotted the contaminant concentration and the total suspended solids concentration for the metals reported to exceed the drinking water standards, either US EPA Maximum Contaminant Level (MCL) or MDH Health Risk Limit (HRL), based on the subsurface results in Appendix C Table C1. These metals include: arsenic, barium, boron, cadmium, lead, mercury, and nickel. We then conducted linear regression statistical analysis of the data to determine the correlation between the metal concentration and the total suspended solids (TSS) concentration and the likely metal concentration in the water sample if the suspended solids were removed, filtered, as is standard practice prior to laboratory analysis. The results of the data comparison and statistical analysis are shown in the attached figures, one each for arsenic, barium, boron, cadmium, lead, mercury, and nickel.

The data evaluation shows a very strong correlation between metal concentration and TSS which indicates that the metals in the samples are associated with the suspended solids in the samples. The statistical analysis demonstrates that if the samples had been filtered prior to analysis the metals concentrations in the samples would have been less than drinking water standards in all cases with the exception of nickel.

The linear regression statistical analysis of the nickel results was highly influenced by two 'outlier' data points from the first (July) data set. These two data points had relatively high nickel concentrations and relatively low TSS concentrations. There could be a number of reasons why these two 'outliers' occurred. We recommend that the original data for these sample results be reviewed to determine if there is some obvious explanation, a data recording error, or other reason why these 'outliers' occurred. Excluding these two 'outlier' data points, the linear regression statistical analysis demonstrates that the nickel concentration in the samples would be less than drinking water standards based on filtered samples.

Our evaluation of the Appendix C Table C1 data noted a discrepancy in the results reported compared to the original draft report. This discrepancy was for the nickel concentration for the Pile 2 Subsurface 8/16/2013 sample. We reviewed the laboratory report for that sample and used the correct value, 1120 micrograms per liter, for the data evaluation.

Conclusion

The evaluation of the compost contact subsurface water sample data demonstrates that the metals in the samples are primarily due to the presence of sediment in the water samples. The water applied to the compost piles picked up sediment, basically small soil particles, as it moved through the pile and/or from the substrate below the pile. The use of unfiltered water sample results for evaluating ground water impacts and comparison to drinking water standards is not appropriate as the sediment is easily removed as the water moves through soil.

In addition, comparing the unfiltered water data from the Arboretum study to drinking water standards is not appropriate, as drinking water standards are based on water that has been filtered to remove suspended solids.

Finally, comparing the unfiltered water data from the Arboretum study to filtered landfill leachate data is not appropriate as it is not an equal comparison and results in misleading conclusions.

II. PERMEABILITY OF A HARD PACKED, ALL-WEATHER SURFACE

Subitem (6) of the SONAR states the minimum design of a composting facility must include a hard-packed, all-weather surface to minimize migration of materials and contact water into soils, surface water and groundwater. This type of surface corresponds to an 'Impervious Surface', as defined in the Minnesota Pollution Control Agency (MPCA) General Permit Authorization to Discharge Stormwater Associated with Construction Activity Under the National Pollutant Discharge Elimination System/State Disposal System, Permit No: MN R10001 (General NPDES/SDS Construction Stormwater Permit). According to the General NPDES/SDS Construction Stormwater Permit, an impervious surface is:

"a constructed hard surface that either prevents or retards the entry of water into the soil and causes water to run off the surface in greater quantities and at increased rate of flow than prior to development. Examples include rooftops, sidewalks, patios, driveways, parking lots, storage areas, and concrete, asphalt and gravel roads."

The permit requires that the permanent stormwater management system of a site be designed based on the amount of added impervious surface, which includes hard-packed aggregate surfaces.

A typical hard-packed, all-weather aggregate surface used in Minnesota is a compacted layer of Class 5 or Class 6, as defined by the Minnesota Department of Transportation (MnDOT) "Standard Specifications for Construction." Research performed by MnDOT indicate laboratory hydraulic conductivity (permeability) values for samples of compacted Class 5 and Class 6 aggregate base from various locations in Minnesota range from approximately 2.6×10^{-4} centimeters per second (cm/s) (0.37 inches/hour) to 5.0×10^{-6} cm/s (0.007 inches/hour); this permeability data is published in the MnDOT report titled "Evaluation of a Field Permeameter to Measure Saturated Hydraulic Conductivity of Base/Subgrade Materials," which was published in 2001.

In our opinion a hard-packed surface of Class 5 or Class 6 having permeabilities below 3×10^{-4} cm/s (0.43 inches/hour) will minimize migration of materials and contact water into the subsurface and therefore meets the definition of an 'Impervious Surface' as defined by the MPCA stormwater permit. Moreover, it is our opinion a hard-packed surface of Class 5 or Class

6 will be an adequate impervious surface that retards infiltration and promotes natural attenuation for a SSOM compost operation. Based on the permeability data from the MnDOT study, the permeability of hard-packed Class 5 or Class 6 surfaces does not exceed the maximum permeability of a clay loam, sandy clay, sandy clay loam, and silty clay loam, as described in Table 2 of the SONAR.

III. IMPACT OF THE REMOVAL OF LOAM, SILT LOAM, AND SILT

Minnesota soils data were obtained by downloading the Minnesota *Soil Atlas* Geographic Information Systems (GIS) files. The *Soil Atlas* map series was developed by the Department of Soil, Water, and Climate of the University of Minnesota, in cooperation with the Natural Resources Conservation Service (previously Soil Conservation Service), U.S. Department of Agriculture, and the Minnesota Geological Survey. The data used in the Minnesota *Soil Atlas* are generalized and areas as small as one square mile may be viewed. A query of soil/material types was run to calculate the surface area of Minnesota soil/material types that would be “appropriately protective” as compost facility in-situ materials in the five feet below the ground surface.

Based on the soil type nomenclature used for the Minnesota *Soil Atlas*, material textures in the five feet below the ground surface, or a significant part of it, are categorized and labeled three different ways: “S” for sandy, “L” for loamy, and “C” for clayey. Based on the guidance proposed in the SONAR and the soil type nomenclature used in the Minnesota *Soil Atlas*, soils were evaluated for use as in-situ materials in the five feet below the ground surface of a compost facility. Furthermore, the following unique soil/material types were also determined to be unsuitable as compost facility in-situ materials: water, peat, rock, peat over sandy soils, non-acid peat, acid peat, alluvial soils, bog peat, mines and/or dumps, raised bogs, peat over loamy soils, marsh, and steep, stony, or rocky land.

Based on the soil/material types described in the proposed rule Subp. 9 B (8), only 7 percent of the surface area of Minnesota was determined to have soil/materials that would be suitable as compost facility in-situ materials in the five feet below the ground surface. If loamy soils are included, 68 percent of the surface area of Minnesota would be suitable as in-situ materials in the five feet below the ground surface at compost facilities.

IV. COMMENTS ON THE TESTIMONY OF JAMES S. AIKEN, PG ON BEHALF OF NATIONAL WASTE & RECYCLING ASSOCIATION, MARCH 24, 2014

AET reviewed the National Waste & Recycling Association (NW&RA) statement as presented by Mr. Jim Aiken with Barr Engineering at the MPCA hearing on March 24, 2014. It is AET’s opinion that the foundation for NW&RA’s statement is based on a flawed conceptual model and

erroneous evaluation of the compost contact water data resulting in erroneous and highly biased conclusions.

NW&RA's statement utilizes an inaccurate conceptual model for a typical commercially operated SSOM compost pile as a basis for its opinion as to how contact water is generated and how it migrates from and within a pile of SSOM compost, as shown in Figure 1 attached to the NW&RA statement.

- Figure 1 and NW&RA's conceptual model and description are inaccurate and not representative of water movement into, out of, and within an engineered compost facility. Composting is an aerobic process which utilizes oxygen, nutrients *and water* to degrade the compost materials to less than 50% or less of the volume of the raw materials.
- NW&RA's conceptual model does not account for the rain water and contact water that is lost because it is consumed in the composting process or evaporates from the pile.
- NW&RA assumes all water immediately flows into and through the compost pile. It states: "As shown in the figure, rain falls on the pile, and the waste generates a chemical solution of leachate in which there are dissolved chemicals from whatever is in the waste material." It goes on to say "The leachate accumulates at the base of the waste and begins to move by gravity both into the ground and along the ground surface."
- Rain water will not immediately accumulate at the base of the compost pile; the rain water will be absorbed into the material, be utilized in the composting process, evaporate, and run off the surface of the material (as observed during the tests).

NW&RA utilized the results of the 2013 rain simulations where water was applied at a rate exceeding a Minnesota 100-year rain event as a basis for its analysis. Use of this data infers that the amount of water infiltrating the compost and collected would be typical and representative of water from a typical release model for a compost facility. The amount of water applied in the 2013 studies is not typical and in fact exceeded a 100-year rain fall event.

- The amount of simulated rain water that was applied was an extreme event and significantly and artificially inflated the amount of contact water likely to be observed under a more typical, realistic rain fall scenario.
- A 100-year rain event is the amount of precipitation that will fall over a 24-hour period with a probability of occurrence of once in 100 years. The range of precipitation for 100-year rain events throughout Minnesota is 4.8 - 6.2 inches of precipitation. Data collected from the July 12, 2013 rain simulation showed that 5 of the 8 rain gauges collected more than *5 inches of water that was applied over a 3 1/2 hour period* and at one location 9.7 inches of water was applied during the same time period. This application of water to the test plots exceeded a 100-year rain event.

- The 2013 rain simulations are not representative of more typical rain fall events. Average *monthly* rain fall for Chanhassen, MN is 2.9 inches for April; 4.2 inches for July and 2.35 inches for October. During and between typical rainfall events, rain water will not immediately accumulate at the base of the compost pile. The rain water will be absorbed into the material; be utilized in the composting process, and evaporate. During dry periods between rain fall events, water will need to be applied to the compost to maintain the composting process.

NW&RA's comparison of compost contact water to MSW Leachate is flawed, contains numerous errors, and is inappropriate.

- NW&RA erroneously interpreted the compost contact water data used in its comparison. The fact is, the compost contact water data NW&RA relied on for its comparison was based on unfiltered samples and the results are 'total' constituents, including both dissolved and suspended components. Comparing water samples based on dissolved results to total results is not appropriate.
- NW&RA compared average MSW leachate data to individual compost contact water data. Any data comparison attempt should use the same basis for comparison. Using average data for one data set and individual sample results for the other data set is not appropriate.
- NW&RA erroneously included a surface water sample result in its comparison to MSW leachate. The surface water sample results had the highest concentrations of constituents in most cases. NW&RA either did not understand the data it used or erroneously compared unrelated data sets.

NW&RA makes some inappropriate and misleading statements. For example:

NW&RA Statement: "As shown on the table SSOM leachate contains numerous parameters that are associated with contaminated wastes. These include carcinogenic compounds like arsenic and benzene, as well as heavy metals arsenic, barium, cadmium, lead and perfluorocarbons."

AET Comment: This statement has a number of flaws. First, there is no data presented to support the statement that compost contact water contains benzene. We have no doubt that MSW leachate contains benzene. Perhaps NW&RA has confused the data sets. Second, the mere presence of metals in compost and compost contact water does not mean they are "associated with contaminated waste". It is well documented that metals occur naturally in the environment in soil, water, plants, etc. A soil sample collected from anywhere in the State of Minnesota would have concentrations of metals. Third, perfluorcarbons (PFCs) are ubiquitous in

the environment. The Minnesota Department of Health comments regarding PFCs in the environment include:

“Because PFCs are so stable, they may be found in soil, sediments, water or in other places. Studies indicate that some PFCs travel through soil and easily enter groundwater where they may move long distances. Some experts suggest that PFCs can also travel long distances in air, deposit on soil and leach into groundwater.”

“Studies show that nearly all people have some PFCs in their blood, regardless of age. The PFCs most commonly found in human blood are PFOS, PFOA, and PFHxS. People are exposed through food, water, or from using commercial products. Some PFCs stay in the human body for many years.”

The PFCs detected in the compost contact water samples are well below drinking water standards and reported at the nanogram per liter (part per trillion) level. Stating or implying that PFCs at these concentrations are carcinogenic or toxic is unsupported and misleading.

NW&RA Statement: “It is unlikely that the concentrations reported in the MPCA’s study would be significantly attenuated in the subsurface as is assumed in the proposed rules.”

AET Comment: Soil has significant ability to attenuate contaminants that occur in water, especially metallic elements. The processes of filtration, ion exchange, chelation, fixation, etc. are effective at removing metallic elements from water as it passes through soil. Predicting the specific attenuation of dissolved metallic elements by soil is complex and dependent on many factors including; soil type, the specific element, ionic form, oxidation state, etc. However, attenuation of metallic elements associated with suspended solids is based on the simpler processes of sedimentation and filtration and is reliably predictable. Water filtration using sand as the filter medium is a technology that is commonly used to produce high quality water for many uses including drinking water.

Our evaluation of the compost contact water data demonstrates that nearly all of the metallic elements occur as suspended solids and would be effectively attenuated by the subsurface soils. It is our opinion that the suspended solids would be removed from the water after travelling no more than 2 to 3 feet through the soil and the metallic elements would be attenuated.

NW&RA Statement: “As indicated on the graphs, the MMSW leachate plots closer to the threshold for relatively clean groundwater, while SSOM leachate plots further from groundwater and has higher concentrations of each parameter than the MMSW leachate. The conclusion is obvious: SSOM leachate is worse than MMSW leachate for these parameters.”

AET Comment: The conclusion may be obvious to NW&RA based on its erroneous comparison of the data, but the rest of the scientific community takes a more objective and realistic view. NW&RA completed an erroneous and inappropriate comparison of compost

contact water to MSW leachate and states an outlandish conclusion that is not supported by the facts.

NW&RA Statement: "Figure 3 includes a graph showing an example of the mercury concentrations which are statistically higher than the concentrations found in the MSW leachate."

AET Comment: In addition to the errors the NW&RA made in their comparisons, Figure 3 contains the additional error of misstating the mercury concentration of MSW leachate based on their own data. The MSW leachate data included with the NW&RA statement includes 15 results for mercury. Thirteen of those results had a mercury concentration less than 0.0004 mg/l with the other two results less than 0.0002 mg/l. It is statistically impossible to obtain an average value of 0.0002 mg/l as shown in Figure 3 from these data. It would be interesting to know what sort of statistical analysis was run on these data to draw this conclusion.

We appreciate the opportunity to assist you in developing a sound scientific basis for the proposed rules.

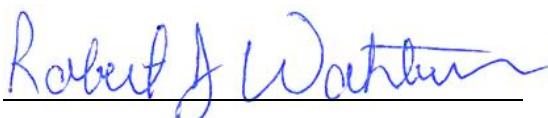
If you have any comments or questions for us please contact Robert Kaiser at 651-659-1308 or rkaiser@amengtest.com.

Thank you

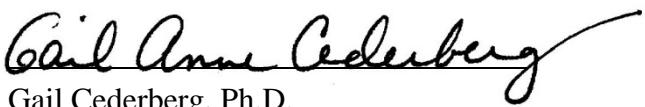
American Engineering Testing, Inc.



Robert Kaiser, Senior Vice President
Environmental Division



Robert J. Wahlstrom, PE, PG
Principal Engineer / Geologist



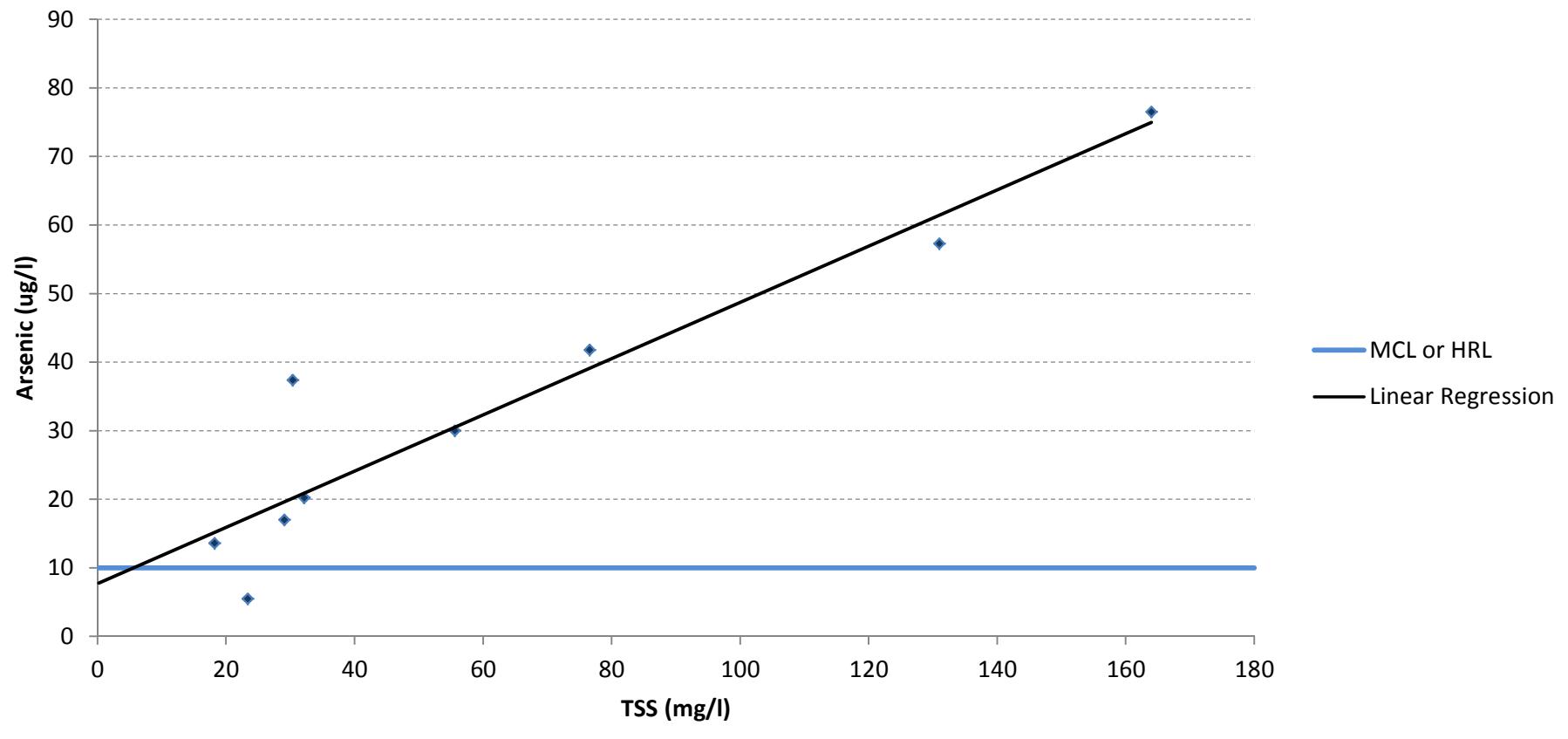
Gail Cederberg, Ph.D.
Principal Engineer



Jake Dalbec, PG
Geologist

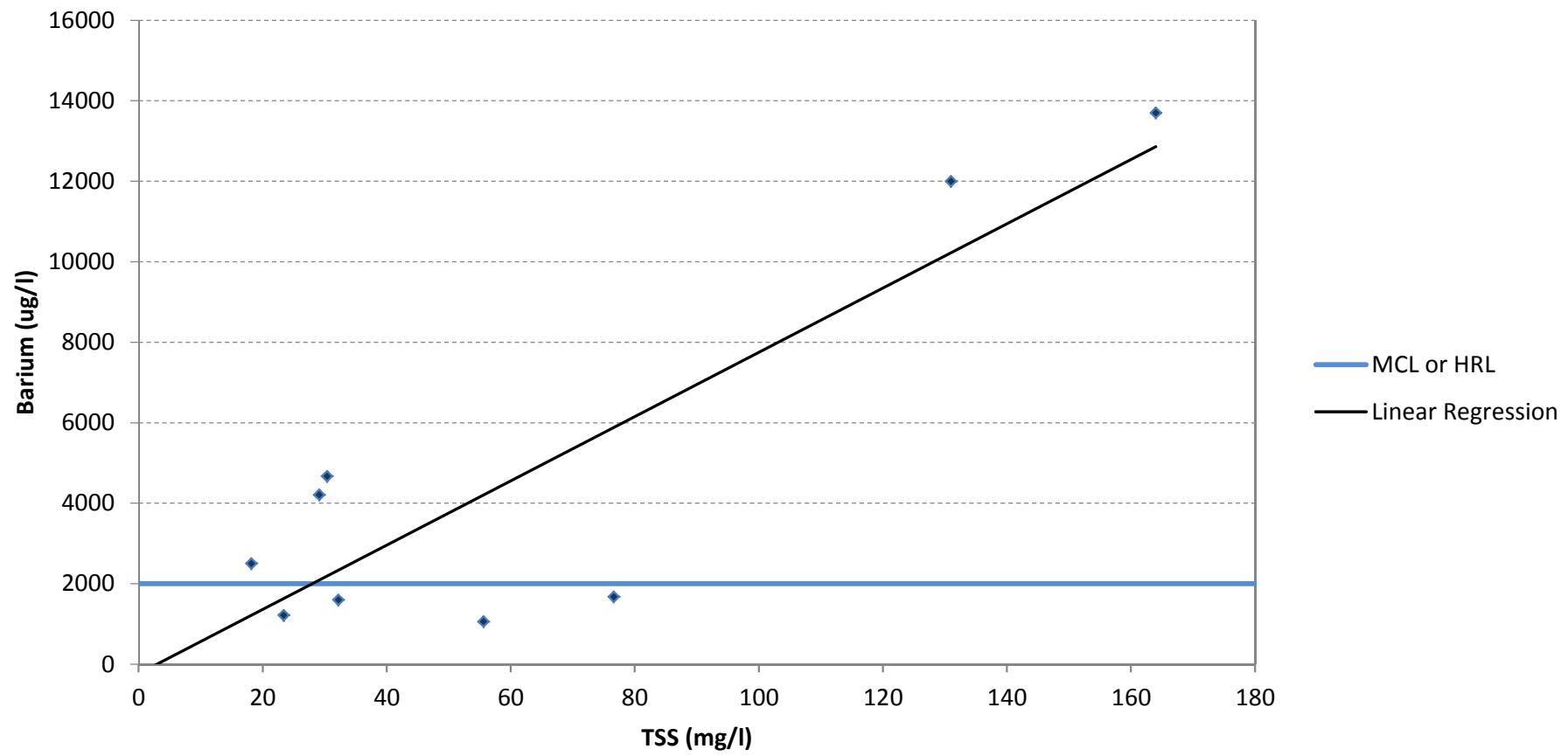
Attachments

Compost Contact Water Total Suspended Solids to Arsenic Comparison



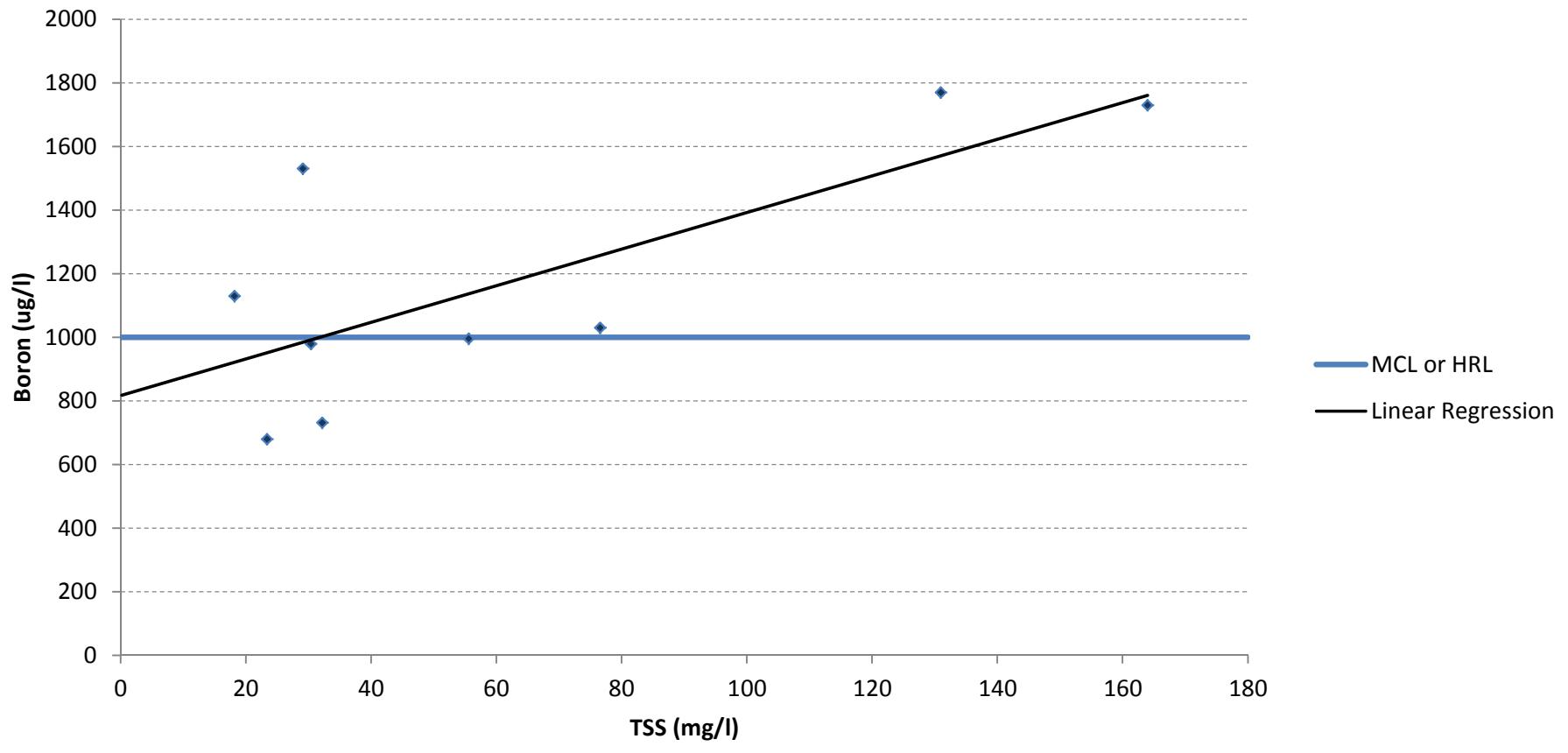
Source: MPCA Source Separated Compost Study Preliminary Summary and Data, Appendix C, March 2014

Compost Contact Water Total Suspended Solids to Barium Comparison



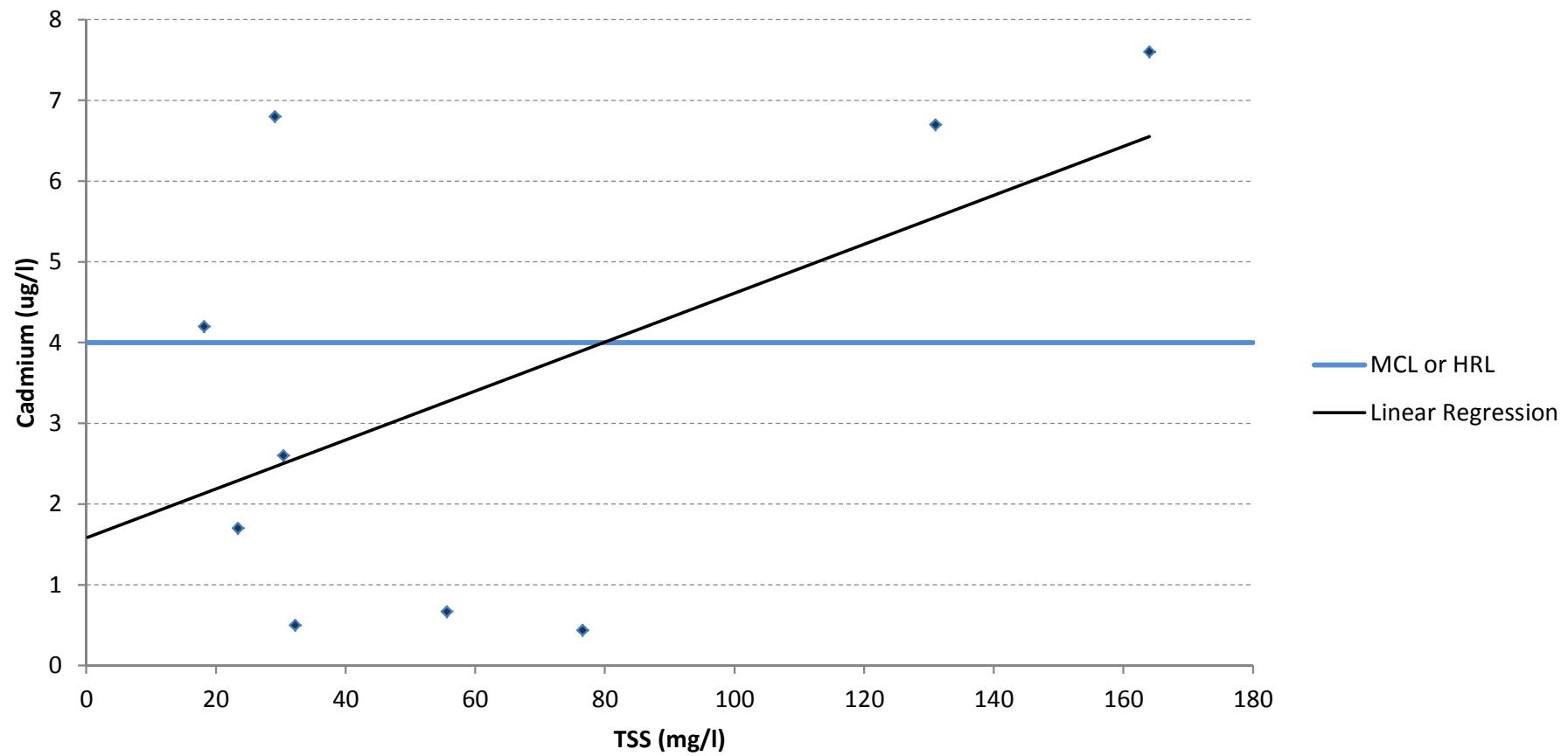
Source: MPCA Source Separated Compost Study Preliminary Summary and Data, Appendix C, March 2014

Compost Contact Water Total Suspended Solids to Boron Comparison



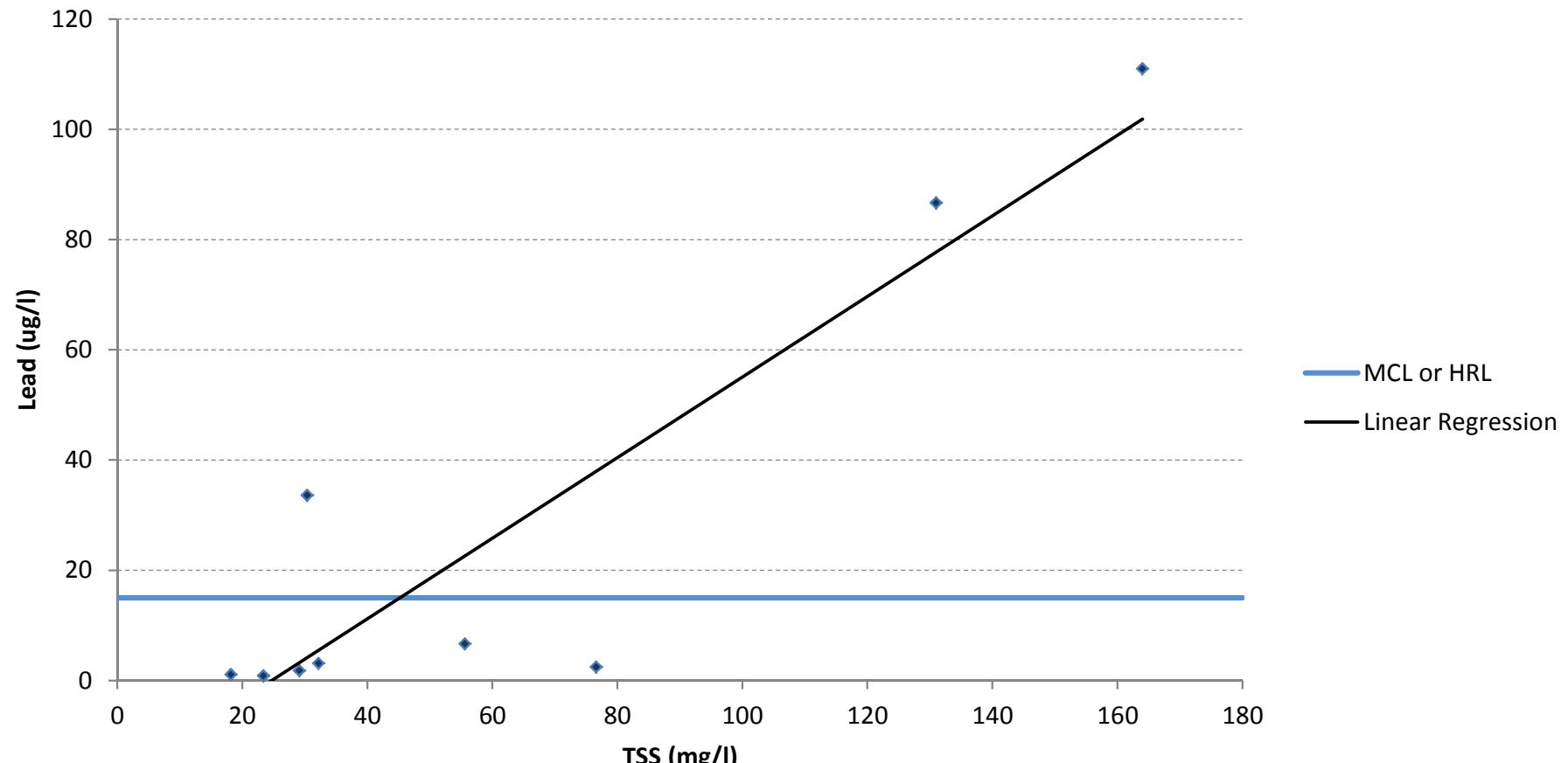
Source: MPCA Source Separated Compost Study Preliminary Summary and Data, Appendix C, March 2014

Compost Contact Water Total Suspended Solids to Cadmium Comparison



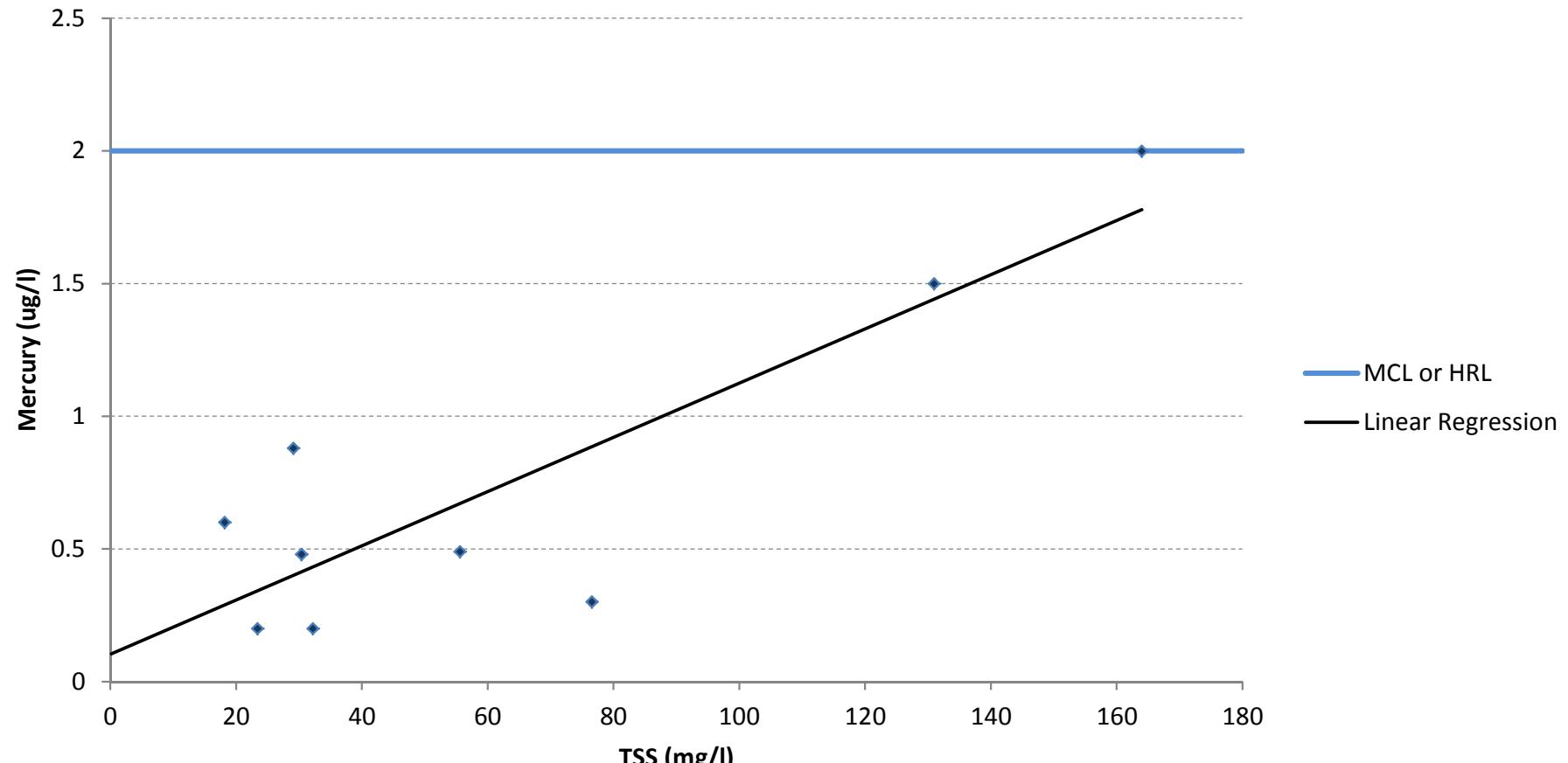
Source: MPCA Source Separated Compost Study Preliminary Summary and Data, Appendix C, March 2014

Compost Contact Water Total Suspended Solids to Lead Comparison



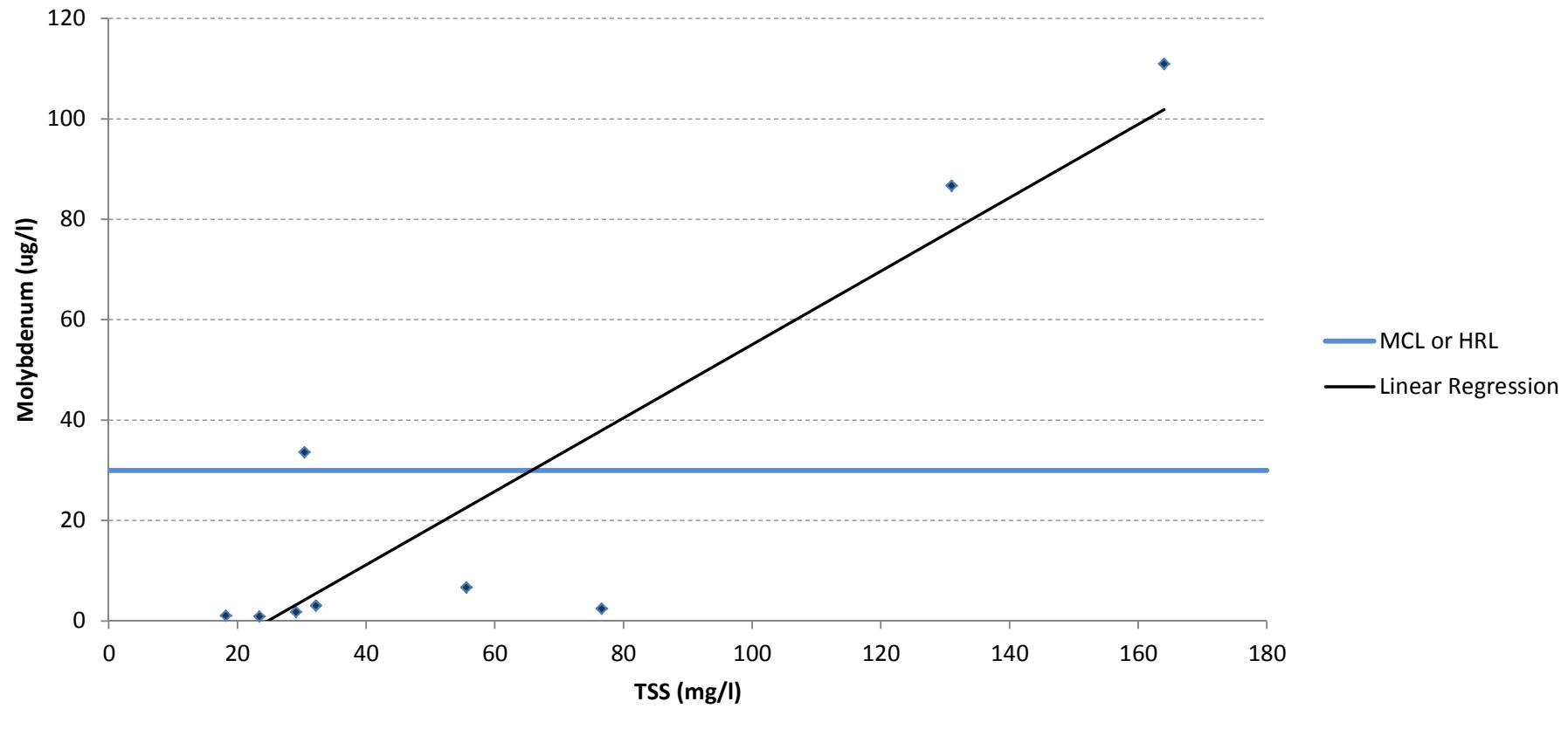
Source: MPCA Source Separated Compost Study Preliminary Summary and Data, Appendix C, March 2014

Compost Contact Water Total Suspended Solids to Mercury Comparison



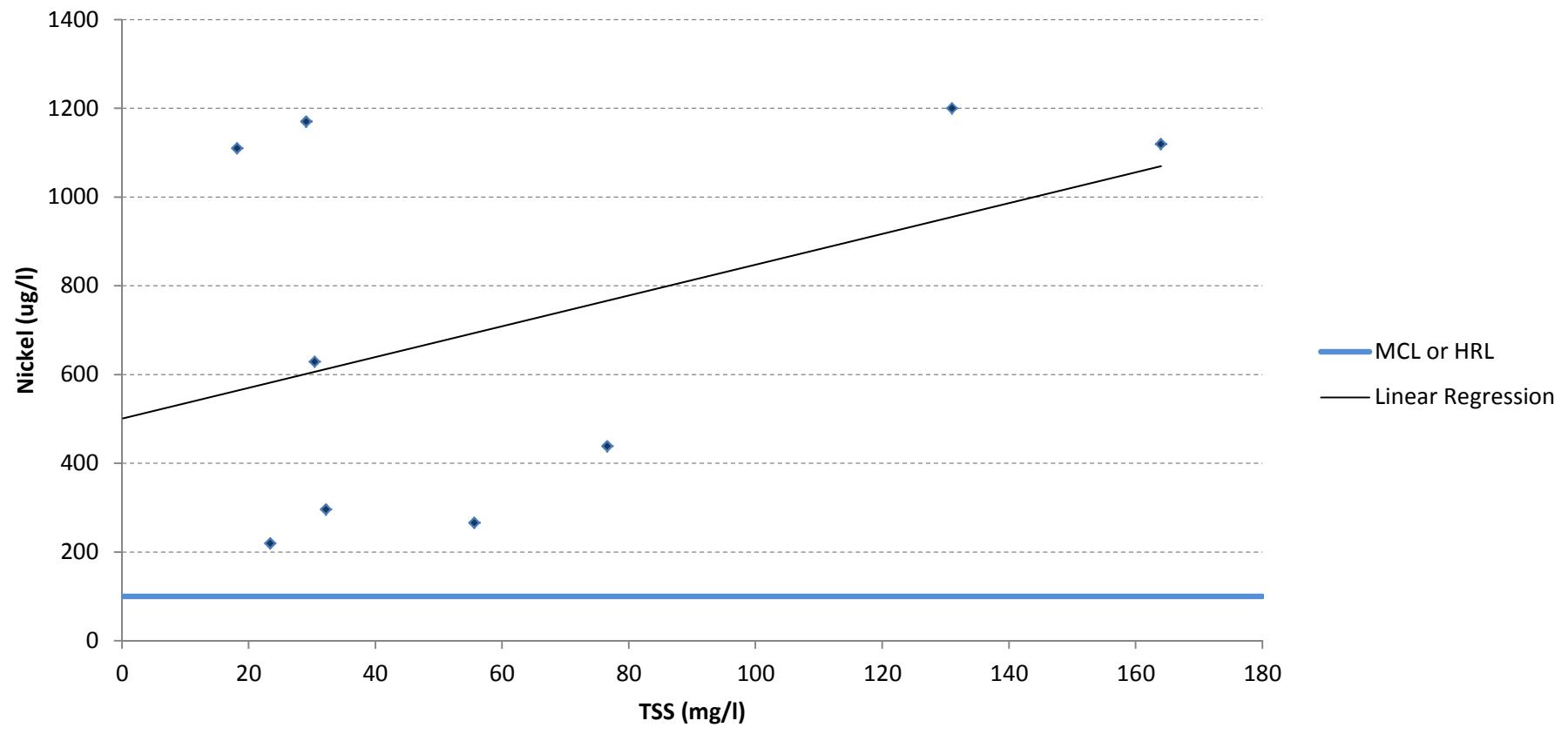
Source: MPCA Source Separated Compost Study Preliminary Summary and Data, Appendix C, March 2014

Compost Contact Water Total Suspended Solids to Molybdenum Comparison



Source: MPCA Source Separated Compost Study Preliminary Summary and Data, Appendix C, March 2014

Compost Contact Water Total Suspended Solids to Nickel Comparison



Source: MPCA Source Separated Compost Study Preliminary Summary and Data, Appendix C, March 2014



September 16, 2016
Minnesota Pollution Control Agency
Attn: Johanna Kertesz
520 Lafayette Road N
Saint Paul, MN 55155

Re: Comments on draft Metropolitan Solid Waste Management Policy Plan 2016—2036

Dear Ms. Kertesz,

The Minnesota Composting Council appreciates the opportunity to comment on the draft Metropolitan Solid Waste Management Policy Plan 2016-2036 (draft plan). The Minnesota Composting Council (MNCC) is a non-profit organization dedicated to the development, expansion and promotion of the composting industry in Minnesota based upon sound science, principles of sustainability, and economic viability.

The majority of the MNCC's comments relate to the organics recycling section of the draft plan. We also have several comments on the MMSW and emerging technologies sections. We would like to emphasize that our comments can be applied beyond the seven-county Twin Cities Metropolitan Area (TCMA) covered by the draft plan to Minnesota as a whole.

Our comments are as follows:

Organics Recycling Programs Can Lead to Source Reduction

A robust organics recovery effort can lead to source reduction in waste. When generators separate organics for collection, the amount of "waste" they are producing becomes a visible cost. This awareness frequently leads generators to implement strategies to reduce materials being "wasted."

Residents who participate in both traditional and organics recycling programs are more aware of the waste they produce and are more likely to avoid purchasing items with packaging that cannot be recycled or composted. This behavior change results in even greater environmental benefits associated with waste reduction.

Additionally, cities with organics recycling programs such as Seattle, San Francisco, Minneapolis, and St. Louis Park have enacted ordinances that further reduces the non-recyclable and non-compostable waste stream by requiring certain types of food packaging to be recyclable or compostable. There are several cities in the TCMA that are considering environmental packaging ordinances similar to those in Minneapolis and St. Louis Park.

Enforcement of State Recycling Standards for Organics Across Source of Origin

As is widely detailed in the draft plan, valuable materials that are easily recyclable or compostable are increasingly being directed to industrial landfills as a means of avoiding the State Solid Waste Management Tax and applicable county fees. This needs to stop.

Organics are defined as a recyclable material in the State of Minnesota. The source of origin (such as an industrial food producer) does not matter. The State needs to apply standards of reduction and recycling outlined in Minnesota Statute 115A to all waste types regardless of source of origin.

Accurate Measure of Organic Materials Available for Collection

Claims have been made that there is insufficient organic material to meet Minnesota's 75 percent recycling goal. The MNCC supports the Minnesota Pollution Control Agency conducting a rigorous evaluation of the amount of organic material in both the MMSW and industrial waste streams. Without that evaluation, it is impossible to determine the amount of material available for recovery and how much additional processing capacity is needed.

Identify Gaps in Capacity Needed to Process Organic Materials

The draft plan does not adequately address organics recycling programs beyond collection. The MNCC does not believe that there is sufficient capacity in the TCMA to process all of the residential and commercial organic materials generated in the TCMA. The issue of processing capacity becomes an even larger problem if organics from industrial sources are added to the mix. The MNCC therefore recommends that the MPCA conduct a study of existing organics processing facilities to determine what additional capacity is required to reach the state's 75 percent recycling goal for the Metro Area.

Reduce Barriers to Construction of Environmentally Sound SSOM Compost Facilities

Recent efforts to revise permitting rules failed to reduce barriers to constructing environmentally sound composting facilities. This is evidenced by the fact that no new facility permit requests have come to the MPCA using the newly amended sections governing source separated organic material (SSOM) compost facilities.

The MNCC believes valid scientific evidence presented during the development of the current SSOM Compost Rule was disregarded and resulted in the current rule being more stringent than necessary to protect the environment. The MNCC provided testimony in a report commissioned by the MNCC and written by American Engineering Testing (AET) which documented the flaws in the data used by the MPCA to develop the current SSOM Facility rule. Among those flaws were the MPCA's use of data from compost piles that were at saturation capacity for water holding, the use of drinking water standards on water samples that were not tested using the proper protocol for drinking water test methods, and the inconsistency in the MPCA's application of what is defined as a hard-packed all-weather surface. These errors and omissions in the MPCA's evaluation resulted in an overly restrictive Rule which greatly increases the cost of locating and constructing an SSOM compost facility.

These rules need to be modified to reflect science-based research and set requirements that will allow more composting facilities to be built at a reasonable cost while still affording the

necessary safeguards that protect our water, land, and inhabitants. For full comments from the MNCC on the SSOM Compost Rule revision see the attached AET report.

Organics Recycling for Large Generators

The MNCC supports the priority strategy to require large generators to divert organics and would be willing to participate in discussions to determine the minimum requirements for large generators and to determine an implementation schedule for various sized generators. Additionally, Western Lake Superior Sanitary District (WLSSD), which began a first of its kind commercial organics collection program in the early 2000s, offers an excellent example of how to implement a large commercial or industrial organics diversion program.

Expand Waste Designation to Ensure Organic Materials Managed to Highest and Best Use

Another opportunity for increasing organics recovery statewide would be to expand waste designation to include organics recycling facilities and not allow organics to go to a landfill or a waste-to-energy facility until capacity at existing organics recovery facilities has been met. Expanding waste designation in this way would ensure that organic materials are managed to their highest and best use. When evaluating organics options for Greater Minnesota in the future, waste designation for organics management facilities should include transfer stations.

Demand Scientific Evidence When Considering Recovery of Organic Materials from MMSW

Minnesota has an unsuccessful history of businesses trying to create sellable compost from MMSW composting operations. The MNCC urges the MPCA and the TCMA to use extreme caution when evaluating mixed waste processing as a means to extract recyclables, including organic materials, for processing.

In the early 1990s, when Minnesota had eight operating MMSW composting facilities, the finished compost produced at these facilities was so contaminated with glass particles it shimmered in the sun. In addition, bits of plastic and plastic film could be seen fluttering in the fields where compost had been applied. Frequently, finished compost from MMSW compost facilities was found to have lead levels that exceeded the State's environmental limits for lead, resulting in a product that was considered hazardous waste. Needless to say the finished product was not acceptable to end markets and the lost revenue from the sale of this material contributed to the failure of those MMSW compost facilities.

Private companies and solid waste agencies in the U.S. and Canada state that end products resulting from MMSW processing and anaerobic digestion can be composted. Indeed, recent tests show that the organic materials from MMSW processing or the digestate from anaerobic digestion can be composted. However, compost facility operators composting those materials have stated that they do not want the contaminated materials because they result in poor quality compost that cannot be sold. If the finished compost is not a sellable product, it will likely end up being used as daily cover at a landfill with very little accomplished at a very high cost.

The industries proposing MMSW processing and anaerobic digestion need to provide scientific evidence that the materials resulting from these processes meet environmental standards set by the State and result in a saleable material. The experience of industry experts from each stage in the processing chain, including secondary processors, needs to be considered.

Economically Competitive Compost Facilities

In order for organics composting to be mainstreamed into the economy, facilities must compete economically with other options. To be economically viable, a compost facility must be able to collect a tip fee from the feed stocks delivered to the facility and be able to sell a high quality finished compost. The MNCC supports policies that enhance the construction and operation of compost facilities in an economically viable manner while still protecting the environment.

The traditional recycling system can be looked to as a model. In the early years of recycling, many Materials Recycling Facilities (MRFs) were publicly owned, while today the majority of MRFs are privately owned. Using this model the MNCC would recommend policies that promote private sector ownership.

MPCA Role in Developing Markets for Compost

The MNCC believes that a concentrated, consistent effort is needed on the part of the State to develop markets for compost.

The industry has come a long way since the early 1990s and there is a great deal of scientific research clearly showing the benefits of using compost in applications such as reducing erosion on construction sites and filtering storm water to remove contaminants before it enters waterways. This research should be used by the MPCA to begin a concerted and consistent market development program for the use of finished compost. In addition, the MPCA should require that the Test Methods for Compost and Composting (TMECC), developed using research from Minnesota compost facilities, be used for the testing of finished compost. TMECC are internationally recognized as the best test methods for ensuring quality finished compost.

One key fact to keep in mind when developing markets for compost is that, while the State can set the environmental standards for finished compost, end users typically set specifications that far exceed those environmental standards. Market standards for state and local highway departments, watershed districts, and the construction and landscape industries can vary greatly depending on the intended use.

As an example, in the 1990s the Minnesota Department of Transportation (MNDOT) was encouraged to use ton compost on road projects. At that time, compost was being produced from MMSW and had a large amount of glass and plastic contamination. As a result, MNDOT has since restricted the compost it will use to only those made from feedstocks of yard waste and manures, i.e., excluding compost made from feedstock of SSOM. The MPCA should work with MNDOT to define the environmental and end use requirements for compost used in road projects.

Residential Collection of SSOM

The MNCC supports the draft plan's priority strategy of making residential curbside organics collection available in the TCMA by 2025. The MNCC encourages the report to elaborate on this requirement and state that source-separated organics collection must be available region-wide by 2025. As mixed-municipal solid waste (MMSW) composting has failed in the past to produce a sellable product, ensuring quality feedstocks are collected for composting facilities in Minnesota is key a factor in assuring their success.

Enforcement of Minnesota State Statute §115A.93

The MNCC also supports the enforcement of current MN Statute §115A.93 which states: “*A licensing authority shall prohibit MMSW collectors from imposing a greater charge on residents who recycle than on residents who do not recycle.*” Under current law, source-separated organic materials are considered a recyclable material.

Importance of Education to Ensure Success of Traditional and Organics Recycling Programs

When traditional recycling programs were first launched, education was acknowledged as a key activity. The draft plan fails to mention how important education is to ensuring that clean materials are collected for both traditional and organics recycling. The MNCC believes that increased education efforts are imperative to the success of these programs.

Identify New Funds for Life-cycle Analysis

The draft plan suggests performing life-cycle analysis (LCA) for many different activities as a way to prioritize materials that have the greatest environmental impact. There is no question that information from LCAs would be very valuable, however, a funding source for the analyses is not identified. The MNCC is concerned that funding would be taken from existing local programs or staffing allocations at the state level, and requests that funding for additional studies be taken instead from SCORE funds not allocated to local programs or state staff complements.

Seek Increased SCORE Funding in 2017

The MNCC feels that all units of government in the TCMA, including the MPCA, should include increasing SCORE funding in their legislative priorities for 2017. With increased State goals and additional measurement, evaluation, and programs for new waste streams identified in the draft plan, additional funding must be secured for the success of the TCMA’s current recycling programs

Expand Compostable Plastic Labeling Requirements

The MNCC supports legislation to amend compost rule 325.046 to require plastics labeled compostable to meet either ASTM standard D6400 (for plastic film and plastic food service ware) or ASTM standard D6868 (for plastic coated paper food service ware).

Summary

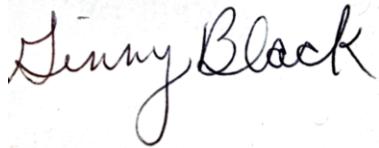
The MNCC believes the following steps are necessary: (1) forwarding source reduction strategies, (2) requiring MMSW and Industrial Waste be subjected to requirements in 115A, (3) obtaining an accurate evaluation of organic materials available for diversion, and (3) amending the compost siting and design rules to encourage development of new SSO compost facilities, (4) focus on large generators as well as residential generators, (5) used designation where practical to support SSO compost facilities, (6) critically evaluate MMSW processing and anaerobic digestions option as possible sources for compost options, (7) implement policies that forward the economic viability of SSO compost facilities, (8) develop a meaningful compost end market program, (9) enforce MN Statute §115A.93, (10) assure adequate funding, and (11) implementing aggressive education programs.

The MNCC supports many activities regarding organics management in the draft plan and hopes the MPCA and the TCMA include the MNCC and representatives from the composting industry

in conversations regarding new and emerging technologies for managing organic materials. The MNCC believes that the steps outlined above are necessary to assure the continued success of traditional recycling programs and the ultimate success of organics recycling, leading the TCMA down a path to successfully meet the 75 percent State recycling goal.

The MNCC appreciates the opportunity to comment on the draft Metropolitan Solid Waste Management Policy Plan 2016 – 2036. We welcome questions or requests for more information from the Agency regarding our comments. If you have questions you can contact me at 763-370-5618 or ginny_compost@yahoo.com.

Thank you for your time and consideration,

A handwritten signature in black ink that reads "Ginny Black". The signature is fluid and cursive, with "Ginny" on the top line and "Black" on the bottom line.

Ginny Black
MNCC Chair

Encl. AET Letter of April 10, 2014 Comments Regarding the Proposed MPCA Rules for SSOM Compost Sites



MINNESOTA
RESOURCE
RECOVERY
ASSOCIATION

Yesterday's Waste... Today's Energy

Mr. John Linc Stine
Commissioner, Minnesota Pollution Control Agency
520 Lafayette Road N.
St. Paul, MN 55155

Re: Comments on MPCA 2016 Draft Policy Plan

Dear Commissioner Stine:

On behalf of the Minnesota Resource Recovery Association ("MRRA"), representing over 33% of Minnesota counties in their solid waste management needs as well as private sector operators of waste to energy facilities, we want to thank the MPCA for the opportunity to comment on the Metropolitan Solid Waste Management Policy Plan 2016-2036 ("Draft Plan").

MRRA members directly impacted by the Draft Plan include Xcel Energy, Great River Energy, Covanta, six metropolitan counties including Ramsey, Washington, Hennepin, Anoka, Dakota and Carver counties and the City of Red Wing. The waste to energy facilities in Newport, Elk River, Minneapolis and Red Wing all receive mixed municipal solid waste generated by residents and businesses from one or more of the counties in the metropolitan area. As part of the State's waste management hierarchy, these counties consistently have supported, through their solid waste management plans and policies, the processing of waste prior in accordance with Minnesota's solid waste management hierarchy. In addition, all counties and the City of Red Wing have made significant financial investments for waste to energy over the last 25+ years.

The MRRA and its members recognize MPCA's efforts to enforce Minn. Stat. 473.848 but must insist that the MPCA do more **NOW** to be sure waste that can be processed is not being landfilled. Although the Draft Plan suggests that there has been an increase in resource recovery in the last few years, in fact, three of the facilities serving the metropolitan counties still do not have sufficient waste flows. Without this enforcement, millions of tons will continue to be landfilled resulting in valuable recyclables and renewable energy being lost.

On page 5 it should be correctly noted that "Resource recovery capacity continues to be under-utilized in the region because the MMSW is being diverted to landfills

by private haulers. This loss will result in a reduction of: renewable energy capacity; ferrous and nonferrous recovery **and other resource savings while increasing pollution.**"

EPA finalized the Clean Power Plan rule in 2015. Power producers may count waste to energy as renewable for any facility built after January 2013 in their efforts to meet the requirements of this federal plan. Resource recovery is also responsible for reducing greenhouse gas emissions that will otherwise be released as methane that forms in landfills and should be recognized along with waste reduction and recycling (page 6) for that reduction.

The MPCA provides the basis for improving solid waste management by setting goals and policies. In Goal 2, resource recovery (waste to energy) has not been included. It is highlighted below where it should be added. Goal 2 states that "to achieve the aggressive goals established in this Plan and by the Legislature, all parties in the solid waste system must be held accountable. Cities and counties must ensure the systems are in place for the proper management of waste. Generators must use the tools provided to reduce, reuse, recycle, **resource recover** or dispose of waste." This addition properly recognizes the State's solid waste management hierarchy.

As in the past, the MRRA supports the MPCA's efforts and leadership in product stewardship and actively participates at the legislature in support of manufacturers designing for the environment and recycling or otherwise managing their products following their usefulness. MRRA also supports the counties they work with by increasing recycling rates. All facilities have taken steps to increase recycling including the addition of equipment for processing to assure more recyclables not initially source separated by generators are separated and recycled from the facilities (primarily ferrous and nonferrous). The MRRA supports counties in their efforts to achieve the 75% recycling goal and some of its member facilities represent some of the largest recyclers in the State.

MRRA believes Tables 1a and 1b in years 2030 and 2036 are inconsistent with state law regarding the amounts to be processed as compared to being landfilled. No explanation is provided as to the drop in processing in 2030 and why landfilling remains constant. MRRA recommends these tables show both tonnages and percentages. Waste being landfilled should be delivered for processing until the facilities are fully utilized. The resource recovery facilities are continuing to be maintained to assure processing capacity and operations consistent with strict permit limits. There is no known reason why levels of processing realized in 2025 (9 years from now) can't continue into 2030 and beyond. So long as this processing capacity exists, waste should not be landfilled consistent with State law (473.848). A floor should also be in place for resource recovery not unlike reduction, reuse, recycling and organics recovery.

MRRA believes the MPCA should give more consideration in the Draft Plan to developing industrial waste management options other than landfilling. There is a

role for resource recovery but only to the extent the industrial waste cannot be reduced, reused or recycled. All waste to energy facilities have industrial solid waste plans approved by the MPCA to manage certain industrial wastes where combustion is the preferred and safest management option and our facilities will continue to be available for those services to businesses.

Notwithstanding the State's solid waste management hierarchy found in Minn. Stat. 115A.02 which prefers managing source separated compostable materials over resource recovery, we remind the MPCA that the same statute states the legislative goals of Minnesota's Solid Waste Management Act are to protect the state's land, air, water, and other natural resources and the public health by improving waste management to realize the:

- 1) Reduction in the amount and toxicity of waste generated;
- 2) **Separation and recovery of materials and energy from waste**
- 3) Reduction in indiscriminate dependence on disposal of waste
- 4) Coordination of solid waste management among political subdivisions; and
- 5) Orderly and deliberate development and financial security of waste facilities, including disposal facilities.

The MRRA and its members fully embrace these goals and believe the MPCA should as well. Thank you for reflecting the proposed changes identified above so that the contribution of waste to energy facilities in the Metropolitan Area and around the State of Minnesota is not minimized.

Sincerely,

A handwritten signature in black ink, appearing to read "Louis Ohly".

Louis Ohly

Chair, Minnesota Resource Recovery Association

Olmsted County Commissioner



September 14, 2016

Ms. Johanna Kertesz
 Minnesota Pollution Control Agency
 520 Lafayette Road North
 St. Paul, MN 55155-4100
johanna.kertesz@state.mn.us

Re: MPCA's Metropolitan Solid Waste Management Policy Plan - 2016 to 2036

Dear Ms. Kertesz:

Thank you for the opportunity to comment on the Minnesota Pollution Control Agency's (MPCA) Metropolitan Solid Waste Management Policy Plan ("the Solid Waste Management Policy Plan"). NAIOP, the Commercial Real Estate Development Association, represents the commercial real estate industry. In Minnesota, NAIOP's 245-member companies are comprised of leading developers, owners, and investors of office, industrial, retail and mixed-use real estate. NAIOP represents the industry that houses Minnesota business.

NAIOP supports a solid waste management program that protects the environment for all Minnesotans. We believe that such a program should rely on private sector competition to provide cost effective waste management.

The MPCA's Solid Waste Management Policy Plan, among other issues, deals with construction and demolition materials, as well as industrial waste such as contaminated soils. Taxes on mixed municipal solid waste (MMSW) are much higher than for industrial solid waste (ISW). The MPCA has reported a significant increase in ISW disposal since 2009 while MMSW has remained constant. MPCA contends, without substantial evidence, that much of the increase in ISW contains MMSW that could be removed from the landfilling stream and recycled or otherwise reprocessed.

To address the issue, the MPCA proposes to raise taxes on ISW to equal those levied on MMSW, that is, from the current \$0.60-per-cubic-yard cost to 17-percent of the overall hauler bill. The following hypothetical project illustrates the significant impact this tax increase could impose Solid Waste removal taxes:

- A 25,000-square-foot office remodeling job may generate 300 cubic yards of waste at a cost of approximately \$3,500 for disposal. Under the current tax rate of \$0.60 per cubic yard, a \$180 fee

would need to be paid to the MPCA. But under the MPCA's proposal, a 17 percent tax would be applied to the overall cost for disposal – a \$600 fee would now need to be paid. This represents more than a 200-percent increase in solid waste disposal taxes.

Contaminated soil removal taxes:

- A medium-sized project might generate 25,000 cubic yards of contaminated soils, which could cost approximately \$1,120,000 to remove and dispose. Under the current tax of \$0.60 per cubic yard, a developer would have to pay \$15,000 in fees. Under the proposed tax of 17 percent of the total cost, the developer would now have to pay \$190,400 – an increase of more than 1,000 percent.

The MPCA should also consider these points:

- Developers in Minnesota are in the business of improving quality of life by improving our living environment. Every project not only improves lives, but also increases state and local tax bases.
- MPCA's proposal would curb new developments, building renovations and urban infill projects. Quality of life will begin to decline.
- Construction jobs would be lost, and cities would not enjoy a more robust redevelopment effort. Blighted areas will simply remain blighted longer (or may never be redeveloped.).
- MPCA should consider methods to more accurately monitor and appropriately channel solid waste streams, not simply raise taxes. Technology exists to accomplish this, and developers and waste haulers are willing to work with the MPCA to accomplish the mutual goal to recycle more.

In summary, if the MPCA's proposed Solid Waste Management Policy Plan is adopted, it will have a chilling effect on the Metropolitan region's new development, building renovation or other construction sector activities which, in turn, could lead to yet more significant economic and social problems. There are already significant regulatory barriers to urban infill projects. The significant tax increases, such as those set forth in the Solid Waste Management Policy Plan, could significantly reduce or stagnate redevelopment of already run-down regions in our metro area.

Thank you for allowing NAIOP to comment on the Solid Waste Management Plan. If you have any questions, please feel free to contact me.

Very truly yours,

Quinn Cheney, Director of Public Policy
NAIOP Minnesota, the Commercial Real Estate Development Association

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September 16, 2016

SENT BY ELECTRONIC AND U.S. MAIL

Johanna Kertesz
Minnesota Pollution Control Agency
520 Lafayette Road North
St. Paul, Minnesota 55155-4100

RE: NWRA Comments on Metropolitan Solid Waste Policy Plan

Dear Johanna,

The Minnesota Chapter of the National Waste & Recycling Association (“NWRA”) is happy to provide written comments to the Minnesota Pollution Control Agency’s 2016 draft Metropolitan Solid Waste Policy Plan (the “Draft Plan”). The NWRA is the trade association representing the private sector solid waste and recycling businesses in Minnesota and across the country. NWRA and its members are dedicated to the safe, economic and efficient management of the waste and recycling streams and welcome the opportunity to be a part of the solution.

We appreciate the statement on page 5 of the Draft Plan that, “the private sector has a significant role, and it should be recognized for its ability to foster innovation and efficiencies through competition. More needs to be done to ensure that the activities of the private sector and the public sector are aligned.” This letter does list significant concerns NWRA members have with the Draft Plan. Nonetheless, we remain committed to work with MPCA to advance and improve Minnesota’s solid waste and recycling system.

MPCA oversteps its authority with this Draft Plan

- We believe that the Draft Plan includes directives to cities, counties, businesses, and the waste industry, for which the Agency has no authority to regulate. The MPCA is overstepping its statutory authority and in several cases requiring other parties, such as counties, to overstep their authority in carrying out these directives.
- Despite an exemption from rulemaking provided by Minn. Stat. § 473.149, subd. 3(b), we believe it is incumbent upon the MPCA to make more effort to meet the spirit of public engagement and to provide additional opportunity for the public to affect state policy

such as is provided by Administrative Rulemaking process in Chapter 14. We believe the process for development of the Draft Plan, as stated in Minn. Stat. § 473.149, is the minimal requirement and we strongly encourage the MPCA to provide a second draft for additional review and comment. Attached as Exhibit A is a copy of the NWRA's recent letter to Commissioner Stine providing a more detailed description of our concerns and our related requests for action by the MPCA.

- We feel that a more rigorous public process is imperative to the development of a well-vetted, needed and reasonable policy, for which there are no unintended consequences. The lack of a “plan” for gaining compliance with the Restrictions on Disposal (“ROD”) policy in the 2010 Policy Plan demonstrates the need for valuable input from all stakeholders and a process that includes greater checks and balances. The new ROD policy became effective on January 1, 2016, and the Agency has yet to provide a clear, equitable and successful plan that results in all processors operating at capacity. The 2016 Draft Plan includes new policies such as the 1% goal for land disposal that are designed to augment the 2010 ROD; however, the Agency admits in the Draft Plan, that while the intent of this new policy is to meet higher waste processing, recycling and source reduction goals, that the policy could result in more waste going out of state. This is a clear demonstration of how the exemption from rulemaking results in the unilateral development of state policy absent the understanding of the waste system and market forces affecting our business.
- We commend the Solid Waste Management Coordinating Board for its comments on Draft Plan provisions that create mandates without justification. They properly point out that the Draft Plan contains “priority strategies” that appear to mandate actions in the metropolitan area. The Draft Plan should be revised throughout to make very clear to all parties the actions that the MPCA is mandating. For other provisions the Draft Plan should make it very clear that those provisions are meant to generate discussion and should not be viewed as mandatory. The Draft Plan should also include the language from the current Plan clearly acknowledging that “costs and how these strategies rank compared to other priorities have not been analyzed for all of these potential strategies.”

Are the state's goals realistic?

- Setting high goals is laudable. It is also laudable that the legislature has established goals in state law that many legislators consider more aspirational than realistic. Given that the Draft Plan is a directive to Metropolitan area governments and the Draft Plan repeatedly states that many entities “must be held accountable,” (page 6) it is important that goals of the Draft Plan are reasonable and achievable.
- Is a 75% recycling and organics goal realistic? If not, what is a realistic goal for the next 20 years? Is 1% landfilling by 2020 realistic? Is it reasonable that cities will have curbside organics by 2025? Unrealistic goals will not spur the action required—by citizens or industry stakeholders. Realistic and achievable goals can unify stakeholders and drive positive change.

- Should the MPCA even focus on tracking by percentage? With more focus on the top of the hierarchy (reduce & re-use), and the additional shrinking of the waste stream with recycling and organics, it doesn't make sense to focus only on what percentage of waste fits each part of the hierarchy. Instead, MPCA should consider per capita measurement of the production of waste.
- MPCA should specifically address whether current goals are realistic or aspirational. This includes both statutory goals, and goals stated in the Draft Plan. If they are not realistic, MPCA should work with all stakeholders to set realistic goals.

How much will this plan cost? At some point does this plan become too expensive?

- The Draft Plan (page 3) states: "Over 60% of Mixed Municipal Solid Waste (MMSW) sent to landfills today could be recycled; this "lost opportunity" results in the loss of valuable metals, plastics, paper, and other commodities. Inevitably, the state, citizens, and businesses will be left with additional costs for siting new landfills, hauling MMSW long distances, increased greenhouse gas emissions, and cleanup at disposal facilities."
- Getting all of that 60% is a laudable goal—but also an enormous challenge. Some solutions will also require that the state, citizens and businesses incur additional costs, require hauling materials and production of greenhouse gas emissions. These costs may be astronomical. The negative effects on the environment may be significant.
- The MPCA should ensure its Draft Plan provides a full description of both the benefits and the costs of activities it proposes to address the 60% of MMSW sent to landfills that "could" be recycled.
- We should be wary of a Draft Plan that fails to consider the cost to Minnesota families, businesses, nonprofits, and government. Right now, we don't know if this plan is too expensive. We don't know what it will cost to get to 75% recycling + organics—or to get to 1% landfilling—or to have all cities with curbside organics. Minnesota deserves to know the actual cost of this plan—both in dollars—and in impact to the environment.
- MPCA should include a cost benefit analysis—and specifically calculate the cost to achieve a range of recycling, organics, processing, and landfilling levels.

We need more specifics.

- Please provide a **list of changes from the 2011 Metro Policy Plan**. While some new policies are clearly identified as "criteria and standards" (Appendices) or as "Goals and Policies (page 8 and 9), there are many directives throughout the document that are clearly policy changes. All changes to current policy, all new policy initiatives affecting the waste industry, local government, businesses and residents need to be clearly identified and listed in one section of the report so that all stakeholders have an understanding of the proposed policies and their impact.

- What “**changes in authority**” is MPCA seeking/supporting? [Draft Plan at page 6 states that “the authorities granted to the state and counties may not be sufficient and possible changes in authority may be needed.”]
- What are the MPCA’s specific plans to **decrease landfilling to 1%** by 2020? The Draft Plan on page 15 states that the “maximum amount of MMSW land disposal that will be allowed” will be reduced from 23% in the current system (2015) to 1% in 2020. What actions will MPCA pursue, and what actions does MPCA expect from local governments? The industry is looking for more than broad statements that Restrictions on Disposal will decrease landfilling to 1%. Specifics are very important here.
- What **changes to the processing system** is MPCA proposing? The Draft Plan on page 16 states: “improvements to existing resource recovery facilities, new refuse-derived fuel (RDF) processing capacity, and/or other system improvements may be necessary in order to capture more recyclables from MMSW.” The Draft Plan should be revised to provide a more complete analysis of the benefits and costs it is considering in concluding that it is appropriate to suggest construction of significant additional processing capacity.
- Please provide more details on **mandatory upfront processing** (page 27). Throughout several drafts of the Minnesota Climate Change Advisory Group (MCCAG) Climate Action Plan, upfront processing costs/ton of Greenhouse Gas (GHG) emissions reduction were presented in comparison to other waste management methods, including recycling. The cost effectiveness of upfront processing at a WTE or RDF facility is a cost of \$32 per million metric ton of CO₂ emissions reduced. For recycling, there is a credit or gain of \$5 per every million metric ton of CO₂ emissions reduced. The cost differential is \$47 per million metric ton to install upfront processing at a processing facility compared to curbside and drop-off recycling. This demonstrates the high return for the environment and the economy from reaching high recycling levels and the high cost of upfront processing for the same GHG emission benefit. For waste systems that are already at a high level of recycling and waste processing, it is critical to analyze the socioeconomic impacts and environmental improvement from this perspective. In essence, this type of analysis needs to be completed for those waste systems that are at a tipping point for making a decision about whether there is value in adding upfront processing. These systems will add upfront processing to retrieve the small amount of remaining recyclables from the waste stream at a very high cost to the public.

Change of MPCA position on Organized Collection

- The Draft Plan (page 8) states: “Policy 8: Increase opportunities for cities to implement organized collection for recycling and mixed municipal solid waste.” NWRA members, citizens and local governments have differing positions on whether cities should transition from an open market to an Organized Collection (OC) system for MMSW. In fact, several municipalities have already done their own evaluation. Nonetheless, NWRA

vehemently opposes MPCA inserting itself into a decision that, per statute, is left to cities and counties.

- The Priority Strategy found on page 25 states, “**By 2025, all cities in the TCMA must provide organized recycling collection for residents. To implement this strategy, counties may: require that cities offer organized residential recycling collection in order to receive funding for recycling programs.**” The decision to organize collection in a community is often very contentious, eliciting significant input from concerned citizens. In fact, numerous cities that have explored organized collection and, after a thorough process with engaged citizen input, have decided not to implement organized collection. This strategy would penalize these communities and ultimately affect their ability to recycle by withholding funding for recycling programs. NWRA does not support this strategy and believes these decisions should be left for each community to decide what the appropriate collection system is for their community.
- In the past, MPCA stated that it did not have a position on OC for MMSW. When and why did MPCA’s position on OC change?

Restrictions on Disposal

- What are MPCA’s specific plans to enforce Restrictions on Disposal (Minn. Stat. § 473.848)? What is the timeframe for implementing these plans?
- NWRA supports a fair and equitable enforcement of the Restriction on Disposal (Minn. Stat. § 473.848). The current state of regulatory limbo creates a level of regulatory uncertainty that is problematic for the solid waste industry. NWRA membership wants to support the processing of metropolitan area MMSW where it is economical and environmentally preferable alternative. However, it cannot participate in a process that allows some haulers to not participate, while the burden of delivering MMSW to processing facilities is borne by those participating. We encourage MPCA to engage the hauling community and other stakeholders to quickly identify a fair and equitable regional solution to to Restriction on Disposal implementation across the entire Metro area hauling community.
- We have concerns with MPCA measuring capacity of processing facilities by their permitted capacity. Processing facilities themselves measure their performance by a lesser “operating” capacity. We do not see any reason for MPCA to use the higher permitted capacity number.

Opposition to—and Misunderstanding of—Landfilling

- MPCA often comments on the cost of managing closed landfills. MPCA must acknowledge the reality of the current landfills serving the Metro area. These are professionally and scientifically managed. They have modern liners and significant

financial assurance. They do not pose the same risk to taxpayers. They are safe and environmentally sound.

- The Draft Plan contains references to the fact that processing facilities produce renewable energy. However, the Draft Plan fails to acknowledge anywhere that landfill gasification systems also produce significant amounts of renewable energy—and power thousands of Minnesota homes every day.
- Land disposal supports a significant number of good jobs. Land disposal also supports cities and counties through host fee agreements. The Draft Plan's 1% landfilling goal, takes a legal activity—and makes it illegal.
- We believe MPCA should put an equal amount of focus on the top of the hierarchy (reduction and re-use).

Misunderstanding of Industrial and Construction & Demolition Waste

- The Draft Plan discusses the need for a Certificate of Need for industrial and C&D (construction & demolition) waste. We again repeat our concerns with MPCA's misconception of this problem. MMSW is not being improperly classified as Industrial and C&D waste. We challenge MPCA to provide any evidence to support this claim.
- MPCA's mistaken thinking had led to a desire for a Certificate of Need for landfill accepting Industrial and C&D waste. We do not believe this conclusion is allowed without a formal rule-making process. This approach only discourages less brownfield clean-up. Contaminated soils make up 80% of this waste stream. We need policies to encourage more brownfield clean-up—not policies that make this more expensive. Finally, given the nature of these projects, it is very difficult to forecast in-bound volume for contaminated soils.
- **Policy 7, found on page 8 of the Draft Plan**, states that demolition debris and industrial waste should be managed according to the hierarchy and that more accurate measurement of these waste streams is needed. While NWRA does not disagree that more accurate measurement is necessary, it cannot be done simply by measuring waste arriving at solid waste facilities. In fact, much of these materials are reduced, reused, or recycled at the point of generation and are not currently being measured. Without accurately measuring these materials, any effort to gather data to determine whether these waste streams are being managed according to the hierarchy will be meaningless. We recommend changing Policy 7 to clearly state that accurate measurement of all demolition and industrial materials reduced, reused, and recycled at the point of generation is necessary before implementing new policy directives for Non-MMSW recycling goals. It should also be noted that the gathering of such data will be extremely challenging and will require a much more comprehensive examination of proper methods of data collection, involving many stakeholders that have not historically been required to provide such information.

- **Page 33, first paragraph states**, “Disposal and tax information suggests that some of the waste classified as ISW would have traditionally been classified as MMSW, but is now being managed as ISW.” There is no empirical evidence or clear examples provided in the Draft Plan to substantiate this claim. NWRA members’ facilities (SKB Environmental, Dem-Con Companies, and Veit) account for nearly all of the merchant Non-MMSW capacity in the State. For practical and proprietary reasons, the vast majority of ISW received is reported as “Industrial – Other.” However, the vast majority of these tonnages are materials with little or no resource value, such as: contaminated soils, asbestos containing materials, shredder fluff, ash from various sources, foundry sands, spent sandblasting media, and many others that conform with all State definitions of ISW. Moreover, regular County and MPCA inspections over the past years have not indicated that improper disposal of MMSW is occurring at Non-MMSW facilities. Therefore, the suggestion that significant tonnages of MMSW are being managed as ISW is clearly not accurate. Similar concerns were raised as recently as 2005 and the matter was thoroughly investigated by the Office of Environmental Assistance (OEA) and included input from MPCA and the Department of Finance and Revenue. OEA’s summary of the issue concludes that “there is not sufficient information to suggest that MMSW is being diverted to industrial/C&D facilities and SWMT (Tax) revenues continue to increase in relation to MMSW disposal trends...there are currently no trends to suggest anything definitive and we do not see a need to refine any of the current industrial or C&D definitions.” NWRA does not believe there is any new evidence of trends occurring today. While our members are not opposed to supplying reasonable information in an effort to understand current trends, we believe such an exercise would be an unproductive use of time for MPCA.

Class III/ISW facilities are vital to the responsible and economical management of these waste streams. These facilities provide a safe disposal option for materials which have no other use, such as brownfield clean-ups, asbestos containing materials, unrecyclable C&D, and many others. Yet, the solutions suggested by the MPCA (increasing the SWM Tax, application of CON requirements, alteration of regulatory definitions) will negatively impact the ability of these facilities to operate and could possibly shut them down entirely. This would have a devastating impact on clean-up and development projects in Minnesota and would needlessly increase costs for numerous industries across the State, with no foreseeable environmental benefits. Furthermore, these changes would burden our already limited MMSW disposal capacity and may easily lead to an MMSW capacity crisis.

NWRA members have been pioneers in the recycling, processing, and recovery of many waste streams including ISW and C&D. Our industry has invested millions of dollars to recover valuable materials from C&D—a waste stream where most of the valuable material has already been recovered at the job site before it reaches our facilities. However, the recycling by contractors is not usually tracked, since reporting is not required. For example, data from just one demolition contractor, Carl Bolander & Sons,

conservatively estimates that they recycled over 600,000 tons of C&D material from job sites in 2014. Bolander is only one of many contractors providing these recycling services in Minnesota, so the industry-wide recycling total will be exponentially higher. If industry-wide data were to be collected from contractors, it is likely that C&D recycling rates would far surpass MMSW recycling rates.

Our members are also innovating new recycling and recovery projects for non-MMSW streams, such as the recovery of ferrous and non-ferrous metal from incinerator ash, shingle recycling, wood recycling, and mixed C & D recycling. However, it is important to recognize that the vast majority of ISW is either not recyclable (i.e. contaminated soil, asbestos containing material, etc.) or is the unrecyclable fraction from an industrial process (i.e. contaminated packaging, factory residuals, spent media, etc.). Therefore, much of what can be done to recover and recycle materials from C&D and ISW is already being done. Simply raising disposal costs, as MPCA proposes in the Draft Plan, will not translate to increased recycling for these waste streams.

Given the inaccurate information and assumptions that were used to support much of the discussion and recommendations pertaining to ISW in the Draft Plan, NWRA feels that it would not be prudent, nor warranted, for MPCA to include these sections in the final Plan. Therefore, NWRA requests that the MPCA remove these sections.

- **Figure 8, found on page 33,** implies that the growth in Non-MMSW generation and flatline in MMSW generation is evidence of ISW reclassification. However, Figure 1 (found on page 4) clearly shows a correlation between the growth in materials managed as recyclables and organics and the fall in MMSW generation. In addition, it is very important to recognize that the recession of 2007-2008 dramatically reduced the amount of C&D generated as very little new construction and renovation occurred during those years, artificially lowering the baseline. It is also very important to recognize that the vast majority of ISW is contaminated soil; therefore, growth in overall ISW generation is likely the result of large development and redevelopment projects and not reclassification.
- **Figure 9, found on page 36,** and the last paragraph on page 35, seem to imply that there are irregularities in Non-MMSW tax collection. Specifically, the text in the Draft Plan implies that Non-MMSW tax revenues previously aligned with industrial economic activity and construction investment (though neither of these indexes are clearly explained in the text) and now the tax revenues are higher. However, the Figure itself appears to be incorrectly labeled. Some clarification as to what “Licon_sa Index” means would be helpful. Regardless, the Figure seems to show that in fact the Non-MMSW tax revenues have never perfectly tracked the industrial and construction figures and that it has historically been much more volatile. In any case, the presentation, analysis, and conclusions derived from this section are misleading and grossly unsatisfactory to base any policy decisions on. We strongly recommend removing this section as any issues related to ISW reclassification will be much better addressed through better Non-MMSW data collection.

- **The section titled “Misaligned tax incentives” beginning on page 35** points out the differences in taxation for various waste streams for Non-MMSW and MMSW. The reason for inclusion of this discussion is unclear in the narrative of the Draft Plan, but appears to suggest the current tax policy encourages ISW reclassification. The tax structure and the direction from the legislature to the MPCA does encourage management of Non-MMSW separately from MMSW. In addition to the legislature intentionally setting the tax structure in the fashion that exists in statute, the legislature has directed the MPCA in Minn. Stat. § 115A.06, subd. 14 to encourage nonhazardous and industrial waste to be managed “...separately from mixed municipal solid waste....” This direction has been given to the MPCA since 1986.
- The entire integrated solid waste system in Minnesota, including NWRA members’ facilities, has been built upon the existing tax structure, which does encourage the management of different waste streams at different facilities. Modifying the existing tax structure would have a devastating impact on not just NWRA members, but also many industries around the State, including building owners, builders, developers, industries, hospitals, to name just a few. Moreover, this section is inappropriate for the this Draft Plan and is outside the statutory authority grated to the MPCA as it relates to the Draft Plan that is being developed. This Draft Plan directs Metro Counties as to the development of their solid waste plans and the counties do not have any authority to address state tax issues and long standing legislative policy directives.
- **Figure 11, found on page 38,** projects Non-MMSW tonnage growth that is simply unrealistic. By presenting an annual Non-MMSW generation estimate of 13 million tons/yr by 2036 simply shows that the development of these sections was not approached with realism or objective analysis. In fact, it appears the MPCA has selectively chosen to not use broad historical trends as the basis for their projections, but has rather used a brief snapshot of post-Great Recession growth data—which merely returns to the waste generation rate to normal—as the basis for their growth projections. This forecast needs to be revised based on long-term historical trends.
- **Of the Priority Strategies for Non-MMSW, found on pages 38 and 39,** NWRA supports the recycling requirements for State buildings and projects that receive general obligation bond funding. NWRA has concerns regarding the requirement placed on counties regarding demolition/remodeling projects of more than 1500 sq. ft. This would include almost all demolition projects (including many small home demolitions) as well as remodeling projects. The increased costs and difficulty in reporting may cause negative consequences for future property improvement and development in the Metro area. NWRA opposes the establishment of recycling/reuse goals to be used as mandates without having a plan to address the lack of end markets for C&D materials. NWRA supports the correct classification of MMSW and ISW, but does not support any clarification or change to the definitions without a more satisfactory demonstration of an existing reclassification problem and without better data collection and analysis. NWRA is opposed to a blanket requirement of conducting waste sorts at all landfills. The waste

sorts conducted at incinerators is the result of the fuel analysis of air permitting for those facilities. While NWRA can support voluntary periodic waste sorts (as has been done in the past), NWRA posits that required waste sorts at all facilities would be redundant and unnecessary.

Misunderstanding of the role of the private sector

- The Draft Plan describes a government-led system. We seek a public/private partnership. This model has served us well. Minnesota leads the nation in recycling—and we can do even better. We need more cooperation, not more central planning.
- Our bottom-line goal is the same as the state's policy goal: we both want to recycle more. This is not always the case for industries regulated by the agency. It is rare when public and private sector goals align. Additionally, the consumers and businesses also want to do the right thing. We need to embrace this opportunity.
- Minnesota needs more private-sector innovation and risk-taking. We need the public sector policies that support innovation—not policies that discourage private sector-investment. We need more private sector risk-taking—we need the next big ideas in waste reduction, recycling, or organics.
- The goals in this Draft Plan risk a significant negative effect to the bottom-line of scores of businesses. This means real consequences to the jobs and careers of hard-working Minnesotans. In addition, the Draft Plan lays out significant changes to how we serve our customers. We were not invited to the table to help write this plan. Instead, industry is given one opportunity to comment of plan written by MPCA. The statutory Draft Plan process does not provide a robust method for addressing for stakeholder concerns (such as found in the state's Rulemaking process).
- We worry that the Draft Plan will lead to more regulation—but will fail to move the needle on Minnesota's solid waste system goals.
- We would appreciate the Draft Plan's acknowledgement that:
 - Private-sector competition is good for consumers (and their pocketbooks).
 - Private-sector solid waste jobs are some of the best in the state—and these jobs should be encouraged and supported.
 - MPCA supports additional private sector innovation and investment.
 - MPCA will work to reduce bureaucracy that might stifle innovation. New technology (e.g. organics collection) will likely not fit well into the existing solid waste system. Government will need to be flexible as we design the solid waste system of the future.

- Government should support a level playing field, where all players follow clearly defined rules. Government should remain neutral, and not pick winners and losers.
- We have been consistent in our message that the MPCA should not support building additional infrastructure that would compete with our existing facilities (page 17). Currently, the Metro area has an overcapacity of recycling processing. This competitive environment is a benefit to consumers. We are concerned with the statement that additional recycling processing might be necessary in the future. Public infrastructure planning should not take place without an economic analysis of the system's current assets, and the effect to existing infrastructure.

Our Plan

- NWRA members want a Draft Plan that is both **aggressive & doable**. The industry wants a Policy Plan with goals we all embrace. We seek a partner, not more regulation. We want to move the ball forward on recycling—and moving things up the hierarchy. We want a plan with specifics—and a degree of regulatory certainty—for our customers, our employees, and to encourage risk-taking and innovation.
- We should **focus on (and measure) effort**—and not only on outcomes. We cannot control what makes up the evolving MMSW ton. We cannot control national economic trends (like China's reduced need for metals or cardboard). We cannot control the cost to procure virgin materials (like glass). Instead, we can educate, encourage, and incentivize Minnesotans to do the right thing (recycle more, compost more, etc.).
- We believe the **best way forward is to look back to what got us here**. What works—we should do more of that.
- We support more work on the **top of the hierarchy**—on reduction and re-use. This is state law—and by law, is a higher priority than recycling, organics, or waste processing.
- We support **better data**—as this will lead to better decisions.
- We support **better measurement** of recycling and organics. A significant amount of recycling is not accounted for because these materials bypass the current system of MRFs and the collection of source-separated organics.
- We support a **new approach to measuring recycling**. After all, recent light-weighting of materials may tend to show a decrease in recycling tonnage—while the reality is that more is being recycled.
- We support **Sustainable Material Management**—though we have concerns with Extended Producer Responsibility (EPR). We support **voluntary approaches to product stewardship**. We oppose landfill bans.

- We appreciate MPCA discussing the need for more **market development** for recyclable materials. However, a state-run effort here may not be the best solution. In fact, there are recent examples of MPCA struggling to make this work. The market for recyclable is affected by numerous geo-political factors. Ultimately, we cannot control economics—or the value the market places on specific commodities.
- We support **curbside recycling** in the Metro area. **We support curbside organics—where that makes economic sense** (though this may be an expensive proposition). If government seeks widespread curbside organics, we suggest they first determine the cost (how much subsidy or tax incentives are necessary).
- We support **focus on laws currently on the books**—before the state adds new regulation. One example is the new Metro area mandatory commercial recycling law.
- **Most importantly, we all need to invest in a coordinated recycling message with more consumer recycling education.** The public and private sectors have made great efforts here. However, the waste stream is always changing—and our education efforts need to also evolve and improve. This is the absolute best way to move the needle.

Please do not hesitate to contact me if you have any questions or concerns.

Sincerely,

Douglas Carnival
Minnesota Counsel for NWRA

DMC/lia

cc: Peggy Macenas, NWRA
Bill Keegan, DemCon, NWRA Chapter Chair

Attachments: Exhibit A – NWRA Correspondence of August 31, 2016 to Commissioner Stine



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RETIRED
 ANDREW J. SHEA

August 31, 2016

SENT ELECTRONICALLY AND BY U.S.MAIL

Commissioner John Linc Stine
 Minnesota Pollution Control Agency
 520 Lafayette Road
 St Paul MN 55155

Re: MPCA Metropolitan Solid Waste Policy Plan Draft

Dear Commissioner Stine:

The National Waste & Recycling Association (“NWRA”) is the trade association representing the private sector solid waste and recycling businesses in Minnesota and across the country. NWRA and its members are dedicated to the safe, economic and efficient management of the waste and recycling streams and welcome the opportunity to be a part of the solution. We appreciate your willingness to meet with us to address our concerns about the MPCA’s draft of the Metropolitan Solid Waste Management Policy Plan (“Plan”).

Many NWRA members participated in the August public meetings on the Plan convened by MPCA staff. We are in the process of finalizing our comments on the draft Plan due to the MPCA by September 16. We appreciate those opportunities to attend meetings and submit comments. We commend your staff for meeting with our members regularly to discuss important solid waste and recycling issues. While all of those opportunities to communicate with your staff are valuable, we requested a meeting with you to directly convey our deep concerns with portions of the draft Policy Plan and the process underway to finalize it.

The draft Plan is, in our experience, unprecedented in scope. It sets goals for the metropolitan area that are clearly unattainable and would have a disruptive impact on the private solid waste and recycling industry that has to this point played a huge role in making Minnesota a national leader in waste management. Our concerns are important and our request for your intervention is urgent because of the very unusual authority given to the MPCA to adopt and

enforce the Plan. State law requires the MPCA to adopt the Plan and states that the Plan “shall be followed in the metropolitan area.” Minnesota Statutes Section 473.149. In addition, that same statute provides that MPCA’s revisions to the plan are exempt from the rulemaking provisions of Chapter 14, the Minnesota Administrative Procedures Act.

The plan is labeled in the statute as “the metropolitan long range policy plan for solid waste management.” In fact, the Plan goes far beyond statements of policy. It establishes goals, standards and mandates activities that “shall” be followed in the metropolitan area. It is in effect a rule adopted by the agency that has the full force and effect of any other MPCA rule. The impact of the plan on a variety of regulatory decisions is described in Appendix D of the draft Plan, including impacting MPCA decisions on solid waste facility permit applications, solid waste supply and processing contracts, waste designation proposals, landfill certificate of need proposals and county solid waste master plans. That gives rise to our most urgent request. Given the extreme breadth of the draft Plan, the statutory requirement that the Plan “shall be followed” and the impact that MPCA enforcement of the plan will have on public and private activities to manage solid waste and recycling, we ask you to direct MPCA staff adopt the plan using a process that is consistent with the spirit of the Minnesota Administrative Procedures Act.

Currently the draft Plan is not supported by the type of record required for rulemaking. The MPCA materials do not include a description of the revisions from the previous Plan, materials supporting the need for revisions to the Plan or a description of the reasonableness the MPCA’s goals and directives. The process does not require a response to comments or any re-noticing of the draft Plan if the MPCA determines that changes should be made in response to comments.

Our request that MPCA provide more information justifying Plan provisions is consistent with the requirements of Minnesota Statutes Section 473.149. Were the MPCA required to comply with state rulemaking requirements, the MPCA would be required to provide information in the record supporting findings that the Plan is consistent with these statutory requirements:

- The 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.
- For solid waste facilities owned or operated by public agencies or supported primarily by public funds or obligations issued by a public agency, the plan shall include additional 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 the waste management objectives identified in the plan.

- In revising the plan, the commissioner shall consider the orderly and economic development, public and private, of the metropolitan area; the preservation and best and most economical use of land and water resources in the metropolitan area; the protection and enhancement of environmental quality; the conservation and reuse of resources and energy; the preservation and promotion of conditions conducive to efficient, competitive, and adaptable systems of waste management; and the orderly resolution of questions concerning changes in systems of waste management.
- Criteria and standards for solid waste facilities shall be consistent with rules adopted by the Pollution Control Agency pursuant to chapter 116.

(Emphasis added.)

As just one example, the draft Plan sets a goal of reducing landfilling to 1% of municipal solid waste by the year 2020. The current Plan sets a “ceiling” for MSW land disposal of 20% for 2015 and 17% by 2020. The draft Plan states that in 2015 23% of waste was landfilled. The draft Plan does not contain any material justification for the 1% goal to support a finding that it is either necessary or reasonable. Yet, if it is adopted in the final Plan it “shall” be followed and, according the Appendix D of the draft Plan, the MPCA will use the goal as a criteria in making all manner of regulatory decisions.

We appreciate the opportunity to meet with you. In advance of the meeting with you on September 23, 2016, we will make sure that you receive a summary of our substantive comments on the draft Plan.

Sincerely,



Douglas Carnival
Minnesota Counsel for NWRA

cc: Assistant Commissioner Kirk Koudelka
Bill Keegan, DemCon, NWRA Chapter Chair
Peggy Macenas, NWRA



4646 Dakota Street SE
Prior Lake, MN 55372

September 12, 2016

Commissioner John Linc Stine
Minnesota Pollution Control Agency
520 Lafayette Road North
St. Paul, MN 55155

Subject: Draft Metropolitan Solid Waste Policy Plan for 2016-2036

Dear Commissioner:

The City of Prior lake is fortunate to be located in Scott County. The county, cities, townships, school districts, Shakopee Mdewakanton Sioux Community and numerous other public agencies are part of the Scott County Association for Leadership and Efficiency (SCALE). Through SCALE we work together to assist one another to accomplish our respective goals.

Service Delivery is a subcommittee of SCALE. On August 15th the subcommittee heard a report on the Draft Metropolitan Solid Waste Policy Plan. This week we received a copy of Scott County's response to the draft plan. We were impressed! Obviously Paul Nelson, Environmental Services Program Manager for Scott County invested a considerable amount of time in reviewing the draft plan.

The purpose of this letter is twofold:

1. Please give consideration to the comments made by Mr. Nelson and Scott County as you finalize the policy plan.
2. We encourage the MPCA to work with counties and cities who ultimately implement this policy plan in order to engender cooperation to maximize effectiveness.

Sincerely,

A handwritten signature in blue ink that appears to read "Kenneth L. Hedberg".

Kenneth L. Hedberg
Mayor

RECEIVED

SEP 15 2016

**MPCA COMMISSIONERS
OFFICE**

September 14, 2016

Johanna Kertesz
Minnesota Pollution Control Agency
520 Lafayette Road
Saint Paul, MN 55155

Dear Ms. Kertesz,

Saint Paul – Ramsey County Public Health appreciates the opportunity to comment on the Minnesota Pollution Control Agency (MPCA) draft Metropolitan Solid Waste Management Policy Plan 2016-2036, on behalf of Ramsey County. The Solid Waste Management Coordinating Board (SWMCB) has also submitted comments; Ramsey County, as a member of that joint powers board, forwards these comments in addition to supporting those submitted by the SWMCB.

Flexibility

Comment: *The draft Policy Plan reduces flexibility in policy and strategic approaches from the current plan. The Policy Plan should reflect the differences among counties, and allow counties to adopt strategies that are most effective at the local level. If the final plan contains mandated strategies, the MPCA should present their effectiveness and cost to demonstrate why the change will be an improvement.*

The draft Policy Plan asserts that all counties are “expected” to integrate implementation of the “priority strategies” directly into county master plans, and are encouraged to include the recommended strategies. Rather than expecting all counties to use the same approach, and be required to integrate implementation of the priority strategies, we strongly recommend that all strategies be offered as opportunities and allow the counties to use their expertise to decide which strategies will be the most effective within our communities.

In fact, this was the approach taken by the MPCA in the current Metropolitan Solid Waste Management Policy Plan 2010-2030 (“current plan”). On page 19 of the current plan it states, “The following strategies are meant to generate discussion and should not be viewed as mandatory or exhaustive. The Plan remains flexible to accommodate change in the system structure and the marketplace.” This is followed by a table that includes potential strategies and an implementation guide, and a note that the suggested strategies have not been evaluated for effectiveness or cost. This approach was and continues to be effective in order for the county to be nimble and flexible enough to incorporate innovative ideas and emerging technologies into our strategic approach.

Ramsey County’s solid waste management planning and implementation is carried out in the context of its vision and mission as a local government entity in Minnesota. Each county in Minnesota is unique,

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and as a fully-developed diverse metropolitan county, there are challenges and opportunities solely faced by Ramsey County. The County's work on solid and hazardous waste has to recognize these unique circumstances. The County's vision, mission, and goals are as follows:

Ramsey County Vision: A vibrant community where all are valued and thrive.

Ramsey County Mission: A county of excellence working with you to enhance our quality of life.

County Goals

- **Strengthen individual, family and community health, safety and well-being** through effective safety-net services, innovative programming, prevention and early intervention, and environmental stewardship.
- **Cultivate economic prosperity and invest in neighborhoods with concentrated financial poverty** through proactive leadership and inclusive initiatives that engage all communities in decisions about our future.
- **Enhance access to opportunity and mobility for all residents and businesses** through connections to education, employment and economic development throughout our region.
- **Model fiscal accountability, transparency and strategic investments** through professional operations and financial management.

Ramsey County has delegated administration of its solid waste programs to its public health department, deliberately deciding to focus on reducing environmental and health risk through prevention and by building relationships with various communities. In line with this value of partnership, Ramsey County recognizes that the greatest accomplishments occur when working with and being responsive to others, and the MPCA is encouraged to take a similar approach with flexibility in strategy adoption.

If the mandated strategy approach proposed in the plan moves forward, the counties would integrate strategies that do not have proven effectiveness and unknown costs. This approach would also result in replacement of strategies that have already been implemented based on years of experience. For example, the draft Policy Plan's priority strategy to focus on large volume generators of recyclables in the commercial sector, (which follows a recommendation from the 2011 SERA report, *Diversion Research Studies: Commercial and Organics Recycling*) does not take into account Ramsey and Washington Counties years' of experience and lessons learned in regards to commercial recycling efforts since the report was written. Since 2003, Ramsey and Washington Counties have learned from and improved their methods of promoting recycling and organics management with commercial generators. In 2013, the joint business recycling program, BizRecycling was launched, and since then has had substantial success initiating and improving business recycling. The draft Policy Plan's approach would require the two counties to redirect their joint effort, with little evidence that such a change would benefit the East Metro area.

With this in mind, we encourage the MPCA to focus on an approach that supports success versus reacts to failure and on building relationships to create change rather than heavily regulating change. The draft Policy Plan states that the region's solid waste diversion efforts have not advanced the goals

set out by state law. While this may be true on a regional level, Ramsey County has made significant advances in the goals laid out in MN Statute 115A.02. We have not only met the objectives in the current plan, but exceeded them for recycling, processing, and landfilling. The flexibility of the current plan and the ability to tailor programs to local needs have been key in this success.

Waste Management Hierarchy and New Technologies

Comment: *The MPCA is encouraged to recognize the evolution of the waste stream and emergence of new technologies, and more aggressively pursue evaluation and allowance of new technologies that divert waste from landfills and value the material as a local resource. Further, the MPCA is encouraged to approach strategies in the Policy Plan that view the hierarchy as a dynamic guide, not a static yardstick, acknowledge change, and evaluate the effectiveness of the integrated solid waste management system in the context of that change.*

In 1989, Minn. Stat. Section 115A.02 was amended to include the prioritized set of preferences for solid waste management practices now commonly referred to as the “waste management hierarchy.” Since that time the character of waste has changed, technologies to manage waste and recyclables have changed, and methods have emerged that are difficult to place in the hierarchy.

New methods of managing waste, and viewing discarded materials as resources with local benefits, have emerged and are being considered by public and private entities in the region. Other states, and provinces in Canada, have evaluated, permitted, and allowed such technologies. These emerging waste conversion technologies blur the lines between processing and recycling, for example, but also present a significant opportunity to increase landfill diversion, the least preferred management option on the hierarchy.

Performance Measurement

Comment: *The MPCA is encouraged to include a more robust discussion of performance measurement, and take a broader approach to evaluating system performance than measuring tons of material managed in different ways.*

In 2014, the Ramsey/Washington County Resource Recovery Project Board (now the Recycling and Energy Board, or R&E Board) approved a policy paper entitled “Moving to a Waste Hierarchy Goal” and recommended that the SWMCB work with the MPCA and others to develop a practical system to more accurately measure progress in meeting State waste management goals. The historic method of measuring progress in meeting State waste management goals in Minnesota has been to try to count tons of waste managed through a variety of different waste management methods and programs in the State waste management hierarchy. Trying to measure tons of material managed in accordance with the waste hierarchy has always been a challenge because the State is trying to measure a wide variety of commodities and materials that are handled by many public and private entities in a confusing system. There has been a continual struggle to gather data, agree upon measurement methods, and draw meaningful conclusions. The R&E Board proposed changing performance measurement to more accurately track progress in meeting State goals: a measurement of what is landfilled or a landfill diversion goal coupled with metrics that measure other state goals, and which are tied more closely to protection of health and the environment. A change in the focus of

measurement to a landfill diversion goal would focus on progress in meeting state policy, and not on measuring every ton of material.

The R&E Board's policy paper on a waste hierarchy goal is attached to this letter, and is incorporated into our comments.

Market development

Comment: *The development of recycling markets is an absolute priority to the success of a robust recycling system in the State. The MPCA is encouraged to expand the Policy Plan's approach to market development, and include comprehensive, long range planning for market development.*

In 2014, the R&E Board approved the policy paper, "More Recycling Requires More Markets". It recommended that the SWMCB work with the MPCA to establish a system that approaches market development in a more comprehensive manner than that currently implemented by the MPCA. The development of recycling markets is an absolute necessity to achieve a 75% recycling goal. Ramsey County supports many of the strategies in the draft Policy Plan, but recommends an aggressive approach toward recycling markets. The 75% recycling goal is both an environmental and economic goal. Materials separated for recycling are commodities – resources, not pollutants. A comprehensive long range plan that explains how Minnesota will market these commodities will provide substantial stimulus for recycling.

The R&E Board's policy paper on recycling markets is attached to this letter, and is incorporated into our comments.

Environmental Justice

Comment: *Including an environmental justice review is applauded, but the review does not go far enough. As the agency develops further knowledge and tools, its evaluation of environmental justice and equity should be used more broadly.*

It is encouraging to see that the MPCA has started to address environmental justice in its work. The draft Policy Plan defines environmental justice narrowly – "making sure that pollution does not have a disproportionate impact on any group of people," and focuses on facilities. In fact, environmental justice is broader than the effect of pollution and where facilities are located, but addresses the development, implementation and enforcement of environmental laws, regulations and policies. A broader approach to environmental justice would examine the effect of policies and strategies and not just permits. The recent appointment of an advisory group should help advance the MPCA's understanding and develop tools for the agency to use in this regard.

Master Plan Standards and Procedures

Comment: *Appendix D contains a number of new standards for County Master Plans. Some are a clarification of statutory requirements, but others are not based in statute. The MPCA should justify these new standards, and provide more clarity on these new mandates.*

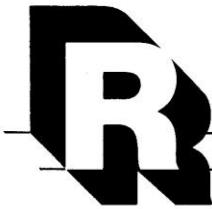
Thank you for providing us the opportunity to comment on the draft plan. We look forward to a flexible, clear and equitable plan that will allow for the most effective outcomes to guide counties future Solid Waste Master Plans. We are available for continuing discussion around these issues.

Sincerely,



Zack Hansen
Environmental Health Director

C: Victoria Reinhardt, Chair, Board of Commissioners
Julie Kleinschmidt, County Manager
Meaghan Mohs, Deputy County Manager
Rina McManus, Director of Public Health



RAMSEY/WASHINGTON COUNTY
RESOURCE RECOVERY PROJECT

2785 White Bear Avenue • Suite 350 • Maplewood, Minnesota 55109 • 651.266.1194 • 651.266.1177

Moving to a Waste Hierarchy Goal

A recommendation from Ramsey and Washington Counties

Approved on September 25, 2014

Action Requested

A new practical measurement system is proposed to more accurately track progress in meeting State waste management goals. It is recommended that

1. The Solid Waste Management Coordinating Board (SWMCB) develop a measurement system following this proposal in 2015, and use it for system measurement in 2016; and
2. That the SWMCB consider legislative proposals to put such a measurement system into State law.

Introduction

The historic method of measuring progress in meeting State waste management goals in Minnesota has been to try to count tons of waste managed by management type (recycling, waste reduction, i.e.) through a variety of different waste management methods and programs in the State waste management hierarchy. However, there has been a continual struggle to gather data, agree upon measurement methods, and draw meaningful conclusions from the gathered data. Looking ahead, a new, practical measurement system is proposed to more accurately track progress in meeting State goals: a measurement of what is landfilled or a waste hierarchy goal ensured at managing waste within the hierarchy coupled with other metrics.

Trying to measure tons of material managed in accordance with the waste hierarchy has always been a challenge because the State is trying to measure a wide variety of commodities and materials that are handled by many public and private entities in a confusing system. A change in the focus of measurement to a waste hierarchy goal would focus on progress in meeting state policy, and not on measuring every ton of material. The current management within the hierarchy draws bright lines between management methods. The emerging waste conversion technologies blur those lines between processing and recycling. The waste hierarchy goal is aimed at the driving waste to the best management method that ensures public and environmental health and reduce risks.

The argument for a waste hierarchy goal is strengthened by making it clear that *any* goal, designed as a practical metric for tracking progress over time, should be coupled with strong policy statements to support what the purposes of the waste management hierarchy were, are, and have become-- instead of focusing on the specific waste hierarchy elements themselves. Minnesota has such policy statements, and the overall statements found in the Waste Management Act (Minn. Stat. Section 115A.02):

- *Protect the state's land, air, water, and other natural resources and the public health;*
- *Reduction in the amount and toxicity of waste generated;*
- *Separation and recovery of materials and energy from waste;*
- *Reduction in indiscriminate dependence on disposal of waste;*
- *Coordination of solid waste management among political subdivisions; and*
- *Orderly and deliberate development and financial security of waste facilities including disposal facilities.*

Background

In 1989 Minn. Stat. Section 115.02 was amended to include the prioritized set of preferences for solid waste management practices now commonly referred to as the “solid waste hierarchy.” Since then, state agencies have been directed to “improve” solid waste management by reducing overall waste generation, increasing programmatic “separation and recovery” of materials from the waste stream, and reducing “indiscriminate dependence” on landfill disposal. State, regional and local government agencies have been directed to establish programs and measurement strategies related to specific elements of the waste hierarchy, including source reduction, recycling, organics, and resource recovery.

State law holds the MPCA and counties accountable to implement state policy, achieve state goals, and measure and report progress. In the metropolitan area the majority of waste related services are provided by the private sector. Industry holds most of the ability to achieve state goals, *and* holds the data to measure progress as well.

Consequently, measurement of key components of the waste system has proven difficult, because government does not control much of the waste stream. For example, the ability to obtain reasonably reliable overall recycling quantities for over 75,000 businesses and other commercial accounts in the metro area has been notoriously elusive, even though it has long been suspected that quantities of recycling from commercial sources are considerably greater than from residential sources. Despite considerable effort over the past 20 years to improve commercial and multi-family recycling data, this key element of the data submitted for the SCORE report remains highly estimated. Tonnages reported for landfill facilities, processing facilities, single-family curbside recycling, and source-separated organics are generally considered to be reasonably good overall for the metropolitan area, but not necessarily by community – especially in areas with open trash coupled with open recycling collection (i.e., individual residents subscribing to trash/recycling service vs. a community contracting for service).

Further, the emphasis on historic measurement has been on elements of the waste management hierarchy instead of being focused on other policy goals of the state, as outlined above. The question we should be asking is “how do we best measure progress in meeting state policy goals?” -- not “how do we best measure recycling?” Some other states appear to be moving away from measurements by waste management method to a waste hierarchy goal. For example, several years ago California adopted a system focused on waste hierarchy instead of Minnesota’s approach of measuring objectives on a program-by-program basis.

Recommended: A Waste Hierarchy Goal

A waste hierarchy goal has several parts: the definition of the type(s) of waste covered by the goal; the amount of waste managed by land disposal, and the character of the waste being landfilled. Steps include: First, establish a baseline year. Second, establish the percentage of the waste stream that is expected to be diverted from land disposal into waste management methods (such as recycling and processing) that are consistent with State policy. Third, monitor two things: (1) the amount of waste managed by land disposal and (2) the character of the waste being landfilled. (It should be noted here that resource recovery facilities in the State already monitor these two elements, by conducting periodic waste composition data, and measuring inputs and outputs.)

Included in this is an annual measure of two things:

- The volume of waste directly landfilled. For purposes of measuring progress in meeting the goal, residue from recycling facilities and waste processing facilities would be measured but would not count toward the goal.

- Periodic assessment of the composition of the waste landfilled with the intent to identify resources and energy not recovered. The waste composition data would be an indicator of materials that need specific attention for recovery and separate management, and would be useful for targeting outreach and promotion, as well as market development.

In measuring the amount of waste landfilled, it is assumed that reductions in disposal are from source reduction, reuse, recycling, separate management of organics, and composting and resource recovery. The percentage of MSW diverted from landfill is the ultimate indicator of progress.

Recommended: Measure Progress in Meeting State Goals

A waste hierarchy goal does not stand alone, because such a metric addresses primarily the state goal of reducing dependence on land disposal of waste. Other policy goals, such as reducing the toxicity of waste, separating materials and energy, reducing greenhouse gases and orderly development of the system, should be accounted for as well.

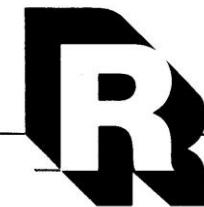
Metrics: To assure that State policy goals other than landfill abatement are being met, there should be indicators to measure progress. Specifically:

- *Protect the state's land, air, water, and other natural resources and the public health*
 - Environmental outcomes, such as greenhouse gas emissions, as measured directly or estimated using models.
 - Evaluation of the resource value of discarded materials recovered through recycling and processing, as well as the lost resource value for materials that are land-disposed.
- *Reducing risk to health and the environment*
 - Progress in reducing the hazardous character of waste, including data from:
 - MPCA and metropolitan county hazardous waste regulation,
 - Household hazardous waste programs, and
 - Industry product stewardship efforts for items such as oil and oil filters, and batteries.
 - Data from waste composition studies at landfills and resource recovery facilities identifying types and volumes of hazardous material that have not been separately managed.
- *Separation and recovery of materials and energy from waste*
 - Data about recycling gathered from municipalities, recycling collectors processing facilities, and markets; with the intent being to indicate the strength of recycling activities, especially the strength of local markets.
 - Availability, quality and resilience of markets for the resources recovered from waste
 - Fuel and energy
 - From a production perspective, to assess the quality and quantity of the use of carbon found in waste and conversion of that material into renewable fuels or energy; and
 - From an energy-balance perspective, to link State energy policy with State waste policy.
- *Orderly and deliberate development and financial security of waste facilities including disposal facilities*
 - Data about the economics of managing waste destined for landfills.

The difference in these measures, compared to the current methodology, is that the focus would be on progress in meeting policy, and not focused on measuring every ton of material.

Evaluation of this Proposal

- This approach adheres to State policy as outlined in the Waste Management Act, and clarifies the distinction between data and analysis needed to measure progress in meeting State goals.
- This approach uses measures based on actual data from reasonably accurate sources, compared to current practices which include a significant amount of estimating.
- This approach is less complicated for local and State governments to implement, and data would be gathered from a limited number of sources, places, facilities or haulers.
- This approach accommodates advancing technology that are challenging traditional waste categories, such as anaerobic digestions, which has elements of recycling, composting and waste-to-energy.
- There would still be a need to collect some detailed data for program management (such as recycling performance among certain sectors, such as residential recycling, or for certain materials, such as certain plastics), but that would be gathered based on need.
- Creates a new requirement for land disposal facilities to report volumes and conduct periodic waste sorts, similar to requirements for waste-to-energy facilities.
- Results could be significantly affected by changes in economic conditions, and also changes in demographics (e.g., changing consumer habits, amount of household formation).



RAMSEY/WASHINGTON COUNTY
RESOURCE RECOVERY PROJECT

2785 White Bear Avenue • Suite 350 • Maplewood, Minnesota 55109 • 651.266.1194 • 651.266.1177

More Recycling Requires More Markets A recommendation from Ramsey and Washington Counties

Approved on September 25, 2014

Action Requested: It is recommended that the Solid Waste Management Coordinating Board (SWMCB) adopt this position paper and legislative recommendation, include it in its 2015 legislative platform, and pursue legislation to enact the recommendation in State law.

Position Statement: *Minnesota needs comprehensive, long-range plan for market development.* Metropolitan Counties in Minnesota are now required by State law to achieve a 75% recycling goal by 2030. Using 2013 numbers that means an over 800,000 tons of additional organics, metal, glass, plastic and paper would need to be separated from trash, processed, and delivered to end markets. The economics of, resilient markets for, these commodities are necessary to achieving and sustaining this goal. Development of recycling markets is an absolute priority to the success of a robust recycling system in the State.

Market development is the creation and development of markets for products made in part from postconsumer waste materials diverted from the waste stream. When these diverted materials are used to produce new products, the products are referred to as recycled-content products. The US EPA says that “market development means fostering businesses that manufacture and market recycled-content products and strengthening consumer demand for those products. Market development includes expanding the processing and remanufacturing capacity of recycling businesses to handle the increasing volume of collected recyclables.”

Making the Case for Improved Market Development

- *Pivot our thinking from “waste” to “resource.”* When a material is discarded by someone, it is a waste. When that material is used by someone else, it is a resource. Recycling in Minnesota harvests resources by accumulating discarded materials and processing them into new products. Recycling activity in Minnesota captures these resources, and generates economic activity in the State. In 2013 about 400,000 tons of mixed municipal solid waste was discarded in Ramsey and Washington Counties; this waste includes a lot of recyclables. Had recyclable materials been separated from the trash and delivered to recycling markets, it would have garnered around \$25 Million in revenue. Instead, it was delivered for processing or landfilling, and a tipping fee was paid to manage it.
- *Recycling is important in local economies.* In Ramsey County alone, for example, there are at least 1,050 recycling jobs directly associated with recycling markets, and an additional 6,400

jobs indirectly associated with recycling markets. as a result in Ramsey County alone. The total estimated gross economic activity from recycling in Ramsey County is \$4.95 Billion each year.

- *Up to now, we've done a pretty good job.* Arguably the State has done a fair to good job of market development over the past 30 years, and current recycling volumes of most products are being handled. We currently have a good recycling economy in Minnesota, which includes export of some materials to other parts of the United States and overseas. A share of the credit for the current Minnesota markets should go to State and local recycling programs, but also to private firms involved in recycling activities. However, there are a lot of questions to ask and answer about recycled materials and recycling markets (see attachment). And, self-congratulation and current markets should not impede honest, constructive and critical self-reflection on opportunities for continuous improvement. Finally, marketing of products from organic waste management has been largely non-existent, but the region will rely significantly on managing organic waste to meet State goals.
- *Market development is currently stuck in the past.* Market development has been a task assigned to various state agencies since the original Minnesota Waste Management Act (e.g., Waste Management Board, Office of Environmental Assistance, and Minnesota Pollution Control Agency, Minnesota Dept. of Administration, Metropolitan Council, and the Department of Economic Development). Currently it resides at the MPCA, with one employee assigned to work on it. Other states have moved forward with comprehensive resource plans, developed local recycling development zones, and have looked ahead at how to capture the economic value of recycling. Minnesota has no such plan. Our resources are outdated*.
- *We have a strong base to build on:* Minnesota has been blessed with a strong base of existing end markets for traditional recyclables, such as Anchor Glass, Rock-Tenn Paper, and Gerdau Ameristeel. However, Minnesota is competing with other states for new end markets and intermediate processors to locate here. Further, our local markets need to be expanded and strengthened.
- *We need to move beyond cans, glass, paper, and plastic.* Recent waste composition studies for Minnesota, Ramsey/Washington, and other facilities show substantial quantities of various materials in MSW that are not considered “traditionally recycled” materials. This includes Items such as clean wood, pallets, wooden crates, textiles, leather and carpet, padding, plastic films, and bulky materials such as furniture and mattresses. Plastics, in particular have a sizeable environmental impact, and have significant potential market value.
- To approach 75% recycling by 2030, it is necessary to address these materials the barriers that prevent them from being recyclable.
- *Market development is more than just State government.* Importantly, the private sector handles most recyclables and organics – they have a significant stake in strong markets. The State of Minnesota has a primary role, but local governments have also have a role (e.g., in

continued development of supply and procurement of recycled content products). Any new initiative should have local government representation in scoping and implementation. The University of Minnesota has a stake – it puts a lot of resources into evaluating Minnesota resources – those resources should include commodities recovered by recycling.

A Call to Action for Recycling Market Development in Minnesota

Minnesota needs comprehensive, long-range plan for market development. Preparation of such a plan needs to call on a variety of expertise. Working on markets for commodities from recycling requires an in-depth understanding of the unique recycling markets, material engineering, economic drivers and commodity pricing that occur in the State of Minnesota. The diverse background needed to do this requires the skills of economists, materials engineers, waste/recycling planners and commodity pricing experts. These diverse skills are not currently housed within one State Agency or any one organization. At the State level, market development will require expertise from at least the Minnesota Pollution Control Agency, Department of Commerce, Minnesota Department of Employment and Economic Development , Department of Agriculture and the Department of Natural Resources. The University of Minnesota's research and policy expertise is also a valuable asset. Local governments and economic development agencies are familiar with collections systems and waste systems.

Recommendation

The Legislature should create a recycling markets development task force, accountable to the Legislature, to prepare a comprehensive long range plan for recycling market development in Minnesota.

It is recommended that:

1. The Recycling Markets Development Task Force include representatives of the following:
 - Industry representatives in these categories
 - Minnesota Chamber of Commerce
 - Recycling/materials trade associations
 - Recycling collectors/processors
 - Recycling brokers
 - Existing end market for paper, glass, metal
 - State Departments/Agencies:
 - Pollution Control Agency
 - Commerce
 - Employment and Economic Development
 - Natural Resources
 - Agriculture
 - University of Minnesota
 - Local economic development authorities
 - Metropolitan counties
 - Association of Minnesota Counties

- League of Cities
- Financial industry

2. A “third party” convene the Task Force. The key job of the convener selected is to assure a sense of urgency, assure all parties have a voice, create an implementable plan, and to move the plan to completion. A governmental entity, such as the Minnesota Environmental Quality Board, which includes Commissioners from the State agencies listed above, could convene the Task Force and be responsible to complete the Plan and report to the Legislature. Alternately, a non-governmental entity, such as Environmental Initiative, could serve as convener.
3. The Plan be developed and reported to the Legislature by January 2017.
4. The Task Force develop a comprehensive, long-ranged plan for market development that meets these key objectives:
 - Creation of sustainable, Minnesota-based jobs;
 - Expand on the strong base of existing end markets in Minnesota;
 - Identification of market development efforts in other States, and what has succeeded there;
 - A process for targeting specific materials and prioritizing market development efforts;
 - An institutional structure to forecast recycling needs based on emerging trends in product and packaging design;
 - Identification of specific effective and efficient tools for use in market development, such as tax incentives, grant and loan programs and other funding mechanisms to drive economic development;
 - Creation of a business assistance function, to assist in locating manufacturing materials (feedstock), finding markets for products, providing current market conditions/trends, evaluating technology and equipment, and creating relationships with and among industry and recyclers;
 - A regular communications protocol for sharing results, trends and emerging projects with all interested parties; and
 - A mechanism for ongoing funding of market development activities and research on recycling and/or testing emerging technologies.
5. That the Legislature appropriate \$750,000 to complete the plan, which would include technical research conducted by agencies, the University of Minnesota and consultants. It would be appropriate to use as a funding source proceeds from the Solid Waste Management Tax.

Attachment – Examples of questions of value to evaluate recycling markets serving Minnesota.

Questions about monitoring recycling markets in the State of Minnesota

1. How many tons of recyclables are now being separated and marketed? What is their composition?
2. How many more tons will need to be marketed by 2030? What is the projected composition of those recyclables?
3. How many direct employment jobs are associated with recycling markets, and how many more are estimated to be created as a result of the 75% goal?
4. Where are most material (by material) currently marketed: What proportion is in Minnesota? In US? Foreign?
5. Which materials have the greatest dollar value at this time?
6. Who is monitoring market trends and commodity pricing: past and future? Is that data available to the public?
7. How many facilities and how many direct employment jobs in Minnesota process or use recovered materials?
8. Is the current processing capacity sufficient to handle the additional tons to be recycled in order to meet the State's 2030 goals?
9. Who is evaluating the quality and resiliency of existing markets?
10. Who is evaluating changes in products and the effect of product design on recyclability, and what that may mean for markets?
11. Do we have access to sustainable and robust markets for all materials currently collected for recycling in Minnesota?
12. What materials currently collected for recycling have a negative market value requiring collectors to pay to dispose of them and what could be done to improve the economics of this situation?
13. What new markets will need to be developed and expanded to absorb the increases in recycling required to meet the State's 2030 75% recycling goals?

Questions about market development in Minnesota

Market development is the creation and development of markets for products made in part from postconsumer waste materials diverted from the waste stream. When these diverted materials are used to produce new products, the products are referred to as recycled-content products.

1. What studies have been completed on market development to date, and when were they last completed? By whom?
2. Is the University of Minnesota engaged in evaluating recycling materials and/or markets? How are they funded? How are their priorities established?
3. Have any efforts been made to identify/engage businesses and manufacturers that utilize products that would normally end up in a landfill?
4. Have any efforts been made to link recycling markets development with development of markets for other resources in the State?
5. How are priorities established for work on market development?

6. How are financial institutions engaged in market development?
7. How are the following engaged in market development?
 - a. Local economic development agencies
 - b. Chambers of Commerce
 - c. Development corporations
8. Are there any private sector firms in Minnesota that specialize in market development? How and when has the Minnesota Pollution Control Agency or others worked with them?
9. Who is the best agency/government resource to refine and further develop expertise and experience in market development?
10. What resources are available to assist in start-up funding for new companies? Tax incentives? Funding support? Technical assistance? Fast tracked or Stream-lined permitting?
11. What resources will be required to meet State's 2030 recycling goal of 75%?

Reinke_MPCA Waste Proposal .txt

From: Paul Reinke <PREinke@iret.com>
Sent: Thursday, September 15, 2016 11:47 AM
To: Kertesz, Johanna (MPCA)
Subject: MPCA Waste Proposal

Dear Johanna,

I've reviewed the Metropolitan Solid Waste Management Policy Plan 2016-2036 and have concerns about the proposal which significantly increases the taxes on solid waste removal and the taxes on contaminated soil removal.

From my experience and perspective as a real estate developer/redeveloper of commercial and multi-family housing projects for a large public company, and my perspective as a three term Council Member in the City of Oakdale – it seems like the MPCA should increase their efforts to more accurately monitor and appropriately channel waste streams versus simply raising taxes. We are willing, and I believe the contractors and the haulers that work on our projects are willing, to work with the MPCA to generate methods for achieving mutual goals for a greater level of recycling.

Development and redevelopment projects are difficult to execute in the current environment and increasing disposal costs creates another hurdle for projects to overcome. I don't want to see the taxes raised as proposed without first having implemented a sustained effort to utilize technology and work with developers and haulers to create improved recycling methods.

Best regards,

Paul Reinke
Director of Development and Construction
IRET Properties
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800 LaSalle Avenue, Suite 1600
Minneapolis, MN 55402
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Council Member
City of Oakdale
1584 Hadley Ave N
Oakdale, MN 55128
651-739-5086 (City Hall)



September 16, 2016

Ms. Johanna Kertesz
Minnesota Pollution Control Agency
444 Lafayette Road
St Paul, Minnesota 55155

Sent via email to: johanna.kertesz@state.mn.us

RE: Comments to 2016 Metropolitan Solid Waste Policy Plan

Dear Ms. Kertesz,

Thank you for the opportunity to provide written comments to the Minnesota Pollution Control Agency's (MPCA) 2016-2036 Metropolitan Solid Waste Policy Plan.

Republic Services, Inc. is an industry leader in U.S. recycling and non-hazardous solid waste. Through our collection companies, transfer stations, recycling and processing centers, and landfills, we focus on providing reliable environmental services and solutions for commercial, industrial, municipal, and residential customers. We are committed stewards of the planet's natural resources, finding opportunities to reduce our footprint, while expanding capabilities to meet customers' evolving recycling and solid waste needs.

Republic has a significant presence in Minnesota. We are committed to serving our Minnesota customers—while also preserving Minnesota's natural resources. We have a large waste and recycling hauling operation. We are transitioning our fleet of diesel-powered trucks to cleaner burning Compressed Natural Gas (CNG)-powered vehicles. Nationally, the benefits of Republic's CNG-powered fleet are equal to planting 10.7 million trees annually according to the U.S. Environmental Protection Agency (EPA).

We operate two state-of-the-art Material Recovery Facilities (MRFs)—recycling centers—in Minneapolis and Inver Grove Heights. Our recycling hauling and MRF operations are designed to not only collect more recyclables, but to recover the highest value from these materials. Our recycling operations do more than recover value—they also make a real difference for the environment. According to EPA, nationally Republic saves 15 million tons of carbon dioxide equivalents through its recycling operations.

We are proud to operate the Pine Bend Landfill in Inver Grove Heights, which includes a state of art methane gas processing system. This waste-to-energy facility produces enough renewable energy to power 8,000 Minnesota homes every day. We also value our hard-working local employees, and make their safety our priority. In 2015, Republic continued to achieve a 42 percent better safety record than the industry average, based on Occupational Safety and Health Administration (OSHA) national data.

We believe in being a Good Neighbor to the communities where our 500 local employees live, work and raise their families. In Minnesota, Republic is proud of its community sponsorships and charitable donations (over \$25,000 in 2015), and our employees volunteer countless hours at local non-profits.

We understand MPCA's Policy Plan is guided by Minn. Stat. Sec 115A.51 (subd. 2), which states that each Metropolitan county shall have a goal to recycle 75% of solid waste by 2030—where recycling is defined to include organics and yard waste.

Numerous public and private sector stakeholders have argued that actually achieving 75% goal is highly unrealistic, incredibly expensive, or both. We encourage MPCA to accept that the 75% goal is just that: an aspiration, not a mandate. We encourage MPCA to use the Policy Plan development process as an opportunity to encourage public-private partnerships and set aggressive, but realistic, goals.

Additionally, we have strong concerns with the Policy Plan's landfilling goal: which declares that only one percent (1%) of mixed municipal solid waste (MSW) can be delivered to landfill, starting in 2020. This goal does not come from the legislature, and is not provided anywhere in statute. This 1% goal is a mark set unilaterally by MPCA—and first mentioned in the draft Policy Plan. A 1% goal is neither reasonable nor realistic.

A 1% landfilling goal will essentially shut the gates at Pine Bend—a modern, safe, scientifically managed landfill, with significant financial assurance. This goal will have a significant effect on our employees and their families, as well as our city and county partners. This 1% goal will drive up the garbage bills for thousands of Minnesota families, businesses, and non-profits. Furthermore, there is a strong likelihood that a 1% landfilling goal will not result in more recycling or organics recovery—but will instead only drive more waste out of Minnesota. Every ton of MSW diverted from Pine Bend to a Wisconsin landfill, results in a direct negative financial impact on our local government partners.

Republic has always sought to work with the MPCA, rather than pursue litigation, as the means to solve disputes and issues. However, if the MPCA takes actions that lead to the closure of Pine Bend and thus significantly impact the value of this asset, Republic will have no choice but to look carefully at its options given a governmental taking of its property.

The state's solid waste hierarchy is set forth in Minn. Stat. Sec. 115A.02(b). This hierarchy clearly sets forth MPCA's priorities. Organics is #3 on the list. Recycling is #2. The #1 priority is reduction and re-use. We encourage MPCA to follow state law, and put more focus on the top—not the bottom of the hierarchy.

We have strong concerns with the Policy Plan's references to Restrictions on Disposal (ROD), which is set forth in Minn. Stat. Sec. 473.848. The Policy Plan uses ROD as a prime factor to achieve the max 1% landfilling goal.

In late 2015, MPCA communicated to waste haulers that it would begin enforcement of ROD in January 2016. Unfortunately, at that time, the MPCA failed to provide a roadmap on how the solid waste system would achieve compliance with ROD. Some haulers (like Republic) make significant deliveries to processing facilities, while other haulers deliver much less, and some fail to participate at all. Our commitment to processing facilities is plainly demonstrated by our willingness to meet facility demand shortfalls in 2016 which have resulted in a significant negative effect on our bottom line.

This uneven playing field has resulted in an unfair competitive landscape. The market has not solved ROD on its own. While MPCA may not have intended this result, the MPCA's actions have harmed Republic for supporting the policy goals.

We have a long record of supporting refuse derived fuel (RDF) processing facilities in Minnesota. In fact, we are the top hauler delivering MSW at two of the state's three largest processing facilities. Our commitment to processing facilities continues, even when this results in a significant negative effect on our bottom line. We ask MPCA to provide leadership on ROD, and work with all stakeholders to craft a solution that involves all haulers in a fair and equitable manner.

We are also concerned that the Policy Plan calculates the state's processing capacity based upon the "permitted" capacity of the processing facilities—instead of using the "operating" capacity. The facilities themselves use the "operating" capacity number to decide when they are full, and consider operating capacity as their optimal capacity.

Unfortunately, this Policy plan relies on questionable and incomplete data, and then sets goals without accounting for the economic and environmental cost. For example: a poorly executed ROD plan will result in waste hauling trucks traveling significant additional miles, thereby driving up economic costs for families & businesses—increasing greenhouse gas emissions—and cutting money from the budgets of cities and counties that host landfills.

Across the nation, Republic is a strong partner to thousands of cities, counties, and states. We worked with the City of San Jose to create one of the nation's most innovative solid waste systems. Our Southern Nevada MRF is the largest in the North America—and can process 2 million tons of recyclable material per day. We want to work with you—and we know how to solve big problems.

We do our best work when we sit down with our government partner and design a public-private partnership. Our planning process starts with good data. We lay out all the options—and the cost for each. Some options will require additional infrastructure—and this may mean additional public/private investment, or additional government permits and approvals. Using this data, our public partners can then make informed decisions—and create the system that meets all of their goals: environmental, level of service, and cost. We urge MPCA to approach the Policy Plan in the same manner—and to include estimates on cost, environmental impact, and additional facilities and permits needed.

Unfortunately, this Policy Plan is a “top down” directive—instead of a cooperative partnership. The private sector is much more willing to take risks and make investments when they see a willing public sector partner. A highly regulated environment will only stifle private sector innovation and investment.

We encourage the MPCA to invite the waste industry to the table—and use our input to create the 2016 Policy Plan. Plans without robust industry input is doomed to struggle—and will likely fail to meet its goals.

We also encourage the MPCA to clarify that the Plan’s goals should be modified if the required infrastructure (processing capacity, organics facilities, etc.) is not present. MPCA should also be prepared to permit the necessary infrastructure needed to achieve the goals of this plan. Additionally, state policy should always first support the private sector investing its own resources in infrastructure—before allowing government to invest tax dollars in competing infrastructure.

The Policy Plan provides support for cities moving to “organized collection.” Many Minnesota cities have already made this transition—often decades ago. We are a proud partner in many organized collection cities. However, we also understand that some cities are not interested in making the transition to organized collection. We do not ever proactively push cities to organize, but if a city is interested in making this transition, we are always willing to come to the table as a partner and trusted advisor. We believe each city should retain the right to make their own decision to organize—or not – based upon their own interests and needs.

We support the Policy Plan’s goal of more curbside recycling, especially single-sort. Republic has been a pioneer in advancing single-sort in Minnesota. Our investments in our MRFs show our long-term commitment to increasing recycling.

The collection of significant amounts of source-separated organics is a challenge. No one has yet identified a cheap and easy solution. Nonetheless, Republic is working with cities and counties across the country to solve this problem. We have the expertise, technology, and people to solve the most complex solid waste issues. We constantly evaluate new technologies, such as anaerobic digestion and gasification—to see which innovations are cost-effective.

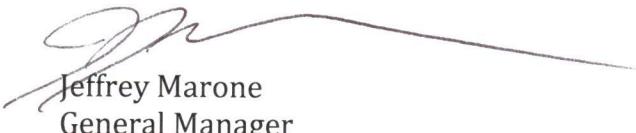
We support the Policy Plan’s direction on better consumer education. Consumers and businesses want to recycle. Republic has industry-leading recycling education programs and we will continue to work with MPCA to educate our commercial accounts, and make progress on the new Metro area mandatory commercial recycling requirement in Minn. Stat. Sec. 115A.151. Working together, public and private sector recycling educators can leverage each other’s work. Better recycling education is the “low hanging fruit” and the biggest opportunity to make significant improvements in recycling in Minnesota.

Finally, we encourage the MPCA to examine its process for creating the Metropolitan Policy Plan. We understand that the plan is exempt from the Rulemaking process per Minn. Stat. Sec. 473.149 (subd.3(b)). Nonetheless, this plan needs to have strong stakeholder input. We ask the MPCA to (1) submit a second draft of this plan for public review and comments, and (2) voluntarily submit this plan to the Rulemaking process in the Minnesota Administrative Procedures Act (Minn. Chapter 14).

We appreciate the opportunity to provide comments here. We also want to acknowledge all the work that has gone into this plan. Lastly, we want to repeat our strong desire to work cooperatively with MPCA, and our local government partners, to design a strong and effective solid waste system in Minnesota.

Do not hesitate to contact me at 651-286-4572 if you have any questions.

Sincerely,



Jeffrey Marone
General Manager

RLoftus_Cushman&Wakefield_comments_email.txt

From: Rob Loftus <rob.loftus@cushwakenn.com>
Sent: Wednesday, September 14, 2016 3:42 AM
To: Kertesz, Johanna (MPCA)
Subject: MPCA Waste Proposal

Hi Johanna,

The purpose of this message is to ask that the MPCA refrain from increasing the waste fees associated with construction demolition and contaminated soils. There is currently such a heavy tax burden on property owners and developers, it is continually making investment or reinvestment in infill areas more difficult to complete. With all the current progress on making Minnesota a more competitive business environment, why do we want to place further hardship on those investors and developers that are working hard (and with less return on investment compared to many states due to taxes) to keep Minnesota's economic engine running? Additionally, some of this tax burden gets pushed to many small businesses in Minnesota, which makes up the majority of the employment base.

Please help keep Minnesota from becoming even more constrained by tax burdens.

Thank you,

Rob

Rob Loftus, CPM, RPA
Senior Vice President - Regional Director
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September 16, 2016

Johanna Kertesz
State of Minnesota
Minnesota Pollution Control Agency
520 Lafayette Road North
Saint Paul, MN 55155

RE: Draft Metropolitan Solid Waste Management Policy Plan 2016-2036

Dear Ms. Kertesz,

Thank you for the opportunity to comment on the proposed Metropolitan Solid Waste Management Policy Plan for 2016 – 2036. Schafer Richardson, as a local real estate developer, is particularly interested in policies that pertain to building projects, including construction and demolition practices.

In reading through the Policy Plan, I see that there is a focus on non-municipal solid waste (non-MSW), as well as industrial solid waste (ISW). As a developer, Schafer Richardson has been a leader in the region in redeveloping urban sites, preserving historic buildings, cleaning up contaminated and debris-laden properties, and returning underutilized parcels to the tax roll. Oftentimes, when we clean up a contaminated site, the quantity of contaminated or debris-laden soils dwarfs the amount of construction and demolition (C&D) waste. For example, on a recent adaptive reuse project we completed in the North Loop neighborhood of Minneapolis, over 93% of the waste removed from the site was contaminated soil while 6.5% was C&D waste. Furthermore, of the C&D waste generated by the project, over 75% was diverted from the landfill through recycling efforts. This project took a 100+-year old building that sat vacant for over a decade and turned it into workforce housing for 44 households, an attractive addition to the neighborhood, and a productive tax generator for the City.

One point that the Policy Plan articulates is a lack of clarity of the definition of ISW, non-MSW, and mixed municipal solid waste (MMSW), in addition to a disposal fee structure that charges significantly more for MMSW than ISW. The assertion in the Policy Plan is that an increase in revenue generated from ISW is due to entities disposing of MMSW as ISW. While clarification of the definition of waste stemming from construction projects is important, we encourage careful thought as to the economic impact on projects such as the one mentioned above by changing fee structures or classifying certain waste types in a way that results in unintended consequences. Disincentives to redeveloping underutilized parcels will result in a slowdown or halt of neighborhood revitalization, especially in urban neighborhoods where clean-up costs may become cost prohibitive.

We applaud the recommended strategy in the Policy Plan to identify material streams, particularly from C&D activities, that have or may have viable end markets. Closing the loop in a material stream is one of the most



effective ways to reduce material use, as well as reduce landfilled waste. There are industries leading the way in these efforts (e.g., steel, carpet) where entrepreneurs have figured out that it makes business sense to recapture the waste stream from their product in order to create new products for the market. MPCA should tap into these ideas and technologies to inspire similar practices in Minnesota.

Again, thank you for the chance to provide comment to the Metropolitan Solid Waste Management Policy Plan.

Regards,

Brad Schafer
President
Schafer Richardson

Schwanke_IDP_comments_2016draftMPP.txt

From: Steve Schwanke <sschwanke@inlanddp.com>
Sent: Friday, September 16, 2016 8:38 AM
To: Kertesz, Johanna (MPCA)
Subject: Proposed action solid waste and contaminated soil fees

Good morning Johanna. I am a partner with Inland Development Partners (IDP) and just learned of the MPCA's policy consideration/proposed action to raise fees on the disposal of industrial solid waste, specifically contaminated soils. In short, I firmly believe this policy/proposed action will have a very negative impact on redevelopment activities in Minnesota.

IDP focuses on developing and redeveloping blighted and contaminated properties. IDP and its environmental consultants have experienced a great working relationship with MPCA staff over the years and look forward to many more years of collaboratively working to clean-up contaminated properties and revitalize neighborhoods and cities. Currently, IDP is working on 7 such sites in the Twin Cities Metropolitan Area, and 2 sites in greater Minnesota.

Most of our development projects result in the eventual removal from the site of regulated and non-regulated soils. Any increase of taxes associated with the disposal of these soils will have a very chilling impact on redevelopment of blighted properties. Redevelopment project costs will increase and make some projects financially infeasible. Increased taxes may also slow reinvestment in fully developed cities.

An alternative approach may be to provide incentives and regulatory relief to haulers and landfill providers who take and reuse ISW and contaminated soils. A focus on reuse seems to make more sense than simply increasing taxes.

This issue is very important to IDP. I and my partners would be happy to discuss this further with you and your colleagues.

Thank you for the opportunity to comment.

STEVEN SCHWANKE | 952-495-6244 direct | 612.968.2586 cell | sschwanke@inlanddp.com |
3340 Republic Avenue | St. Louis Park, MN 55426



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September 12, 2016
Commissioner John Linc Stine
Minnesota Pollution Control Agency
520 Lafayette Road N
St. Paul, MN 55155

RE: Comments Draft Metropolitan Solid Waste Management Policy Plan 2016-2036

Dear Commissioner Stine:

Thank you for the opportunity to review and comment on the draft Metropolitan Solid Waste Management Policy Plan 2016-2036 (Policy Plan). Overall it is our desire that the Policy Plan provide clear and concise guidance that not only leads to more cost effective and improved solid waste management in the metropolitan area, but also provides a foundation for Scott County to move forward with updating its local Solid Waste Management Plan. There are a number of items in the Policy Plan that we like and for which we say thank you. These include: 1) improved data collect efforts and studies that we believe are critical to having solid foundation for making informed decisions as we collectively start down the path of meeting the new legislative goals; and 2) having incremental system objectives in percentages (i.e., Table 1a). However, most other portions of the Policy Plan need substantial revision. There is not sufficient documentation to determine if the Policy Plan is cost effective. Also, responsibilities and timeframes for many of the strategies are not identified, and many of the goals, policies and strategies included are confusing. This will make it very difficult for us to write a clear and meaningful local county plan. We ask for substantial revision addressing County staff's overall comments provided below, and specific technical comments provided in the attachment; and for the opportunity to review another draft.

Overall Comments

1. The draft Policy Plan does not provide sufficient guidance for completing an effective local county plan. In particular:
 - Many of the strategies (Priority and Recommended) do not identify who is responsible for implementing the strategy nor is a timeframe identified for when efforts will be completed.
 - Priority strategies are defined early in the document as items that are required to be implemented. However, many of the descriptions of the specific priority strategies are worded to say the "MPCA should...", or the "Counties should..." do something or other implying that the strategy is not required.

This makes the document confusing. We at Scott County need to know the expectations for when various strategies will be completed and by whom. In particular, we need know when



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items the MPCA is responsible for will be completed so that we can in turn schedule connected actions that we are required or desire to implement. We also need to know clearly what's required and what is voluntary. We request that the document be clarified throughout, and that a summary table be included in the Policy Plan Implementation section that identifies for each strategy the implementation responsibilities, and a completion schedule.

2. Part Two: Framework for Change is confusing. The policies are confusing mixing tactics, strategies and definitions with policy. For example, under Goal 1, Policy 1 second sentence is trying to define the SMM; while the second sentence of Policy 5 is a strategy. Policies should state intent. Please clarify this section.
3. We also ask the MPCA to consider these additional policies (and then consider in strategy development).
 - Collect and make useable better and more comprehensive data available regarding the current status of Solid Waste Management In the Metropolitan Area (a lot of the strategies calling for data and converting data to information through studies would support this policy)
 - Enable flexibility and creativity (the provision of options and local choice in the strategies would support this policy)
 - Be cost effective
 - Minimize redundancy
 - Encourage experimentation, learning and adapting.
4. The document does not provide data or citation for many of the conclusions in the Policy Plan, or the Policy Plan states that "MPCA believes." For example, page 18 last paragraph states that "...MPCA conservatively estimates that 63% of the waste disposed is either recyclable or compostable."; but no citation or data analysis supporting this is included. Please review the document and revise so that readers know the source of estimates and make an informed decision of whether they concur.
5. The Policy Plan is rather prescriptive with respect to doing things certain ways. We prefer that the agency set outcomes and then holds us accountable to achieving those outcomes rather than prescribing how to do things. Prescriptive approaches limit creativity. This is not what is needed as we start reaching for goals that are more aspirational. In addition, communities are different and need the flexibility to adopt approaches that work best for them. For example, most of the land in Scott County is unincorporated versus some of the other metro area counties that are entirely incorporated. A flexible "systems thinking" approach is needed rather than a reductive or prescriptive approach. Please revise to allow significant flexibility, but hold



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us accountable. To this end, we would be open to requiring us to identify (and use) metrics in the county plan showing how well we are doing reaching identified outcomes.

6. The County recognizes per Minnesota Statutes 473.149 Subd. 3.(b) that revision of the policy plan is exempt from rulemaking provisions. However, nowhere in Mn Statute 473.149 is the MPCA provided the authority to impose new rules through revision of the policy plan. MPCA is directed to include criteria and standards for solid waste facilities and sites, and include specific and quantifiable objectives. The MPCA through this planning process cannot impose new requirements, or award new authorities to Cities and Counties unless specifically provided by other statutes. Please review the document and provide specific statute reference for each priority statute in the plan, and if not found revise the strategy to be a best practice recommendation by the agency.
7. There is little to no cost effectiveness analysis in the Policy Plan regarding the various strategies, yet many are mandated or prescribed. Available resources are limited and we need to be cost effective with public money. Please revise the Policy Plan to either: 1) be less prescriptive and allow more flexibility; or 2) complete and vet a cost effectiveness analysis. We argue that the first option is preferred since this Plan starts us on the road to some aspirational goals. Encouraging creativity and local ownership of the outcomes is the best way to rapidly learn and adapt and advance the whole system at the pace of change the will be necessary. It is also appropriate given that the Policy Plan includes a lot of improved data and information gathering, and it will be updated again in 5 to 6 years incorporating what has been learned.
8. Overall we think the Policy Plan needs to be more strategic by focusing on addressing the data gaps identified in the legislative audit and generally acknowledged across the industry. This would equip the metropolitan area for more informed decision making and success with the next Policy Plan update. To this end we strongly recommend focusing this Policy Plan on the collection and assessment of better data in combination with flexibility and experimentation, and less reliance on prescriptive requirements.
9. Counties have been submitting the SCORE report to the MPCA since the beginning and have established methodologies in calculating their annual recycling rates. After submittal of the SCORE Report, the MPCA frequently contacts the Scott County if tonnages of any item/s such as aluminum cans, paper, OCC, etc. that are different from the previous year. Now with haulers and solid waste facilities reporting directly to the MPCA, what process will the counties have to reconcile future recycling rates provided by the MPCA to the counties?



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Again thank you for the opportunity to review the draft Policy Plan. We feel it needs substantial revision, and another review. We maintain this is the right thing to do in order to maintain the respect and positive working relationships with your public and private partners in solid waste management – even if it means that the final Policy Plan will be published later than what would be preferred.

Sincerely

A handwritten signature in black ink, appearing to read "Paul Nelson".

Paul Nelson
Environmental Services Program Manager
Scott County

Cc: Barbara Marshall, Chair Scott County Board of Commissioners
Michael Beard, Vice-Chair Scott County Board of Commissioners
Gary Shelton, Scott County Administrator
Lezlie Vermillion, Scott County Deputy Administrator
Kate Sedlacek, Environmental Health Programs Supervisor, Scott County
Steve Steuber, Environmentalist II, Scott County
Sigurd Scheurle, Minnesota Pollution Control Agency



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Specific Technical Comments

- Page 4 second bullet selection of 2008 as the comparison point seems rather arbitrary.
- Page 4 please provide the source of the data for Figure 1.
- Page 4 the most interesting or telling things shown on this figure are the decrease in landfill since 2001, and the increase in organics since 2007. Yet neither are discussed. Please revise.
- Pages 4 & 5 for Figure 2 and accompanying text please cite source of data and describe the analysis used to produce the graph. We disagree with this presentation if it was completed the same as other future projections graphs in the Policy Plan where the effects of the recession were disregarded. There will be recessions and other things that affect solid waste management in the future. A better and more comprehensive approach would be to present a range of possible futures: say one with the recession and one without. The actual future result would likely be somewhere in between. As presented this is more of a "worst case" future projection and request that the methodology be more clearly described and a range of estimates provided.
- Page 5 third paragraph about restoring accountability. We're not sure that the Policy Plan is helpful in that regard. While the document provides some targeted outcomes in Table 1a and 1b, many of the strategies include studies and action without identifying responsibilities or completion schedules. Without these identified accountability will be difficult.
- Page 6 the "Vision" as worded is not a Vision. Please revise or delete.
- Pages 8 and 9 Goals and Policies are very confusing mixing policies with strategies and definitions. Please revise.
- Page 10 last paragraph. We disagree with ignoring the effects of the recession. There will be recessions in the future. Please revise to present a range of possible future conditions.
- Page 10 please clarify whether 75% goal includes credit for reuse and reduction where quantifiable? It seems like it should in order to prioritize use of the hierarchy. A strategy seeking to clarify legislative intent might be appropriate.
- Page 14. Priority Strategies 1, 3, 5 and 6 please include a schedule for when these will be completed by the MPCA.
- Page 14 Priority Strategy 4 please revise to be outcome based rather than telling us how we have to do our staffing at the County.
- Page 14 Priority Strategy 4 please clarify what is meant by "...ensure that grant funding eligibility always includes reduction, reuse, and recycling (including organics)." What grants? We follow legislative language with respect to SCORE and LRD so what additional stuff is intended here?
- Page 16 Table 1b. We don't see these numbers as very meaningful since they were generated using "worst case" without consideration of the recession. Please revise to present a range.
- Page 16 paragraph about "floor objectives" and expectations to meet them, we do not agree that the Policy Plan has made a sufficient case that they are achievable, particularly:



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1. The numbers in Table 1b since they are “worst case”, and
2. Table 1a reduction of Max landfill (last row of the table) from 23% to 1% in just 3.5 years is clearly not achievable.

- Page 17 Table 2 how were these estimates developed? Are these again the “worst case.”
- Page 18 section on achieving the 75% recycling rate. Please provide source for the 63% estimate of what is recyclable or compostable.
- Page 18 section on achieving the 75% recycling rate would benefit from the inclusion of some empirical data of what other metro-communities around the country have been able to achieve.
- Page 21 strategy about standardized messaging provides no timeframe for when MPCA will complete the “yes-no” lists.
- Page 22 not sure what compliance with Minn. Statute 115a.552 subd.3a. has to do with standardized messaging. It influences the frequency of messaging, but not sure if it affects standardizing of messaging.
- Page 22 Recommended Strategies, City Codes second paragraph says “Counties shall...” However, this is a recommended strategy. Please clarify whether the Counties shall or should...?
- Page 23 Priority Strategy regarding support of MnTAP. A strategy is not clearly stated in this paragraph. Please clarify if the MPCA is saying that the Counties need to fund staffing at another entity?
- Page 23 Priority Strategy regarding support of MnTAP. Please clarify whether MnTAP has been successful, and whether the Minnesota Chamber of Commerce recommends further support for it?
- Page 23 Strategy to standardize ordinances first bullet point regarding reciprocity for HHW programs. We would be happy to discuss with the other 6 metro counties and SWMCB the possibility of a regional reciprocal use agreement. Currently there is a wide-ranging variety of policies and pricing structures within the various HHW programs in the metro area. An example of this is the fact that we currently take e-waste for free, while most or all of the other counties in the metro charge some sort of a fee for most e-waste items. We could likely find ourselves overwhelmed, both operationally and financially, if we entered into such an all-encompassing RUA with those variations in the fee structure for different waste streams, etc.
- Page 23 Strategy to standardize ordinances, second and third bullet points. Scott County definitely sees the positives of licensing of haulers for all seven counties in the metro area. Scott County has been licensing haulers separately from the other 6 metro counties since 1998. Scott County recognizes that a seven county regional license could help to provide a more unified message from counties and haulers, and we will be happy to review our ordinance and revise where it makes sense. However, we if believe it does not address our individual county concerns we may not be able to participate.



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- Page 23/24 Priority strategy to “Implement at least two...” Scott County supports the reuse of products that will help to reach the goals of State and Scott County to reduce landfilling of waste and the reduction of materials purchased. Scott County is certainly willing to develop or use established programs already being used but we think this list is too restrictive. Scott County would rather look at all the available options or develop our own programs to reuse materials thereby reducing the landfill of items. Please provide more flexibility and options, or delete and focus on outcomes rather than prescribed solutions. Also clarify third sentence of the paragraph with respect to use of the word “should.”
- Page 24 Priority strategy for cities to contract for residential recycling. Scott County works more directly with haulers than through the cities. Please provide a private hauler option that could be implemented through licensing such as requiring opt out instead of opt in. Also please note that much of Scott County is unincorporated, which highlights the need for flexible local solutions.
- Page 24 The plan states that by 2025, all cities in the TMCA must provide organized recycling collection for residents. To implement this strategy the County’s should offer grants for those that participate and provide technical assistance. The MPCA is also going to provide technical assistance. The plan does not clearly state who will enforce the cities to participate and under what authority that entity has to enforce this strategy. If the MPCA determines that the Counties must enforce cities to participate please explain very specifically under what statute or rule.
- Page 26/27 Priority Strategy 1. 2 and 3. What is the schedule for implementing these?
- Page 27. Re-focus commercial recycling assistance. First, please provide a timeline for the program we just started to generate results. Second, we have generally found that greater levels of change and compliance occur with new regulations by first providing outreach and technical assistance. We are in the process of doing that. Forcing the county to undertake a compliance role will undermine the trust that is necessary to successfully implement our current approach. Scott County has generated a list of approximately 6600 businesses in the County classified in sectors 42 to 81 under the North American Industrial Classification System (NAICS codes). Scott County does not have the staff available to contact all these businesses to see if they are in compliance with Minn. Stat. 115A.151 on commercial recycling. Generating such a list would be little more than just speculation regarding compliance. We do not wish to treat local businesses this way and is not a good way to build long-term commitment to recycling. Since this is a state statute, Scott County thinks enforcement is not the responsibility of the County.
- Page 27 Continue efforts on compliance with public entities law first bullet. Scott County will continue to work with others in the county to try to improve compliance with this law. However, the County certification report approval should not be tied to these efforts since the



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county has little/no authority over municipalities, and for business (as discussed above) this is a state responsibility.

- Page 27 Priority strategy to “Evaluate the effectiveness and impacts of mandatory upfront processing...” is listed as a Priority Strategy yet wording throughout the description says it “...should be evaluated...” or “...should be focused on...” Please clarify whether this is a required Priority Strategy or a Recommended Strategy. Also identify who will complete this assessment and provide a schedule.
- Page 29 Priority Strategy to “Make residential curbside organics collection available...” second paragraph is confusing as this is listed as a priority strategy, but language in the paragraph states things that “should” be done. Please clarify.
- Page 29 call out box about evaluating organics collection states that “A continuing effort to evaluate and document the pros and cons of each collection method will be needed...” Who will complete this needed effort and by when? And how will it be funded?
- Page 30 Requires organics diversion by large generators. Scott County strongly encourages moving organic materials up the waste management hierarchy and will continue to support organic diversion from the waste stream whenever it is feasible and will continue to look for partnerships with both other public entities and the private sector to work towards these goals.
- Page 32 Evaluate mixed waste processing for organics recovery. Who will complete this assessment and by when?
- Page 39 When will the studies and clarifications called for in the first and third bullet points be completed by MPCA?
- Page 39 When will the comprehensive measurement, and education programs called for in the first and third bullets under Recommended strategies be completed and by who?
- Page 40 What will be the mechanism and the targeted completion date for researching best practices for MRF optimization? Shouldn’t this be industry led?
- Page 40 Priority strategy for expanding existing markets we’re not sure how the Counties or MPCA affects these markets or whether state and local government should lead.
- Page 40 Priority strategy about developing innovative financing. Please clarify whether MPCA will or should have this investigated by 2019.
- Page 40 Priority Strategy regarding developing additional processing capacity. Please clarify whether MPCA will or should work with industry representatives, etc.; and provide a schedule.
- Page 42 Emerging technologies is important and we encourage MPCA embrace flexibility and encourage experimentation.
- Page 42 Priority strategy to develop a process for gathering information necessary to make more timely and consistent policy by 2020. First please clarify whether MPCA will or should complete this strategy. Second we feel that MPCA should do more than just develop a process by 2020. The strategy should also have started information gathering and policy development in



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order to have information and policy discussions to inform the development of the next Policy Plan.

- Page 44. Implementation. Please provide a comprehensive description of when different elements, studies, etc. in the Policy Plan will be completed by the MPCA and are expected to be completed by others. This could take the form of a summary table listing each priority strategic with roles and a schedule identified. It will be very difficult for us to complete a local plan when we don't know the complete schedule for when the MPCA will be completing their responsibilities.
- Page 45 Legislative Reports first paragraph. Please provide a preliminary list of legislation the may be necessary to implement this Policy Plan.



September 13, 2016

Peder Sandhei
Minnesota Pollution Control Agency
520 Lafayette Rd. N., 2nd Floor
St. Paul, Minnesota 55155-4100

RE: Draft Metropolitan Solid Waste Management Policy Plan 2016-2036

Mr. Sandhei,

SKB Environmental, Inc. (SKB) appreciates the opportunity to provide input on the Minnesota Pollution Control Agency's (MPCA) draft Metropolitan Solid Waste Management Policy Plan 2016-2036 (Plan). The Plan is a significant departure from previous plans and the consequences that would result from implementing the plan justifies the need for more stakeholder input and involvement before it is finalized. In addition to the comments provided in this letter, SKB requests that the MPCA extend the stakeholder involvement process related to this plan.

Emerging Technologies and Processing Capacity

SKB supports the MPCA's effort to address emerging technologies (beginning on page 42) and how they would fit into the existing solid waste hierarchy. SKB is currently pursuing partnering with a company to convert refuse-derived-feedstock (RDF) into cellulosic ethanol. Although a current category does not exist, after a thorough life-cycle evaluation, SKB is confident this waste processing technology would rank higher than conventional waste-to-energy. Amending the solid waste hierarchy to include such technologies would help to encourage the development of these innovative, next-generation technologies.

With regard to new processing facilities serving the Twin Cities Metropolitan Area (TCMA), it is concerning to SKB that there are statements made in the Plan that undermine the development of these facilities. For example, on page 17, the Plan states, "if existing resource recovery capacity is maximized, it may not be necessary to build new resource recovery facilities." Additionally, the Plan data presented

in Tables 1a & 1b use permitted capacities for existing processing facilities, which far exceed their operational capacities. Therefore, it artificially minimizes the need for new processing capacity—especially new, emerging processing technologies. Furthermore, the existing waste-to-energy processing facilities serving the TCMA have been in operation for over 25 years. At some point in the not too distant future, these facilities will need another large influx of money for upgrades or replacement in order to continue operating. Artificially minimizing the need for new or additional processing capacity would be short sighted and in contrast to the overall processing goals. Minn Stat. 473.149, Subd. 1, states that “The 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.” Thusly, SKB recommends the MPCA edit these sections of the Plan to allow for and encourage new processing capacity in the TCMA.

SKB supports the MPCA’s effort to enforce the Restriction on Disposal, Minn Stat. 473.848. However, in order to enforce this equitably among all haulers in the TCMA, SKB recommends the MPCA convene meetings with stakeholders to develop a more equitable and effective method of enforcement. The current enforcement strategy places an unfair burden on cooperating haulers and rewards haulers that do not participate.

Non-MMSW

SKB does have significant concerns with the section related to Non-MMSW, found on pages 32-39 of the Plan. Broadly, this section uses inaccurate data and analysis as the basis for the Plan’s policy statements and strategies. Furthermore, the proposed policies detailed in the Plan will have enumerable negative consequences on generators, contractors, and facilities.

Improved Non-MMSW Data

Policy 7, found on page 8 of the Plan, states that demolition debris and industrial waste should be managed according to the hierarchy and that more accurate measurement of the demolition debris and industrial portions of the waste stream is needed. SKB agrees that more accurate measurement is necessary, but it cannot be done simply by measuring waste arriving at solid waste facilities. In fact, much of these materials are reduced, reused, or recycled at the point of generation and are not currently being measured. Without accurately measuring these materials, any effort to gather data to determine whether these waste streams are being managed according to the hierarchy will be meaningless. We recommend changing Policy 7 to clearly state that accurate measurement of all demolition and industrial materials reduced, reused, recycled at the point of generation is necessary. It should also be noted that the gathering of such data will be extremely challenging and will require a much more comprehensive examination of proper methods of data collection, involving many stakeholders that have not historically been required to provide such information (contractors, building owners, etc.).

Figure 11, found on page 38, projects Non-MMSW tonnage growth that is simply unrealistic, including an estimate of 13 million tons/yr by 2036. Such an unrealistic figure shows that the development of these sections was not approached with objective analysis. In fact, it appears the MPCA has selectively chosen to not use broad historical trends as the basis for their projections, but has rather used a brief snapshot of post-Great Recession growth data—which merely returns the waste generation rate to normal—as the basis for their growth projections. This forecast needs to be revised based on long-term historical trends and is further evidence that proper data collection and analysis is needed before further Non-MMSW policy is developed.

While SKB has been a pioneer in C&D recycling, SKB opposes the strategy found on page 39 which directs counties or cities to adopt ordinances requiring waste plans with specific recycling/reuse goals. Such requirements should not occur without a thorough stakeholder involvement process that needs to include property owners, contractors, haulers, recyclers, and disposal facilities. Additionally, there is no statutory basis justifying such sweeping changes to the existing system.

Reclassification

Page 33, first paragraph states, “Disposal and tax information suggests that some of the waste classified as ISW would have traditionally been classified as MMSW, but is now being managed as ISW.” What is the basis for this statement? There is no empirical evidence to substantiate this claim. Our data shows that the waste stream composition is very similar to past composition analyses. In 2014, at the SKB Rosemount facility alone, roughly 700,000 tons or 64.5% of roughly 1.1 million tons of ISW managed was contaminated soil (petroleum, asbestos, or other), easily the majority of ISW available. Impacted concrete & asphalt, while not soils, accounted for an additional 55,000 tons or 5% of contaminated (brownfield) site cleanup related waste. Asbestos containing material accounted for an additional 50,000 tons or 5%. Coal ash accounted for roughly 83,000 tons or 7%. Industrial sludges accounted for roughly 67,000 tons or 6%. Combined categories of ISW (such as PCB contaminated media, autoclaved medical waste, shredder residue, resins, foundry sands, spent sandblast media, paint residues, and others) accounted for roughly 100,000 tons or 9%. Recycling residuals accounted for 15,000 tons or 1.5%. Contaminated industrial packaging residuals accounted for 20,000 tons or 2%. The vast majority of these materials have no other alternative recycling or disposal method as they are clean up and remediation waste streams. The remaining waste streams are the unrecyclable residuals of internal recycling processes. In other words, these materials have no foreseeable recycling alternatives. All of these materials meet the definition of industrial waste in both Statute and Rules.

Figure 8, found on page 33, implies that the growth in Non-MSW generation and flatline in MSW generation is evidence of ISW reclassification. However, Figure 1 (found on page 4) clearly shows a correlation between the growth in materials managed as recyclables and organics and the fall in MSW generation. In addition, it is very important to recognize that the recession of 2007-2008 dramatically reduced the amount of C&D generated as very little new construction and renovation occurred during those years, artificially lowering the baseline. It is also very important to recognize that the vast

majority of ISW is contaminated soil; therefore, growth in overall ISW generation is likely the result of large development and redevelopment projects and not reclassification.

Figure 9, found on page 36, and the last paragraph on page 35, seem to imply that there are irregularities in Non-MMSW tax collection. Specifically, the text in the Plan implies that Non-MMSW tax revenues previously aligned with industrial economic activity and construction investment (though neither of these indexes are clearly explained in the text) and now the tax revenues are higher. However, the Figure itself appears to be incorrectly labeled. Some clarification as to what "Licon_sa Index" would be helpful. Regardless, the Figure seems to show that in fact the Non-MMSW tax revenues have never perfectly tracked the industrial and construction figures and that it has historically been much more volatile. In any case, the presentation, analysis, and conclusions derived from this section are misleading and grossly unsatisfactory to base any policy decisions on. We strongly recommend removing this section as any issues related to ISW reclassification will be much better addressed through better Non-MMSW data collection.

The section titled "Misaligned tax incentives" beginning on page 35 points out the differences in taxation for various waste streams for Non-MMSW and MMSW. The reason for inclusion of this discussion is unclear in the narrative of the Plan, but appears to suggest the current tax policy encourages ISW reclassification. The tax structure and the direction from the legislature to the MPCA does encourage management of Non-MSW separately from MSW. In addition to the legislature intentionally setting the tax structure in the fashion that exists in statute, the legislature has directed the MPCA in Minn. Stat. 115A.06, subd. 14 to encourage nonhazardous and industrial waste to be managed "...separately from mixed municipal solid waste...". This direction has been given to the MPCA since 1986.

The entire integrated solid waste system in Minnesota has been built upon the existing tax structure developed at the legislature, which does encourage the management of different waste streams at different facilities. Modifying the existing tax structure would have a devastating impact on not just SKB, but also many industries around the State, including building owners, builders, developers, utilities, manufacturers, and hospitals to name just a few. Moreover, this section is inappropriate for this Plan and is outside the statutory authority granted to the MPCA as it relates to the Plan that is being developed. This Plan directs Metro Counties as to the development of their solid waste plans and the Counties do not have any authority to address State tax issues and long standing legislative policy directives. For these reasons, this language should be removed from the Plan.

Certificate of Need for Non-MMSW

Several statements in the Non-MMSW section of the Plan imply that Class III/ISW facilities should have to go through the Certificate of Need (CON) process, which MMSW facilities go through for approving permitted capacity. This suggestion is not appropriate for Class III/ISW facilities for several reasons. First, the necessary ISW capacity is inextricably tied to event waste such as contaminated soils, asbestos remediation, etc. It is impossible to predict with any degree of certainty how much capacity will be

needed (and where) to accommodate specific project waste that can be as high as 100,000 tons per project. Also, ISW is not in competition with other waste system facilities (such as recycling, composting, Waste-to-Energy, etc.). The vast majority of these materials have no recycling or disposal alternatives. Therefore, there is no legitimate policy reason to restrict industrial waste disposal capacity with a CON. Lastly, ISW is not homogeneous like MMSW and is much more sensitive to overall trends in the economy than MMSW. ISW and C&D are greatly dependent on the investments in redevelopment, new construction, and the overall health of specific industrial markets. In short, capacity for these facilities should respond to the market, not to policy planners within the MPCA. Moreover, this type of policy does not fall under the statutory authority for this Plan and should be removed.

In conclusion, SKB appreciates the opportunity to provide comments on the Plan. However, as requested, much more stakeholder involvement is needed before the Plan is finalized. Specifically, the MPCA should issue a revised draft with another comment period prior to finalization in order to assure all stakeholders that all the comments provided have been adequately addressed. Additionally, the portions of the Plan that go beyond the statutory authority granted to the MPCA should be removed from the plan. SKB looks forward to continuing to assist the MPCA in the development of the Plan.

Sincerely,



John Domke

Division Vice President



Commissioner John Linc Stine

September 16, 2016

Minnesota Pollution Control Agency
520 LaFayette Road North
St. Paul, MN 55155

Dear Commissioner Stine:

Waste Management (WM) thanks you for the opportunity to comment on the 2016-2036 Draft Metropolitan Solid Waste Policy Plan (Draft Plan or Plan). We appreciate the Minnesota Pollution Control Agency's (MPCA) use of staff resources to develop the Draft Plan and the research and analysis of various policies in this Plan. WM provides overarching comments and more specific comments for your consideration.

We have given careful consideration to reviewing and considering the business impacts of this Plan and we believe that these comments are important and vital to the success of our business; particularly related to Certificate of Need standards and criteria language.

Recycling Goals

In general, WM supports efforts to increase recycling levels. We support a change in the way recycling is measured because we do not believe weight based recycling rates are a true representation of the environmental benefits of recycling. WM advocates for a Greenhouse Gas (GHG) emissions reduction based measurement for recycling. We believe that this type of measurement will allow for better decisions about the materials that are recovered and the environmental benefit derived.

The Governor's Minnesota Climate Change Advisory Group cited a \$5 gain for every Million Metric Ton of CO₂e emissions reduction. Weight based recycling rates focus on recovering materials that are heavy to drive up the recycling rate, but those materials may have a negative impact on the recycling system because there are no end markets. For some materials, recyclers pay end markets to take the processed material for very little or sometimes no environmental benefit. Further, current weight based recycling rates do not take into consideration source reduction, that manufacturers have light weighted products and packaging making it more difficult to achieve higher weight based recycling rates.

Recycling Education

WM supports recycling education that sends clear messages to the public about what needs to be recycled and what should not be recycled. We need to continue to work to reduce contamination in the recycling stream so that we can reduce recycling processing costs for recycling businesses and for the communities that are served.

Sustainable Materials Management

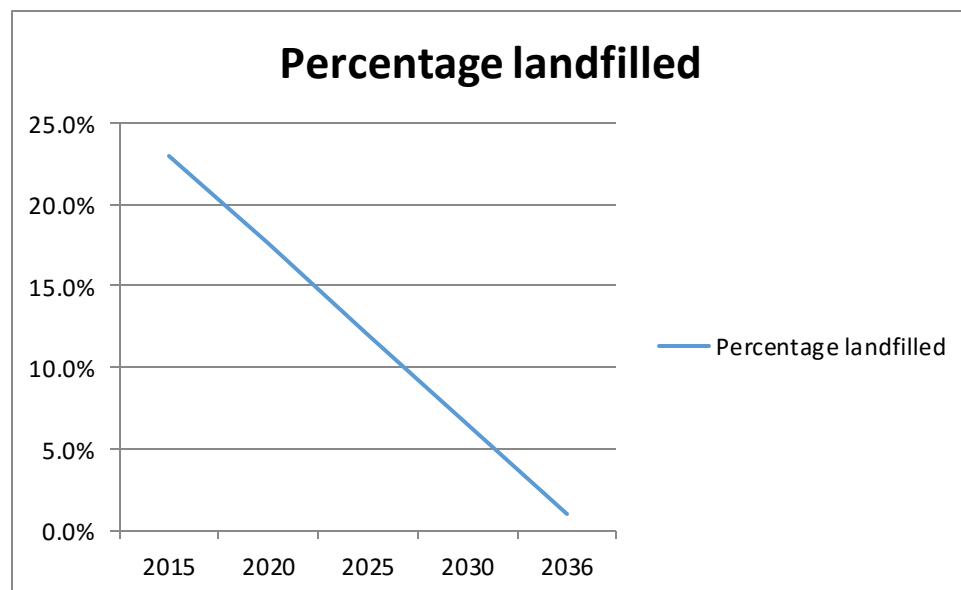
WM supports Sustainable Materials Management (SMM) with the exception of an Extended Producer Responsibility (EPR) component. WM supports the elements of SMM that recommend measuring recycling from a climate change, GHG reductions standpoint. The 25 states that currently have electronics recycling programs are a good example of how a rigid regulatory approach cannot respond to rapidly changing commodities markets and changes in computer technology. After nearly 10 years of e-waste programs, “early entrants” to the business have exited the market, commodities have dropped by 30-50%, and CRT’s that have been stockpiled have been discovered stranded in warehouses. Changes to regulatory requirements by rulemaking or legislation can take years and cannot respond nimbly to changing market conditions.

As stated earlier, the current weight based recycling rate may have the state, cities and counties recycling the wrong materials from a life cycle perspective. Minnesota needs to be a leader and a partner to industry in its pursuit of establishing SMM as a policy, but the policy needs to be researched from a partnership standpoint and created in a manner that can be supported through the legislative process. From WM’s standpoint, this will require excluding the EPR component from an SMM legislative initiative

Land Disposal Goal

Regarding the 1% by 2020 landfill goal, this goal is unrealistic given the current disposal rate of 23%. Achieving 1% land disposal in 18 months is not achievable. We agree with the MPCA that a likely consequence will be out of state disposal. All stakeholders have recognized that goals for recycling, processing, and landfilling are not viewed as aspirational goals in Minnesota, but are standards that must be met.

The trend line for landfilling made by the SWMCB, provided below, is a more accurate representation of how volumes will trend for landfilling. WM opposes the 1% landfill goal, that waste generation and landfill capacity need is not predictable, and that unachievable goals are a recipe for failure by all parties in the waste system.



Mandatory Upfront Processing

Mandating upfront processing (p. 27) as a means for recovering additional recyclable material without a cost/ benefit analysis is not prudent public policy. Throughout several drafts of the Minnesota Climate Change Advisory Group (MCCAG) Climate Action Plan, upfront processing costs/ton of Greenhouse Gas (GHG) emissions reduction were presented in comparison to other waste management methods, including recycling. The cost effectiveness of upfront processing at a WTE or RDF facility was a cost of \$32 per million metric tons of CO₂e emissions reduced. For recycling, there is a credit or gain of \$5 per every million metric tons of CO₂e emissions reduced. The cost differential is \$47 per million metrics million tons of CO₂e emissions to install upfront processing at a processing facility compared to curbside and drop-off recycling.

This demonstrates the high return for the environment and the economy from reaching high recycling levels and the high cost of upfront processing for the same GHG emission benefit. For waste systems that are already at a high level of recycling and waste processing, it is critical to analyze the socioeconomic impacts and environmental improvement from this perspective. In essence, this type of analysis needs to be completed for those waste systems that are at a tipping point for making a decision about whether there is value in adding upfront processing. These systems will add upfront processing to retrieve the small amount of remaining recyclables from the waste stream at a very high cost to the public.

Plan Structure and Process for Plan Development

WM has concerns with the structure of the plan, the process for development of the plan, and the lack of public process, despite the exemption from rulemaking in Minn. Stat. 473.149 subd. 3 (b). There are several policy recommendations where we believe MPCA has taken this authority to an extreme; that the Agency did not exercise prudent use of the statutory exemption from rulemaking. We are concerned that the only way to affect the Final Plan is through the Court of Appeals. The result is a negative and contentious process that is destructive to the private-public sector partnership. To this end, WM requests the review of a new draft of the policy plan and additional public process to fully vet the proposed policies in this Draft Policy Plan.

A more rigorous public process is imperative to the development of a well vetted, needed and reasonable policy, for which there are no unintended consequences. The lack of a “plan” for gaining compliance with the Restrictions on Disposal policy in the 2010 Policy Plan demonstrates the need for valuable input from all stakeholders and a process that includes greater checks and balances. The new ROD policy was effective on January 1, 2016, and the Agency has yet to provide a clear, equitable and successful plan that results in all processors operating at capacity. The 2016 Draft Policy Plan includes new policies such as the 1% goal for land disposal that are designed to augment the 2010 ROD; however, the Agency admits in the Draft Plan, that while the intent of this new policy is to meet higher waste processing, recycling and source reduction goals, that the policy could result in more waste going out of state. This is a clear demonstration of how the exemption from rulemaking results in the unilateral development of state policy absent the understanding of the waste system and market forces affecting our business.

The Policy Proposals that are clearly identified on pages 8 and 9 of the plan are very high level policies which lead the reader to believe that the seventeen policy recommendations represent all policy recommendations. However, there are many policies, many directives to various parties, and significant, impactful policies that are inconspicuously included throughout the body of the report and in the appendices. All policies should be presented in one section of the plan so that all parties impacted have an opportunity to research and analyze their impacts.

Further, we support a Policy Plan that recommends that MPCA staff resources be directed to evaluating the implementation of existing laws and policies, including the effectiveness of the Restrictions on Disposal policy from the 2010 Policy Plan. We believe that this work should be completed prior to moving on to establishing any new policies. To that end, WM would like to continue working as a partner with MPCA, counties, and all waste industry representatives, to support getting more waste to processing facilities.

Industrial Waste Composition Study Requirement

WM agrees that more representative, accurate data is needed to establish policies that reflect our waste management system; however, we are very concerned with the proposed requirement to complete industrial waste composition studies. Due to the heterogeneity of the industrial waste stream, the expense of a statistically sound study will be astronomical for all parties, particularly businesses and industries that generate the waste in the first place. More importantly, the disruption in operations at our landfills while these waste composition studies are being conducted will affect the daily operations of our facilities. This will compromise the safety of our employees and the third party vendors.

Certificate of Need (CON)

Last, we request changes to Appendix D. Specifically, page D-2 has unintended consequences that may not have been recognized by the MPCA when the Draft Plan was placed on Public Notice. Page D-2 of the Plan includes criteria for CON issuance that result in a competitive disadvantage in the disposal market. The reference to a landfill CON request requiring information from the Policy Plan that was in effect “at the time the applicant applies for reissuance of the permit”, creates a policy that applies the 2010 policy plan to one landfill (i.e., Republic’s Pine Bend Landfill) and the 2016 policy plan to another (WM’s Burnsville Sanitary Landfill). This creates inequities in the issuance of CON and we believe, applies the 2016 1% landfill goal to Burnsville LF and not to our competitor’s landfill. The result is an uneven playing field that has significant business impacts for WM. The Policy Plan should not proscribe different rules for different landfill operators, thereby improperly serving as a vehicle for the MPCA to pick winners and losers; rather, the Policy Plan should support a level playing field where landfill operators are governed by the same clearly defined rules.

To correct this, WM requests that the first sentence of “*Procedures for obtaining MPCA approval of solid waste facility application*”, should be changed by deleting the clause “at the time the applicant applies for reissuance of the permit”, and deleting the clause “at the time the preliminary application is submitted under Minn. Rule 7001.3075” in the last sentence of this paragraph. These changes result in the application of the 2016 Draft policies to both of the landfills in the metropolitan area.

Appendix D needs to be reviewed very carefully. Clarification is needed to ensure that all parties affected understand how they are impacted

Waste Management thanks you for the opportunity to comment on this Draft Plan and requests that a new Draft Plan be made available to the public for review. This will improve the quality of the Plan and will work towards maintenance of the partnerships that MPCA has with all stakeholders in the process.

WM has given careful consideration to the comments provided herein and the comments that are being developed by others. Given the extensive nature of all comments, it is clear that there is a high level of interest in having more public process in the form of a second draft and public comment period.

If you have any questions or concerns regarding these comments, please contact Julie Ketchum at 651-334-4309.

Sincerely,

Julie Ketchum, WI/MN Government Affairs

Waste Management

Cc:

Tom Beaulieu, WM Area Vice President

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414 Nicollet Mall
Minneapolis, Minnesota 55401-1993

September 15, 2016

Johanna Kertesz
Minnesota Pollution Control Agency
520 Lafayette Road North
St. Paul, Minnesota 55155-4194

Dear Ms. Kertesz:

The Metropolitan Solid Waste Management Policy Plan 2016-2036 Appendix B: Environmental Justice Review lists two of Xcel Energy's facilities. They are the King Landfill and the King Transfer Station.

The current status of these facilities is as follows: the King Landfill SW-54 was permanently closed in 2011, with MPCA approval. The King Transfer Station SW-647 is an operating facility inside the King Power Plant.

The King Landfill was a monofill facility which only accepted ash from the King Power Plant. The landfill is now part of the Park System of the City of Oak Park Heights. The King Transfer Station does not accept any outside waste as it is permitted to only process ash and other waste for the King Plant. The ashes and other wastes are hauled to a commercial industrial landfill (SKB, Rosemount). The King Transfer Station went through review by the City of Oak Park Heights and the MPCA before issuance of the Conditional Use Permit (CUP) and construction and operating permits.

These facilities are located an estimated 20 miles from the City of St. Paul, which has several areas that meet the criteria set out by the Metropolitan Council. According to the Minnesota State Demographic Center, the City of Oak Park Heights' population is 89.5% White, and lists the poverty rate between 6.29% and 10.67%. These facilities do not meet the Metropolitan Councils criteria of total population greater than 50% of person of color, and or more than 40% of the population with incomes less than the 185% of the federal poverty level.

As a result, the Xcel Energy facilities cited in this report are outside of the areas of concern from an Environmental Justice Review perspective and should be removed from this document.

Below are the links to the data being cited:

<http://mn.gov/admin/demography/data-by-topic/income-poverty>

<http://factfinder.census.gov/faces/tableservices/jsf/pages/productview.xhtml?src=CF>

Sincerely,



Manuel Castillo

Sr. Environmental Analyst

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