

Solid Waste Management Coordinating Board

Baseline Report

1998

SUMMARY

The Regional Solid Waste Master Plan (Master Plan) sets forth Regional Outcomes in the areas of source reduction, reduction in toxic/hazardous character of waste, recycling, processing, landfilling, and nonMSW management for the six-county area of Anoka, Carver, Dakota, Hennepin, Ramsey and Washington. This 1998 Baseline Report documents progress toward the SWMCB Regional Outcomes. The Report also replaces program specific regional reports, including the Household Hazardous Waste Annual Report, Mixed Municipal Solid Waste Regional Annual Data Summary, Hazardous Waste Annual Report, and the Regional Hauler Licensing Annual Report.

Future SWMCB annual reports will include new indicators as programs outlined in the Master Plan are implemented, particularly in the areas of source reduction, household hazardous waste and nonMSW, where new initiatives are being undertaken in 1999.

1998 RESULTS

Source reduction is the highest priority for managing waste at the national, state and regional level. The need for reduction is clear. Waste generation continues to grow at increasing rates and the costs of managing the growth in the waste stream will be significant.

Growth in Total MSW Managed (tons)

1995	1996	1997	1998	2003 (Outcome)
2,701,398	2,830,771	2,949,967	3,098,373	3,364,000

Source: County SCORE and Certification Reports. 1998 data is pending OEA review.

The region continues to focus on landfill abatement through increased recycling and processing to offset the trend toward greater waste generation.

MSW Managed in 1998 (tons)

Recycling (R)	Landfilling (L)	Processing (P)
1,233,530	723,954	1,118,031

- The percent of MSW recycled dropped slightly to 47.7% (including 8% yard waste and source reduction credits). The tonnage of materials recycled continued to increase.

- There was a slight increase in net tons of MSW delivered for processing in 1998.
- Landfilling has grown significantly. In 1998, the region landfilled 167,000 tons more than in 1996, an increase of 30%. Tons of waste landfilled out-of-State has remained relatively flat since 1996. In-state landfilling has increased 84% since 1996.
- Recycling accounted for 40% of the MSW managed, processing 36%, landfilling 23% and problem materials otherwise managed accounted for 2%. [Note that this adds to 101% because some materials are both recycled and processed and because of MSW processed as secondary waste. To derive total MSW managed one must include tons of problem materials and subtract recycling at facilities and secondary processing. See Attachment A.]

Household hazardous waste programs continue to grow in program participation and amount of waste collected. Collection cost per vehicle increased slightly between 1998 and 1999. The region served over 100,000 vehicles in 1998, collecting over seven million pounds of household hazardous waste.



The region continues to operate a regional hauler licensing program, issuing 245 base licenses and 650 operating licenses for the 1998-99 license year.

SOURCE REDUCTION

PRINCIPAL OUTCOME:

From 2005 through 2017, per capita and per employee MSW generation rates will be no higher than the 1999 rates.

Introduction

Source reduction, often called waste reduction or waste prevention, is the highest priority for managing waste at the national, state and regional level. The need for the reduction priority is clear. Waste generation continues to grow at increasing rates and the costs of managing the growth in the waste stream will be significant. If the waste is reduced at the source, these management costs will be avoided.

1. TOTAL MUNICIPAL SOLID WASTE (MSW) MANAGEMENT

Total Amount of MSW Managed (tons)

1995	1996	1997	1998	2003 (Outcome)
2,701,398	2,830,771	2,949,967	3,098,373	3,364,000

Source: County SCORE and Certification Reports

- The region managed 3,098,373 million tons of MSW in 1998; an increase of 5% over 1997.
- The region exceeded its 1998 projected tons of MSW by 38,000 tons.
- Projected MSW for 2003 takes into account that the Principal Reduction Outcome is met. If the Reduction Outcome is not met, the region will need to manage an additional 235,000 tons in 2003.

About the Indicator

Total MSW managed includes tons managed through recycling, problem materials managed, processing and landfilling. It does not include yard waste. Counties track this data through municipal recycling reports and facility reports. The commercial recycling tonnage is a combination of documented recycling and an estimate. Appendix A shows a breakdown of county specific MSW management, as well as a breakdown of processing and landfilling.

2. MUNICIPAL SOLID WASTE (MSW) MANAGEMENT PER CAPITA

Total Population and Amount of MSW Managed Per Person and Per Employee (tons)

	1996	1997	1998	2003 (Outcome)
Tons Managed	2,830,771	2,949,967	3,098,373	3,364,000
Population	2,411,311	2,440,110	2,468,761	2,586,498
Employment	1,397,678	1,421,956	1,446,647	1,547,563
Residential Tons Per Person	.53	.54	.56	.59
Commercial Tons per Employee	1.11	1.14	1.18	1.19
Total Tons Per Capita	1.17	1.21	1.26	1.30

Source: County SCORE and Certification Reports; Metropolitan Council Population and Employment Projections.

- Waste generation has grown steadily each year and is a function of both more people and more employees in the metropolitan area, and that each person and employee generates more waste than the previous year.

About the Indicator

The MSW stream is estimated to be comprised of 45% residential waste and 55% commercial waste. Appendix A shows a breakdown of county specific MSW management, as well as a breakdown of processing and landfilling practices.

3. MATERIALS EXCHANGE

The SWMCB's materials exchange program (MAX) is an active, regional program that reduces business solid and hazardous waste by connecting businesses that no longer want a material with businesses that are in need of that material. MAX maintains and distributes a list of materials that are available and actively seeks out businesses that are likely to be in need of those materials. Materials are listed in a catalog and on the World Wide Web.

- MAX was established in 1995.
- In 1998, MAX facilitated 92 solid waste exchanges and 10 hazardous waste exchanges.
- In 1998, 44.5 tons of solid waste and 1,056 pounds of hazardous waste were exchanged.
- In 1997, MAX received a Honorable Mention, Governor's Award for Excellence in Waste and Pollution Prevention.
- MAX is operated by the Minnesota Technical Assistance Program (MnTAP) at the University of Minnesota, under contract with the SWMCB.

REDUCTION IN TOXIC/HAZARDOUS CHARACTER OF WASTE

PRINCIPAL OUTCOME 1: By 2003, the toxic/hazardous character of MSW will be reduced.

PRINCIPAL OUTCOME 2: By 2017, manufacturers and retailers will take responsibility for consumer products that contain toxic or hazardous components when the product becomes waste.

Introduction

The Metropolitan Solid Waste Management Policy Plan requires the region to give source reduction and the reduction of toxic/hazardous waste the

highest priority in planning for and development of the regional solid waste management system (Policy 5.1.2.1). The Regional Solid Waste Master Plan includes implementation strategies to support achievement of outcomes, including:

- Emphasis on product stewardship to shift responsibility for managing products with toxic/hazardous components to manufacturers and retailers.
- Continued collection and management of HHW that is not being managed through private sector initiatives.
- Increased coordination of hazardous waste regulatory activities including education and technical assistance.
- Strengthened regional and State collaborations through the Reciprocal Use Program and MPCA HHW Contract.

The following indicators demonstrate achievements of county and regional programs. Further gains in the area of product stewardship are expected in the future.

4. HOUSEHOLD HAZARDOUS WASTE (HHW) PROGRAM PARTICIPATION

Total Vehicles Served at HHW Sites



1995	1996	1997	1998
66,462	75,475	92,143	103,425

- The number of vehicles served at HHW facilities in the six county region increased by 12% between 1997 and 1998.
- Total vehicles served per year has increased 56% since 1995.
- The region used HHW drop-off locations as an educational opportunity to teach residents about purchasing decisions and waste management practices.
- Reciprocal use grew from 1,811 vehicles in 1997 to 2,703 vehicles in 1998, a 49% increase.

About the Indicator

Vehicles served represents a general indication of the level of participation in HHW programs. Counties also estimate number of households served based on information provided by participants. In 1998, 103,425 vehicles represented 121,892 households served or about 13% of the number of households in the region.

5. AMOUNT OF HHW COLLECTED

Total Amount of HHW Managed (Pounds)



1995	1996	1997	1998
4,112,615	5,065,695	6,242,833	7,101,565

- Pounds of material collected increased by 24% between 1997 and 1998. (Excludes paint cans, represented by shaded areas in graph.)
- Pounds of materials collected has increased by 79% since 1995. (Excludes paint cans, represented by shaded areas in graph.)

About the Indicator

Some wastes are weighed, such as batteries, but many of the waste streams are measured with volume measures such as gallons or drums. These volume measures are converted to pounds so that a total figure can be calculated and trends assessed. Conversion factors are based on actual samples of wastes collected at metropolitan program sites. Collection of electronic equipment began in 1996, which is partly responsible for the increase in household hazardous waste collected from 1995 to 1996.

6. HOW HHW WAS MANAGED



- In accordance with Minnesota's waste management hierarchy, most HHW collected was recycled or fuel-blended. In addition, reuse shelves provide a popular service to residents while maintaining the value of products that would otherwise become waste. Wastes that cannot be reused, recycled or fuel-blended are managed at hazardous waste incinerators or landfills.

- Percent reused remained constant from 1997 to 1998. Percent recycled or fuel-blended decreased by 3% and percent landfilled or incinerated increased by 3%.

- **About the Indicator**

Appendix B shows a breakdown of waste types collected and how each waste was managed.

7. PROGRAM COST PER VEHICLE

Program Cost Per Vehicle

1995	1996	1997	1998
\$73.40	\$61.90	\$49.67	\$52.47



- Cost per vehicle increased by 6% between 1997 and 1998, however, cost per vehicle has declined by 29% since 1995.

About the Indicator

Appendix B shows a breakdown of 1997 and 1998 costs.

Cost per vehicle is the figure used by counties as the basis for reciprocal use charges. Costs reflected here are net of certain revenues such as donations, reimbursements, citizen fees, etc., which represent approximately 5% of total program costs.

8. LICENSED HAZARDOUS WASTE GENERATORS

Number of Licensed Hazardous Waste Generators

1996	1997	1998
9,099	9,260	8,773



- The number of licenses issued declined in 1998 primarily as a result of the creation of a "minimal generator" category of low-risk generators in Dakota County. Over 500 licensed generators were shifted into a registrant system, creating a decline in licenses issued.

About the Indicator

Appendix C shows a breakdown of large, small, and very small quantity generators licensed in the region.

9. HAZARDOUS WASTE INSPECTIONS

Number of Licensed Hazardous Waste Inspections

1996	1997	1998
3,785	5,315	4,252

- The number of inspections performed declined significantly in 1998 for a number of reasons, including the shift to a minimal generator category in Dakota County. Other counties' activity in this area also declined, partly due to change in the

method for accounting for inspections.

About the Indicator

Appendix C shows a breakdown of inspections performed in the region.

RECYCLING

PRINCIPAL OUTCOME:

Collectively, the region will achieve at least a 50% MSW recycling rate (including a 3% source reduction and 5% yard waste credit) every year, through 2003.

Introduction

Recycling is an integral component of the integrated waste management system and supports the Policy Plan goals of landfill abatement, resource conservation and generator responsibility.

10. PERCENT OF MSW RECYCLED - COMMERCIAL AND RESIDENTIAL

Amount of MSW Recycled as a Percentage of Total MSW

	1995	1996	1997	1998	2003 (Outcome)
Total Tons	1,115,508	1,168,747	1,203,525	1,233,530	1,413,000
Percent with credits	49.3%	49.3%	48.8%	47.8%	50%
Percent without Credits	41.3%	41.3%	40.8%	39.8%	42.0%

Source: County SCORE and Certification Reports.

- The percent of recycling peaked in 1995 and 1996; thereafter the region experienced a slight decrease in percent of material recycled.



- Though the percentage of tons has not increased since 1995, total tons recycled continues to increase as the amount of MSW generated increases.

About the Indicator

Recycling percentage is calculated first as a tonnage percentage of total MSW. From there, counties are authorized by the Minnesota Office of Environmental Assistance to add a credit of up to 8% to the tonnage percentage if waste reduction and yard waste programs are in place. A significant portion of commercial recycling is estimated tonnage. Residential tonnages are documented through municipal programs and drop-off sites.

PROCESSING

PRINCIPAL OUTCOME:

By 2017, the region will process 65% of the MSW that has not been reduced or recycled.

Introduction

The Policy Plan provides that it is the Policy of the region that all MSW that is not reduced or recycled will be processed to the extent feasible (Policy 5.3.2.1).

The region's waste is primarily processed at HERC, NRG Newport and NSP Elk River. Total capacity at these three facilities is estimated to be 1,165,000 tons. The percent of available capacity that is used at any point in time may fluctuate based on a variety of considerations, including markets.

11. TONS OF MSW PROCESSED

Net Tons of MSW delivered for processing

Material	1996	1997	1998	2003 (Outcome)
TOTAL	1,102,975	1,102,852	1,118,031	1,323,500



- Net tons of MSW delivered for processing remained fairly stable since 1996, with a slight increase in tons in 1998.
- As shown in the landfilling section, excess waste and non-processible waste increased significantly.

About the Indicator

Net tons of MSW are the tons of MSW delivered for processing that were actually processed. Excess and non-processible waste is MSW that was delivered to processing facilities or transfer stations for processing, but because of capacity constraints or other

issues, could not be processed. Appendix A shows a breakdown of county specific MSW management, as well as a breakdown of processing and landfilling practices.

12. PERCENT OF AVAILABLE WASTE PROCESSED

Percent of available waste processed

	1996	1997	1998	2003 (Outcome)
Percent	67%	63%	61%	65%

- In 1998, the region processed 61% of the waste available after reduction and recycling.

For Comparison About the Indicator

This percentage reflects the amount of waste available for processing (processed and landfilled waste) that was actually processed. Appendix A shows a breakdown of county specific MSW management, as well as a breakdown of processing and landfilling practices.

LANDFILLING

PRINCIPAL OUTCOME:

Capacity for MSW will be available in sanitary landfills through the year 2017 for MSW that cannot be reduced, recycled, or processed.

Introduction

Landfills have a role in the integrated solid waste management system and sufficient capacity is needed for waste that cannot be reduced, recycled or processed. However, landfilling is the least preferred management strategy. The Policy Plan recognizes that the private sector has primary responsibility for the delivery of landfilling services (Policy 5.4.2.2). The region's role will be that of system assessment.

13. AMOUNT OF UNPROCESSED MSW LANDFILLED

Amount of unprocessed MSW landfilled

Material	1995	1996	1997	1998	2003 (Outcome)
In-State	179,047	188,379	197,722	347,153	N/A
Out-of-State	296,395	264,482	254,596	256,968	N/A

Excess and Non-processibles	N/A	103,354	172,734	119,433	N/A
Total	475,442	556,215	625,052	723,554	599,500
% of total MSW Landfilled	17.5%	19.6%	21.2%	23.4%	17.8%

- Landfilling has grown significantly. In 1998, the region landfilled 167,000 tons more than in 1996, an increase of 30%.
- Tons of waste landfilled out-of-State has remained relatively flat since 1996. Out-of-State landfilling peaked in 1995.
- Tons of waste landfilled in-State has increased significantly. In 1998, the increase in in-State landfilling is partially offset by a decrease in excess and non-processible waste.
- 1998 landfilling exceeded the amount projected for 2003 by 124,000 tons.

About the Indicator

1995 landfilling is understated because total excess and non-processibles landfilled was not reported.

Excess and non-processibles are wastes that were delivered to the processing facility or transfer station, but were not able to be processed due to capacity constraints or other operational issues.

SOLID WASTE REGULATION

PRINCIPAL OUTCOME:

The Master Plan does not contain an outcome for solid waste regulation.

Introduction

The Policy Plan indicates that an integrated solid waste management system requires responsible solid waste collection practices that protect the public health, safety and welfare. The State, region, counties, cities, towns, waste collectors and waste generators should work together on solid waste collection issues (Policy 5.6.2.1). To that end, the metropolitan counties, through the SWMCB regional hauler licensing program, regulate the collection and transportation of MSW within and between member counties.

The Regional Hauler Licensing Program which began in 1995 provides for the issuance of one base license by the county in which the hauler is based and an operating license by each county in which a hauler operates. The base license provisions, including insurance requirements, fees, hauler application form and license year are consistent throughout the region. Each county involved in the regional hauler licensing program has individual authority to enforce licensing requirements and/or take action against a hauler violating such requirements.

14. REGIONAL HAULER LICENSES ISSUED

NUMBER OF BASE AND OPERATING LICENSES ISSUED

	1995-96	1996-97	1997-98	1998-99
Base	231	238	247	245
Operating	651	652	657	650

Source: SWMCB Regional Hauler Licensing Program Annual Reports.

- The number of base and operating licenses issued has remained relatively flat since the program began in 1995.
- The license year begins on July 1 and ends on June 30.

About the Indicator

The number of licenses issued changes throughout the year. Though applications for the following license year are due May 1 of each year, licenses are also issued upon request throughout the year because new haulers enter the market, mergers and acquisitions occur and requests for changes to the hauler's area of operation are made. Self haulers are also included in the license data. The indicator represents the number of haulers licenses in August of each year.

Scott County will continue its involvement in the Regional Hauler Licensing Program through June 30, 1999. Therefore, the data presented includes Scott County licenses.

15. LICENSE FEES COLLECTED

LICENSE FEES COLLECTED

1995-96	1996-97	1997-98	1998-99
\$62,950	\$72,350	\$76,150	\$76,100

Source: SWMCB Regional Hauler License Program Annual Reports.

- License fees have remained at \$50.00 per licensed vehicle since the program began in 1995.
- The increase in fees is generally a result of haulers licensing more vehicles. As shown above, the number of haulers do not change significantly.

About the Indicator

The fees collected do not include late application fees. The data presented includes Scott County license fees collected.