

*Solid Waste Management Coordinating Board*

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# **Annual Results Report**

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## **2001**

Approved: May 22, 2002

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## INTRODUCTION

The Regional Solid Waste Master Plan (“Master Plan”), adopted December 1998, established guidance for the region for solid waste activities, with a focus on the period of 1998-2003. The Master Plan includes a joint regional vision and an emphasis on accountability through performance measurement. The Master Plan establishes regional and county-specific outcomes, strategies to be implemented by the counties acting collectively as the SWMCB. Regional and county outcomes address:

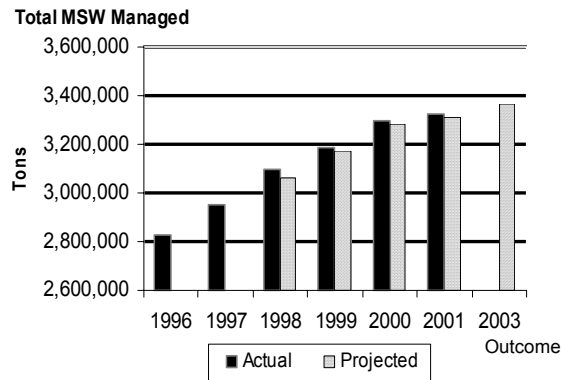
- Source reduction
- Recycling
- Toxicity reduction
- Processing
- Landfilling
- NonMSW management

The purpose of this report is to summarize results achieved through 2001 in meeting regional outcomes and progress of each county on county negotiated outcomes (CNOs) as summarized in Appendix A. The focus is on measurable results rather than activity reporting. A summary of 2001 regional accomplishments is shown in Appendix B. This report represents the fourth year of work and progress under the 1998 Regional Solid Waste Master Plan.

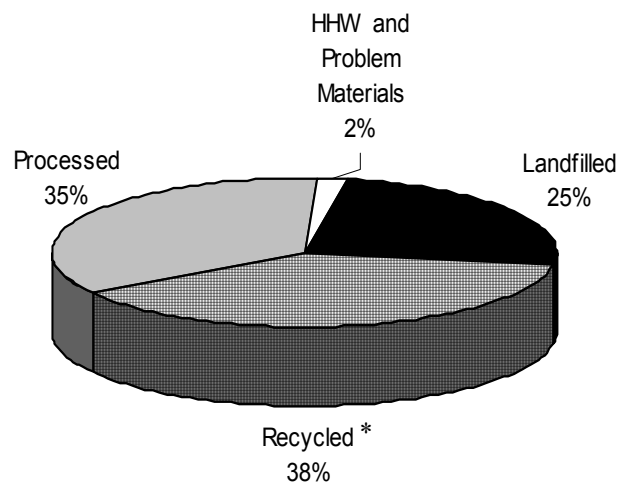
Data sources include county SCORE / Certification Reports, program data, and demographic estimates from the Metropolitan Council.

## 2001 RESULTS

In 2001, the region generated 3,324,000 tons of MSW, including recycled wastes. This represents an increase of less than 1% over 2000, and puts the region on course for meeting 1998 Master Plan waste generation outcomes for 2003 (Master Plan projections are shown in Appendix C). However, concerns exist about the completeness of data collected from haulers and a drop in recycling tonnage (see the Recycling chapter on page 10 for details).



In 2001, the region managed the waste generated using three primary waste management practices—recycling, processing and landfilling. A small percentage of MSW is problem materials. The following figure shows the breakdown of MSW management in 2001.



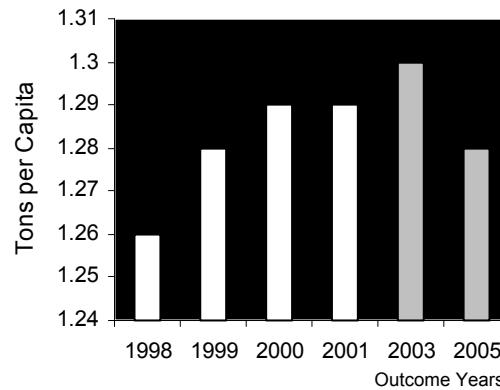
**Total = 3,324,000 tons**

\*Does not include 8% credit for source reduction and yard waste.

This breakdown compares to 2000 figures as follows: in 2000, 40% was recycled, 35% delivered for processing, 23% landfilled, and 2% managed as problem materials. Appendix D shows the detail on MSW management in 2001.

### Source Reduction

Although data collection concerns exist, there seems to be evidence that per capita waste generation may be leveling off.



The flattening of growth has mixed implications, since a drop in recycling rates was one of the factors in maintaining the MSW per capita rate. This means that growth in the region's waste is being slowed mainly through a decline in recycling. Note also that county staff have raised concerns that data on MSW may not fully reflect true generation rates due to incomplete reporting from waste haulers.

Possible reasons for slower growth in per capita waste generation include:

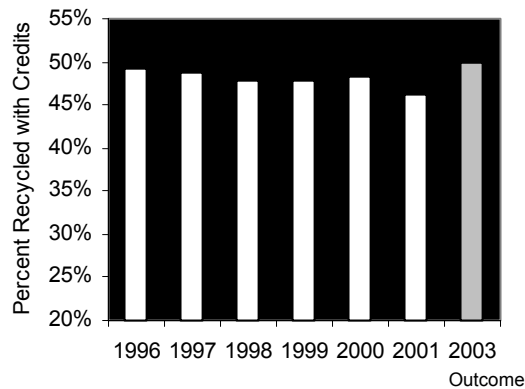
- A slower economy in 2001.  
It is widely believed that economic swings affect waste generation— economic booms encourage spending and greater waste generation, while slower economic conditions are thought to have the opposite affect.
- Impact of State, regional, and local messages regarding waste reduction.  
The OEA, with support from the SWMCB, launched a major public education campaign in 2000 focused on waste reduction. The OEA's evaluation of this campaign showed a 14% increase in awareness within the targeted audience on waste reduction messages. In addition, the SWMCB's compost bin distribution has met with an enthusiastic response from the public, indicating receptivity for practical waste reduction options.

### Policy Implications for the Region

1. Efforts to encourage specific waste reduction practices, such as backyard composting, should be maintained or increased.
2. Efforts to improve the reliability of waste generation data should be made to allow for better planning in the future. An on-going challenge will be to improve the completeness and quality of data received from haulers and waste facilities.
3. We need to better understand external forces that affect MSW generation— many of which are beyond the control of local government.

## Recycling

The region agreed to strive for a recycling rate of 50% of total MSW when the Master Plan was developed in 1998. 2001 results indicate a growing challenge in meeting this outcome, as the rate of recycling dropped to 46.2% (from 48% in 2000).



The drop in the recycling rate was accompanied by a drop in tons recycled of nearly 60,000 tons.

Possible factors impacting recycling results include:

- Commercial food waste recycling has dropped significantly (46,000 tons less than 2000).
- Relatively low processing and landfilling charges have reduced incentives for commercial recycling (tip fee dropped from \$38 to \$32 at the Newport Facility in October 2001).
- The recycling collection and processing industry has undergone consolidation in the region. There are now only three MRF's serving the Twin Cities region, and a major hauler is moving to single stream recycling.
- Some businesses that actively recycled their wastes have left the area or gone out of business.
- A significant proportion of commercial recycling tonnage is estimated by counties, and the changes in 2001 in methodology for estimation produced sizable changes in reported recycling tonnage.

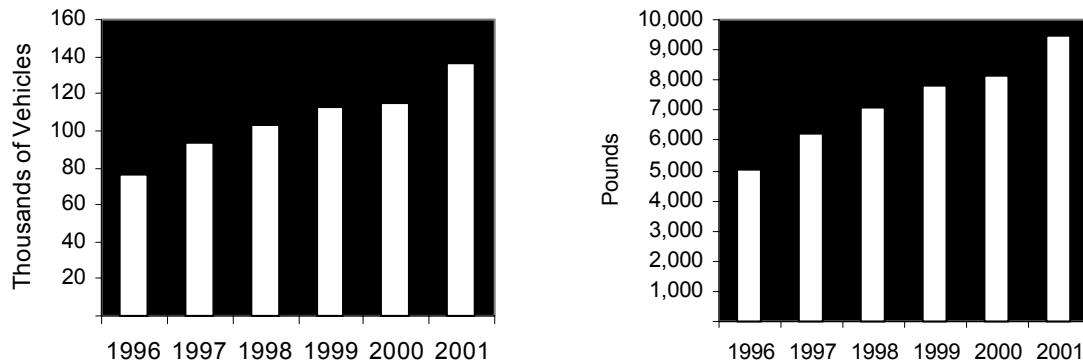
### Policy Implications for the Region

The region should:

1. Increase its emphasis on residential recycling and develop ways to re-invigorate residential recycling.
2. Explore options for creating financial incentives for greater commercial recycling.
3. Consider developing a standard method for estimating commercial recycling tonnages.
4. Evaluate the impact of changes in the recycling industry, including single stream recycling and processing consolidation.

### Toxicity Reduction

The Master Plan calls for the region to reduce the toxic/hazardous character of MSW. Results in the area of HHW program participation and materials collected showed significant growth in 2001 after leveling off in 2000. SWMCB counties as a group are a sizable generator of hazardous waste as a result of HHW collected and managed through county programs, and therefore have a significant role in reducing the toxic and hazardous character of MSW.



These results were achieved in part due to:

- Aggressive promotion of HHW programs by some counties.
- Significant growth in the volume of electronics and latex paint collected (17% and 28% growth rates, respectively). Together, these two wastes represented 48% of the total volume of HHW collected.

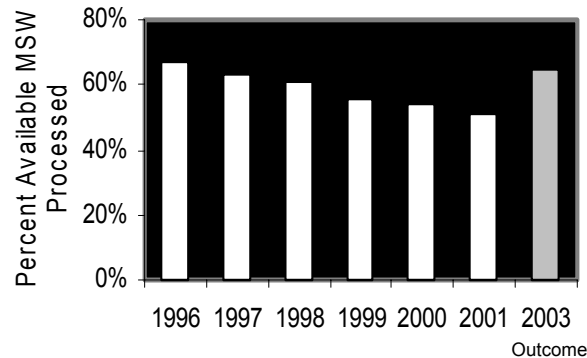
In addition, hazardous waste regulatory activities were maintained at approximately the same level as 2000. Regulatory staff report that new businesses being licensed were offset by about the same number of generators going out of business. The slow economy in 2001 is thought to be the probable reason for a high number of business closings.

### Policy Implications for the Region

1. Efforts to promote HHW collection should be maintained or increased to maximize the effectiveness of these programs.
2. Support for product stewardship initiatives should be maintained for electronics and latex paint. The region should consider legislative initiatives to require greater product stewardship, and should support national solutions for financing collection efforts.
3. Strong regulatory programs and regional collaboration on regulatory efforts should be maintained or strengthened.

### Processing and Landfilling

The Master Plan calls for the region to process 65% of MSW that has not been reduced or recycled, and for the region to plan for sufficient landfill capacity for waste that cannot be reduced, recycled, or processed. Results in this area of processing have been disappointing as the percent of waste processed continues to drop. Results for 2001 show that only 51% of available MSW could be delivered to a processing facility due mainly to processing capacity limitations. (35% of total MSW was delivered to processing facilities).



The reason for the decline of percent of waste processed is clear: as MSW continues to grow and processing capacity remains stable, the percent of waste processed will decline.

Other results show that Counties delivered about the same amount of waste to processing facilities in 2001 as 2000, though the regional totals in delivered tons masked significant differences among counties. Ramsey and Washington Counties' 2001 deliveries were lower than 2000 by about 6%. In early 2001, haulers dramatically reduced deliveries to the Newport NRG Facility for several months.

### Policy Implications for the Region

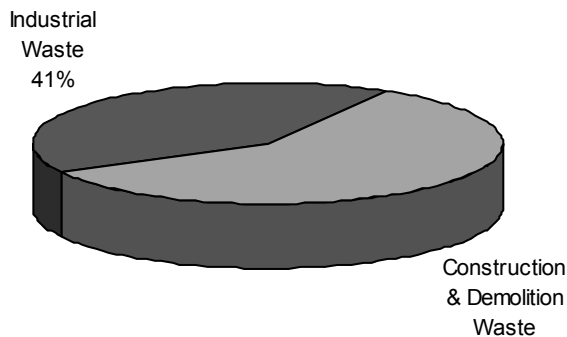
1. To address the issue of ensuring maximum utilization of existing processing capacity, SWMCB and the Counties should:
  - Continue to explore waste delivery options; and
  - Begin exploring regional approaches to contracting with processing facilities (to reduce competition among Counties' for limited combustion capacity, and to ensure a steady supply of waste).
2. Processing capacity must be increased if the Master Plan outcome is to be achieved. The region should work to implement recommendations from the December 2001 Processing Implementation Plan and work towards the development of source separated composting capacity. This work should also focus on obtaining greater financial assistance from the State of Minnesota for processing, since counties are already subsidizing processing at the rate of approximately \$35 million per year.
3. The SWMCB should focus efforts on maintaining and expanding combustion capacity, including working with utilities to ensure that long range planning for increases in capacity includes waste as a fuel, monitoring data on capacity availability and usage, and examining comparative environmental impacts of natural gas.

### NonMSW Management

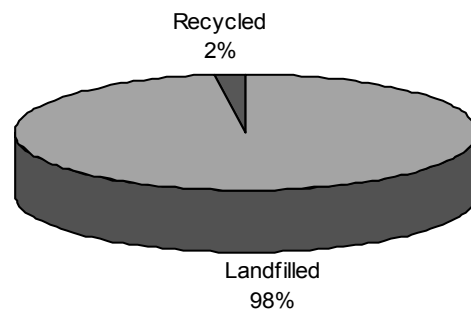
The Master Plan established as a principal outcome an increase in reduction, reuse, recycling, and processing of nonMSW to preserve landfill capacity. A key intermediate outcome was to develop waste characterization data for policy and program development.

Results through 2001 centered on improving the quality and reliability of data on nonMSW. In 2001, it is estimated that the region generated 2.7 million tons of nonMSW, an amount which approaches total MSW managed in 2001 (3.3 million tons). The following figure shows the breakdown of nonMSW and how this waste is being managed:

**NonMSW by Type**



**NonMSW by Management Method**

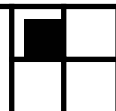


While data collection methods have improved, there remains significant work to develop data consistency so that trends in generation can be reliably tracked. County staff recognize that current data does not fully capture recycling activities.

County and private sector initiatives in the area of sustainable building design represent exciting opportunities to improve the management of nonMSW.

### Policy Implications for the Region

1. The annual volume of nonMSW landfilled of 2.6 million tons is more than twice the volume of MSW landfilled in 2001. Given this, the region should consider greater focus on actions to achieve the outcomes established in the Master Plan of increased reduction, reuse, recycling, and processing of nonMSW.
2. Efforts to promote sustainable building design should be continued and strengthened.
3. The SWMCOB should evaluate options for promoting the recycling and reuse of construction and deconstruction wastes, including the development of model ordinances.



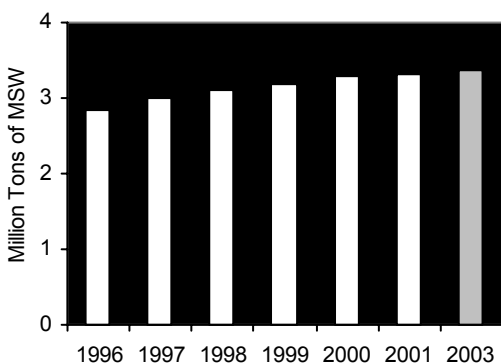
Source reduction, often called waste reduction or waste prevention, is the highest priority for managing waste at the national, state, and regional levels according to the Metropolitan Solid Waste Policy Plan (“Policy Plan”). The need for the reduction priority is clear. If the waste is reduced at the source, environmental concerns and management costs will be avoided.

**PRINCIPAL OUTCOME:**

*From 2005 through 2017, per capita and per employee Municipal Solid Waste (MSW) generation rates will be no higher than the 1999 rates.*

**TOTAL MSW MANAGED IN 2001:**

Chart 1.1

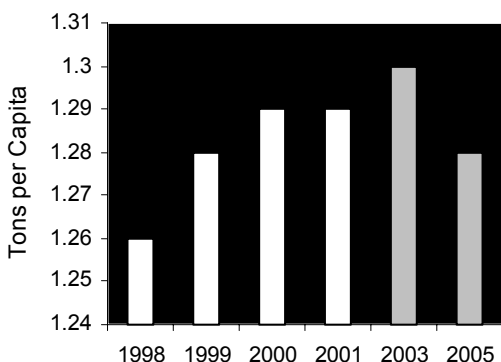


2001	3,324,000
2000	3,297,586
1999	3,187,524
1998	3,098,373
1997	2,949,967
1996	2,830,771

The region managed 3,324,000 million tons of MSW in 2001, which is an increase of 26,414 tons over 2000. As the rate of growth slows, the region may be on track to meet the Master Plan outcome of 3,364,000 tons for 2003. However, concerns exist about the completeness of data collected and a drop in 2001 recycling (see Recycling section).

**MSW MANAGEMENT PER CAPITA:**

Chart 1.2



2001	1.29
2000	1.29
1999	1.28
1998	1.26
1997	1.21
1996	1.17

Although data collection concerns exist, there seems to be evidence that per capita waste generation may be leveling off. The flattening of growth has mixed implications, since a drop in recycling rates was one of the factors in maintaining the MSW per capita rate.

### Total Population and Amount of MSW Managed Per Person and Per Employee

The following table shows population, employment and MSW estimates and projections. Estimates for 2001 employment figures are not yet available. The 2001 population figure was estimated based on historical growth.

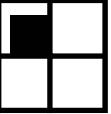
	Tons Managed	Percent Increase in Tons	Population	Employment	Residential Tons Per Person	Commercial Tons Per Employee	Total Tons Per Capita	Percent Change in Tons Per Capita
2003 (Outcome)	3,364,000	N/A	2,586,498	1,547,563	.59	1.19	1.30	N/A
2001	3,324,000	0.8%	2,584,726	(Pending Met Council Data)	.58	(Pending Met Council Data)	1.29	0%
2000	3,297,586	3.5%	2,552,558	1,591,263	.58	1.14	1.29	0.8%
1999	3,187,524	2.9%	2,493,400	1,468,300	.58	1.19	1.28	1.6%
1998	3,098,373	5.0%	2,468,761	1,446,647	.56	1.18	1.26	4.1%
1997	2,949,967	4.2%	2,440,110	1,421,956	.54	1.14	1.21	3.4%
1996	2,830,771	-	2,411,311	1,397,678	.53	1.11	1.17	-

### CNOs and regional accomplishments in the area of Source Reduction

Progress on county negotiated outcomes (CNOs) and regional accomplishments for 2001 are found in Appendix A and Appendix B, respectively.

#### Sources:

- 1) MSW historical figures are from SCORE and Certification reports prepared by counties.
- 2) Population and employment figures for 1996-2000 are from the Metropolitan Council.
- 3) 2001 population was estimated by staff as a straight-line projection based on 1990 and 2000 census figures from the Metropolitan Council.
- 4) 2003 projections of MSW, population, and employment are from the Regional Master Plan (Appendix C). It may be useful to re-evaluate 2003 projections when new projections based on the 2000 census are available from the Metropolitan Council.



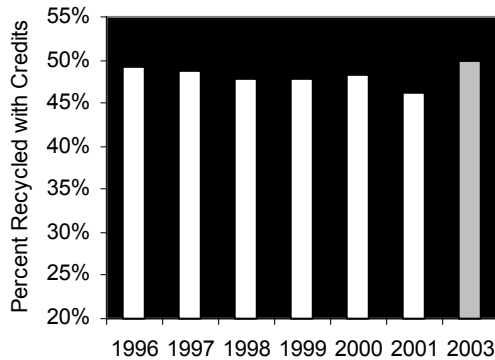
Recycling is an integral component of the integrated waste management system and supports the Policy Plan goals of landfill abatement, resource conservation and generator responsibility.

**PRINCIPAL RECYCLING 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.*

**PERCENT OF MSW RECYCLED (WITH CREDITS):**

Chart 2.1



	Total Tons	Percent with credits*
2003 (Outcome)	1,413,000	50.0%
2001	1,268,321	46.2%
2000	1,327,726	48.3%
1999	1,268,614	47.8%
1998	1,231,525	47.8%
1997	1,203,525	48.8%
1996	1,168,747	49.3%

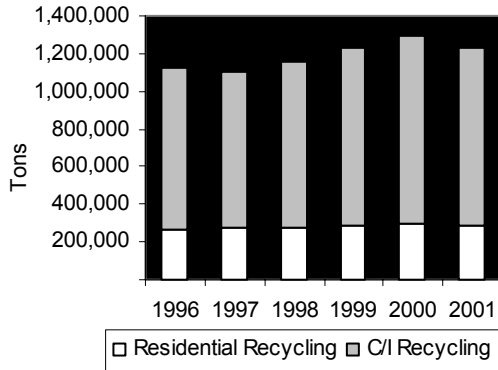
In 2001, 1,268,321 tons were recycled, which represents a recycling rate of 46.2%. This rate is the lowest experienced in the past several years, and reflects a drop in recycled volume of nearly 60,000 tons. 2001 results indicated a growing challenge in meeting the Master Plan outcome of 50% recycling.

\* Percent includes an 8% credit for waste reduction and yard waste.



**BREAKDOWN OF RESIDENTIAL AND COMMERCIAL/INDUSTRIAL RECYCLING:**

Chart 2.2



	Residential	C/I
2001	288,563	940,275
2000	293,092	995,151
1999	289,121	938,482
1998	275,809	875,723
1997	272,828	830,906
1996	261,541	860,561

Residential recycling accounted for approximately 22% of the MSW recycled, Commercial/Industrial/Institutional (C/I/I) recycling accounted for approximately 75% of the MSW recycled, and Mechanical/Hand Sort recycling accounted for 3% of the MSW recycled.

Challenges exist both with residential recycling, where the amount of material collected has remained flat as population has increased, and with C/I/I recycling. C/I/I recycling dropped in part due to a decline in food waste composting, but also due to data reconciliation as some counties decreased their estimated C/I/I recycling. Challenges in measuring C/I/I recycling remain.

**CNOs and regional accomplishments in the area of Recycling**

Progress on county negotiated outcomes (CNOs) and regional accomplishments for 2001 are found in Appendix A and Appendix B, respectively.



Source reduction and the reduction of toxic/hazardous waste are the highest priorities for the regional solid waste management system (Metropolitan Solid Waste Management 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 household hazardous waste (HHW) that is not 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.

**PRINCIPAL OUTCOME #1:**

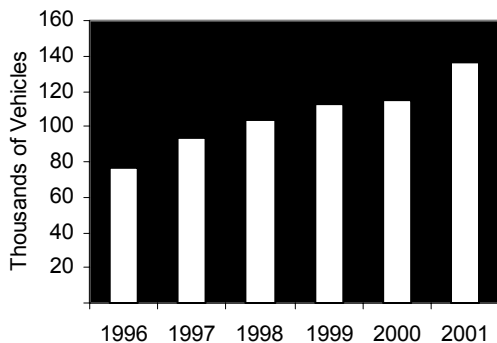
*By 2003, the toxic/hazardous character of MSW will be reduced.*

**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.*

**HOUSEHOLD HAZARDOUS WASTE (HHW) PROGRAM PARTICIPATION:**

Chart 3.1

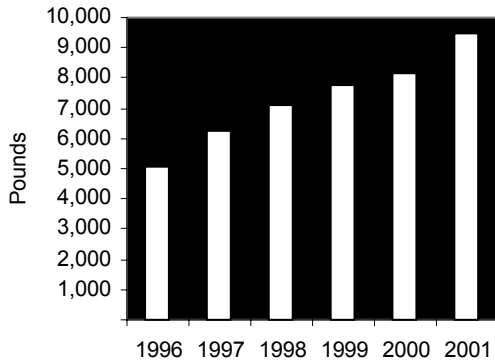


2001	136,501
2000	114,831
1999	112,523
1998	103,423
1997	92,143
1996	75,475

Significant growth in participation occurred in 2001 (19% over 2000) in part due to strong promotion of county HHW facilities.

**AMOUNT OF HHW COLLECTED:**

Chart 3.2

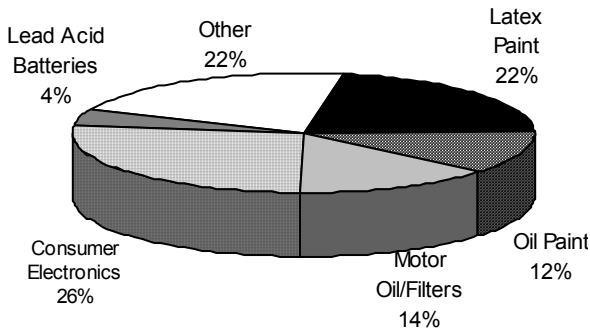


2001	9,480,851
2000	8,178,935
1999	7,785,996
1998	7,101,565
1997	6,242,833
1996	5,065,695

The amount of household hazardous waste collected increased nearly 16% from 2000 to 2001. Pounds of materials collected have nearly doubled since 1996.

**TYPES OF HHW COLLECTED:**

Chart 3.3

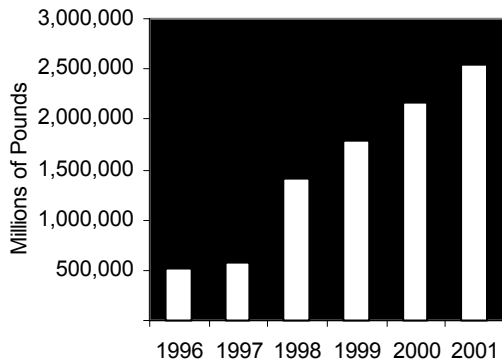


Material	Pounds Collected
Consumer Electronics	2,533,750
Latex Paint	2,055,136
Oil Paint	1,128,298
Motor Oil and Filters	1,319,786
Lead Acid Batteries	408,959
All Other	2,039,462

In 2001, more than one quarter of all HHW collected was electronics, and another 22% was latex paint.

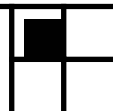
**CONSUMER ELECTRONICS:**

Chart 3.4



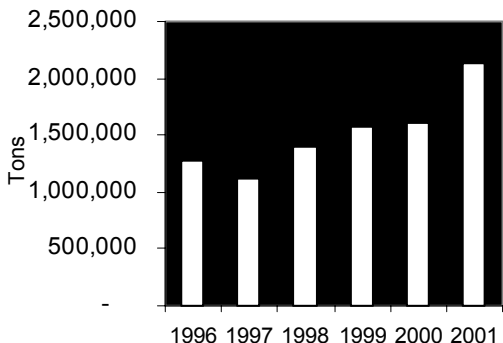
2001	2,533,750
2000	2,160,200
1999	1,785,100
1998	1,410,200
1997	586,000
1996	524,100

Consumer electronics is one of the fastest growing HHW streams. The amount of consumer electronics collected accounts for 26% of the total pounds of HHW collected, even though only two counties- Hennepin and Carver- collect electronics.



**LATEX PAINT:**

Chart 3.5



2001	2,055,136
2000	1,606,748
1999	1,569,424
1998	1,406,624
1997	1,119,808
1996	1,276,459

After slow growth in latex paint collections over the past couple of years, 2001 collections grew significantly (28% over 2000)

**HOW HHW WAS MANAGED:**

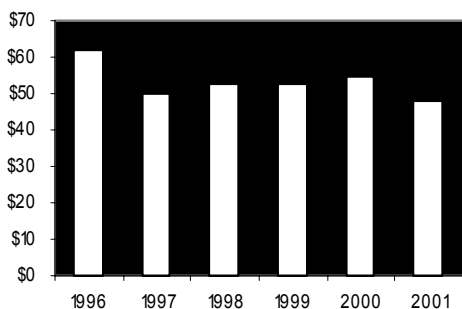
Chart 3.6



Most HHW collected was recycled or fuel-blended. Reuse shelves at some HHW facilities 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.

**PROGRAM COST PER VEHICLE:**

Chart 3.7

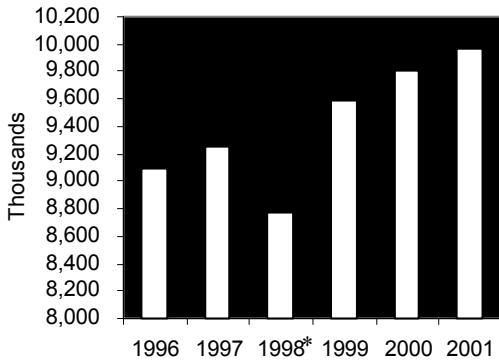


2001	\$48.29
2000	\$54.42
1999	\$52.49
1998	\$52.47
1997	\$49.67
1996	\$61.90

Cost per vehicle decreased between 2000 and 2001, primarily because growth in participation rates outstripped growth in total costs. Cost per vehicle is 22% lower than the 1996 rate.

**NUMBER OF HAZARDOUS WASTE GENERATORS:**

Chart 3.8

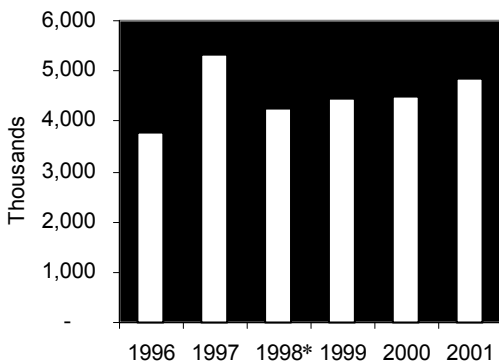


2001	9,962
2000	9,805
1999	9,591
1998	8,773
1997	9,260
1996	9,099

The number of licensed and registered hazardous waste generators increased by 1.6% from 2000 to 2001, in part due to inclusion of “self audit” generators which had not been included in previous years (418 “self audits”). Hazardous waste inspection staff report that the number of new generators licensed in 2001 was offset by a significant number of generators that went out of business. The general downturn in the economy in 2001 is the probable reason for the high number of business closings.

**HAZARDOUS WASTE INSPECTIONS:**

Chart 3.9



2001	4,863
2000	4,471
1999	4,460
1998	4,252
1997	5,315
1996	3,785

The number of inspections performed increased by 9% from 2000 to 2001.

**CNOs and regional accomplishments in the area of Toxicity Reduction**

Progress on county negotiated outcomes (CNOs) and regional accomplishments for 2001 are found in Appendix A and Appendix B, respectively.

\* The drop in licensed generators in 1998 resulted from the creation of a “minimal generator” category of low-risk generators who were required to register rather than maintain a license.

\* The drop in inspections from 1998 resulted from the change in licensing practices and also from a change in the method of accounting for inspections.

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

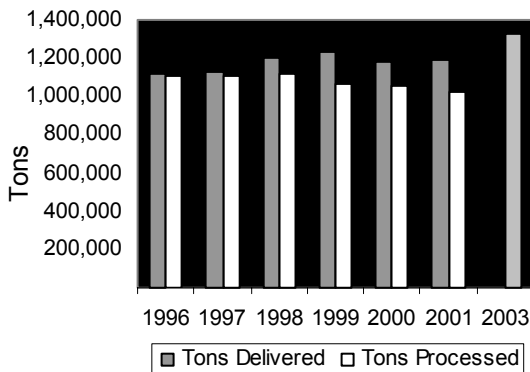
MSW from SWMCB Counties is processed at HERC, NRG Newport and NRG Elk River Facilities. Total permitted capacity at these three facilities is estimated to be 1,165,000 tons.

**PRINCIPAL PROCESSING OUTCOME:**

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

**TONS OF MSW DELIVERED AND PROCESSED:**

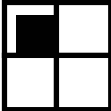
Chart 4.1



	Processed	Delivered
2003(outcome)	1,323,500	N/A
2001	1,021,114	1,193,676
2000	1,051,878	1,180,428
1999	1,068,260	1,230,865
1998	1,118,031	1,205,317
1997	1,102,852	1,129,013
1996	1,102,975	1,119,334

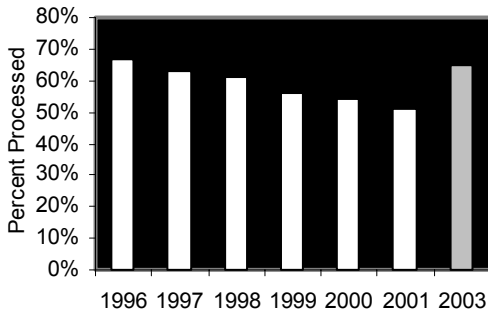
2001 results show that Counties delivered about the same amount of waste to processing facilities as 2000, though the regional totals in delivered tons masked significant differences. Ramsey and Washington Counties' deliveries were lower than 2000 by about 6% due to hauler actions in early 2001 which dramatically reduced deliveries to the Newport NRG Facility for a part of the year.

While MSW delivered to processing facilities remained at about the same level as 2000, the amount of waste processed declined. This was due, in part, to performance problems at the Great River Energy Facility where refuse derived fuel (RDF) from the Elk River processing facility is burned to produce energy.



**PERCENT OF AVAILABLE WASTE PROCESSED:**

Chart 4.2

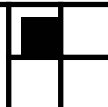


2003 (Outcome)	65%
2001	51%
2000	54%
1999	56%
1998	61%
1997	63%
1996	67%

Processing results have been disappointing as the percent of waste processed continues to drop. Results for 2001 show that only 51% of available MSW could be delivered to a processing facility due mainly to processing capacity limitations (note that 35% of total MSW was delivered to a processing facility).

**CNOs and regional accomplishments in the area of Processing**

Progress on county negotiated outcomes (CNOs) and regional accomplishments for 2001 are found in Appendix A and Appendix B, respectively.



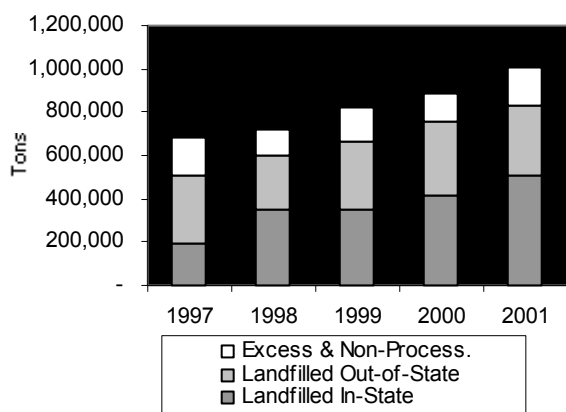
Landfills have a role in the integrated solid waste management system and sufficient capacity is needed for waste that cannot be reduced, recycled or processed. The Policy Plan recognizes that the private sector has primary responsibility for delivery of landfilling services (Policy 5.4.2.2). The role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

**PRINCIPAL LANDFILLING OUTCOME:**

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

**AMOUNT OF MSW LANDFILLED:**

Chart 5.1



Landfilling of regional MSW has grown to over 1 million tons in 2001, an increase of 13% over 2000. The relative proportion of unprocessed MSW landfilled in Minnesota has increased— in 2000, the in-state to out-of-state ratio was approximately 55/45, while in 2001, this ratio was 61/39. There was also a significant increase in landfilling of excess and non-processable waste from 2000 to 2001.

Material	1996	1997	1998	1999	2000	2001	2003 (Outcome)
In-State	188,379	197,722	347,153	346,973	419,594	506,299	N/A
Out-of-State	264,482	254,596	256,968	314,830	337,945	324,715	N/A
Excess and Non-Processable	103,354	172,734	119,433	164,130	130,875	174,422	N/A
<b>Total</b>	<b>556,215</b>	<b>625,052</b>	<b>723,554</b>	<b>826,933</b>	<b>888,423</b>	<b>1,005,436</b>	<b>599,500</b>
% of total MSW	19.6%	21.2%	23.4%	25.9%	27.0%	32%	17.8%

**CNOs and regional accomplishments in the area of Landfilling**

Progress on county negotiated outcomes (CNOs) and regional accomplishments for 2001 are found in Appendix A and Appendix B, respectively.



The Policy Plan indicates that an integrated solid waste management system requires responsible solid waste collection practices that protect 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

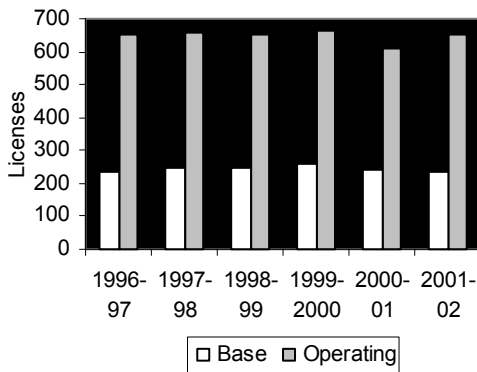
The Regional Hauler Licensing Program which began in 1995 provides for the issuance of one base license by the county in which the hauler is based and an operating license by each county in which a hauler operates. The base license provisions, including insurance requirements, fees, hauler application 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 act against a hauler violating such requirements.

**PRINCIPAL OUTCOME:**

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

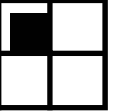
**REGIONAL HAULER LICENSES ISSUED:**

Chart 6.1



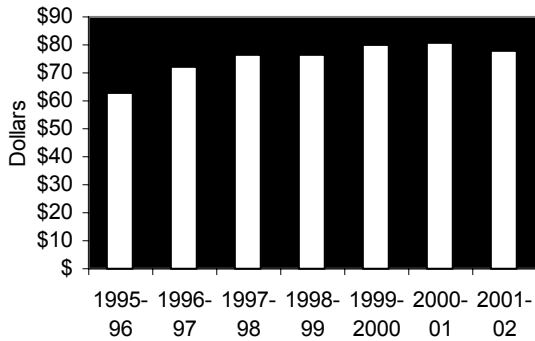
Year	Base	Operating
2001-'02	235	650
2000-'01	243	608
1999-'00	259	661
1998-99	245	650
1997-98	247	657
1996-97	238	652

The number of base licenses issued decreased slightly, while the number of operating licenses issued increased in the 2001-'02 licensing period. (The license year begins on July 1 and ends on June 30.)



**LICENSE FEES COLLECTED:**

Chart 6.2



2001-'02	\$77,650
2000-'01	\$80,650
1999-'00	\$79,650
1998-99	\$76,100
1997-98	\$76,150
1996-97	\$72,350
1995-96	\$62,950

License fees collected decreased by \$3,000 for the 2001/2002 license period. There were fewer haulers licensed in the 2001-2002 licensing year than 2000-2001, and the number of licensed trucks in the region decreased by 60 trucks. 1,553 trucks are licensed in the region.

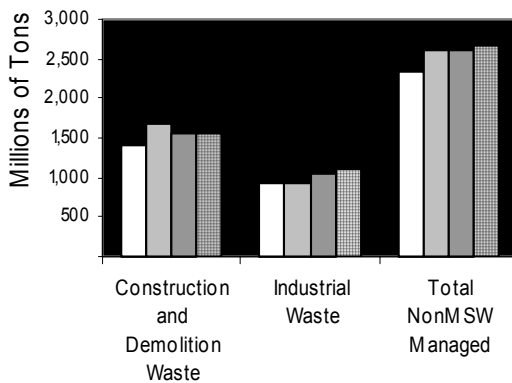
The 1998-2017 Master Plan recognized that NonMSW should receive greater attention in regional planning efforts than it has in prior periods. In order to develop NonMSW policies and programs, however, it will be necessary to collect data, evaluate environmental impacts and regulatory issues, and identify best management practices. For this reason, collection and analysis of better data on NonMSW is a major focus of SWMCB work in this area.

**PRINCIPLE OUTCOME:**

*By 2001, the region will see an increase in the reduction, reuse, recycling, or processing of NonMSW to preserve landfill capacity as a resource.*

**TONS OF NonMSW MANAGED:**

Chart 7.1



	Construction and Demolition Waste	Industrial Waste	Total NonMSW Managed
2001	1,560,618	1,101,656	2,662,274
2000	1,569,097	1,047,653	2,616,750
1999	1,670,769	931,908	2,602,678
1998	1,420,715	930,083	2,350,798

□ 1998   □ 1999   □ 2000   □ 2001

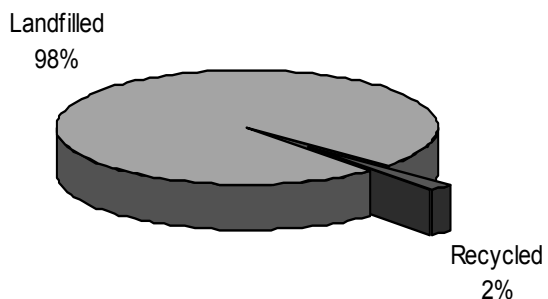
For the purposes of this report, nonMSW comprises construction and demolition (C&D) and industrial wastes. The amount of nonMSW generated is approximately 20% less than the amount of MSW generated- MSW generated was 3.3 million tons in 2001.

In addition to the nonMSW represented in this report, the region generates approximately 267,500 tons of ash from resource recovery facilities, un-quantified amounts of infectious waste and pathological waste, as well as other nonMSW streams not included in this report.



**MANAGEMENT OF NonMSW:**

Chart 7.2



The vast majority of nonMSW (98%) measured continues to be landfilled. It is thought that recycling and reuse of nonMSW streams may not be fully captured in data collection methods presently in place. More work needs to be undertaken to fully describe all nonMSW generated and managed. Nonetheless, estimates of landfilling of nonMSW show 2.7 million tons of landfilling in 2001, more than twice the level of MSW landfilling.

*CNO HIGHLIGHTS AND CHALLENGES***SOURCE REDUCTION****HIGHLIGHTS**

- **Anoka**
  - **Outreach to Businesses:** All 7,052 businesses in Anoka County were contacted at least once by site visits, telephone and/or other promotions.
  - **Residential Pilot Project:** 97.45 tons listed, 379.92 tons exchanged via the FREEMarket, Circle Pines experienced a decrease in waste/household goods. Reuse opportunities and FREEMarket was promoted to 106,500 households in November.
  
- **Carver**
  - **Waste Reduction at County Facilities:** On April 20, 2001, the county conducted a two week long “Earth Action Challenge” to promote waste reduction at county facilities. A total of 113 Carver county employees participated in the waste reduction. A waste reduction “tip of the day” was emailed to all Carver county employees each day during the challenge for a total of 10 reduction tips.
  
- **Dakota**
  - **Green Guide:** The county gathered data from several recent and similar source reduction focus groups to develop the Green Guide, a comprehensive 50-page booklet for residents specific to source reduction, recycling, and other solid and household waste management issues.
  - **Residential Composting:** In conjunction with SWMCB activities, the County promoted residential composting and dispersed 3,979 compost bins during the spring and fall distribution programs. Also, the County held 11 composting workshops with the University of Minnesota-Dakota County Master Gardeners, with an attendance of nearly 500 people.
  - **Eco-10 Challenge:** The Environmental Management staff kicked off the Eco-10 Challenge, an in-house, full scale waste reduction educational program for employees at the Western Service Center building. Results of the program reflect beneficial outcomes.
  
- **Hennepin**
  - **Eco-Yard:** During 2001, approximately 650 individuals toured the Eco-Yard site located at the Brooklyn Park Transfer Station. Additionally, Master Gardeners presented five seminars using the Eco-Yard site to promote sustainable landscaping techniques.
  
- **Washington**
  - **Grocery Store Project:** The County hired a consultant to develop waste strategies in grocery stores. Consultant has researched related statewide and nationwide studies and reports and explored organic waste management options with the potential funding for implementing a source-separated organics collection and transportation system.
  - **School Paper Reuse:** The participating school has initiated a paper reuse program in addition to a recycling program. Washington County purchased plastic desk-sized recycling boxes that sit on top of the teacher’s desk to collect one-sided paper. Teachers estimate that 30-50 sheets of paper are being reused per classroom per week.

## CHALLENGES

- **Anoka**
  - **Revision of Shop Used First Guide:** The revision of the guide will not be complete until the summer of 2002
  
- **Carver: Waste Free Fridays involving 10 businesses**
  - Carver County does not have the staffing to initiate and sustain a Waste Free Fridays Program.
  
- **Dakota**
  - **Achieving long-term changes - employee waste reduction:** Even though results of the internal waste reduction educational program (Eco 10 Challenge) reflect beneficial qualitative and quantitative outcomes, long-term changes in individual behavior continue to be challenging. Waste reduction initiatives continue to be voluntary since a formal county policy has not yet been developed.
  
- **Hennepin**
  - **Achieving 10% reduction by 2003:** Despite promoting such events as the 7 Million Pound Challenge and Waste Free Fridays at the Government Center cafeteria, it is a major challenge to reduce waste generated in county-operated facilities by 10% by 2003. In 2001, Hennepin County's in-house waste generation rate was 13.32 pounds generated per Full Time Employee (FTE). This was a 3% decrease from the previous year. Our CNO goal is 11.65 pounds/FTE by 2003.
  
- **Ramsey**
  - **Cities and Source Reduction:** Many cities are not giving attention to source reduction education, despite our efforts to encourage them to do so and providing them resources they could use.

*CNO HIGHLIGHTS AND CHALLENGES***RECYCLING****HIGHLIGHTS**

- **Anoka**
  - **Reducing Office Paper:** Categories were identified and a brochure was developed and mailed to 481 businesses on how to reduce and recycle office paper waste.
  - **OCC:** Flyer mailed to 630 businesses on proper management of OCC.
  - **Office Products Fair:** Distributed Environmentally Preferable Purchasing Guide to departments. Continued to promote recycled products at Office Products Fair. Guidelines provided to Purchasing Dept. to be disseminated at departmental procurement meetings.
  
- **Carver**
  - **Office Paper Recycling Bins:** As of May, 2001, Carver County spent \$22,300 to purchase and disseminate 400 office paper recycling bins for county employees; 9 outdoor recycling receptacles equipped to collect plastics, aluminum, and glass for county facilities; 12 indoor recycling receptacles equipped to collect plastics, aluminum, glass, and paper for county facilities; and 20 sixty gallon office paper recycling carts for county departments.
  - **Residential Recycling Drop-off Sites:** The County Board also approved funding to open three new residential recycling drop-off sites and expand the services of a fourth site. It opened residential recycling drop-off sites in New Germany, Cologne, and East Union, and expanded the hours at the Watertown drop-off site. The new sites began operation on August 18, 2001.
  
- **Dakota**
  - **Resourceful Waste Management Guide:** Dakota County took the lead developing the SWMCB's Resourceful Waste Management Guide for businesses, and distributed over 1,100 Guides within the first two months after it's completion, including distribution to the base haulers, all licensed hazardous waste generators and other businesses located in the county.
  - **Qwest Telephone Directories:** Qwest decided to curtail placement of recycling dumpsters and instead directed residents to place directories in curbside recycling bins. Qwest's decision caused problems because not all segments of the residential and commercial sectors have curbside recycling service and therefore do not have an easily accessible recycling opportunity and confusion by residents having curbside service resulted in additional inquiries for city and county staff. The decision resulted in a shift in responsibility from the private sector to the public sector that required county sponsored drop off sites to add drop off containers for phone books. Independent haulers expressed concern that their trucks were not equipped to collect directories in curbside bins because of the additional weight to the bins and also expressed marketing concerns.
  
- **Ramsey**
  - **Technical Assistance to Municipalities:** he County contracted with a consultant during late 2000 through 2001 to provide technical assistance to municipalities on recycling contracts and ordinances, with the overall goal of helping to increase long-term stability of local recycling programs. This assistance was helpful to several cities, especially Shoreview, North St. Paul, and Vadnais Heights.

- **Hennepin:**
  - **County Environmentally Responsible Purchasing Plan:** The County Board has approved an Environmentally Responsible Purchasing Plan (EPP) and staff has conducted training sessions for 50 key stakeholders from various county departments. These stakeholders have identified 10 priority products/services to focus EPP efforts towards.
  - **Recycling in Schools:** Hennepin County awarded \$80,000 in Municipal Waste Abatement Incentive Grant funds to the cities of Edina and Eden Prairie to promote recycling and waste reduction in schools.
- **Washington**
  - **Recycling in Schools:** The school that was identified in 2000 as having a deficient recycling and reduction program has initiated programs to collect recycling. The County purchased containers and students were instructed what paper to place in containers.

## CHALLENGES

- **Anoka**
  - **Development of Business Work Group:** The development of our business work group did not occur until 2002, so we have not developed alternatives to correct the barriers identified.
- **Carver**
  - **Working with cities to incorporate recycling into zoning regulations:** Carver County has limited staff available to undertake this project.
- **Dakota**
  - **Single Stream Recycling:** Recycling continues to be market driven and is rapidly changing. Current trends indicate a shift toward a single stream recycling system without data to show recycling impacts.
- **Hennepin County**
  - **Strive for a Recycling Rate of 50%:** In 2001 the County's recycling rate was 45%. Recycling continues to increase, but at a slower rate than waste generation. The County is currently examining ways to achieve a recycling rate of 50%.
- **Ramsey**
  - **Multi-family Unit Recycling Barriers:** Evidence from cities indicates that some landlords do not want to participate in multi-unit recycling programs, services are sometimes dropped due to contamination, and some cities do not make the provision of recycling to multi-family residents a high priority.
  - **Residential recycling continues to stagnate:** During 2001 municipal (curbside + municipal drop-off and cleanup events) recycling fell to 160 lbs recycled/person/year, falling below the County's standard of 162 lb/person/year and from values above 165 lbs/person/year in previous years; only part of this decline can be explained by reporting issues and increased Census population.
- **Washington**
  - **Multi-family Unit Recycling Barriers:** In Fall of 2001, 249 surveys were distributed to the apartment complex, and only 13 responded. Of those that did respond, 12 said they

were not currently using the recycling containers, and in fact do not know of the recycling program available at the site. The project is on hold while the county explores a public collection system of waste, which may directly impact recycling in multi-family housing units in the near future.

*CNO HIGHLIGHTS AND CHALLENGES***TOXICITY REDUCTION****HIGHLIGHTS**

- **Anoka**
  - **Educational flyer for the business community:** Flyer developed for training and site visits was developed and used in 2001. Flyer was mailed to all 7052 businesses and is also used by Environmental Services Inspectors during site visits.
  - **Pesticide Use at County Facilities:** The county has quantified the use of pesticides and fertilizers at county facilities. Staff is determining means to evaluate the types and amounts of pesticides and fertilizers to be used in the future.
  
- **Carver**
  - **Environmental Resource Management Center:** Carver County purchased an 11,000 square foot building in the Industrial Park in Chaska to house the HHW program. With the convenience and stability of the program, the County anticipates a doubling in participation with fewer residents utilizing other metro county HHW facilities.
  
- **Dakota**
  - **VSQG Collections at Eco-site:** In August 2001, the County Board approved the expansion of services at the Eco-Site to include the collection, storage, and disposal of hazardous waste generated from VSQG's. In several months and with limited advertising, approximately 5,300 pounds of hazardous waste was properly managed through the program.
  
- **Hennepin**
  - **Toxicity Reduction through the development of an Integrated Pest Management Plan:** Hennepin County departments have been implementing various IPM techniques for years. Pesticide use has been reduced significantly in the last twenty years. The adoption of a formal County policy and development of IPM programs at the department level will formalize, refine and broaden these techniques. The goal of the policy is to look at how landscapes are designed and constructed, improve the outdoor landscapes we currently have and reduce the use and toxicity of pesticides, thus improving public health and the environment.
  
- **Ramsey**
  - **HHW participation:** Due to very extensive outreach to residents to increase awareness of the HHW sites, participation at the County's HHW sites during 2001 was 34% higher than during 2000; (15426 in 2000; 20632 in 2001).
  - **Training to hazardous waste generators:** Ramsey County continues to offer industry-specific training to hazardous waste generators. Since September the County has provided training to 24 persons in the metal finishing industry and has provided onsite training to 146 persons in 12 companies.
  - **Communications:** The County has used several avenues to inform haulers and other waste generators about proper management of HHW, hazardous waste, and problem materials. Since Sept. the RRP has issued five issues of Hauler News, which have included information on HHW sites, Resourceful Waste Management Guide, propane tanks, CRTs, and hazardous waste training sessions. Ramsey County's Hazardous Waste Quarterly is distributed quarterly to hazardous waste generators, including any

waste hauler/transfer station that is licensed for HW generation; every issue has an article on the HW rules and P2.

- **Hospital Waste:** Ramsey County staff conducted site visits to hospitals in the county, and then prepared an analysis and report on significant hazardous waste issues in hospitals/health care facilities. This was brought to SWMCB and has resulted in creation of a regional small group that is meeting to create more consistency and improve compliance with hazardous waste management issues affecting health care facilities.
- **Washington**
  - **Increased participation in HHW program:** In 2001, participation in the HHW collection program increased over 15%. Residents brought in 909,965 pounds of waste, which is a 21% increase from 2000.
  - **Take it Back:** Take It Back had 89 partners in 2001, representing 181 product returns to retail sites. 66 % of the partners that returned the survey reported a positive customer response to the program.

## CHALLENGES

- **Anoka**
  - **Reduction of hazardous waste and alternatives purchased at county facilities:** Due to project priorities, this project is behind schedule. A work group has been identified and is developing a plan and timeline.
- **Carver**
  - **HHW Collection Participation Rates:** Participation decreased from 1,766 (7.1% of the population) in 2000 to 1,598 (5.9% of the population) in 2001. Also, 229 Carver County residents used other metro county facilities for HHW disposal in 2001 compared to 2000 when 144 Carver County residents used other HHW facilities.
- **Dakota**
  - **Product Stewardship:** Results of focus groups have shown that it is difficult to increase residential awareness of consumers' influence and buying power with manufacturers in implementing product stewardship activities and that residents believe product stewardship is primarily a government responsibility. It is difficult for local government to directly influence manufacturers or to effectively influence businesses to emphasize product stewardship and life cycle management with manufacturers. Therefore the roles between all involved parties is complicated and not always easily delineated.
- **Hennepin**
  - **Expansion of County's Household Hazardous Waste and Problem Materials Programs:** Participation in the County's HHW and Problem Materials Program continues to increase, in 2001 there were participants using either the County permanent facilities or attending one of six mobile collection events. The challenge is that the two permanent facilities are currently operating beyond their designed capacity. The county is currently exploring expansion options.
- **Ramsey**
  - **Improper disposal of HHW:** According to the County's biennial residential survey, while a majority of residents either do not generate various HHW materials or they take them to the HHW sites or use other appropriate disposal methods, many residents still toss materials in the trash: of all residents, 26% toss weed/insect killers in the trash; fluorescent bulbs, 24%; old paint (not including the 12% who dry out paint and put in the trash), 9%; oil filters, 6%; used motor oil, 1%.

- **CRTs:** According to the County's biennial residential survey, 95% of residents have a TV and/or computer monitor. If they had to dispose of them, 18% would toss in the trash (72% would research options, recycle, donate, sell).
- **Washington**
  - **Delay in HHW Participant Survey:** Other priorities delayed the development of HHW participant survey in 2001. Development began in early 2002.

*CNO HIGHLIGHTS AND CHALLENGES***PROCESSING****HIGHLIGHTS**

- **Anoka**
  - **Processing of MSW from Schools:** All 6 school districts are using haulers contracted with Anoka County to haul waste to the ERRRF. Language will be supplied to school districts to be added to contracts, to be completed upon expiration of existing contract.
  
- **Dakota**
  - **Application for On-Site Processing:** In October 2001, Dakota County co-applied with the NRG PS compost facility to the MPCA for the expansion of on-site processing and composting capabilities, from 10,000 tons per year for organics to 46,800 tons per day. The application is still awaiting MPCA approval.
  
- **Hennepin**
  - **Waste Delivery Agreements:** During 2001, 632,000 tons of MSW were delivered to Hennepin County facilities. This was achieved through negotiating waste delivery agreements with haulers.
  
- **Ramsey / Washington**
  - **Public Collection:** Ramsey and Washington Counties have embarked on both short-term and long-term strategies to address waste deliveries to the Newport facility, including an extensive study on public collection.
  - **State Processing Payment:** The Counties were able to use the new State processing payment to lower the Newport tipping fee, which allowed for more effective negotiations with haulers on delivery contracts.

**CHALLENGES**

- **Carver**
  - **Decreased Participation in Processing Program:** The amount of processing subsidy funds requested by haulers dropped substantially after the recent consolidation of haulers. Waste Management purchased two independent haulers in June 2001 and now control over 80% of Carver County's waste. Waste Management has indicated they will not participate in the processing program.
  
- **Dakota**
  - **Increased Processing Incentives Have Not Increased Hauler Participation:** Dakota County amended hauler financial incentive contracts for processing to include the State Processing Payment incentive. Even with the per ton financial incentive increase to haulers for County generated waste processed, the volume of MSW delivered to processing facilities has not increased. Promotion of waste processing is challenging because MSW delivered to processing facilities, including via transfer stations, is not necessarily processed. In addition, there are limited processing opportunities for Dakota County's haulers.

- **Hennepin**
  - **Maximizing processing capacity at Elk River Resource Recovery Facility(ERRRF):** The County is contracted to annually deliver approximately 240,000 tons of MSW to ERRRF. Because of performance problems at ERRRF, only 155,000 tons of Hennepin County waste was processed in 2001.
  
- **Ramsey / Washington**
  - **Market impact on achieving environmental goals:** Ramsey and Washington Counties need the processing payment and additional subsidies to be able to direct waste to processing facilities, and the Counties do not know the volume of MSW to be contracted in future years: both issues underline the failure of current market forces to work in the direction of environmental goals.

*CNO HIGHLIGHTS AND CHALLENGES*

**LANDFILLING**

**HIGHLIGHTS**

- **Dakota**
  - **Reuse and recycling program at landfill:** The reuse and recycling project at Burnsville's Sanitary landfill was a successful pilot. High content metal and clean wood were diverted from waste going into the Sanitary Landfill and were recycled or reused. The pilot was so successful that it was recently licensed as a full-scale operation.

**CHALLENGES**

- **Dakota**
  - **Landfills Filled at Increasing Rate with Limited Permitted Capacity:** The Pine Bend and Burnsville sanitary landfills located in Dakota County are being filled at an increasing rate. 2001 projections indicate that both landfills are limited to no more than 6 years of life, but requests for expansion are expected.

*CNO HIGHLIGHTS AND CHALLENGES***NonMSW****HIGHLIGHTS**

- **Anoka**
  - **NonMSW generated by the county:** A list of materials and current management methods were identified. Strategies to reduce and reuse will continue to be developed in 2002.
- **Carver**
  - **Construction Waste Processing Program:** As part of Carver County's construction waste processing program, 4 haulers delivered 7,115 cubic yards of construction waste to a recycling facility in 2001.
- **Dakota**
  - **Mining Pilot Project for Recycling and Reuse Purposes:** The reuse and recycling project at Burnsville's Demolition/Construction landfill was a successful pilot. This project included the mining of waste previously disposed of in the landfill, such as metals, concrete, wood and fines for recycling or reuse purposes. The pilot is scheduled to be licensed as a full-scale implementation program in 2002.
  - **Standards Approved at County Construction and Renovation Projects:** In January 2001, the County Board approved the Design, Construction and Sustainability Standards for use at County building construction and renovation projects. The Standards were applied to the construction of the Northern Service Center, Highway Maintenance Facility, Thompson Lake Pavilion and Community Center, Lebanon Hills Visitor Center and Trailhead Building and the addition to the Administrative Center. Language requiring the consultant to demonstrate an ability to apply sustainable design methodologies and construction processes was included in the RFPs for the Lebanon Hills Visitor Center and Trailhead building and the addition to the Administrative Center.
- **Hennepin**
  - **Green Institute:** Through collaboration with The Green Institute the re-use of deconstruction materials continues to increase. In 2001 the Green Institute completed 40 deconstruction projects. The recovered materials had an estimated value of over \$230,000.
- **Ramsey**
  - **Sustainable Architecture:** Sustainable Architecture (SA) features are being incorporated into new County Law Enforcement Center (LEC). Although the perception is that SA will increase costs, in many cases there are paybacks.
- **Washington**
  - **Use of Sustainable Building Guide:** Architects of Woodbury Library building project reviewed the MN Sustainable Building guidelines and completed score sheet part way through building process. Project scored well considering the late intervention. County staff conducted workshop on the guide with commissioners.

## CHALLENGES

- **Anoka**
  - **Incorporation of sustainable guidelines:** Two projects have been identified, but due to timing and funding issues we have been unable to incorporate sustainable guidelines.
- **Carver**
  - **Sustainable Building Projects:** The proposed permanent household waste building was abandoned due to financial constraints. As a result, the sustainable building design incorporated into that building will not be completed.
- **Dakota**
  - **MPCA Rule Revisions:** Coordinating with MPCA and other counties on the proposed state amendment revisions to the demolition and industrial waste sections of the Solid Waste Rules because of the differences in the types of facilities and resources across the state.
- **Washington**
  - **Definition of NonMSW:** Lack of clarity in the region in definition of NonMSW.

# SWMCB 2001 Accomplishments

January 2002

## 2001 - A Productive Year

*Many Projects Generate Positive Results and Strong Community Response*

With 3.3 million tons of mixed municipal solid waste (MSW) to manage, the Solid Waste Management Coordinating Board (SWMCB) undertook 25 projects that moved it closer to meeting its outcomes in the Regional Solid Waste Master Plan. The SWMCB rolled up its sleeves and produced many exciting results in 2001. The Reduction & Recycling, Toxicity Reduction, Processing & Landfilling, and NonMSW Management implementation groups undertook tasks ranging from the development of a Processing Implementation Plan, to research and evaluation and public information projects, to residential compost bin distribution. The Backyard Composting Bin Distribution Program was one of the more successful programs of 2001, with demand for bins far exceeding expectations. Many of the projects have resulted in a refined approach to managing waste that will continue into 2002.

## OTHER ARTICLES

- 1 Reduction & Recycling Wrap Up
- 2 Reduction & Recycling, continued
- 3 Toxicity Reduction Wrap-Up
- 4 Processing & Landfilling Wrap-Up
- 4 NonMSW Management Wrap-Up
- 5 Management & Policy Development News
- 6 SWMCB Board Members, SWMCB Happenings for 2002

## Reduction & Recycling Wrap-Up

*Lead Commissioner:  
Victoria Reinhardt*



About half of the SWMCB's financial resources went to Reduction & Recycling programs. A multi-faceted approach was used to encourage citizens and businesses to reduce and recycle waste. The SWMCB collaborated with community groups, environmental organizations, and state agencies; used a variety of media for its public information projects; and distributed compost bins to 19,400 residents. Following is an overview of the key programs and accomplishments for 2001.

### Community POWER

(Partners on Waste Education and Reduction) Community POWER was established by the SWMCB to offer local community organizations the opportunity to receive funding, technical assistance, and resources in developing and implementing waste reduction projects. In 2001, eight community groups were funded, totaling \$70,000. Two of the projects are highlighted below:

- *Nokomis Healthy Seniors* will offer workshops and at-home visits for seniors regarding junk mail reduction, toxicity reduction, and proper management of HHW.
- *New Earth Partnership*, representing a variety of religions, will survey many congregations on packaging use and disposal habits. They will then invite congregations to choose from a menu of three options for education about waste reduction: a seminar or workshop, an interactive adult forum with oral and written information, or, a field trip to a waste management facility. They also will distribute compost bins to members.

*Continued on page 2*

*Continued from page 1*

### **Collaborating on the OEA's Waste Reduction Campaign**

To expand the impact of the OEA's Waste Reduction Media Campaign, the SWMCB contributed \$100,000 to help promote the waste reduction messages.

#### ***There's A Better Way***- Reusable Transport Packaging Campaign

The SWMCB launched the *There's A Better Way* campaign in Fall 2001 in an effort to reduce transport packaging. The campaign included three postcards and a dimensional mailing to 100 targeted businesses. The dimensional mailing included a business reply card for requesting *Reusables 101: The What, Why, Who, When, Where & How of Reusable Transport Packaging*. The campaign materials and *Reusables 101* were developed with support from the American Plastics Association and Returnables.com.

To prepare for broadening the campaign in 2002, the SWMCB developed relationships with several local packaging trade associations.

### **Backyard Composting Bin Distribution**

This program was designed to encourage the composting of food waste, which accounts for 11% of the residential waste disposed of at processing facilities and landfills.



Through its spring and fall distributions, the SWMCB distributed 19,400 bins. Bins sold to residents for \$15.00 per bin, with the SWMCB subsidizing approximately \$15.00 per bin. The demand for bins was extremely strong, and plans are in place to distribute bins again in 2002.

### **Office Paper Reduction**

The SWMCB conducted office paper waste reduction demonstration projects with Cities Management, Inc. (CMI) and AgriBank. Among the successes, Agribank distributed its 100-page employee handbook electronically, rather than sending hard copies to almost 3,000 employees. CMI launched an interactive web site that property managers, associations, homeowners, and vendors could use for paperless transactions and information retrieval. The details of both projects, including challenges and strategies to overcome them, are included in the final report.

### **Resourceful Waste Management Guide (RWMG)**



The SWMCB produced the sixth edition of the RWMG, a guide that provides businesses with waste reduction, recycling, and disposal options. 8,500 Guides were printed for distribution and the Guide is posted on the SWMCB's web page. The Guide is one of the SWMCB's most requested publications.

### **Environmentally Preferable Purchasing Guide (EPPG)**

The EPPG was posted to the SWMCB web page in January 2001. By December, it had received over 20,000 visits with an average visit length of over 20 minutes. Users of the EPPG were surveyed in fall 2001. Results will be available in early 2002.

*To access online reports and other publications of the SWMCB, go to [www.swmcb.org/publications](http://www.swmcb.org/publications)*

*Publications currently available on the SWMCB web site:*

- *Regional Household Hazardous Waste brochure*
- *Resourceful Waste Management Guide*
- *Environmentally Preferable Purchasing Guide and Survey*
- *Recycled Content Paint Brochure*

# Toxicity Reduction Wrap-Up

*Lead Commissioners: Penny Steele and Jim Kordiak*

## Product Stewardship- Electronics

The SWMCB continued working with the MnOEA on electronics product stewardship, including participation in the National Electronics Product Stewardship Initiative. This initiative seeks to shape a national policy on how end-of-life electronics should be collected, managed, and paid for. The goal is to secure agreements from electronics manufacturers that will establish their participation in the on-going effort to properly manage end-of-life equipment. The SWMCB also researched electronics collection activities in the metro area. Results showed that 87% of metro area citizens have access to (at least) once-a-year collection options through county programs or municipal clean-ups.



## Product Stewardship- Latex Paint

The SWMCB worked on building markets for Recycled Content Paint (RCP) and increasing the value of paint feedstock. Paint specifications were developed in conjunction with the MnOEA and a presentation was designed to support marketing efforts. Architectural firms, conferences, and the Painting Contractor Association were presented with information on how to purchase and use RCP.

The SWMCB adopted a resolution in April of 2001, encouraging counties to identify projects

where RCP can be used. County projects using up to 13,000 gallons of RCP were identified, and 330 of the 13,000 gallons have been used to date. The remainder of paint should be used by the end of 2002.



The SWMCB also reached an agreement with the Paint Retailer Industry Work Group to distribute Paint Task Force educational messages by February of 2002. Paint Palette, the quarterly newsletter for the Latex Paint Solutions Task Force, was distributed throughout 2001; and "Don't Let It Freeze" stickers were designed and put into use on paint cans distributed through county paint reuse shelves.

## Program Collaborations

Stronger participation and greater levels of coordination among county Hazardous Waste Regulatory programs should afford the SWMCB greater opportunity to achieve program efficiencies for the future. In addition, an examination of Household Hazardous Waste (HHW) data systems was initiated to determine potential for improved data collection on program use.

## Brochure Distribution

The SWMCB printed 35,000 brochures informing residents about HHW and how to dispose of it safely. The brochures are being distributed through County HHW facilities, public organizations and community groups.

## Mercury Thermometer Exchange Program

The SWMCB purchased nearly 16,000 digital thermometers to be distributed to residents in exchange for mercury thermometers or as incentives for bringing HHW to designated facilities. The program received coverage from major television networks in the Twin Cities metropolitan area.

## VSQG Database

The SWMCB identified the need for county-managed database services for the VSQG manifest data. A request for proposals was issued for database development services, and a vendor was selected and staff teams established to begin work on the project. The database is 75% complete and will be ready for data entry in February of 2002.

## Processing & Landfilling Wrap-Up

*Lead Commissioners: Joseph Harris and Dennis Hegberg*

### Processing Implementation Plan

In collaboration with the MnOEA, Minnesota Pollution Control Agency (MPCA), and the Metropolitan Council Environmental Services, the SWMCB adopted the Processing Implementation Plan which addresses the processing outcomes in the Regional Solid Waste Master Plan and examines current and projected processing in the six-county SWMCB region. The Plan contains specific recommendations that individual counties and the SWMCB should take to meet the intermediate processing outcomes of:

- Through 2003, use 100% of the existing processing capacity, and
- By 2003, increase the processing capacity in the region by 158,000 additional tons per year.

The Plan's conclusions and recommendations include:

- Even with increasing MSW available and subsidies from the counties and State, some counties continue to experience waste shortfalls,
- While keeping the regional perspective in mind, each county has specific recommendations to meet the processing goal of using 100% of current capacity: 1,153,100 tons per year,
- Prior to any county commencing negotiations to extend existing processing contracts, all counties should fully explore a regional approach to facility usage and identify cost savings associated with such an option, and
- The SWMCB should evaluate other waste assurance options regionally to meet the processing goals.



## NonMSW Management Wrap-Up

*Lead Commissioner: Dennis Hegberg*

### Construction Waste Demonstration Projects

The SWMCB completed a research report on construction waste generation in the Twin Cities' metro area, and potential reduction, reuse and recycling opportunities. The report established the framework for the following two demonstration projects, to be conducted in 2002:

#### Project 1

Examine the separation and processing of construction waste for on-site beneficial reuse.

- Wood: landscape mulch, erosion control
- Sheetrock: soil amendment, increases moisture retention and calcium content
- Shingles and Concrete: driveway aggregate base

Partner: Pulte Homes and Construction Debris Management, Inc.

#### Project 2

Examine the existing industry conditions that affect the optimal utilization of construction waste facilities.

Partner: South Metro Sort and Recycling, Inc.

### Sustainable Building Design

All SWMCB member counties have initiated or implemented sustainable building design activities or projects. For example, Carver County incorporated sustainable building design components into the design of its Public Works Facility, including:

- Sustainable water management,
- Daylighting in interior spaces including garage bays, and
- Use of recycled content latex paint on all possible surfaces.

### Deconstruction Services

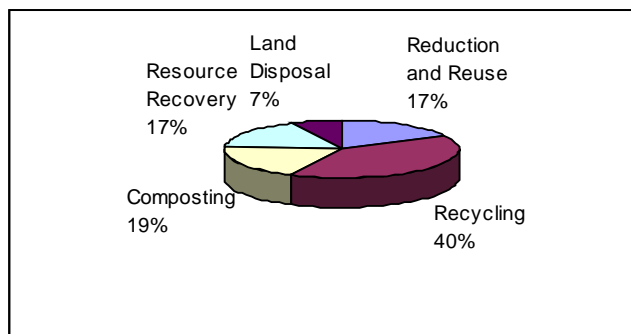
Deconstruction of 28 structures in the SWMCB region resulted in over \$250,000 in estimated market value of materials recovered.

## Management and Policy Development News

*Lead Commissioners: Chair Susan M. Haigh and Vice-Chair John Siegfried*

### Citizens Jury

A Citizens Jury is a unique process that allows decision-makers and the public to hear from citizens who are both informed and representative of the public. The SWMCB used this process, developed by the Jefferson Center, to hear discussion and deliberation by jurors as they developed thoughtful recommendations on how the region should manage its waste in the future. The jury reaffirmed the region's commitment to the hierarchy of waste practices, ranked the order of future waste management preferences, and assigned the following targets as percentages of the MSW that should be managed by each strategy.



The Citizens Juries' recommendations will be used to help shape the SWMCB's legislative platform and future policies.

### Regional Policy Development

SWMCB Commissioners Susan Haigh and Dick Stafford are members of the MnOEA's Solid Waste Advisory Committee. The Committee developed a series of recommendations to address the State's growing waste stream in a manner that is sustainable and protective of the environment.

### Processing Credit

With Nick Riley of Ramsey County leading the lobbying effort to develop the SWMCB initiative,

the 2001 Legislature enacted a \$5 per ton processing payment to reduce tipping fees at processing facilities. The processing payment program has been funded for the 2001 – 2002 biennium and is to continue for the next biennium, sunsetting in 2004. The processing credit allowed some counties to lower their processing tip fee or rebate payment directly back to the haulers.

### Legislative Committee

To address the policy challenges facing the region, the SWMCB formed a Legislative Committee. Commissioners Haigh, Siegfried, Stafford, and McLaughlin serve on the Committee and led the development of the SWMCB's 2002 Legislative Package which was adopted by the SWMCB in December 2001. In addition to the legislative support provided by its member counties' lobbyists, the SWMCB contracted with lobbyist Barry Tilley to help advance its 2002 legislative proposals.

### 2001 Budget and Work Plan

*Treasurer: Don Maher*

The SWMCB is funded primarily through contributions from its member counties and the Metropolitan Landfill Abatement Account funds. The 2001 amended revenue is \$2,025,216.

*The Solid Waste Management Coordinating Board is a Joint Powers Board of Anoka, Carver, Dakota, Hennepin, Ramsey, and Washington Counties charged with Increasing the Efficiency and Environmental Effectiveness of the Region's Solid Waste Management System.*

## SWMCB Activities for 2002

The SWMCB welcomed two new members in 2002. Anoka County **Commissioner Dennis Berg**, will take Commissioner Paul McCarron's seat and Hennepin **Commissioner Randy Johnson** will fill Commissioner Penny Steele's seat. Commissioner McCarron was instrumental in the development of the SWMCB, served as Chair for many years and provided leadership in policy development and processing. Under Commissioner Steele's leadership, the Toxicity Reduction group made great strides in advancing product stewardship for latex paint and reducing the toxicity of the waste stream. Rodney Massey, Minnesota Pollution Control Agency will replace 2001 ex-officio member James L. Warner, P.E. and work with the SWMCB to promote intergovernmental cooperation.

SWMCB 2002 activities build on the successful 2001 projects and the policy direction set forth in the Regional Solid Waste Master Plan. 2002 projects include:

- Spring distribution of residential backyard composting bins,
- An expansion of the Community POWER (Partners on Waste Education and Reduction) program offering local community organizations the opportunity to receive funding for waste reduction projects,
- Product stewardship initiatives for latex paint and CRTs,
- Implementation of recommendations from the Processing Implementation Plan including source separated composting pilot projects,
- Pilot projects with construction companies to reduce and recycle nonMSW,
- Regional policy development including a legislative package and a strategic plan for public education, and
- Expanded use of the SWMCB web page.

### SOLID WASTE MANAGEMENT COORDINATING BOARD

***Commissioner Susan M. Haigh, Chair***

***Commissioner John Siegfried, Vice Chair***

***Commissioner Don Maher, Treasurer***

***Commissioner Jim Kordiak***

***Commissioner Paul McCarron***

***Commissioner Jim Ische***

***Commissioner Joseph Harris***

***Commissioner Peter McLaughlin***

***Commissioner Penny Steele***

***Commissioner Victoria Reinhardt***

***Commissioner Dennis Hegberg***

***Commissioner Dick Stafford***

***James L. Warner, P.E.***

***Sherry Enzler***

### 2001 MEMBERSHIP ROSTER

***Ramsey County***

***Carver County***

***Dakota County***

***Anoka County***

***Anoka County***

***Carver County***

***Dakota County***

***Hennepin County***

***Hennepin County***

***Ramsey County***

***Washington County***

***Washington County***

***Minnesota Pollution Control Agency***

***Minnesota Office of Environmental Assistance***



**Appendix D  
 2001 County MSW Managed Summary Report  
 Tons**

County	Total Recycled (+)	Delivered for Processing				Recycling at Facilities (-)	Problem Materials Otherwise Managed (+)	Landfilled in MSW (Non-Processibles and excess/unprocessed) Does not include ash or residuals.					Total Metro County MSW Managed (=)	Percent Recycled Without Credits	Percent Recycled With Credits
		Total Delivered for Processing Excluding Secondary (+)	Secondary Processing	Excess and Non Processibles	Net Delivered for Processing Including Secondary			Excess and Non Processibles	Unprocessed MSW Landfilled in MN (+)	Unprocessed MSW Landfilled Out of MN (+)	Total Unprocessed MSW Landfilled	Total Landfilled (See note #7)			
Anoka	138,514	155,280	824	18,874	137,230	4,570	7,518	18,874	15,436	1,137	16,573	35,447	313,315	44.2%	52.2%
Carver	27,704	7,569	18	2,499	5,088	136	1,828	2,499	29,381	4,926	34,307	36,806	71,272	38.9%	46.9%
Dakota	157,992	15,306	10	3,176	12,140	403	8,976	3,176	159,082	53,760	212,842	216,018	394,713	40.0%	48.0%
Hennepin	591,289	644,412	1,008	100,132	545,288	16,129	26,975	100,132	273,933	83,785	357,718	457,850	1,604,265	36.9%	44.9%
Ramsey	276,640	284,897	0	38,278	246,619	8,569	12,888	38,278	26,198	168,865	195,063	233,341	760,919	36.4%	44.4%
Washington	76,182	86,212	0	11,463	74,749	2,559	5,170	11,463	2,269	12,242	14,511	25,974	179,516	42.4%	50.4%
<b>Total</b>	<b>1,268,321</b>	<b>1,193,676</b>	<b>1,860</b>	<b>174,422</b>	<b>1,021,114</b>	<b>32,366</b>	<b>63,355</b>	<b>174,422</b>	<b>506,299</b>	<b>324,715</b>	<b>831,014</b>	<b>1,005,436</b>	<b>3,324,000</b>	<b>38.2%</b>	<b>46.2%</b>

Percent of available waste processed =  
 - available waste 2,024,690  
 - processed 1,021,114  
 50%

**1999 Notes**

1. Data is taken from County Certification and SCORE Reports.
2. Total Managed does not include a minimal amount of waste that is estimated to be disposed of on-site (Carver).
3. Secondary Processing and Recycling at Facilities is subtracted from "Total Metro County MSW Managed" to avoid double counting waste.
4. Counties meeting certain criteria are also eligible for an additional 5% yard waste credit and a 3% source reduction credit.
5. Data does not include ash or residuals.
6. "Excess" waste is processible MSW that was not processed. "Non-processible" is MSW delivered to a processing facility, but due to the nature of the waste is unable to go through the mechanical process. For example, non-processible includes bulky waste residue which is processed on the tipping floor, not through the processing lines.
7. "Total Landfilled" includes Excess and Non-processible MSW, and unprocessed waste. It does not include RDF residuals from processing lines or ash.
8. "Unprocessed MSW" is MSW that by-passed the processing system.
9. Credits: All counties claimed the full 5% yardwaste credit, and the 3% source reduction credit.

## Breakdown of Hazardous Waste Generators Licensed and Registered in the Region, and Number of Inspections Performed

**Table 1. Number of Licensed Generators: VSQG, Small, Large and Total Hazardous Waste Generators**

County	<u>Minimal Generators</u>	<u>Very Small Quantity Generators</u>	<u>Small Quantity</u>	<u>Large Quantity Generators</u>	<u>Total Licensed/ Registered Hazardous Waste Generators</u>
Anoka	118 (oil only)	582	93	20	813
Carver	72	191	19	10	292
Dakota	712 (registered)	487	65	13	1,277
Hennepin	2,956	1,585	322	84	4,947
Ramsey	418 (self audits)	1,464	166	42	2,090
Washington	NA	507	26	10	543
<b>Total</b>	<b>4,276</b>	<b>4,309</b>	<b>665</b>	<b>169</b>	<b>9,805</b>

**Table 2. Number of Inspections**

County	<u>Minimal Generators</u>	<u>Very Small Quantity Generators</u>	<u>Small Quantity</u>	<u>Large Quantity Generators</u>	<u>Total Hazardous Waste Inspections</u>
Anoka	52 (oil only)	159	47	16	274
Carver	NA	82	19	10	111
Dakota	51	521	54	15	641
Hennepin	715	834	181	108	1,838
Ramsey	NA	NA	NA	NA	1,543
Washington	NA	418	27	11	456
<b>Total</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>4,863</b>

**Notes:**

Hennepin licensed about 300 new generators in 2001 which is roughly equivalent to the number of generators who have gone out of business. The general downturn in the economy in 2001 is the probable reason for the high number of businesses closing. One other trend noted in Hennepin is that their population of mid-size generators (SQGs) is trending towards the lower end of the SQG range.

**Other Hennepin trends:**

- 39% of the generators generated less than 500 gallons/yr in 2001, up from 33% in 2000.
- 16% generated greater than 2000 gallons in 2000, 13% generated greater than 2000 gallons in 2001.

The likely scenario is that waste minimization and pollution prevention initiatives are becoming more commonplace in the mid-sized companies which is helping them reduce their hazardous waste generation.

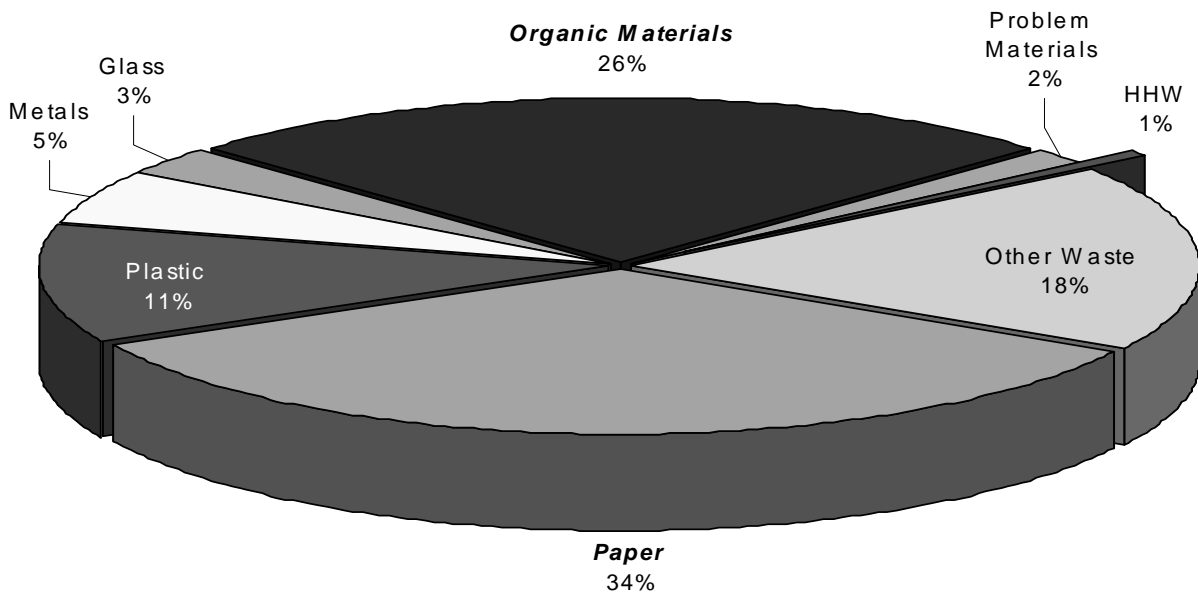
Washington County inspectors have noted a continued trend in small companies away from parts cleaning that generates a hazardous waste and that requires a license.

**For the purposes of this report, nonMSW comprises construction and demolition (C & D) waste and industrial solid waste. The data is derived from analyzing annual facility reports to the Minnesota Pollution Control Agency (MPCA). The following caveats should be considered when using this data for policy and program development:**

- Some facilities measure nonMSW in tons and other facilities measure it in cubic yards. To facilitate trend analysis, a factor of 1.8 yards<sup>3</sup>/ton was used to convert cubic yards of construction and demolition waste to tons, and a factor of 1.2 yard<sup>3</sup>/ton was used to convert cubic yards of industrial waste to tons. The conversion factor was provided by MPCA (Contact: Jim Chiles). Although these are the best conversion factors available, they are weak due to the challenge of developing a single conversion factor for waste streams representing hundreds of materials.
- NonMSW waste streams are identified and reported inconsistently. For example, industrial wastes that are collected in aggregate with other materials are most often reported as MSW and not classified as industrial wastes.
- The data does not reflect the beneficial utilization of industrial wastes (e.g., land application) or the large amount of construction and demolition waste recycled on-site (e.g., concrete and asphalt).
- It is difficult to identify and track nonMSW generated in the SWMCB region because Minnesota industrial and construction/demolition disposal facilities are not required to report the origin of the wastes they receive. Therefore, the data presented is from 16 select facilities. Eight of these facilities are in counties that border the SWMCB region, and most likely accept metro area and non-metro area nonMSW
- Some nonMSW disposal facilities are not required to report or do not report to the MPCA or to individual counties (e.g., permit by rule facilities).
- The data does not include the unmeasured volumes of industrial sorbents that are managed through a wide variety of metropolitan area vendors, and additionally does not include non-hazardous industrial wastes shipped in 55-gallon drums and managed through national incinerators and landfills.

### 1999 WASTE COMPOSITION STUDY

In 1999, the SWMCB, OEA and MPCA conducted a waste composition study to determine the types of waste that comprise the waste stream. This information is critical to measuring results in the areas of source reduction and recycling, and also provides useful information to further shape solid waste programs. The following chart shows that paper and organic materials comprise 60% of the waste stream.



## **Footnotes to the Report**

Each chart in this report is assigned a number, which is found in *italics* directly below the chart title. Footnotes are arranged by chapter, and correspond to its chart number, and additionally lists the page on which the chart may be found.

### **Source Reduction**

**Chart 1.1**      ***Total MSW Managed in 2001***      **Page 8**

Total MSW managed includes tons managed through recycling, problem materials managed, processing and landfilling. It does not include yard waste. Counties report data that they track through municipal recycling reports, solid waste facility reports, and other sources. Appendix D shows a breakdown of county-specific MSW management, including recycling, processing, and landfilling.

**Chart 1.2**      ***MSW Management per Capita***      **Page 8**

MSW Management per capita represents the total MSW managed in the region each year divided by the total population for the region in that year.

### **Recycling**

**Chart 2.1**      ***Percent of MSW Recycled (With Credits)***      **Page 10**

Recycling percentage is calculated in two steps: first as a percentage of total MSW, then, counties are authorized by the Minnesota Office of Environmental Assistance to add up to an 8% credit to the tonnage percentage if waste reduction and yard waste programs are in place.

**Chart 2.2**      ***Breakdown of Residential and Commercial/Industrial Recycling***      **Page 11**

Residential recycling includes residential curbside and municipal and private drop-off collections. Commercial recycling is commercial, industrial, and institutional MSW, and the amount on the chart represents the total of documented and estimated commercial/industrial recycling.

### **Toxicity Reduction**

**Chart 3.1**      ***Household Hazardous Waste (HHW) Program Participation***      **Page 12**

Vehicles served represents a general indication of the level of participation in HHW programs. Counties also estimate the number of households served based on information provided by participants. In 2001, 136,501 vehicles represented 159,221 households, or about 16% of the number of households in the region.

**Chart 3.2**      ***Amount of HHW Collected***      **Page 13**

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.

**Chart 3.3**      ***Types of HHW Collected***      **Page 13**

Wastes collected through county HHW programs are tracked by the counties and reported in a HHW summary report. The percentage of 5 waste streams is shown, and “other” represents the total of all other waste streams collected.

**Chart 3.4**      ***Consumer Electronics***      **Page 13**

Consumer electronics are collected in Hennepin County through their HHW program, and in Hennepin and Carver Counties through municipal or private collections. The chart represents the total amount collected in Hennepin County through their HHW program, and does not include Carver county’s municipal and private collections. Appendix E1 and E3 show the breakdown of the amount of electronics collected.

**Chart 3.5**      ***Latex Paint***      **Page 14**

Latex paint is collected in the region through county HHW programs. The graph represents the total amount of latex paint collected through county programs. Appendix E1 and E3 show the breakdown of the amount of latex paint collected.

**Chart 3.6**      ***How HHW was Managed***      **Page 14**

Appendix E1 and E3 show a breakdown of waste types collected and how each waste type was managed.

**Chart 3.7**      ***Program Cost per Vehicle***      **Page 14**

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. Appendix E2 shows a breakdown of 2001 costs.

**Chart 3.8**      ***Number of Hazardous Waste Generators***      **Page 15**

Appendix F shows a breakdown of large, small, and very small and minimal quantity generators licensed in the regions.

**Chart 3.9**      ***Hazardous Waste Inspections***      **Page 15**

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

**Processing****Chart 4.1**      ***Tons of MSW Delivered and Processed***      **Page 16**

Net tons of MSW are the tons of MSW delivered for processing that were actually processed. Net tons does not include excess and non-processible MSW waste that was delivered to processing facilities or transfer stations for processing, but because of capacity or other constraints, could not be processed. Delivered for processing is the total amount of MSW delivered and does not include excess and non-processible MSW. Appendix D shows a breakdown of county-specific MSW management, as well as a breakdown of processing and landfilling practices.

**Chart 4.2      *Percent of Available Waste Processed*      **Page 17****

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

**Landfilling**

**Chart 5.1      *Amount of MSW Landfilled*      **Page 18****

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

**Solid Waste Regulation**

**Chart 6.1      *Regional Hauler Licenses Issued*      **Page 19****

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 licensed in August of each year.

**Chart 6.2      *License Fees Collected*      **Page 20****

The fees collected do not include late application fees. Haulers are charged a fee of \$50 per truck for each truck they license. The fee has not changed since the program began in 1995.

**NonMSW Management**

**Chart 7.1      *Tons of NonMSW Managed*      **Page 21****

NonMSW data is derived from analyzing annual facility reports to the Minnesota Pollution Control Agency (MPCA). See Appendix H for a list of data collection issues that should be considered when using this data for policy and program developments.

**Chart 7.2      *Management of NonMSW*      **Page 22****

This chart depicts percent of nonMSW landfilled and the percent recycled. See Appendix H for a list of data collection issues that should be considered when using this data for policy and program developments.