

# Minnesota Closed Landfill Program

## 1998 ANNUAL REPORT

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## EXECUTIVE SUMMARY

The 1994 Landfill Cleanup Act (Act) created Minnesota's Closed Landfill Program. The Program is an alternative to Superfund for closed landfills and the first of its kind in the nation. The Minnesota Pollution Control Agency (MPCA) is required by the Act to provide a report to the legislature on past fiscal-year activities and anticipated future work. This report fulfills the requirement and covers fiscal year 1998 (FY98), which is from July 1, 1997, to June 30, 1998. The Program is in its fourth year and continued progress was made in a number of areas during the past year.

## PROGRAM OVERVIEW

The MPCA is authorized under the Program to initiate cleanup actions, complete closures, take over long-term operation and maintenance and reimburse eligible parties for past cleanup costs at the 106 qualified closed state-permitted landfills.

Program entry qualifications have remained unchanged, with 106 landfills either in the process of, or having completed all Binding Agreement requirements. Through June 30, 1998, 92 landfills have signed Binding Agreements and 84 have been issued a Notice of Compliance, at which time the state takes over landfill responsibilities.

## Program Accomplishments

The following list summarizes Program accomplishments through FY98:

- 92 Binding Agreements Signed;
- 84 Notices of Compliance Issued;
- Reimbursements to landfill owners/operators and responsible parties totaling \$20,491,333;
- EPA payments totaling \$953,534;
- 27 construction projects underway/completed;
- 30 construction designs underway/completed;
- 45% reduction in the total amount of contaminated water flowing to ground water;
- 280 acres of land put back into productive use.

## FUNDING

Funding for the Program continues to come from four sources of revenue: 1) solid waste assessment and tax collection (also funds other Solid Waste related activities), 2) up to \$90 million in state general obligation bonds, 3) funds transferred from the financial assurance accounts of closed landfills, and 4) settlements from landfill-related insurance policies. In addition, a one-time transfer of funds from the Metropolitan Landfill Contingency Action Trust Fund occurred in 1994.

**Table 1: Income FY98**

Income Source	Amount
Solid Waste Assessment Collection	\$26,236,560
Investment	\$1,848,000
Financial Assurance	\$1,046,994
Insurance Recovery Effort	\$1,099,010
Other	\$1,000
<b>Subtotal</b>	<b>\$30,231,561</b>
Bond Authority Available	\$12,500,000
Carryover FY97	\$28,727,000
<b>Total Income Available</b>	<b>\$71,458,564</b>

## Solid Waste Assessment and Tax Dollars

The Solid Waste Management Tax (SWMT) replaced the old Solid Waste Generator Assessment as well as the "SCORE" 6.5 percent tax on garbage collection services, effective January 1, 1998. Roughly half the revenues from the SWMT now go to the Solid Waste Fund. The new law was drafted so that the Solid Waste Fund is assured at least \$22 million per year. The tax is composed of a 9.75 percent charge on residential waste collection bills; a 17 percent charge on commercial municipal waste collection bills; and 60 cents per cubic yard of container capacity on industrial, demolition/construction, and medical waste. FY98 was a transition year between the



two revenue measures, and the total of all solid waste assessment and tax collections into the Solid Waste Fund was \$26,236,560.

### Bond Dollars

The legislature authorized up to \$90 million in state general-obligation bond funds to be used for design and construction work at public landfills over a minimum ten-year period beginning in FY95. Bond funds available for the first four years of the Program were: \$2 million in FY95, \$8 million in FY96, \$12.5 million in FY97, and \$12.5 million in FY98. Bond funds used through FY98 total \$29 million. New bond funds available for FY99 are \$10 million. Obligations for existing construction contracts and projections for construction in FY99 estimate an expenditure of bond funds totaling \$6 million in FY99.

### Financial Assurance

In FY98, the owners or operators of three landfills sent a total of \$1,046,994 to the Department of Revenue for deposit in the Solid Waste Fund as required by law or through state requests (see Table 2). Since inception of the Program, the owners or operators of 16 landfills have submitted a total of \$5,643,994 for deposit in the Solid Waste Fund. An additional \$474,000 that would have been collected from Waste Management of Minnesota, Inc. (Anoka-Ramsey Municipal Sanitary Landfill) was waived in lieu of an equal reimbursement payment.

**Table 2: Financial Assurance Revenue collected in FY98**

Landfill	Date	Amount
Longville-Remer	September 97	\$84,497
Walker-Hackensack	September 97	\$84,497
Dodge County	August 97	\$878,000
<b>Total</b>		<b>\$1,046,994</b>

### Insurance Recovery

In FY98, the MPCA and Attorney General's Office negotiated settlement offers totaling \$1,099,010 with four individual insurance carriers.

The funds were deposited in the Solid Waste Fund. To date, more than \$3 million in settlements have been achieved through the Insurance Recovery Effort. Additional settlements are anticipated (see additional information on page 4).

## EXPENDITURES

Program expenditures are primarily for design, construction, operation and maintenance costs of landfills, reimbursements and administration.

**Table 3: Expenditures FY98**

Expenditures	FY98
Closed Landfill Program Administration	\$1,635,528
Other Solid Waste Programs	\$3,745,472
Design and Construction	\$13,490,101
Operation and Maintenance	\$2,011,072
MPCA Solid Waste Legal Counsel	\$351,000
Benton County Reimbursement	\$85,000
Department of Revenue	\$197,000
Department of Natural Resources	\$100,000
EPA Payment	\$775,367
Responsible Party Reimbursements	\$6,491,333
<b>Total</b>	<b>\$28,881,873</b>

### Reimbursement

The deadline to file a reimbursement claim with the MPCA was October 15, 1996. There are 16 reimbursement claims that have met all Program requirements and for which final dollar amounts have been approved. Reimbursement claims for Gofer, Ironwood and Flying Cloud Sanitary Landfills, were determined to be either ineligible or those claims have been waived. The MPCA issued \$6,491,333 in reimbursement payments to landfill owners, operators and responsible parties on December 1, 1997. This amount would have



**Table 4: Responsible Party Reimbursements**

Landfill	Total Approved	Total Past Reimbursements	FY98 Reimbursement	Remainder
Anoka	\$5,150,000	\$0	\$474,000*	\$4,713,307
Becker County	\$146,200	\$21,296	\$10,084	\$114,821
Crosby American	\$1,413,379	\$205,873	\$97,486	\$1,110,020
East Bethel	\$4,079,443	\$1,943,236	\$854,949	\$1,281,258
Hanson	\$488,964	\$184,541	\$121,836	\$182,588
Hopkins	\$650,000	\$0	\$52,476	\$597,524
Houston County	\$104,902	\$0	\$0	\$104,902
Isanti/Chisago	\$282,644	\$95,620	\$15,099	\$171,925
Kluver	\$563,040	\$268,682	\$117,808	\$176,550
Kummer	\$3,024,564	\$1,444,401	\$632,409	\$947,753
Oak Grove	\$6,515,501	\$2,317,251	\$1,508,356	\$2,689,895
Olmsted County	\$2,151,107	\$722,365	\$115,347	\$1,313,395
Sauk Center	\$234,229	\$79,241	\$12,513	\$142,475
St. Augusta	\$529,454	\$199,822	\$131,925	\$197,707
Washington County	\$3,085,415	\$691,886	\$212,664	\$2,180,865
WDE	\$12,343,183	\$5,825,788	\$2,608,381	\$3,909,014
<b>Totals</b>	<b>\$40,762,025</b>	<b>\$14,000,000</b>	<b>\$6,491,333</b>	<b>\$19,833,999</b>

\*Actual payment not made in exchange for equal financial assurance amount not collected (see page 2).

**Table 5: EPA Payments**

Landfill	Total Approved	Total Past Payments	FY98 Payments	Remainder
Dakhue	\$2,767,500	\$0	\$553,500	\$2,214,000
Freeway	\$17,000	\$0	\$0	\$17,000
Crosby American	\$18,000	\$0	\$18,000	\$0
East Bethel	\$21,000	\$21,000	\$0	\$0
LaGrande	\$766,000	\$0	\$153,200	\$612,800
Oak Grove	\$304,000	\$50,667	\$50,667	\$202,667
Olmsted	\$19,000	\$19,000	\$0	\$0
St. Augusta	\$37,500	\$37,500	\$0	\$0
Washington County	\$50,000	\$50,000	\$0	\$0
<b>Totals</b>	<b>\$4,000,000</b>	<b>\$178,167</b>	<b>\$775,367</b>	<b>\$3,046,467</b>



been \$7 million had it not been for the fact that \$474,000 was withheld from Waste Management of Minnesota, Inc. and \$34,000 from the Egan Family Trust (Oak Grove Sanitary Landfill). The MPCA anticipates making a similar reimbursement payment for FY99 on December 1, 1998 (see Table 4).

An additional \$775,367 was paid to the US Environmental Protection Agency (EPA) for four landfills associated with past Federal Superfund actions (see Table 5). These payments were made under a Memorandum of Agreement between MPCA and EPA addressing EPA's role in the Program. Payment to EPA for FY99 is expected to be approximately \$757,367.

### **Fiscal Tracking (Cost Codes)**

FY98 expenditures for each landfill are itemized in Appendix 1.

## **INSURANCE RECOVERY EFFORT**

### **BACKGROUND**

Under the Insurance Recovery Act (Minn. Stat. ch. 115B.441 - 115B.445), the MPCA and the Attorney General's Office have been working cooperatively to gather insurance policy and disposal information from businesses which disposed of small and large quantities of hazardous substances, pollutants, or contaminants at one or more of the 106 closed landfills that qualified for the Program. This policy information, in conjunction with past, present and future costs, as well as costs representing natural resource damages associated with these 106 qualified landfills, is being used to achieve financial settlements with insurance carriers.

### **Information Gathering**

The estimated past and future costs at 22 landfills, which represent at least 60 percent of the Program costs, have been targeted by the MPCA in order to gather insurance and disposal information and

fulfill requirements in the statute. Thus far, the MPCA and Attorney General's Office have actively surveyed 17 of the 22 sites. The information collected will allow the MPCA and the Attorney General's Office to provide global settlement offers to insurance carriers at all 106 landfills. In addition to collecting the information from businesses, the MPCA and the Attorney General's Office have provided insurance carriers with summaries of collected policy information for confirmation.

The information that is collected is being stored in a database created specifically for the Insurance Recovery Effort. Currently, the database contains information on approximately 6,700 potential insurance policyholders, 693 individual insurance carrier companies comprising 220 insurance carrier groups, and information concerning over 30,000 primary and excess general liability insurance policies.

### **Settlements**

The MPCA and the Attorney General's Office have sent settlement offers to 42 insurance carrier groups for costs associated with the Oak Grove Sanitary Landfill. The MPCA and the Attorney General's Office have, to date, settled with four of those carrier groups. Settlement negotiations specific to the Oak Grove Sanitary Landfill are ongoing with several other carriers. At the request of some insurance carriers, the state has sent global settlement offers to six carrier groups using a liability-based allocation model developed by the MPCA.

In addition, the MPCA and the Attorney General's Office have negotiated settlements with individual insureds that have entered into settlement negotiations with their insurers. The purpose behind the state entering into settlements with insureds is to guarantee that the state is able to preserve its rights under these policies and permit the insured to consummate multi-state, multi-site settlements with their carriers.

Settlements with carriers and their insureds, to





date, total approximately \$3.1 million. Additionally, the state has negotiated a percent of future settlements (current dollar amounts unknown) between insureds and their carriers for several insureds that are negotiating multi-state, multi-site, state-approved settlements with individual carriers.

### **Natural Resource Damages**

Under the Act, insurance carriers may request that natural resource damages (NRD) be included in any settlement with that insurance carrier. The MPCA and the Department of Natural Resources (DNR) are the state's co-trustees regarding NRD. The MPCA and DNR have met, and continue to meet, regarding the methodology and status of insurance settlements concerning NRD. To date, about \$406,000 of the \$3.1 million in settlements represents NRD.

### **Information Dissemination**

The MPCA continues to place information concerning the Insurance Recovery Effort onto its internet web site ([www.pca.state.mn.us](http://www.pca.state.mn.us)). This allows for information to be reviewed quickly by various customers including insurance carriers from around the world, consultants, attorneys, and the general public. Recent additions to the web site include last year's annual report about the Insurance Recovery Program that was jointly submitted to the Minnesota legislature by the MPCA and the Attorney General's Office. The report is entitled *The Landfill Cleanup Insurance Recovery Project, 1997 Progress Report to the Legislature*.

In January 1998, the Attorney General's Office presented information regarding the status of the Program to insurance company representatives and defense attorneys at a seminar sponsored by the Minnesota Defense Lawyers Association. Also, the MPCA and the Attorney General's Office continue to issue press releases notifying businesses and insurance carriers of the Act and about settlements.

This dissemination of information is critical to enabling the business community in Minnesota to realize the benefits the Act provides to them when they provide complete disposal and insurance policy information and to keeping insurance carriers informed of activities conducted by the MPCA and the Attorney General's Office.

### **Future Activities**

The MPCA and the Attorney General's Office will continue to collect disposal and insurance information from businesses associated with the 106 qualified landfills and to confirm policy information with insurance carriers. At the same time, the MPCA and the Attorney General's Office continue to prepare and negotiate additional settlement offers for other individual sites as well as additional global offers to carriers who request them.

## **1998 LEGISLATIVE SESSION**

### **Legislative Summary**

The Legislature made one substantial change to the Program during the 1998 regular session and discussion took place on several issues and proposals that could lead to further legislative action in the coming years. MPCA staff presented the "Minnesota Municipal Solid Waste Landfill Liability Report" to the Legislature, which included MPCA staff recommendations on various proposals that have been made since 1994 to change its funding or to expand the Program's scope of coverage (i.e. to care for additional landfills or certain old dumps). During 1997, MPCA staff convened a workgroup which met several times on the issue of long-term landfill care.

### **Dump Relocation**

One amendment to the Closed Landfill Act relating to waste from old dumps was passed in 1998. The amendment (which originated with a proposal from St. Louis County) authorizes the



MPCA to incorporate nonhazardous waste excavated from old, publicly owned dump sites into construction work at qualified landfills, where that material can be used as part of a cover construction or upgrade project. The owner of the dump property bears all costs of excavation, transport and testing. The new law requires at least a six-month notice to the MPCA before the waste shipment is to occur, so that public notice can be given prior to a decision on waste acceptance by the MPCA Commissioner, and so the additional waste volume can be designed into the final engineering for the construction work. The MPCA commented on this bill during the drafting stage and was supportive during passage.

Only one dump excavation project occurred in FY98 under the new law. In May 1998, approximately 12,500 cubic yards of waste material from the old City of Tower dump was excavated and beneficially used to improve site grade at the Northwoods Sanitary Landfill located near Ely, MN.

The MPCA estimates that over the next five years there may be as many as 8 to 12 landfill construction projects that could accept excavated waste from old dumps. County officials will be given prior notification of upcoming projects, so that information can be made available to local communities that might be interested in taking advantage of this change in the Program.

### **Benton County Reimbursement**

In the Environmental Agencies Budget Bill that was passed in the 1998 regular session (Minnesota Session Laws 1998, Chapter 401, Section 2), the Minnesota Legislature directed the MPCA once again to pay \$85,000 to Benton County from the Solid Waste Fund during FY99. This is the second such payment made by the MPCA to Benton County. The \$85,000 payment is to defray one year of principal payments due on bonds that were issued in 1994 by Benton County to pay the costs of a \$1.475 million settlement by Benton County local governments for their share

of cleanup costs at the Greater Morrison Sanitary Landfill.

This year, the legislation was changed slightly to require that Benton County distribute the payment back to local units of government that paid into the settlement. The MPCA included language in a Grant Agreement that was signed by all parties

**Table 6: FY98 Binding Agreements/Notices of Compliance**

<b>Landfill</b>	<b>Binding Agreement</b>	<b>Notice of Compliance</b>
Anoka	October 97	November 97
Longville-Remer	September 97	
Walker-Hackensack	September 97	
Crosby		January 98
Dodge County	August 97	October 97
Fifty Lakes	June 98	June 98
Flying Cloud	November 97	
French Lake		April 98
Hickory Grove		January 98
Houston County	May 98	
Koochiching County	April 98	
Lake County		July 97
Lincoln County		September 97
Lindala	February 98	
Maple	September 97	
McKinley		July 97
Mille Lacs County	December 97	January 98
Northome	September 97	
Salol		December 97
Yellow Medicine Co.		April 98
<b>FY98 Total</b>	<b>12</b>	<b>12</b>



on September 25, 1998, to reflect the statutory requirements and the \$85,000 payment was finalized.

## PROGRAM ACTIVITIES

### Binding Agreements/Notices of Compliance

Through June 30, 1998, the Program has successfully signed 92 Binding Agreements and issued 84 Notices of Compliance. MPCA staff expect to finish this task in FY99. Table 6 indicates those landfills which had documents executed during FY98.

### Deletion of Qualified Landfills from the National List of Priorities (NPL) and Permanent List of Priorities (PLP)

To date, the Program has removed eight closed landfills from the NPL (Federal Superfund List). Only one landfill in the Program, Freeway Landfill, remains on the NPL. Thirty-seven closed landfills have been removed from the PLP (State Superfund List). The following "qualified landfills" were delisted from the PLP in FY98:

- Anoka Regional Solid Waste Facility
- Battle Lake Sanitary Landfill
- Dodge County Sanitary Landfill
- Salol Sanitary Landfill
- Wabasha Sanitary Landfill

### Construction Activity

Table 7 on the following page is a summary of construction activity for FY98.

### Annual Reports

Every year, the MPCA site teams prepare an annual report for each landfill in the Program. The annual report is divided into three major sections: 1) Site Background contains basic information on the landfill; 2) Site Engineering Summary discusses cover maintenance/construction, leachate management and monitoring, and landfill gas management and monitoring; and 3)

Site Environmental Monitoring Summary discusses ground-water monitoring, surface-water monitoring and ground-water remediation system management and maintenance. The purpose of the landfill-specific annual report is to reflect current staff assignments, justify reasons for reclassification/rescoring up or down in priority and summarize recommendations for the future. When requested or per prior agreement, these individual landfill reports also are provided to local governmental groups and private property owners.

### PROGRAM CONTRACTS Engineering Consulting Services Contract

Since 1994, MPCA staff have been using Minnesota Department of Administration contracts (M-contracts) for the hiring of consultants to perform design and construction oversight work at landfills. During the fall of 1997, the Department of Administration canceled all of the available M-contracts to the MPCA and other governmental agencies effective December 31, 1997. The MPCA was allowed to use M-contracts only to keep existing projects moving until June 30, 1998. In order for the MPCA to hire consultants to initiate new work orders after December 31, 1997 or continue existing work orders past June 30, 1998, a Request for Proposal (RFP) had to be issued.

The RFP process began in December 1997, and was finalized with the qualifying of twelve consulting/engineering firms by June 30, 1998. The contract allows the consultants to do both landfill-closure design and construction oversight for the MPCA. In addition, the contract was crafted to allow other remediation programs in the MPCA to use the selected consultants for design and construction oversight. The contract does not guarantee any consultant work, but places them on an eligibility list from which the MPCA will select a consultant to do work. The contract period is three years with the potential for two one-year extensions.



**Table 7: Construction Activity for FY98**  
**The costs shown are for invoices paid in FY98 and are not total project costs.**

Landfill	Current MPCA Classification	Landfill Construction Activities	Design & Oversight Costs	Construction Contractor Costs	Construction Completion Date
Anderson-Sebekka	B	Construct 10-acre cover; Install passive gas system	\$7,630	\$0	Oct. 99
Battle Lake	D	Construct 8-acre cover; Install passive gas system	\$59,780	\$603,384	Oct. 97
Becker County	A	Construct 20-acre cover; Install active gas system; Install enclosed flare	\$232,415	\$1,853,346	Sept. 98
Crosby	D	Construct 8-acre cover; Install passive gas system	\$88,687	\$846,945	Sept. 97
East Bethel	B	Redesign ground-water treatment system	\$32,587	\$71,103	Oct. 98
Fifty Lakes	B	Construct 4-acre cover; Install passive gas system	\$38,940	\$242,979	Sept. 98
Freeway	B	Construct 158-acre cover; Install active gas system	\$52,729	\$0	Nov. 00
French Lake	D	Move farm buildings; Construct 7-acre cover; Install passive gas system	\$11,510	\$157	Nov. 96
Hopkins	A	Install additional gas wells	\$0	\$187,793	Apr. 98
Houston County	B	Construct 6-acre cover; Install passive gas system	\$6,181	\$0	Nov. 98
Korf Bros.	D	Construct 20-acre cover; Install passive gas system	\$5,471	\$0	Aug. 97
Kummer	B	Ground-water cleanup system	\$41,883	\$42,000	Nov. 97
Land Investors	C	Relocate 25,000 yds. of waste to St. Augusta	\$2,598	\$6,896	Nov. 96
Leech Lake	D	Construct 20-acre cover; Install passive gas system	\$65,908	\$985,213	Oct. 97
Lindala	B	Construct 13-acre cover; Install passive gas system	\$13,565	\$0	Oct. 98
Mankato	D	Construct 12-acre cover; Install passive gas system	\$60,814	\$798,488	Oct. 97
Northwoods	B	Construct 12-acre cover; Install passive gas system	\$91,951	\$592,562	Sept. 98
Paynesville	D	Construct 13-acre cover; Install passive gas system	\$9,000	\$0	Oct. 96
Pipestone/Lincoln Counties	C/D	Relocate 68,000 cu. yds. from Lincoln; Construct 10-acre cover; Install passive gas system; Land purchase	\$0	\$129,500	Sept. 96
Red Rock/Adams	D/D	Relocate 42,000 cu. yds. from Adams; Construct 42-acre cover; Install passive gas system; Land purchase	\$29,383	\$96,887	July 97
St. Augusta	D	Construct 45-acre cover; Install passive gas system	\$142,632	\$2,614,651	Nov. 97
Wadena	D	Remove barrels; Construct 15-acre cover; Install passive gas system	\$114,979	\$407,551	Nov. 97
Washington County	D	Construct 38-acre cover; Install active gas system; Install enclosed flare	\$22,640	\$147,923	June 98
WDE	B	Install active gas system with enclosed flare	\$138,334	\$2,595,106	July 98
<b>Total</b>			<b>\$1,269,617</b>	<b>\$12,220,484</b>	



### General Maintenance for Municipal Sanitary Landfills Contract

Once the MPCA takes responsibility for a site, the operation and maintenance (O&M) of the facility is maintained through the General Maintenance for Municipal Sanitary Landfills Contract. The contract is regional and used primarily for mowing and erosion control of the landfill cover system, but also allows for fence repair, gate installation, signs or other miscellaneous maintenance-type work that is requested by the MPCA.

### Technical Operation and Maintenance of Closed Landfills Contract

The Technical Operation and Maintenance of Closed Landfills Contract provides the Program with specific technical expertise to maintain and operate complex site-remediation systems. Currently, there are seven landfills utilizing this contract. Landfill gas flares, ground-water treatment and leachate collection are some of the systems covered by this contract. The number of landfills where this contract is utilized will increase over time as additional landfills enter the Program and/or more technical remediation is required.

### Sampling and Analytical Contracts

The sampling and analytical contracts provide vendors who specialize in conducting ground-water sampling and laboratory analyses of those samples. During FY98, the Program entered into a separate contract to purchase dedicated monitoring systems for monitoring wells at landfills. The Program purchased 606 pumps for installation at monitoring wells at 71 landfills. The dedicated monitoring systems were purchased in bulk to receive a discounted price for those landfills where post-closure monitoring will occur for at least the next 20 years. The dedicated monitoring systems may 1) result in a more representative sample of ground-water quality; 2) ensure that the samples are obtained free from procedure error or error due to cleaning of the sampling equipment; and 3) result in reduced

sampling costs over time.

Within the next five years, it is anticipated that O&M costs will account for more than 50 percent of Program contract expenditures as more construction projects are completed, technical O&M is required and the remaining eligible sites are brought into the Program.

### Land Management Plans

As stated in previous Program Annual Reports, the issue of establishing Land Management Plans for landfills in the Program has been primarily addressed through conditions and restrictions in

**Table 8: Rescored Landfills**

Site Name	Class/Score	Revised Class/Score
Battle Lake	B/19	D/1
Crosby	B/16	D/2
Dakhue	D/8	B/11
East Bethel	D/35	B/35
East Mesaba	D/18	C/18
Greenbush	B/5	D/0
Hickory Grove	C/3	D/2
Hopkins	B/8	A/31
Korf. Bros.	B/21	D/15
Leech Lake	B/19	D/5
Mankato	B/32	D/23
Maple	D/28	B/14
Oak Grove	D/13	B/16
Red Rock	D/88	D/26
St. Augusta	B/22	D/6
Salol	B/26	D/4
Vermillion Modified	C/3	B/9
Wadena	B/25	D/5
Waste Disposal Engineering	B/117	B/123



the Binding Agreements. A template Land Management Plan is being developed so that it can be individually tailored to address long-term issues and meet specific needs for landfills in the Program.

### Priority List Rescoring

According to the Landfill Cleanup Act, the MPCA must update the priority list each FY to reflect any changes due to monitoring and remediation activities (See Table 8). This table indicates the sites with revised classifications and scores in FY98. The classification and score for each landfill in the Program is found in Appendix 1.

Table 9 illustrates how the program has accomplished an overall reduction in relative risk to human health and the environment over the past four years. Program activities have resulted in the downgrading of landfills from a higher to lower classification and priority score.

**Table 9: Annual Changes to the Closed Landfill Priority List**

	Dec.	Dec.	July	Sept.	July
Classification	1994	1995	1996	1997	1998
A	9	9	9	1	2
B	34	39	38	38	34
C	29	34	34	36	34
D	22	24	25	31	36
<b>Total Landfills</b>	<b>94</b>	<b>106</b>	<b>106</b>	<b>106</b>	<b>106</b>

#### The criteria for scoring is as follows:

Classification A: Pose immediate public health and/or environmental threat.

Classification B: Pose no immediate public health or environmental threat but require remediation to control gas migration, ground-water contamination, and/or to correct a severely inadequate or nonexistent cover. Also included

are sites where waste may be relocated to another closed site.

Classification C: Pose no immediate public health or environmental threat, but lack a cover that meets current MPCA standards. These sites may need minor repair or installation of gas vents and may be upgraded to current closure standards.

Classification D: Currently pose no threat to public health or the environment and, in most cases, meet current standards for closure.

## LOOKING AHEAD TO 1999

### PROPOSED NEW PROJECTS

We anticipate the following landfills will have construction projects started during FY99 (See Figure 1):

#### North District

- Anderson-Sebeka: Cover and passive gas system
- Maple: Cover enhancement and passive gas system
- Vermillion Modified: Cover, passive gas system and dump relocation
- Stevens Co.: Cover and passive gas system

#### Metro District

- Anoka: Upgrade ground-water treatment system
- Lindala: Cover and passive gas system
- Hopkins: Additional upgrade of active gas-extraction system
- Pine Lane: Cover and active gas-extraction system

#### South District

- Geislars: Waste relocation to Wabasha Co.
- Minnesota Sanitation: Cover and passive gas system
- Wabasha Co.: Cover and passive gas system
- Yellow Medicine Co.: Cover and surface-water drainage enhancement
- Big Stone Co.: Cover and passive gas system



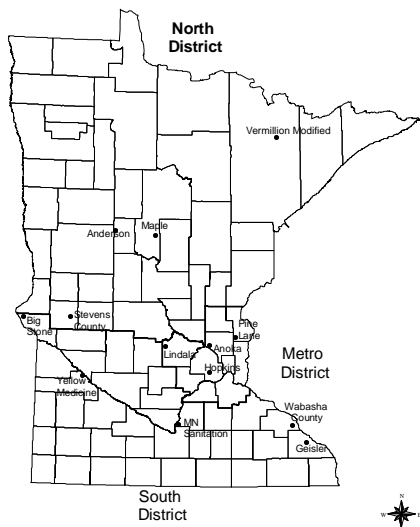
## LEGISLATIVE INITIATIVE

In response to legislators' requests over the years to have a bill drafted that would address their interest in expanding the scope of the Closed Landfill Program, and that would amend certain other related programs, the MPCA intends to propose a possible legislative initiative for the 1999 Legislative Session that will contain the following elements:

- the state would offer a limited-time opportunity for mixed municipal solid waste landfills to close and qualify for state care under the CLP, under terms similar but not identical to the 1994 legislation;
- the state would conduct environmental assessments at old municipal dumps around the state;
- the state would shift certain costs to the SolidWaste Fund that are now drawing on the Metropolitan Contingency Action Trust Fund; and
- the state would use the State Board of Investment for a better return on a portion of money in the Solid Waste Fund.

The actual content of the bill as actually offered in January will depend on intentions of the incoming administration, legislators and stakeholders, and on legal reviews.

**Figure 1: Construction Site Locations**



## EMERGING ISSUES

### Landfill Gas

Landfill gas was discussed in the 1997 Annual Report as an emerging issue for the Program. Currently, there are nine landfills in the Program which have some type of active gas extraction system installed. There are another 10 landfills which have been identified as having a large enough volume of waste to support an active gas-extraction system. Active landfill gas-extraction systems are increasingly being considered for the following beneficial uses:

- Greenhouse gas reduction/global warming
- Electrical power generation
- Alternative fuel or fuel supplement for industry

### Natural Attenuation Sampling

Natural attenuation is documented proof that contaminants are reduced or eliminated by naturally occurring bacteria (biodegradation) in the soil and ground water. Biodegradation is an accepted method of remediating contamination before it poses a risk to human health, the environment, or before it exceeds points of compliance. Natural attenuation sampling has been completed at several landfills to determine if biodegradation is actively remediating the contaminated ground-water plume. At landfills where volatile organic-compound contamination is minimal or absent, natural attenuation sampling may indicate that biodegradation is occurring naturally.

Quarterly sampling of natural attenuation parameters in monitoring wells through the center line of the ground-water plume has been occurring since spring quarter at Anoka, Kummer, Land Investors, and St. Augusta landfills. (Literature sources suggest that two years of data is sufficient to evaluate the attenuation of the plume). At each of these landfills, the natural attenuation parameters are being collected to determine whether remediation systems are necessary or whether the natural processes will clean up the contaminants in a reasonable time frame (years as opposed to decades).



Additionally, natural attenuation parameter sampling was conducted at the Crosby, Crosby American Properties, Dakhue, Isanti/Chisago, Kløver, Korf Bros., Oak Grove, and Pine Lane landfills during the summer of 1998 sampling events. Analyses of these data may help support the presumptive remedy (upgraded covers with passive gas systems) used by the Program and provide justification for reduced sampling frequency at some landfills. This would significantly reduce long term O&M costs associated with this Program.

Findings of the natural attenuation analyses will be presented along with other monitoring and O&M information in the 1998 annual reports for each landfill as well as the Program's 1999 Annual Report to the Legislature.

### **Goal 21**

The MPCA has begun an ambitious strategic plan called Goal 21. In July 1998, the MPCA became a geographically based organization by dividing the state into three districts — North, Metro and South. MPCA staff have been reassigned to one of the new districts. The reorganization will not change the administration of the Program, because the Program was already somewhat geographically based in terms of some contracts and staff assignments.

Full implementation of Goal 21 is expected to take from three to five years. To keep abreast of the implementation of Goal 21, check the MPCA website at [www.pca.state.mn.us](http://www.pca.state.mn.us). Updates are posted periodically.





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# Appendix



# THE 106 CLOSED LANDFILLS FINANCIAL SUMMARY FY98

Landfill Name	Classification & Score	MPCA Salary & Expenses	AG Salary	Operations & Maintenance	Construction Other Than Bond	Construction Bond Fund	Landfill/Site Totals
Adams	D/0	\$515	\$0	\$0			\$515
Aitkin Area	B/27	\$947	\$28	\$10,941			\$11,916
Albert Lea	D/25	\$5,482	\$21	\$36,902			\$42,405
Anderson / Sebek	B/7	\$3,149	\$462	\$3,271	\$7,630		\$14,512
Anoka / Ramsey	D/24	\$7,979	\$12,691	\$124,699			\$145,369
Barnesville	C/1	\$934	\$0	\$8,254			\$9,188
Battle Lake	D/1	\$14,566	\$49	\$14,678		\$663,164	\$692,457
Becker Co.	A/29	\$25,992	\$189	\$27,314		\$2,085,761	\$2,139,256
Benson	D/3	\$1,608	\$0	\$7,280			\$8,888
Big Stone Co.	C/22	\$1,392	\$0	\$16,855			\$18,247
Brookston	C/2	\$1,481	\$147	\$7,121			\$8,749
Bueckers 1	D/4	\$2,369	\$1,143	\$10,873			\$14,385
Bueckers 2	D/0	\$14	\$0	\$0			\$14
Carlton Co. S	B/10	\$1,618	\$66	\$6,842			\$8,526
Carlton Co. 2	D/5	\$3,465	\$28	\$49,394			\$52,887
Cass Co. (L-R)	D/5	\$1,413	\$0	\$7,841			\$9,254
Cass Co. (W-H)	D/2	\$1,031	\$0	\$7,778			\$8,809
Chippewa Co.	D/38	\$1,219	\$0	\$9,307			\$10,526
Cook	C/4	\$1,693	\$147	\$7,014			\$8,854
Cotton	B/4	\$1,483	\$147	\$6,834			\$8,464
Crosby	D/2	\$9,745	\$159	\$6,294		\$935,632	\$951,830
Crosby-American	D/25	\$5,850	\$1,337	\$37,907			\$45,094
Dakhue	B/11	\$4,547	\$180	\$35,785			\$40,512
Dodge Co.	D/30	\$3,077	\$217	\$2,302			\$5,596
East Bethel	B/35	\$14,792	\$5,523	\$73,628	\$103,690		\$197,633
East Mesaba	C/18	\$1,173	\$147	\$13,955			\$15,275
Eighty Acre	B/15	\$832	\$0	\$9,208			\$10,040
Faribault Co.	B/43	\$1,906	\$0	\$12,068			\$13,974
Fifty Lakes	B/7	\$12,653	\$1,659	\$10,587	\$6,000	\$275,919	\$306,818
Floodwood	C/5	\$2,295	\$147	\$7,282			\$9,724
Flying Cloud	C/12	\$5,136	\$14,157	\$0			\$19,293
Freeway	B/100	\$26,114	\$11,916	\$0	\$52,729		\$90,759
French Lake	D/3	\$4,871	\$327	\$15,506		\$11,667	\$32,371
Geislars	B/7	\$1,174	\$1,353	\$1,976			\$4,503
Gofer	C/17	\$1,522	\$1,799	\$13,590			\$16,911
Goodhue Coop	C/11	\$1,482	\$1,547	\$2,903			\$5,932
Grand Rapids	D/5	\$3,163	\$931	\$24,277			\$28,371
Greenbush	D/0	\$978	\$0	\$3,072			\$4,050
Hansen	C/14	\$2,349	\$0	\$9,008			\$11,357
Hibbing	D/7	\$1,870	\$0	\$11,561			\$13,431
Hickory Grove	D/2	\$7,059	\$144	\$6,600			\$13,803
Highway 77	C/2	\$1,542	\$147	\$6,725			\$8,414
Hopkins	A/31	\$23,228	\$5,378	\$102,231		\$187,793	\$318,630

Landfill Name	Classification & Score	MPCA Salary & Expenses	AG Salary	Operations & Maintenance	Construction Other Than Bond	Construction Bond Fund	Landfill/Site Totals
Houston Co.	B/29	\$12,934	\$434	\$16,233	\$6,181		\$35,782
Hoyt Lakes	C/3	\$1,049	\$147	\$7,294			\$8,490
Hudson	C/5	\$1,008	\$147	\$5,628			\$6,783
Iron Range	C/4	\$2,190	\$350	\$5,761			\$8,301
Ironwood	C/14	\$5,023	\$1,246	\$9,514			\$15,783
Isanti-Chisago	D/11	\$10,995	\$0	\$68,171			\$79,166
Jackson Co.	C/6	\$1,146	\$0	\$4,081			\$5,227
Johnson Bros.	C/11	\$1,045	\$0	\$7,614			\$8,659
Karlstad	C/4	\$1,371	\$0	\$11,580			\$12,951
Killian	B/5	\$2,538	\$0	\$10,140			\$12,678
Kluver	B/15	\$1,785	\$28	\$17,045			\$18,858
Koochiching	B/24	\$6,036	\$822	\$5,540			\$12,398
Korf Bros.	D/15	\$7,655	\$783	\$6,024	\$5,471		\$19,933
Kummer	B/16	\$14,965	\$165	\$83,272	\$81,883		\$180,285
LaGrande	C/6	\$2,423	\$269	\$24,293			\$26,985
Lake County	C/15	\$435	\$0	\$3,945			\$4,380
Lake Of Wood	C/8	\$2,060	\$105	\$11,355			\$13,520
Land Investors	C/5	\$1,370	\$680	\$4,658		\$9,494	\$16,202
Leech Lake	D/5	\$9,160	\$196	\$13,988		\$1,051,121	\$1,074,465
Lincoln Co.	D/2	\$7,918	\$0	\$3,336		\$129,500	\$140,754
Lindala	B/35	\$10,906	\$11,396	\$16,808	\$7,701	\$5,864	\$52,675
Lindenfelser	B/19	\$5,710	\$3,311	\$25,397			\$34,418
Long Prairie	D/7	\$810	\$0	\$8,513			\$9,323
Louisville	B/40	\$3,419	\$1,211	\$0			\$4,630
Mahnomen Co.	C/10	\$959	\$0	\$10,348			\$11,307
Mankato	D/23	\$14,295	\$0	\$8,236		\$859,302	\$881,833
Maple	B/14	\$1,176	\$0	\$4,667			\$5,843
McKinley	C/4	\$339	\$147	\$1,753			\$2,239
Meeker Co.	C/13	\$3,101	\$56	\$21,109			\$24,266
Mille Lacs Co.	B/12	\$885	\$166	\$5,118			\$6,169
MN Sanitation	B/20	\$2,056	\$7	\$1,547			\$3,610
Murray Co.	C/103	\$773	\$0	\$10,977			\$11,750
Northome	D/3	\$1,314	\$14	\$992			\$2,320
Northwest Angle	B/2	\$1,989	\$0	\$3,204			\$5,193
Northwoods	B/9	\$30,567	\$147	\$12,058		\$684,513	\$727,285
Oak Grove	B/16	\$12,879	\$3,899	\$29,310			\$46,088
Olmsted Co.	C/13	\$11,345	\$1,771	\$91,425			\$104,541
Orr	B/5	\$140	\$147	\$0			\$287
Paynesville	D/7	\$3,848	\$479	\$10,917		\$9,000	\$24,244
Pickett	B/3	\$1,862	\$0	\$31,674			\$33,536
Pine Lane	B/20	\$3,943	\$1,064	\$7,819			\$12,826
Pipestone Co	C/8	\$2,792	\$630	\$940			\$4,362
Portage Mod.	D/0	\$0	\$0	\$0			\$0

Landfill Name	Classification & Score	MPCA Salary & Expenses	AG Salary	Operations & Maintenance	Construction Other Than Bond	Construction Bond Fund	Landfill/Site Totals
Red Rock	D/26	\$9,199	\$210	\$21,879		\$126,270	\$157,558
Redwood Co	C/8	\$1,930	\$0	\$9,192			\$11,122
Rock Co.	C/16	\$1,439	\$35	\$6,421			\$7,895
St. Augusta	D/6	\$22,839	\$2,666	\$15,988		\$2,757,283	\$2,798,776
Salol / Roseau	D/4	\$1,919	\$0	\$5,243			\$7,162
Sauk Center	C/8	\$1,239	\$0	\$27,549			\$28,788
Sibley Co.	C/7	\$488	\$0	\$9,748			\$10,236
Stevens Co.	B/30	\$1,925	\$0	\$10,741			\$12,666
Sun Prairie	D/22	\$1,700	\$1,260	\$820			\$3,780
Tellijohn	B/34	\$3,581	\$9,940	\$1,640			\$15,161
Vermillion Dam	D/0	\$0	\$0	\$0			\$0
Vermillion Mod.	B/9	\$1,527	\$147	\$8,763			\$10,437
Wabasha Co.	B/14	\$3,337	\$91	\$10,835			\$14,263
Wadena	D/5	\$18,668	\$371	\$84,493		\$522,530	\$626,062
Waseca Co.	D/10	\$2,323	\$0	\$24,418			\$26,741
Washington Co.	D/5	\$11,838	\$0	\$72,405		\$170,563	\$254,806
WDE	B/123	\$40,848	\$4,424	\$291,454	\$2,733,440		\$3,070,166
Watonwan Co.	C/50	\$1,291	\$0	\$11,041			\$12,332
Woodlake	C/8	\$5,284	\$413	\$0			\$5,697
Yellow Medicine	C/2	\$5,606	\$0	\$6,495			\$12,101
<b>FY98 TOTALS</b>		\$560,903	\$111,560	\$2,011,072	\$3,004,725	\$10,485,376	\$16,173,636

General administrative, legal, reimbursement and miscellaneous bond costs are not included in this Appendix because they are not site specific.

**O&M consists of the following:**

- Electric utility
- Metropolitan Council Environmental Services discharge fees
- Local discharge fees
- Snow plowing
- Ground-water sampling & analytical cost
- Disposal sampling & analytical cost
- Surveying
- Abstracts
- Drilling
- Mowing
- Telephone services
- On-site security systems