

# Superfund

**MPCA's report on  
Use of the Minnesota Environmental  
Response, Compensation  
and Compliance Fund during Fiscal Year 1989**

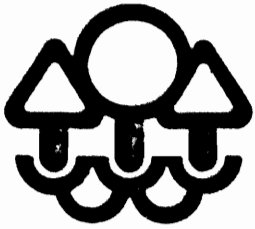


**November 1989**



**Prepared by  
the staff of the  
Minnesota Pollution Control  
Agency**

**520 Lafayette Road  
St. Paul, MN 55155  
(612) 296-6300**



# Minnesota Pollution Control Agency

520 Lafayette Road, Saint Paul, Minnesota 55155

Telephone (612) 296-6300



November 1, 1989

The Honorable Willard Munger  
Chair, Environment and Natural Resources Committee  
1121 South 70th Avenue West  
Duluth, Minnesota 55807

Dear Representative Munger:

It is my pleasure to present to you the Minnesota Pollution Control Agency's (MPCA) report on the use of the Environmental Response, Compensation and Compliance Fund (Fund) during Fiscal Year 1989. This report fulfills the requirements of Minn. Stat. § 115B.20, subd. 6. Although the main focus of this report is a summary of Fund expenditures during Fiscal Year 1989, it also provides a summary of accomplishments under Minnesota's Superfund program and MPCA staff recommendations for future legislative actions.

If you should have any questions concerning the contents of this report, please contact Gary A. Pulford of my staff at (612) 296-7290.

Sincerely,

  
Gerald L. Willet  
Commissioner

GLW/jmp

Enclosure



# Minnesota Pollution Control Agency

520 Lafayette Road, Saint Paul, Minnesota 55155

Telephone (612) 296-6300



November 1, 1989

The Honorable Bob Lessard  
Chair, Senate Environment and Natural Resources  
111 Capitol  
St. Paul, Minnesota 55155

Dear Chairman Lessard:

It is my pleasure to present to you the Minnesota Pollution Control Agency's (MPCA) report on the use of the Environmental Response, Compensation and Compliance Fund (Fund) during Fiscal Year 1989. This report fulfills the requirements of Minn. Stat. § 115B.20, subd. 6. Although the main focus of this report is a summary of Fund expenditures during Fiscal Year 1989, it also provides a summary of accomplishments under Minnesota's Superfund program and MPCA staff recommendations for future legislative actions.

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Gerald L. Millet  
Commissioner

GLW/jmp

Enclosure



# Minnesota Pollution Control Agency

520 Lafayette Road, Saint Paul, Minnesota 55155

Telephone (612) 296-6300



November 1, 1989

The Honorable Gene Merriam  
Chair, Senate Finance Committee  
Chair, Legislative Commission On Waste Management  
122 Capitol  
St. Paul, Minnesota 55155

Dear Senator Merriam:

It is my pleasure to present to you the Minnesota Pollution Control Agency's (MPCA) report on the use of the Environmental Response, Compensation and Compliance Fund (Fund) during Fiscal Year 1989. This report fulfills the requirements of Minn. Stat. § 115B.20, subd. 6. Although the main focus of this report is a summary of Fund expenditures during Fiscal Year 1989, it also provides a summary of accomplishments under Minnesota's Superfund program and MPCA staff recommendations for future legislative actions.

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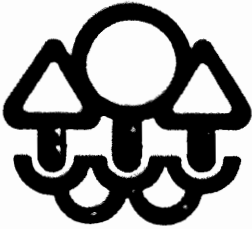
  
Gerald L. Willet  
Commissioner

GLW/jmp

Enclosure

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# Minnesota Pollution Control Agency

520 Lafayette Road, Saint Paul, Minnesota 55155

Telephone (612) 296-6300



November 1, 1989

The Honorable Wayne Simoneau  
Chair, House Appropriations Committee  
365 State Office Building  
St. Paul, Minnesota 55155

Dear Representative Simoneau:

It is my pleasure to present to you the Minnesota Pollution Control Agency's (MPCA) report on the use of the Environmental Response, Compensation and Compliance Fund (Fund) during Fiscal Year 1989. This report fulfills the requirements of Minn. Stat. § 115B.20, subd. 6. Although the main focus of this report is a summary of Fund expenditures during Fiscal Year 1989, it also provides a summary of accomplishments under Minnesota's Superfund program and MPCA staff recommendations for future legislative actions.

If you should have any questions concerning the contents of this report, please contact Gary A. Pulford of my staff at (612) 296-7290.

Sincerely,

  
Gerald L. Willet  
Commissioner

GLW/jmp

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## Executive Summary

The Minnesota Environmental Response and Liability Act (MERLA) of 1983 established the Environmental Response, Compensation and Compliance Fund (Fund) and authorized the Minnesota Pollution Control Agency (MPCA) to spend Fund dollars to investigate and clean up releases of hazardous substances. The directives of MERLA are carried out through the Minnesota Superfund Program. This report details, as required by Minn. Stat. § 115B.20, subd. 6, the activities for which Fund dollars have been spent during Fiscal Year (FY) 1989. The following is a summary of the accomplishments of the Superfund Program, as well as, detail concerning income to the Fund and expenditures from the Fund.

### I. Superfund Program Expenditures and Income

<u>Expenditures from the Fund</u>	<u>FY 89</u>	<u>Cumulative Since FY 83</u>
MERLA Fund Expenditures	\$4,177,916	\$17,290,304
 <u>Income to the Fund</u>		
Appropriations	5,900,000	15,400,000
Reimbursements by Responsible Parties	824,119	5,541,713
Hazardous Waste Tax	805,380	6,018,055
Interest on Investments	1,153,663	3,956,825
 <u>MERLA Fund Balance as of June 30, 1989</u>		 13,626,289
 <u>Federal Superfund Dollars Secured</u>	 9,146,840	 23,580,000
 <u>Federal Superfund Dollars Expended</u>	 3,625,816	 10,690,989

### II. Superfund Program Accomplishments

	<u>FY 89</u>	<u>Cumulative Since FY 83</u>
Sites Added to the State's Permanent List of Priorities	19	157
Sites Added to the Federal National Priorities List	0	40
Responsible Party Response Actions Initiated	14	87*
MERLA Funded Response Actions Initiated	4	26*
Federally Funded Response Actions Initiated	1	15*
Remedial Actions Complete or Ongoing	6	44
MPCA Involvement in Lawsuits	2	9
Emergencies	3	20
Abandoned Barrels Secured	96	236
Property Transfer Assistance		
File Search Requests	1082	2000 +
Cleanup-Assistance	151	181

\* Response Actions are ongoing at most of these sites and MERLA Fund, federal, and responsible party dollars continue to finance investigations and cleanups at these sites.

To ensure the continued success of the Superfund Program, the MPCA staff offers the following recommendations:

1. Considering the demand landfills are placing on the Superfund Program funding sources (both federal and state Funds) and the need for a better landfill regulatory program to prevent future contamination problems, significant additional resources will be needed in the future to address response actions at these sites.
2. A projection of costs to finance Minnesota Department of Agriculture response actions must be made so that sufficient monies are added to the MERLA fund to cover the added demand on the Fund.
3. MERLA should be amended to provide the MPCA with the authority to transfer title or interest in personal and real property for conducting response actions. Also, Minn. Stat. ch. 105.405, subd. 3 requires the Department of Natural Resources (DNR) and legislative approval for any ground water appropriation which exceeds 2,000,000 per day in any 30-day period. The MPCA is requesting approval for the LeHillier remedial action (i.e., ground water extraction system) and also is requesting a blanket exemption from this requirement (i.e., exempt the legislative approval component) for future Superfund actions.
4. Considering the anticipated demand in the property transfer program, an additional two staff positions are needed to provide the necessary level of staff services. Also, additional staff resources may be necessary to conduct the state funded Preliminary Assessment/Site Investigation (PASI) efforts.

MPCA REPORT ON THE USE OF  
THE ENVIRONMENTAL RESPONSE, COMPENSATION  
AND COMPLIANCE FUND DURING FISCAL YEAR 1989

I. Introduction

The Minnesota Environmental Response and Liability Act (MERLA) of 1983 established the Environmental Response, Compensation and Compliance Fund (Fund) and authorized the Minnesota Pollution Control Agency (MPCA) to spend Fund dollars to investigate suspected releases of hazardous substances and clean up releases and threatened releases. This report outlines the use of the MERLA Fund during Fiscal Year (FY) 1989 and summarizes the status of the Minnesota Superfund program.

II. Program Overview

The Minnesota Superfund program is composed of the following functions: 1) to discover and conduct preliminary investigations of hazardous substance releases from abandoned hazardous waste or solid waste sites and to identify responsible parties; 2) to respond to emergency situations, such as a contaminated drinking water supply or drum removal; 3) to initiate remedial investigations/feasibility studies at identified sites; 4) to develop remedial designs and implement remedial actions for the final cleanup of sites; 5) to conduct the administrative activities for the management of response action contractors, the MERLA Fund, and federal Superfund money secured under Cooperative Agreements with the U.S. Environmental Protection Agency (EPA); 6) to conduct public information and community relations activities; and 7) to provide assistance to buyers and sellers in the transfer of property where potential contamination problems and liability issues may or do exist.

III. Status of the Fund

The status of the Fund as of June 30, 1989, is detailed in Table 1 (General Ledger). The Fund balance at the end of FY 89 is \$13,626,289.



TABLE 1

GENERAL LEDGER BALANCE AS OF JUNE 30, 1989  
ENVIRONMENTAL RESPONSE FUND

Appropriations to Date	
Original Transfer From General Funds (FY 83)	\$5,000,000
Water Pollution Control Fund (FY88 - FY89)	10,400,000
Income to Date (FY 83 - FY 89)	
Interest on Investments	3,956,825
Reimbursements to the Fund	5,541,713
Hazardous Waste Taxes	6,018,055
Expenditures to Date (FY 83 - FY 89)	17,290,304
Fund Balance as of June 30, 1989	13,626,289

In 1983, the Fund was established with a \$5,000,000 transfer from the General Fund. An additional \$4,500,000 in FY 88 and \$5,900,000 in FY 89 was appropriated from the Water Pollution Control Fund. The Fund investments are managed by the Department of Finance and the Hazardous Waste Tax is collected by the Department of Revenue. The MPCA has recovered \$5,541,713 in the form of penalties and reimbursements from responsible parties since the Fund was established.

A summary of Fund expenditures during FY 89 is presented in Table 2 below.

TABLE 2

FY 89 STATE SUPERFUND EXPENDITURES BY MPCA

Administrative Costs	\$2,445,688
Legal Costs	150,670
Specific Contractual Costs*	1,581,558
TOTAL	4,177,916

\* Specific expenditures provided in Table 4.

The administrative cost represents salaries for 56 positions, as well as office space rental, travel, equipment, and supply expenditures associated with

responding to emergencies and implementing site cleanups. MPCA staff estimates that greater than fifty percent of the administrative costs that are incurred by MPCA staff are expenditures that result in securing response action commitments from responsible parties. The legal cost represents the cost for services rendered by the State Attorney General's Office. Laboratory costs are expenses paid to the Minnesota Department of Health for analytical services.

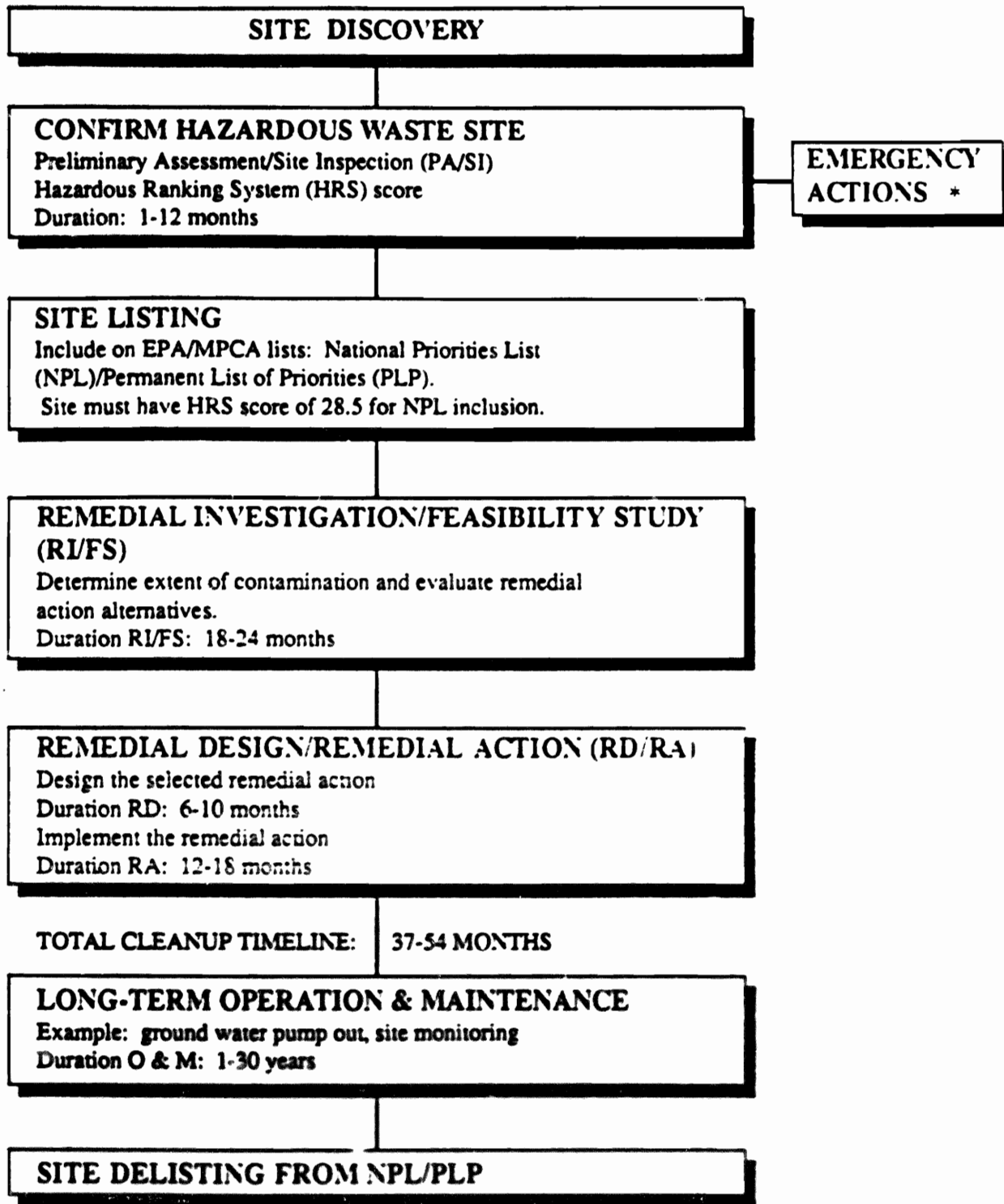
#### IV. Status of the Superfund Program

The Minnesota Superfund process for hazardous waste site cleanup is diagrammed in Figure 1. Potential hazardous waste sites are identified to the MPCA through telephone calls from concerned citizens, routine inspections by MPCA staff, reports of hazardous substance spills, and analyses of drinking water supplies sampled by the Minnesota Department of Health. Through a Cooperative Agreement with the EPA the MPCA has established a program to assess potential hazardous waste sites in Minnesota. Initially, a Preliminary Assessment is conducted involving a general review of readily accessible information to characterize the site and to determine if the site warrants further action. If further action is warranted, a site investigation is conducted and data collected is used to rank or score a site using the Hazard Ranking System. The Hazard Ranking System scores are used to establish priorities among sites and to determine a site's eligibility for federal and/or state Superfund monies for response actions. If a site is then added to the EPA's and/or MPCA's priorities lists, a remedial investigation/feasibility study is conducted to determine the extent of contamination and to evaluate remedial action alternatives.

The MPCA has identified and listed 423 sites on Comprehensive Environmental Response, Compensation, and Liability Information System (CERCLIS), a nation wide inventory of potential hazardous waste sites. Twenty of these sites were identified during FY 89. Preliminary Assessments have been

Figure 1

# Minnesota Superfund-Site Cleanup Process



\* For Emergency Actions, Federal or State funds may be used for alternate drinking water, removal actions, or a limited RI/FS.

conducted at 372 of these sites; 30 were conducted during FY 89. Eighteen site investigations were completed during FY 89.

Currently there are 157 sites listed on the state's Permanent List of Priorities for investigation and cleanup, 19 of these were added to the list during FY 89. An additional nine sites are proposed to be added to the Permanent List of Priorities in December 1989 for a total of 166 sites. Forty of the 157 sites currently listed on the state Permanent List of Priorities are also included on the federal National Priorities List; therefore, activities at those 40 sites are eligible for federal funding, if monies are available.

On June 30, 1989, there were 117 sites in the cleanup process "pipeline" (i.e., response actions initiated which include remedial investigation and feasibility study, remedial design and implementation of final remedial action). Response actions at 87 of these sites are being conducted by responsible parties. MERLA Fund dollars have been spent at 26 sites for response actions. Federal dollars have been spent at 15 sites for response actions. In addition, arsenic contaminated sites have been cleaned up using MERLA Fund dollars during FY 89. (See Attachment A, Site Status Report, for detail on the sites and Attachment B which is a map showing the distribution of sites by county.)

Since 1983, the Agency has responded to 18 emergencies involving contaminated drinking water supplies and taken action to provide affected residences with alternate drinking water. These communities include: Adrian, Askov, Atwater, Isanti, Lakeland Township, Lansing, LeHillier, Long Prairie, New Brighton/Arden Hills, Northern Township, St. Anthony, Waite Park, St. Paul Park, Spring Grove, Hadder, Garfield, and the residents adjacent to the former Duluth Dump and residents near the Arrowhead Site. The MPCA continues to supply safe drinking water to affected residences at 6 of these sites.

In May 1989, a drinking water emergency was declared at the Miller Trunk Highway near the Arrowhead Site in Duluth. The MPCA responded by using Fund dollars to provide safe drinking water to the affected residents and to conduct preliminary investigations of the contamination.

In January 1989, an emergency was declared as the MPCA responded to the tire fire at South Andover. This site held approximately 500,000 tires of which almost two-thirds burned. On site, burned with the tires, were 100+ barrels of unknown wastes. MERLA dollars were used to extinguish the fire, sample the air, soil, ground water and the barrels and to dispose of hazardous waste.

An arsenic emergency was declared on December 14, 1988, regarding a farmstead located near Beltrami, Minnesota. MERLA funds were used to investigate and remove and dispose of 65 tons of arsenic contaminated soils.

Under the abandoned barrel program the MPCA investigated and disposed of 14 abandoned containers discovered near Lillydale. The contents of the containers had to be analyzed, repacked and disposed of in the city of St. Paul, at a cost of approximately \$30,000.

In addition to the abandoned barrels at Lillydale, the MPCA responded to over 20 incidences of abandoned barrels. Approximately 75 abandoned barrels were discovered that needed to be analyzed, stored and/or handled for disposal.

The MPCA Emergency Response Team responded to 44 incidents in FY 89 for which MERLA dollars were spent. Activities at these sites included excavating and/or sampling leaking drums, response actions at spills, sampling at pipeline spills and excavation of hazardous materials.

As of June 30, 1989, the Minnesota Superfund Program lists 33 sites where response actions have been completed and operation and maintenance or long term monitoring are ongoing. The sites include those listed in the Class B category

the state's proposed Permanent List of Priorities listed below. In addition, 11 sites that have been deleted from the Permanent List of Priorities because cleanup of known contamination at these sites has been completed and no further action is thought to be necessary (sites listed below).

STATE OF MINNESOTA  
Environmental Response and Liability Act  
Proposed December 1989 Permanent List of Priorities

Class B Sites  
Response Actions Completed and  
Operation and Maintenance/Long-Term Monitoring Ongoing  
(33)

Site

FMC Corp-Fridley Plant (vault)  
Boise Cascade/Medtronic, Fridley  
Boise Cascade/Onan, Fridley  
Oakdale Dump  
\*Reilly Tar, St. Louis Park  
St. Regis Paper, Cass Lake  
PCI, Inc., Shakopee  
\*Faribault Coal Gasification Plant Site, Faribault  
Burlington Northern, Brainerd  
Whittaker Corporation, Minneapolis  
General Mills, Minneapolis  
\*Electric Machinery, St. Cloud  
Perham Arsenic Site, Otter Tail County  
Nutting Truck and Caster, Faribault  
Winona County Sanitary Landfill  
Ironwood Sanitary Landfill (Advance  
Transformer), Spring Valley  
Waite Park Ground Water Contamination Site  
Kurt Manufacturing, Fridley  
Atwater Municipal Well Field  
Hastings Former City Dump  
Jackson Municipal Well Field  
Wadena Arsenic Site  
Weisman Scrap, Winona  
Boise Cascade Paint Waste Dump, Ranier  
\*Lund's Farmer Seed and Nursery, St. Cloud  
West Duluth Industrial Site  
DNR-Duxbury Pesticide Site  
3M Kerrick Disposal Site, Kerrick  
Hutchison Technology, Inc.  
Tonka/Woyke Site, Annandale  
\*McLaughlin Gormley King Co., Minneapolis  
\*Hopkins Agricultural/Chemical/Allied Chemicals, Minneapolis  
Minneapolis Community Development Agency/FMC

\*Added to Class B status during FY 89

Sites Deleted from the Permanent List of Priorities (11)

DNR-Nett Lake/Orr Pesticide Site  
Polymetals Products, Inc.  
43 East Water Street  
Airco Lime Sludge Pit  
Former McKay Mfg. Company  
Maple Plain Dump  
Sonford Products/Abandoned Trailer Site  
Lost Lake Dump Site  
Morris Arsenic Site  
Ecolotech Inc.  
Northern Township Ground Water Contamination

Responsible Party Actions

Since the passage of MERLA, responsible parties have committed an estimated \$147 million to the cleanup of hazardous waste sites and have made reimbursements to the Fund of \$5,541,713 to cover penalties and costs incurred by the MPCA in administering and overseeing the site cleanup activities. During FY 89, \$824,119 were reimbursed.

During FY 89 the MPCA has been involved, as in previous years, with a number of lawsuits related to Superfund activities. The lawsuit with Freeway Landfill to recover past MPCA costs was started in FY 88 and is still being prosecuted. In FY 89, Attorney General Staff argued before the state Supreme Court, regarding the 3M-Oakdale, Joslyn and Tonka-Woyke sites, that Superfund costs should be covered by General Comprehensive Liability Insurance Coverage. The Minnesota Department of Agriculture, MPCA staff and the Attorney General Staff is involved in a lawsuit over recovery of MERLA funds on the Lund Nursery Site. The MPCA has also been involved in bankruptcy proceedings regarding the MacGillis and Gibbs, Dakhue Sanitary landfill and Cooper Industry Sites.

Use of Federal Dollars

The MPCA has secured a total of 23.58 million in federal Superfund dollars (\$9,146,840 secured during FY 89) for: 1) conducting preliminary assessments and preliminary site investigations at Minnesota sites included on the federal

inventory (i.e., CERCLIS) of potential hazardous waste sites; 2) conducting remedial investigation/feasibility study or remedial design/remedial action activities at Minnesota sites included on the federal National Priorities List; and, 3) oversight of responsible parties at the Reilly Tar Site. The federal dollars secured are to be expended over several fiscal years.

During FY 89 the MPCA spent \$3,625,816 federal Superfund dollars for response action activities at 14 sites. Table 3 details expenditures of federal Superfund dollars. In addition, federal Superfund dollars were used to fund salaries for 38 positions during FY 89.

TABLE 3

FY 89 Expenditures of Federal Superfund Dollars

<u>Site</u>	<u>Amount Spent</u>	<u>Activity</u>
Adrian	\$ 54,668	Remedial Investigation/Feasibility Study
Arrowhead	22,900	Federal Predesign Oversight
Interlake	48,057	Remedial Investigation/Feasibility Study
Kummer Landfill	140,479	Remedial Investigation/Feasibility Study
Kummer Landfill	887,587	Remedial Design/Remedial Action
LaGrand Landfill	49,719	Remedial Investigation/Feasibility Study
LeHillier	1,099,220	Remedial Design/Remedial Actions
Long Prairie	2,402	Remedial Investigation/Feasibility Study
New Brighton	270,294	Remedial Investigation/Feasibility Study
Oak Grove Landfill	244,996	Remedial Investigation/Feasibility Study
PA/SI	441,779	Preliminary Assessments & Site Investigations
Program Management	255,999	Management and Program Development
Reilly	39,170	Responsible Party Oversight
Ritari	23,252	Remedial Investigation/Feasibility Study
South Andover	21,724	Federal Remedial Investigation/Feasibility Study Oversight
Union Scrap	10,189	Remedial Investigation/Feasibility Study
MacGillis & Gibbs	13,381	Remedial Investigation/Feasibility Study
<b>Total</b>	<b><u>3,625,816</u></b>	

MERLA Funded Site Cleanups

During FY 89 \$1,581,558 from the Fund was used by the MPCA to cover the



contractual costs of responding to releases of hazardous substances at 16 sites listed on the Permanent List of Priorities and hazardous waste incidents and responding to numerous reports of abandoned barrel containing potentially hazardous substances. Table 4 details FY 89 expenditures of MERLA dollars.

TABLE 4

FY 89 Contractual Expenditures of MERLA Dollars

<u>Site</u>	<u>Amount Spent</u>	<u>Activity</u>
Arsenic	\$ 52,983	Investigation/cleanup
Abandoned Barrel	55,287	Responded to reports of abandoned drums
Askov	20,636	Treatment of municipal drinking water supply
Duluth Dump	1,429	Bottled drinking water and connection to carbon system
Hadder	206	Bottled drinking water
Lakeland	179,540	Bottled drinking water and Remedial Investigation/Focused Feasibility Study
Lansing	127,178	Bottled Drinking Water and Remedial Investigation
LeHillier	100	States required 10% of Remedial Actions costs at federally funded sites
Lund Nursery	391,290	Removal of pesticide contaminated fire debris and MDA staff expenses
Neihorster	25,788	Drum removal from abandoned warehouse
St. Paul Park	75,569	Bottled Drinking Water and Remedial Investigation
West Duluth	149,630	Remedial Actions (vault construction)
Bell Lumber & Pole	5,539	Remedial Investigation
Hazardous Waste Spill Response	113,817	Response activities to investigate and stabilize spills and complaints
TCAAP	72,648	Program administration
South Andover	96,760	Tire fire emergency response
Killian/Leech Lake LF	22,239	Well installation pre-Remedial Investigation
Hermantown Emergency	91	Bottled drinking water
Laboratory/Analytical Services	186,706	Laboratory Services at Minnesota Department of Health
State PASI Well Installation	4,122	Well installation for site assessment
<b>Total</b>	<u>1,581,558</u>	

V. Status of the Property Transfer Program

The MPCA Property Transfer program was created through legislative action in the 1988 Waste Management Act Amendments in response to requests of the MPCA from business and industry concerning the liability associated with real estate transactions (i.e., buying and selling property). MERLA imposes liability on parties who knew or reasonably should have known that a hazardous substance, pollutant or contaminant was located on the property at the time right, title or interest in the property was acquired and the buyer associated themselves with the release by their activities on the site. Buyers, sellers, lending institutions and insurers request MPCA staff assistance in determining whether property of interest has been the site of a release or threatened release of a hazardous substance, pollutant, or contaminant. MPCA assistance consists of conducting file searches, reviewing the investigation and response action work plans and assisting in or supervising the implementation of reasonable and necessary response actions. The legislation authorized the MPCA to recover staff costs associated with these actions. During FY 89 the MPCA responded to 1082 property transfer assistance requests.

The MPCA began to charge for this service during the second half of FY 89 and has thus far recovered \$43,000 of the cost of providing the service. In addition, the MPCA is building a computerized data base for the purpose of automating the file search process. Four of the six positions created by the legislation are devoted to responding to file evaluation requests and building the data base. The MPCA anticipates that the number of requests for file searches will continue to increase, and that the file search process will become fully automated during FY 90.

Two of the six positions created by the legislation are devoted to reviewing investigation and response action workplans and assisting in or

supervising the implementation of response actions. Since August 1988, Property Transfer Review staff have overseen a total of eighty-one (81) projects. Thirty-two (32) of these projects were in the investigative stage and twenty-nine (29) projects reached some type of end point (terminated or cleaned up). The MPCA anticipates that these responsibilities (reviewing work plans and assisting implementation of response actions) will continue to increase during the next year.

#### VI. Response Actions at Sanitary Landfills

The Superfund process continues to be used to address the release of hazardous substances from permitted sanitary landfills. Currently there are 54 landfills on the state's Permanent List of Priorities and that number is expected to grow as additional permitted landfills with hazardous substance releases are identified (two are presently proposed to be included on the December 1989 update of the Permanent List of Priorities).

The 1989 legislature clarified existing language in the Superfund law regarding the liability of political subdivisions identified as responsible parties at Superfund sites. This clarification limits requested Superfund action liability to \$400,000 for one political subdivision, \$800,000 for two political subdivisions and \$1,200,000 for three or more political subdivisions at each site. Negotiation and long-term operation and maintenance costs are excluded from the liability limits.

While a national Municipal Settlement Policy is being finalized by EPA to address landfills on the National Priorities List or NPL (the federal Superfund list), this is not expected to have a major impact on Minnesota sites. Of the 54 landfills currently on the state's list, only 10 are listed on the NPL. Of these 10, only two have local governments identified as responsible parties.

A much greater impact on the state Superfund will result from the state's liability limit since there are currently 29 Superfund non-NPL landfills (i.e., no ability to obtain federal funding) with some local government involvement. Because of the known political subdivision liability limits and anticipated inability of many private landfills operators/owners to fund response actions, the state will be required to fund a significant portion of cleanup activities at landfill sites. The following table illustrates what the state may have to consider in terms of funding to address Superfund landfills over the next few years.

TABLE 5

Total Potential State Superfund Costs for Landfill Cleanup FY 90-94  
(In Millions of Dollars)

<u>STATE COSTS</u>	Dollar Commitment					<u>TOTAL</u>
	<u>FY 90</u>	<u>FY 91</u>	<u>FY 92</u>	<u>FY 93</u>	<u>FY 94</u>	
Municipal LFs*	0.2	0.2	11.2	35.3	10.0	56.9
Nonmunicipal LFs** (Nonparticipating)	1.0	0.5	20.9	20.1	5.4	47.9
Federal Match Landfills (Nonmunicipal/Non- participating)	<u>1.5</u>	<u>0.2</u>	<u>0.2</u>	<u>0.3</u>	<u>0.2</u>	<u>2.4</u>
<b>TOTAL</b>	<b>2.7</b>	<b>0.9</b>	<b>32.3</b>	<b>55.7</b>	<b>15.6</b>	<b>107.2</b>

11 Municipal LFs

12 Nonmunicipal LFs (including 3 federal funded sites)

\*State share for municipal LFs with political subdivision liability limit.

\*\*Private landfills with owners/operators unwilling or unable to fund cleanup.

As noted in Table 5 above, the state's share of response action costs at permitted sanitary landfills could be more than \$107 million over the next five

years. Of this amount, \$57 million would be needed to address municipal landfills, \$48 million to address nonmunicipal landfills and nearly \$3 million needed for federal match. Over the next biennium (1992-93), this could total more than \$88 million.

The landfill costs have been estimated utilizing the MPCA's most current work plan schedule for Superfund landfill activities as well as anticipated costs to complete response actions (i.e. remedial investigation, feasibility study, remedial design and remedial action) and conduct, at nonparticipating private landfills, long-term operation and maintenance (O & M) at the sites. The costs of these activities will vary from site to site but, typically, remedial action implementation is the most expensive response activity followed by remedial investigations, remedial design and feasibility study. Unfortunately, there are no new cost-effective technologies on the horizon to address landfill hazardous substance releases and the containment (capping) remedy remains the preferred option along with ground water remediation. Given MPCA staff experience, the costs of capping a landfill, coupled with potential ground water and air containment/treatment can necessitate a cleanup cost in excess of \$5 million per site. Superfund actions at landfills would be consistent with all Minnesota Solid Waste Rules with regard to cleanup and O & M activities.

The costs to the state Fund are expected to rise as fewer landfills will qualify for federal funding support and as more cleanups begin at landfills. Also, the political subdivision liability limit puts the financial burden of municipal landfill cleanup on the state Fund.

#### VII. The Future of the Superfund Program

The MPCA will continue its efforts to identify new hazardous waste sites in the state. Based on the number of sites undergoing preliminary assessment at

this time and the number of hazardous waste sites discovered each year historically, the MPCA projects that 193 sites will be on the state's Permanent List of Priorities by the end of FY 92, 36 more sites than in FY 89.

Consistent with the directives of MERLA, the MPCA will continue to be aggressive in its efforts to seek out responsible parties and maximize the use of federal Superfund dollars. During FY 90, the MPCA will continue its efforts to secure federal Superfund dollars for program management and response actions at specific sites. In addition, negotiations are underway with EPA in an effort to obtain federal Superfund dollars for enforcement activities at specific sites.

The MPCA will continue to place a high priority on those hazardous waste sites at which response actions are currently underway. New site starts will be considered as a lower priority and will be initiated as staff resources become available. These priorities are consistent with the overall program goals to achieve site cleanups which are necessary to protect the public health and achieve permanent environmental remedies that are conducted in an expeditious manner.

A. Accomplishments of Program Initiatives Identified in FY 88 Legislative Report.

Superfund Memorandum of Agreement. Pursuant to Superfund Amendments Reauthorization Act (SARA) of 1986, the EPA has been directed by Congress to encourage state involvement at Superfund sites listed on the federal National Priorities List. The EPA and the MPCA entered into a Superfund Memorandum of Agreement (SMOA) in August 1989 that identified the roles and responsibilities of the lead and support agencies at these Superfund sites. The MPCA's goal is to avoid duplication of efforts and maximize the number of sites being addressed by acting as the lead agency at all NPL sites.

Assurance. Congress has mandated that by 1989 each state must certify has 20-year capacity for hazardous waste disposal. States who fail to this deadline may lose Superfund funding. The Office of Waste Management, EPA assistance, has submitted the required capacity assurance fication to EPA within the required timeframe.

Enforcement Cooperative Agreement. The MPCA and EPA entered into an Enforcement Cooperative Agreement on September 29, 1989. This is the first Enforcement Cooperative Agreement between EPA and any state. The EPA has awarded \$405,000 Minnesota and will be used for staff activities which include Potential Responsible Party searches and negotiations with Responsible Party's at selected PL sites.

### 3. Superfund Program Initiatives.

The MPCA began in FY 88, and intends to finalize in FY 90, a number of initiatives designed to enhance the Minnesota Superfund Program. A brief discussion of each initiative follows.

Ground Water Strategy - Establish Cleanup Criteria. In an effort to assist responsible parties in their investigations and cleanups of contaminated ground water associated with most Superfund sites, the MPCA is continuing to develop guidance on establishing site-specific ground water cleanup goals. The cleanup goals for a specific site must be consistent with the overall state ground water protection strategy and EPA policies.

Contaminated Soils Strategy - Establish Cleanup Criteria. In an effort to assist responsible parties in their investigations and cleanups of contaminated soils associated with most Superfund sites, the MPCA is developing guidance on establishing site-specific soil cleanup goals. The cleanup goals for a specific site must be consistent with state and EPA policies.

MPCA Involvement in National Superfund Issues. The Minnesota Superfund program is recognized nationally as being very effective at insuring the cleanup of hazardous waste sites. Minnesota's streamlined approach and emphasis on responsible party involvement early in the response action process is of considerable interest to EPA and other states with developing Superfund programs. In an effort to share our experience and shape national Superfund policy, during FY 90, the MPCA staff will: 1) maintain an active involvement in the Association of State and Territorial Solid Waste Management Officials and EPA/State Superfund policy development Work Groups; and 2) make contact with the state congressional delegation concerning federal Superfund reauthorization issues. We believe that these efforts will be beneficial to the national Superfund program and the information exchange with EPA and other states will enhance Minnesota's Superfund program.

MPCA, Department of Agriculture, Response Actions Involving Pesticides. In January 1987, the MPCA staff and the Minnesota Department of Agriculture (MDA) began to evaluate our respective roles in pesticide site cleanups. On September 18, 1989, the MPCA Commissioner sent the Commissioner of the MDA a memorandum setting out the MPCA's understanding that it was the intent of the 1989 Legislature to phase the MPCA out of pesticide cleanup cases and suggesting that the agencies begin to renegotiate the existing Memorandum of Agreement to reflect this understanding.

MDA has identified 70 sites which have some pesticide contamination. It is estimated that 15-20 of those sites have ground water contamination. The MDA is working with the MPCA to establish rankings for these sites to be used to determine access to MERLA Funds. At this time, it is too early to tell how much MERLA funding may be required by MDA, but it is expected that more pesticide sites will be found as further investigation will turn up new sites. During FY



90 the MPCA intends to assist the MDA in any way it can through sharing MPCA experience in administration of a site cleanup program.

Property Transfer. Property Transfer Review (PTR) staff experience has shown that due to the nature of property transactions, the use of PTR services often required staff to attend meetings, review work plans and write response letter within a day or so after initial request or contact is made. Unfortunately, the two PTR staff are unable to provide this type of service. It is more typical that a meeting will be arranged within 2 weeks of a request and that review of work plans and reports takes 3 to 4 weeks. Request for service are accommodated on a first come, first serve basis, and as more people begin to use the service, these turn around times will, unfortunately, become longer. The PTR staff can best serve the users of the program by timely review and oversight of investigations and response actions.

During first half of FY 90 MPCA intends to evaluate options to expand the staffing resources to keep up with the demand and provide a reasonable level of service in the property transaction area. One option under consideration would be to seek additional staffing appropriations during the 1990 legislative session.

State PA/SI Program. After a reassessment of the state and federal PA/SI program additional staff may be requested. During FY 89, \$72,000 in MERLA funds were authorized to supplement federal funds for the performance of site investigations at suspected hazardous waste sites. The funds are to be used for the installation of monitoring wells where the use of federal funds for this activity has been disallowed by the EPA as being beyond the scope of the preliminary site investigation. During FY 89, only \$4,122 of MERLA funds were spent to conduct site investigations. The MPCA staff believe that if additional

staff resources were provided, then sufficient MERLA funds could be expended to adequately investigate additional suspected hazardous waste sites.

#### VIII. Superfund Program Needs

The 89 Legislature appropriated \$2.5 million to the MERLA fund over the 90-91 biennium. Our projected uses of the MERLA fund for FY 90, FY 91 and 92 are provided in Attachment C. Based upon those projections a MERLA Fund balance sheet is provided in Attachment D. It appears that a budget shortfall may occur in FY 91. This shortfall is anticipated even without any expenditures by the Department of Agriculture being taken into consideration.

#### IX. Conclusions and Recommendations

The Minnesota Superfund Program has been very effective. Response actions are underway at 117 sites. Responsible parties are undertaking the work at 87 of these sites. The MPCA has been successful in its efforts to seek out responsible parties and secure federal dollars to fund cleanup activities. Despite these efforts, the continued success of the Superfund program is dependent on the availability of Fund dollars to encourage cooperation by responsible parties, provide the state's required 10% match for federally funded cleanups, and conduct cleanups of sites not eligible for federal funding (i.e., sites typically located in rural, less populated areas and not included on the federal National Priorities List).

Landfills are becoming increasingly important within the Superfund program. Fifty-four landfills are currently listed on the state's Permanent List of Priorities and that will number increase. It is anticipated that in the future significant additional state Fund monies will be necessary to address these sites. In the 1990-1991 biennium, almost \$4 million is projected for Superfund activities at 10 landfills, of which more than \$1.2 million would be

used for 10 percent state match of federal money for remedial action implementation. The costs to the state Fund are expected to rise as cleanups begin at more landfills. Fewer landfills will qualify for federal funding support due to not scoring sufficiently high on the Hazard Ranking System. In addition, government owned landfills have liability caps which shift the burden to the Fund.

To ensure the continued success of the Superfund Program, the MPCA staff offers the following recommendations:

1. Considering the demand landfills are placing on the Superfund Program funding sources (both federal and state Funds) and the need for a better landfill regulatory program to prevent future contamination problems, significant additional resources will be needed in the future to address response actions at these sites.
2. A projection of costs to finance Minnesota Department of Agriculture response actions must be made so that sufficient monies are added to the MERLA fund to cover the added demand on the fund.
3. MERLA should be amended to provide the MPCA with the authority to transfer title or interest in personal and real property for conducting response actions. Also, Minn. Stat. ch. 105.405, subd. 3 requires the Department of Natural Resources (DNR) and legislative approval for any ground water appropriation which exceeds 2,000,000 per day in any 30-day period. The MPCA is requesting approval for the LeHillier remedial action (i.e., ground water extraction system) and also is requesting a blanket exemption from this requirement (i.e. exempt the legislative approval component) for future Superfund actions.

4. Considering the anticipated demand in the property transfer program, an additional two staff positions are needed to provide the necessary level of staff services. Also, additional staff resources may be necessary to conduct the State funded PASI efforts.







STATUS OF MINNESOTA HAZARDOUS WASTE SITES  
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 OCTOBER 1989  
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SITE NAME/LOCATION	HWS SCORE	MPL	IF/IA	ISSUED	CONSENT EXECUTED	DIR ISSUED	RNO EXECUTED	CERCLA \$ (MILLION)	RCRA \$ (MILLION)	ESTIMATE OF PARTY \$ RESPONSIBLE	CLEANUP PHASE									
											RI	FS	RD	RM	DRINKING WATER	SOD- WATER	RM	RM	RM	RM
											DF	DF	DF	DF	DF	DF	DF	DF	DF	
MINNAPAC SANITARY LANDFILL-GROUND WATER -FINAL COVER	13	F		8/28/84		9/27/84	9/30/88	1.533	0.078	0.078	DF	DF								
GRAND BLEND	39	F		7/26/83						16.000	C	C	X	X						
BLASTED COUNTY SANITARY LANDFILL	34	F		7/25/89						0.100	O	R								
BAYTOWN CITY DUMP	23																			
PCI, INC., SANDREE	32	M		6/25/85						0.250	C	C	X	X						
PERMIA MEDICINE SITE	38	F		7/26/83		9/22/83		0.400			O	O	O	O						
PICKETT SANITARY LANDFILL, MARSH COUNTY	34	M		4/25/88						0.100	O	R	R	R						
PINE BOND/CORBY MEDICINE S.F., INNER GROVE HEIGHTS	32	F		10/22/84		4/23/85				3.000	O	R	R	R	O					
PIVE LAKE SANITARY LANDFILL, CHIHOWAN COUNTY	25																			
PIRESTONE COUNTY SANITARY LANDFILL	27																			
POHNSON SANITARY LANDFILL, BLUE EARTH COUNTY	25																			
PORTER - PIONEER DIVISION, WINGENBACH / ST. PAUL	2									0.250	O	O			0					
REARSON COUNTY SANITARY LANDFILL	15																			
REELLY TRM, ST. LOUIS PARK	39**	F		12/18/84		9/22/86		0.968		5.000	O	O	O	O	10	10	10	10		0
RETREAT FARM AND POLE, WAGON COUNTY	30	F		2/25/86		4/22/86		0.400			OF	R	R	R						
ROBINSON DEVELOPMENT SITE, ROBINSON	36	M								0.100	O									
ST. ANTHONY DRUG L.F./WAGON BUMP, STEWART COUNTY	34	F						0.700		0.650	OF									
ST. LOUIS RIVER/INTERLAKE, BALDWIN	32**	F																		
ST. LOUIS RIVER/L.S. STEEL, BALDWIN /	32			9/27/83		3/26/85				2.000	X	X	X	X						
ST. PAUL PARK GROUND WATER CONTAMINATION	36	M		6/27/89						0.250	05	R	R	R	R	05				
ST. BEBIS PARK, COS LANE	53	F		4/28/84		2/26/85				10.000	X	X	X	X	X	10				0
SQUA. SANITARY LANDFILL, ROSEMOUNT CO.	22																			
SQUA. CENTRE SANITARY LANDFILL	38	M		9/27/88						0.050	O	R	R	R						
SCHWITZER IRON & METAL CO., ST. PAUL	10									0.500	O	R	R	R						
SHAFER METAL RECYCLING, MINNEAPOLIS	41										0	0								
SHILLING, NORTHFIELD	21									0.400										
SIBLEY COUNTY SANITARY LANDFILL	38																			
SOUTH ANNEWER, ANNEWER	35*	F		6/26/84		3/30/88		1.303	0.100		OF	OF	OF	OF						
SPRING GROVE INDUSTRIAL WELL FIELD	28			3/23/88		2/23/88				0.600	C	C	C	C	C	0	0	0	0	0
SUPERIOR PLATING, INC., MINNEAPOLIS	6									0.200	O									
TAH CHEMILITE DISPOSAL SITE, COTTAGE GROVE	33			1/26/85		5/30/85				0.500	X	X	X	X	X	10				0
TAH HERBICK DISPOSAL SITE, HERBICK	9			1/25/84						0.200	C	C	C	C	C					0
TALLMANS SANITARY LANDFILL	17																			
TESSA MAIN PLANT, ROUND	31			7/22/86						0.500	X	X	X	X	X	0				0





STATUS OF MINNESOTA HAZARDOUS WASTE SITES  
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 OCTOBER 1989

SITE NAME/LOCATION	HQS	MPL	IFMA	CONSENT ORDER		DIR	ISSUED	NO	CERCLA	RCRA	ESTIMATE OF RESPONSIBLE PARTY				CLEANUP PHASE				
				EXECUTED	ISSUED						EXECUTED	(MILLION)	(MILLION)	RI	FS	RO	RA	DRINKING WATER	GRO-WATER
											0	38	24	17	20	7	17	37	29
											X	46	39	32	26	3	1	0	0
											C	14	10	3	1	0	0	0	0
											OS	3	3	2	2	5	0	2	0
											OF	7	5	5	0	0	0	0	0
											IS	6	5	4	4	4	0	1	1
											IF	4	5	0	1	0	0	0	0
											ISF	0	0	1	1	0	1	0	0
											OSF	2	0	0	0	2	0	1	1
											R	1	19	29	34	0	28	37	40
											IO	0	0	0	0	5	13	0	0
TOTAL	1157	26	69	46	15	22	25.644	5.83	147.515	121	110	93	89	26	60	78	71		

0 = EPA LEAD  
 00 = STATE LEAD  
 \* = OFFICIALLY NOT ON THE STATE N = NOMINATED FOR LISTING ON MPL  
 PERMANENT LIST OF PRIORITIES  
 \*\* = PRE-REMEDIAL DESIGN

RESPONSIBLE PARTY CODES  
 X = COMPLETED  
 O = ON GOING  
 C = COMPLETED PRIOR TO CONSENT ORDER  
 R = ACQUIRED UNDER CONSENT ORDER, STIPULATION AGREEMENT OR R-RA  
 IO = INSTALLED AND OPERATING

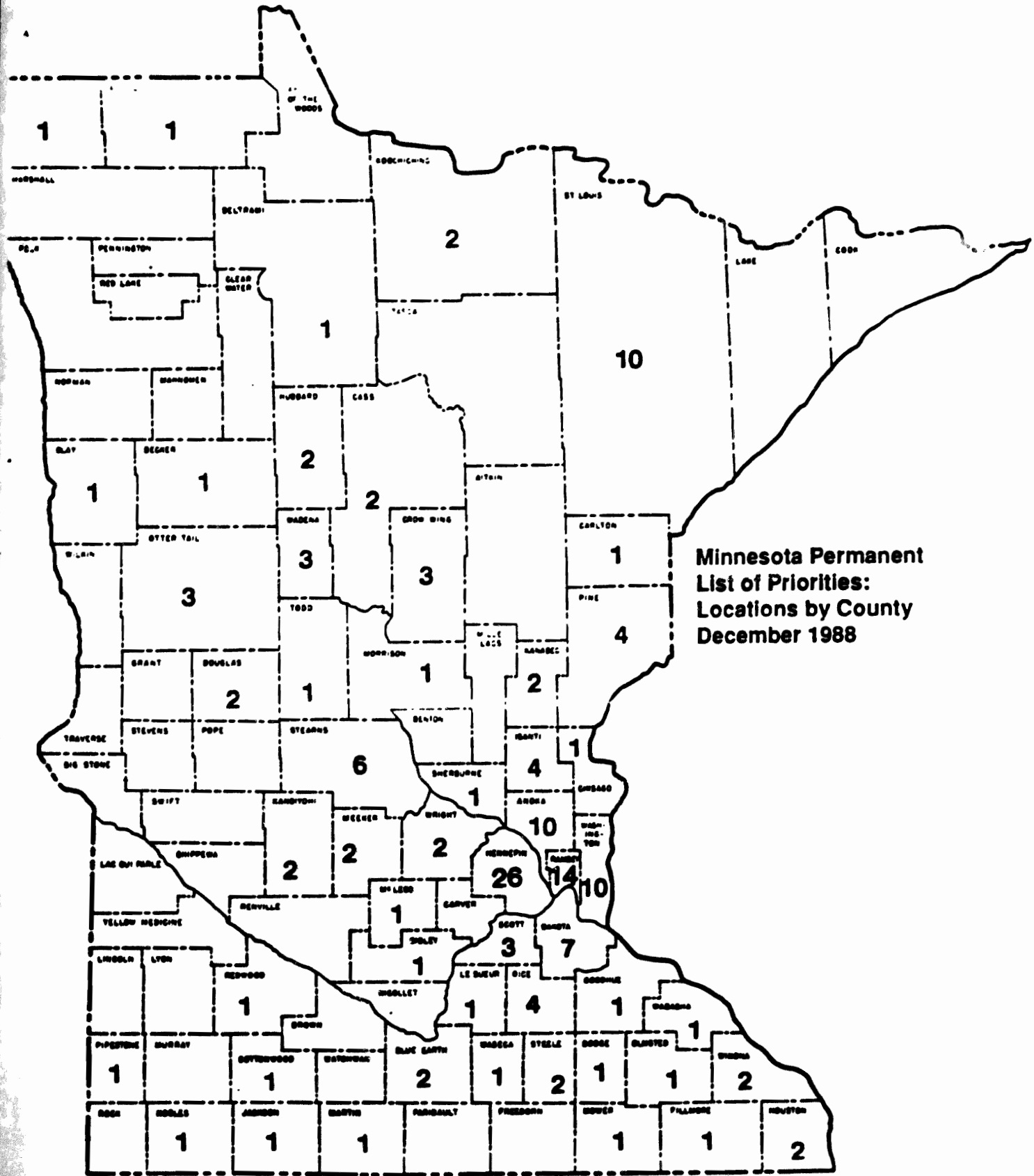
LIST OF ACRONYMS

HQS = HAZARDOUS QUANTITIES SYSTEM  
 MPL = NATIONAL PRIORITIES LIST  
 IFMA = REQUEST FOR RESPONSE ACTION  
 DIR = DETERMINATION OF IMMEDIATE RESPONSE  
 CERCLA = COMPREHENSIVE ENVIRONMENTAL RESPONSE COMPENSATION AND LIABILITY ACT  
 RCRA = MINNESOTA ENVIRONMENTAL RESPONSE AND LIABILITY ACT  
 RI = REMEDIAL INVESTIGATION  
 FS = FERTILITY STUDY  
 RO = REMEDIAL DESIGN  
 RA = RESPONSE ACTION  
 O&M = OPERATION & MAINTENANCE

GOVERNMENT-FINANCED CODES

OS = ON GOING-USING STATE SUPERFUND MONIES  
 OF = ON GOING-USING FEDERAL SUPERFUND MONIES  
 OS = COMPLETED-USING STATE SUPERFUND MONIES  
 OF = COMPLETED-USING FEDERAL SUPERFUND MONIES  
 OSF = ON GOING-USING STATE AND FEDERAL SUPERFUND MONIES  
 OSF = ON GOING-USING STATE AND FEDERAL SUPERFUND MONIES

Attachment B



Minnesota Permanent List of Priorities: Locations by County December 1988

SITE PROJECTIONS FOR RECLA FUND USAGE

GENERALLY FUNDABLE SITES (STATE'S 10% SHARE OF AN CONSTRUCTION COSTS)

SITE NAME	FY90 BTR1	FY90 BTR2	FY90 BTR3	FY90 BTR4	FY91 BTR1	FY91 BTR2	FY91 BTR3	FY91 BTR4	FY92 BTR1	FY92 BTR2	FY92 BTR3	FY92 BTR4
ANDREWS	40			9170,000			92,000,000		91,500,000			
LONG PRAIRIE	32					9250,000						
MCDONALD AND GIBBS	40	950,000			9200,000						9500,000	
BITTANI	29			9650,000			9100,000					910,000
WPPER	42					9200,000						
LA GRANGE	34					9400,000			9200,000			
DAK GROVE	43		9600,000									
ST. AUGUSTA	34						9300,000				9500,000	
ST. LOUIS RIVER	32									9200,000		
SOUTH ARROW	35					9110,000						
LEWISVILLE	42					975,000						

STATE FUNDABLE SITES (100% STATE DOLLARS)

SITE NAME	FY90 BTR1	FY90 BTR2	FY90 BTR3	FY90 BTR4	FY91 BTR1	FY91 BTR2	FY91 BTR3	FY91 BTR4	FY92 BTR1	FY92 BTR2	FY92 BTR3	FY92 BTR4
ANDREWS	40			9170,000			92,000,000		91,500,000			
ANDYSON TWP	28											
BOONVILLE	35			9250,000								
BOONVILLE WIRE SW/4	20						9500,000					
VALENTINE-CLARK	4			9250,000								
ST. PAUL PARK	36			9250,000				9200,000				
LAUREL	30			92,000,000								
ARSENIC, MOVE-BELON	-											
BRIDGE	40			9200,000			9200,000		95,150,000			95,000,000
SPUR CENTRE	30											
PINE LAKE	25			9300,000								
CHISHAM-ISHAM I	43					9150,000			95,000,000			
PICKETT	34			9200,000			9300,000		9200,000			
EMERGENCY SITES	-									95,000,000		
INLECHER	25			9200,000								
(INLECHER)	25			9200,000								
(TOWN)	20			9200,000								
(PONDGREN)	25			9250,000								9500,000
WAK	24						9250,000					
BILLUM BWP	20											
CLATSOP COUNTY LF	34			9250,000					9150,000			
BECKER COUNTY LF	20								9200,000			
BRATTLE LAKE LF	34			9200,000					9200,000			
PIRESTONE CO. LF	27											9150,000
MOONBICHING CO. LF	27											
LAUREL LF	29											
FREEMAN LF	46									95,000,000		
EAST METHUEN LF	31											
WINDOR	25											9500,000
STATE PAYS	-											
QUARTERLY TOTAL	9250,000	9650,000	92,250,000	94,070,000	91,100,000	9635,000	94,500,000	9637,000	921,050,000	910,500,000	92,750,000	95,660,000
YEARLY TOTAL			97,250,000	97,250,000			96,872,000					941,960,000

NOTE: 1) SITES SHOWN IN PARENTHESES ARE PROJECTED, NEW STARTS-CONSTRUCTIONS MAY BE LIKELY AS PRIORITIES CHANGE  
 2) AT THIS TIME FY 92 SITE PROJECTIONS SHOULD BE VIEWED ONLY AS GROSS ESTIMATES AND WILL BE REFINED OVER THE NEXT YEAR

ATTACHMENT D

PROJECTIONS FOR MERLA FUND USAGE

	FY90 QTR4	FY91 QTR4
BALANCE FORWARD IN	\$13,626,289	\$7,370,289
EST. TAXES	\$1,000,000	\$1,000,000
EST. INTEREST	\$750,000	\$50,000
EST. FINES/REIMBURSEMENTS	\$2,000,000	\$1,000,000
APPROPRIATIONS	\$1,000,000	\$1,500,000
EST. FUNDS AVAILABLE	\$18,376,289	\$10,920,289
OBLIGATIONS		
MPCA ADMINISTRATION	\$2,890,000	\$3,150,000
INDIRECT	\$596,000	\$638,000
SITE CLEANUP	\$7,520,000	\$6,872,000
EST. EXPENSES	\$11,006,000	\$10,660,000
BALANCE FORWARD OUT	\$7,370,289	\$260,289