



# Minnesota Superfund Report

2007 Report to the Legislature



Minnesota Pollution Control Agency



Minnesota Department of Agriculture

# A Report on the Use of the Remediation Fund for Emergency Response, Superfund and Voluntary Cleanup Activities

This report is submitted to the Minnesota Legislature under requirement of Minnesota Statutes Section 115B.20, subdivision 6.

The Minnesota Pollution Control Agency (MPCA) and Minnesota Department of Agriculture (MDA) use the authorities granted under state and federal Superfund laws to *identify, evaluate and cleanup sites which pose hazards to public health, welfare and the environment.*

This report details Remediation Fund expenditures during Fiscal Year 2006 (July 1, 2005 – June 30, 2006) by the MPCA and the MDA for emergency response, Superfund and voluntary-cleanup-related activities. A detailed table of expenditures is on page four.

Administrative costs include salaries for 27 full-time equivalent positions (23 MPCA and four MDA), as well as for travel, equipment, non-site-specific legal costs, and supply expenditures associated with responding to emergencies and implementing site cleanups. Fund figures are current as of August 25, 2006. All cumulative income and expenditure figures are approximations.

Staff costs to research, write and review this report totaled approximately \$2000.

## MERLA Responsibilities

Superfund responsibilities fall into three main categories: emergency response, investigation and cleanup, and working with voluntary parties. The MPCA/MDA Superfund programs fulfill functions specified in MERLA for the 77 sites currently on the state's Permanent List of Priorities (PLP) (two sites have been removed so far during FY07, and five sites were added), as well as for more than 795 MPCA projects and 59 MDA projects addressed under voluntary investigation and cleanup programs governed by the Land Recycling Act of 1992. Superfund is also overseeing investigations and cleanups at about 19 other non-listed sites.

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## Background

The Minnesota Environmental Response and Liability Act (MERLA, the State "Superfund" law) of 1983 established the Environmental Response, Compensation, and Compliance Account, and authorized the MPCA to spend funds from the account to investigate and cleanup releases of hazardous substances or contaminants.

The Minnesota Comprehensive Ground Water Protection Act of 1989 amended MERLA to authorize the MDA access to the account and the authority to investigate and cleanup contamination from agricultural chemicals. The account was established in the environmental fund in the state treasury. The Minnesota Department of Finance administered the account.

During the 2003 Legislative Session, the Legislature created a new Remediation Fund in the State Treasury, to provide a more reliable source of funding for investigation and cleanup of hazardous waste sites, and for management of closed landfills.

The Legislature transferred all amounts remaining in the Environmental Response, Compensation, and Compliance Account to the Remediation Fund. The Remediation Fund also contains two special accounts, the Drycleaner Environmental Response and Reimbursement Account and the Metropolitan Landfill Contingency Action Trust. This report does not apply to expenditures from those special accounts.

## Responding to Emergencies and Spills

Emergency response teams are on call 24 hours a day throughout the year. The MPCA received 2702 reports of emergencies and spills in FY06. The MDA received 131 emergency incident reports.

### **2833 reported incidents**

In most cases, the state's role is to provide advice and oversight as responsible parties cleanup spills. In some cases, Remediation Fund dollars are needed to respond to high-priority emergencies for which no responsible parties are able or willing to respond. Examples include contaminated drinking-water, abandoned chemical wastes, landfill fires, abandoned fuel spills, natural disasters, or other situations which the commissioners of either the MPCA or the MDA have declared emergencies or when the Minnesota Department of Health identifies an imminent health hazard.

In FY06, 50 (48 MPCA and two MDA) emergencies were declared under MERLA authorities. The MPCA spent \$944,737 to respond to these emergencies. The MDA spent an additional \$23,413 responding to pesticide- or fertilizer-related emergencies.

### **50 declared emergencies**

Abandonment of waste oil and chemicals continues to be a problem. About one-fifth of the incidents involve abandoned barrels or "orphan spills" without immediately identifiable responsible parties. Oil and paint-related liquid wastes contained in 55-gallon drums and gallon jugs are the most commonly abandoned materials.

The MPCA investigates such abandonments in partnership with local officials. Some wastes are cleaned up by MPCA contractors, some are handled by county hazardous waste programs, and others are tested and recycled

by municipalities. The MPCA's Emergency Response Team also works with state and local law-enforcement personnel to apprehend and prosecute perpetrators who abandon wastes. The MPCA and its local partners continue to work to streamline and coordinate local and state responses to abandonments and to improve the rate of apprehension and prosecution of those abandoning the wastes.

## Voluntary Investigation and Cleanup

Minnesota has long been at the forefront of the national movement to return property with known or suspected environmental problems to productive use. The voluntary cleanup programs of the MPCA and the MDA are involved to varying degrees in most of Minnesota's redevelopment projects on "brownfield" properties. Under the Land Recycling Act, these programs offer a menu of liability assurances, which responsible and/or voluntary parties may obtain after investigating and, if necessary, cleaning up sites.

Since 1988, the MPCA's Voluntary Investigation and Cleanup (VIC) Program has overseen 2944 projects. Of those, 2149 have been either cleaned up, found acceptable for purchase, refinancing or redevelopment, have been transferred to other regulatory programs for appropriate action, or have become inactive. The experience of recent years (200-300 new projects per year, including 203 in FY06) leads us to expect continued strong demand for VIC assistance in the coming year, assuming economic growth remains high and interest rates low.

**2352 closed cases**

**854 open projects**

**217 new voluntary sites**

During FY06, 14 new sites entered the MDA's Agriculture Voluntary Investigation and Cleanup (AgVIC) Program, begun in 1996. Currently, 59 sites remain "open" cases. The AgVIC Program has closed a total of 203 sites to date, of which 23 were closed in FY06. Liability assurances available under MERLA and eligibility for partial reimbursement of corrective-action costs from the Agricultural Chemical Response and Reimbursement Account (ACRRA) combine to form an incentive-driven program, which has been very positively received.

### Superfund Investigation and Cleanup

Potential Superfund sites identified by or reported to the MPCA or the MDA, and which property owners do not volunteer to investigate or cleanup, enter a formal assessment process for possible addition to the MPCA's Permanent List of Priorities (PLP, the state Superfund list) and/or the U.S. Environmental Protection Agency's National Priorities List (NPL, or federal Superfund list). Land owners or operators are first provided an opportunity to enter voluntary cleanup programs.

At sites contaminated with agricultural chemicals, responsible parties who choose not to voluntarily conduct response actions may be requested by the MDA to conduct cleanups under MDA oversight. Responsible parties usually qualify for partial reimbursement of cleanup costs from the Agricultural Chemical Response and Reimbursement Account. If responsible parties are unwilling or unable to cleanup, the MDA may also assess the site for listing on the PLP and/or NPL.

One example of working in partnership and combining these programs is the MDA PLP listed CMC Heartland Lite Yard site and the South Minneapolis proposed NPL Neighborhood Soil

Contamination site. The responsible parties shared the costs of the soil remediation (arsenic) project at the CMC Site and were eligible for partial reimbursement of costs incurred through MDA's ACCRA program. However, they declined to investigate arsenic soil contamination in the surrounding residential neighborhoods, so the MDA used state superfund monies and later assistance from the EPA Region V to complete the

### Site-specific & Administrative Costs in FY06

Arrowhead	\$ 177,654
Baytown Township Ground Water Contam.	\$1,027,872
Blaine Municipal Wellfield	\$ 16,259
Chemart	\$ 24,758
CMC Heartland	\$ 4,086
Dufours Cleaners	\$ 41,103
Duluth Dump #1	\$ 16,214
Edina Wellfield	\$ 109,449
Farmington	\$ 49,501
Gopher Oil	\$ 60,365
Interlake	\$ 49,331
Kettle River Company (MDA site)	\$ 718,330
Littlefork	\$ 31,196
MacGillis and Gibbs (State Match)	\$ 100,000
Perham	\$ 302,047
Peter Pan Cleaners	\$ 87,236
Pilgrim Cleaners	\$ 80,718
Reserve Mining	\$1,986,776
Ritari	\$ 59,994
Rochester Ground Water Contamination	\$ 74,211
Valentine Clark	\$ 109,947
Whiteway Cleaners	\$ 59,486
Winona Ground Water Contamination	\$ 53,110
Hazardous Waste Spills, Emergencies (MPCA)	\$ 944,737
Emergencies (MDA)	\$ 23,413
Non-emergency Removals	\$ 20,404
PA/SI (MPCA)	\$ 153,181
PA/SI (MDA)	\$ 0
Monitoring Well Abandonment	\$ 22,904
Technical Assistance	\$ 110,577
Harmful Substance Compensation	\$ 0
<b>Subtotal (site-specific)</b>	<b>\$6,514,859</b>
Site-specific legal expenses (MPCA)	\$ 152,000
Site-specific lab analytical services (MPCA)	\$ 75,000
Site-specific legal expenses (MDA)	\$ 2757
Site-specific lab analytical services (MDA)	\$ 0
<b>Subtotal (site-specific support)</b>	<b>\$ 229,757</b>
<b>Total FY06 site-specific expenditures</b>	<b>\$6,744,616</b>
<b>Total FY06 administrative costs (MDA=\$572,962)</b>	<b>\$3,558,893</b>
<b>Total FY06 expenditures</b>	<b>\$10,303,509</b>

investigation. The EPA is conducting further soil remediation at the proposed NPL site and has already removed arsenic contaminated soil from nearly 100 residential yards.

**24 federal Superfund sites  
74 state Superfund sites**

At the end of FY06, 24 Minnesota sites were listed on the NPL, with no sites added to or removed from the list during the fiscal year. There were 74 sites on the PLP. Eight sites were removed from the PLP during the fiscal year, and no sites were added. (Listing a site on the PLP does not qualify it for listing on the NPL.) A detailed summary of past delisted sites is available from the MPCA.

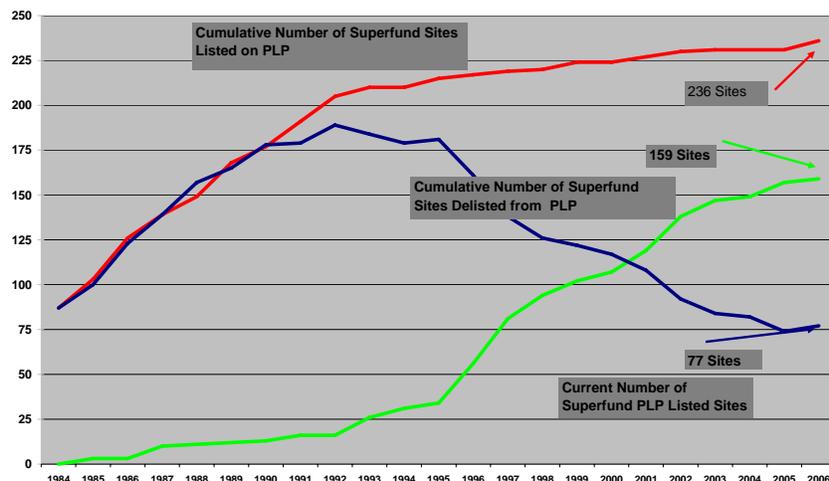
After listing a site on the PLP or the NPL, and if a responsible party either cannot be identified or is unable or unwilling to take appropriate action, the MPCA/MDA may use Remediation Funds to conduct an investigation and/or a cleanup. A remedial investigation/feasibility study is conducted to determine the extent of contamination and evaluate cleanup alternatives. Following a decision on the needed activities, a plan for remedial design/remedial action is developed and implemented. If financially viable responsible parties are identified at any point during investigation or cleanup, the state may attempt to secure their cooperation, recover costs, and have continuing costs financed by the responsible party or parties.

After cleanup is complete, or when a site no longer poses risks to public health or the environment, the site may be “delisted” from the PLP or the NPL. Conditions at some sites may require continued monitoring or maintenance following delisting, to ensure that risks have been eliminated or controlled.

Minnesota’s 24 NPL sites are eligible for federal funding for cleanup activities based on national priority. But, in return for access to these funds, the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA, the federal Superfund law) requires states to match either 10 percent of the cost of site-specific remedial actions (when no state or local government has been identified as a responsible party), or 50 percent (if the site was owned or operated by a state or local governmental entity). During FY06, \$100,000 was spent on state-match requirements for site cleanup.

Due to the success of the Superfund Program’s site assessment activities, most potential Superfund sites in Minnesota have been discovered. Most of the worst Superfund sites in Minnesota have already been listed on the PLP, and many have been cleaned up or are currently undergoing response actions. The Superfund Program remains responsible for identifying and addressing contamination which continues to pose health and environmental threats to Minnesotans. The figure below shows the number of sites delisted from the PLP each year since the beginning of the Superfund Program, the total number of delisted sites, and the number of active sites.

**Superfund PLP Listed Sites in Minnesota  
1984 - 2006**



The MPCA and the MDA continue to manage site cleanups and move them to a monitoring or maintenance level, as appropriate. As the rapid pace of development in Minnesota continues, new sites with contamination will be discovered, and old ones redeveloped. Lower detection limits and changing health-based standards may trigger investigation or cleanup at sites where action was not previously required. A recent example is the discovery of perfluorochemicals traveling from Superfund and VIC sites to residential and municipal wells.

Institutional controls will help ensure that exposure to residual contaminants does not occur due to inappropriate land use at former Superfund and VIC sites. In addition, the MPCA is developing institutional control tracking mechanisms for former sites to ensure that citizens and local units of government are aware of, and honor, controls already in place. Finally, discovery of properties where clandestine methamphetamine production “laboratories” have operated continues to require coordination of emergency response services among the MPCA, the MDA, and local units of government.

### **PFCs at Superfund and VIC sites**

Perfluorochemicals are a family of proprietary 3M chemicals that have been used for decades to make products that resist heat, oil, stains, grease and water. In the past, PFCs were not regulated.

Chemicals in the PFC family found in the environment in Minnesota are perfluorooctane sulfate (PFOS), perfluorooctanic acid (PFOA), and perfluorobutanoic acid (PFBA). Their chemical structures make them extremely resistant to breakdown in the environment. PFOS and PFOA bioaccumulate in humans and animals. Less is known about PFBA.

The MPCA continues to review and oversee work plans and actions related to PFC contamination from the 3M Superfund and VIC sites including 3M Chemolite Cottage Grove (Superfund), 3M Woodbury (VIC), and 3M Oakdale (Superfund).

The MPCA sampled ground water at the PCI Superfund site in Shakopee and the Pig’s Eye Dump Superfund site in St. Paul, and detected PFOA and PFOS. The MPCA is evaluating the data to determine the appropriate actions. Samples were also collected at the Isanti-Solvent Superfund site. 3M used this site for disposal of solvent wastes. PFCs were not detected in the ground-water samples collected.

A final comprehensive report from 3M Chemolite was submitted in April, 2006. Based on the results submitted, the MPCA required 3M to continue its evaluation to determine the extent of PFC contamination at the site (primarily in the Mississippi).

3M submitted an investigation report for the 3M Oakdale site in September, 2006. Additional investigations are planned to determine the full extent of PFC contamination from the site. This will include an evaluation of additional cleanup actions that may be necessary.

The MPCA is requesting annual reimbursement from 3M for costs at these Superfund sites.

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