



Minnesota Pollution Control Agency



Report to the Legislature:

Minnesota Superfund Report, FY 2007

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Minnesota Superfund Report

2007 Annual Report

Expenditures under the Minnesota Environmental Response and Liability Act (MERLA) During Fiscal Year 2007

Prepared by

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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 Environmental Response and Liability Act (MERLA, the State “Superfund” law) of 1983 established the Environmental Response, Compensation, and Compliance Account, and authorized the Minnesota Pollution Control Agency (MPCA) to spend funds from the Account to investigate and clean up releases of hazardous substances or contaminants.

The Minnesota Comprehensive Ground Water Protection Act of 1989 amended MERLA to authorize the Minnesota Department of Agriculture (MDA) access to the Account and the authority to investigate and clean up 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 altered the Environmental Fund in the State Treasury, eliminating the Environmental Response, Compensation, and Compliance Account. The Legislature created a new Remediation Fund (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 MPCA and MDA Commissioners access money appropriated from the Fund to accomplish the same types of investigation and cleanup work that were completed using the Environmental Response, Compensation, and Compliance Account. 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.

The MPCA and MDA use the authorities granted under state and federal Superfund laws to identify, evaluate, and clean up (or direct the cleanup of) sites which pose hazards to public health, welfare, and the environment. As required by M.S. 115B.20, Subd. 6, this report details activities for which Remediation Fund dollars have been spent during Fiscal Year 2007 (FY07) (July 1, 2006 – June 30, 2007) by the MPCA and the MDA for emergency response,

Superfund, and voluntary-cleanup-related activities. The table on page 4 details expenditures for FY07.

The MPCA's and MDA's administrative costs represented salaries for 24 full-time equivalent positions (20 MPCA and 4 MDA), as well as for travel, equipment, non-site-specific legal costs, and supply expenditures associated with responding to emergencies and implementing site cleanups. FY07 Fund figures are current as of August 24, 2007. All cumulative income and expenditure figures are approximations. Staff costs to research, write, and review this report totaled approximately \$2000.

MERLA Responsibilities

The MPCA/MDA Superfund programs fulfill functions specified in MERLA for the 77 sites currently on the state's Permanent List of Priorities (PLP) (2 sites have been removed so far during FY07, and 5 sites were added), as well as for the 19 non-listed sites being addressed by voluntary responsible parties. There are an additional 656 MPCA projects and 56 MDA projects addressed under voluntary investigation and cleanup programs governed by the Land Recycling Act of 1992. MPCA/MDA Superfund responsibilities fall into three main categories: emergency response, investigation and cleanup, and working with voluntary parties.

Responding to Emergencies and Spills

Emergency response teams at the MPCA and MDA are on call 24 hours a day throughout the year. The MPCA received 2701 reports of emergencies and spills in FY07. The MDA received an additional 117 incident reports.

In most cases, the state's role in spill situations is to provide advice and oversight to responsible parties as they clean up the spills. In some cases, however, Superfund Account dollars are used to respond to high-priority emergency situations for which no responsible persons are able or willing to respond. Examples include contaminated drinking-water supplies, abandoned chemical wastes, landfill fires, abandoned fuel spills, natural disasters, or other situations in which the Commissioner of either the MPCA or the MDA (or their delegates) have declared emergencies or which have been determined by the Minnesota Department of Health to be imminent health hazards.

In FY07, 68 (68 MPCA and 0 MDA) emergencies were declared under MERLA authorities. The MPCA spent \$759,435 from the Fund to respond to these emergencies. The MDA did not spend any money from the Fund in responding to pesticide- or fertilizer-related emergencies.

Abandonment of waste oil and chemicals continues to be a problem. About one-fifth of the incidents for which the MPCA takes direct emergency action using MERLA authorities involve the classic abandoned barrels or "orphan spills" for which no responsible parties are immediately identifiable. Oil and paint-related liquid wastes

contained in 55-gallon drums and gallon jugs are the most commonly abandoned materials.

Disaster and terror preparedness and response are very important parts of the MPCA and the MDA emergency response programs. Contingency planning and training are done to prepare for containing contaminated or infected debris, for sorting and managing debris, and for providing support to local officials. When disaster strikes, MERLA funds usually are expended for recovering scattered chemicals, materials and containers. During the floods of August, 2007, the emergency responders of both agencies were involved for weeks in emergency response and follow-up activities, and they deployed scores of additional state staff, as needed.

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 assurances regarding potential liability under MERLA, 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 2981 projects. Of those, 2216 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 (approximately 200 new projects per year) leads us to expect continued demand for VIC assistance in the coming year.

During FY07, 12 new sites entered the MDA's Agriculture Voluntary Investigation and Cleanup (AgVIC) Program, begun in 1996. Currently, 56 sites remain "open" cases. The AgVIC Program has closed a total of 246 sites to date, of which 11 were closed in FY07. The combination of 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 positively received by MDA clientele.

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 clean up, 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 of the MPCA or MDA.

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 clean up, the MDA may also assess the site for listing on the PLP and/or NPL.

At the end of FY07, 24 Minnesota sites were listed on the NPL, with no sites added to or removed from the list during the fiscal year. Early during FY08, before preparation of this report, one site (South Minneapolis Residential Soil Contamination) was added, bringing the total number of NPL sites in Minnesota to 25.

There were 77 sites on the PLP. Two sites were removed from the PLP during the fiscal year, and 5 sites were added. Early during FY08, before preparation of this report, one site was removed from the PLP, and one site was added, leaving the total at 77. (Listing a site on the PLP is a state action, and does not qualify it for listing on the NPL.) A detailed summary of past delisted sites is available from the MPCA. In addition to sites on the PLP, the MPCA is providing oversight of Superfund actions by responsible parties at 19 sites.

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 the Fund 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 and recover costs from them.

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.

Site-specific and Administrative Costs in FY07

Arrowhead	\$ 180,569
Baytown Township Ground Water Contam.	\$1,311,704
CMC Heartland (MDA)	\$ 66
Dufours Cleaners	\$ 48,952
Duluth Dump #1	\$ 29,940
Edina Wellfield	\$ 81,772
Farmington	\$ 49,996
Gopher Oil	\$ 36,215
Isanti Solvent	\$ 90,000
Kettle River Company (MDA site)	\$ 941,784
Lehillier	\$ 6,943
Littlefork	\$ 9,980
Long Prairie	\$ 50,000
MacGillis and Gibbs (State Match)	\$ 100,000
Perham	\$ 288,132
Peter Pan Cleaners	\$ 60,000
Pilgrim Cleaners	\$ 59,439
Reserve Mining	\$10,075,000
Ritari	\$ 59,902
Rochester Ground Water Contamination	\$ 48,300
Valentine Clark	\$ 51,411
Whiteway Cleaners	\$ 19,654
Winona Ground Water Contamination	\$ 31,697
Hazardous Waste Spills, Emergencies (MPCA)	\$ 759,435
Emergencies (MDA)	\$ 0
Non-emergency Removals	\$ 59,698
PA/SI (MPCA)	\$ 233,882
PA/SI (MDA)	\$ 34,623
PFC Analysis	\$ 115,432
Monitoring Well Abandonment	\$ 3,900
Technical Assistance	\$ 118,010
Harmful Substance Compensation	\$ 0
Subtotal (site-specific)	\$14,956,436
Site-specific legal expenses (MPCA)	\$ 151,248
Site-specific lab analytical services (MPCA)	\$ 82,004
Site-specific legal expenses (MDA)	\$ 3,656
Site-specific lab analytical services (MDA)	\$ 200
Subtotal (site-specific support)	\$ 237,108
Total FY07 site-specific expenditures	\$15,193,544
Total FY07 administrative costs (MDA=\$449,540)	\$ 2,925,084
Total FY07 expenditures	\$18,018,628

Minnesota's 25 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 FY07, \$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.

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. Also, sites involving emerging issues such as perfluorochemicals and intrusion of chemical vapors into buildings may require similar actions.

Also, 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.

Perfluorochemicals (PFCs) at Superfund Sites

Perfluorochemicals (PFCs) are a family of chemicals made by the 3M Company (3M) and others that have been used for decades to make products that resist heat, oil, stains, grease, and water. In the past, PFCs were not regulated. In 2004, the Minnesota Department of Health (MDH), using newly developed detection technologies, found some PFCs in drinking water supplies in parts of the east-Twin Cities metropolitan area. Since then, PFCs have been a hot topic for the MPCA and MDH as the agencies sought to delineate groundwater plumes, identify source areas, and assess human exposure to the chemicals.

Chemicals in the PFC family found in the environment in Minnesota are perfluorooctane sulfate (PFOS), perfluorooctanoic acid (PFOA), and perfluorobutanoic acid (PFBA). Their chemical structures make them extremely resistant to breakdown in the environment. The human health effects of PFOS and PFOA are not completely understood and continue to be evaluated. However, both chemicals are known to bioaccumulate in humans and animals. Less is known about PFBA.

In May, 2007, the MPCA Citizens' Board approved a Settlement Agreement and Consent Order (Consent Order) negotiated between MPCA staff and 3M. The Consent Order primarily addresses investigation and cleanup of three of the four sites that are sources of drinking water contamination in the east metro area. The Consent Order is a legally binding document which lays out timetables, deliverables, and other requirements, including funding, for investigating and cleaning up PFCs at the 3M Cottage Grove, 3M Woodbury Disposal, and 3M Oakdale Disposal sites.

The Consent Order addresses seven key items requested by the MPCA Citizens' Board:

1. recognition of MPCA jurisdiction;
2. cooperation from 3M on sharing research and information;
3. municipal and private drinking water supplies are addressed;
4. a rigorous, robust cleanup plan;
5. additional studies on health and environmental effects;
6. future actions on PFBA; and
7. preservation of the MPCA's right to take action in the future.

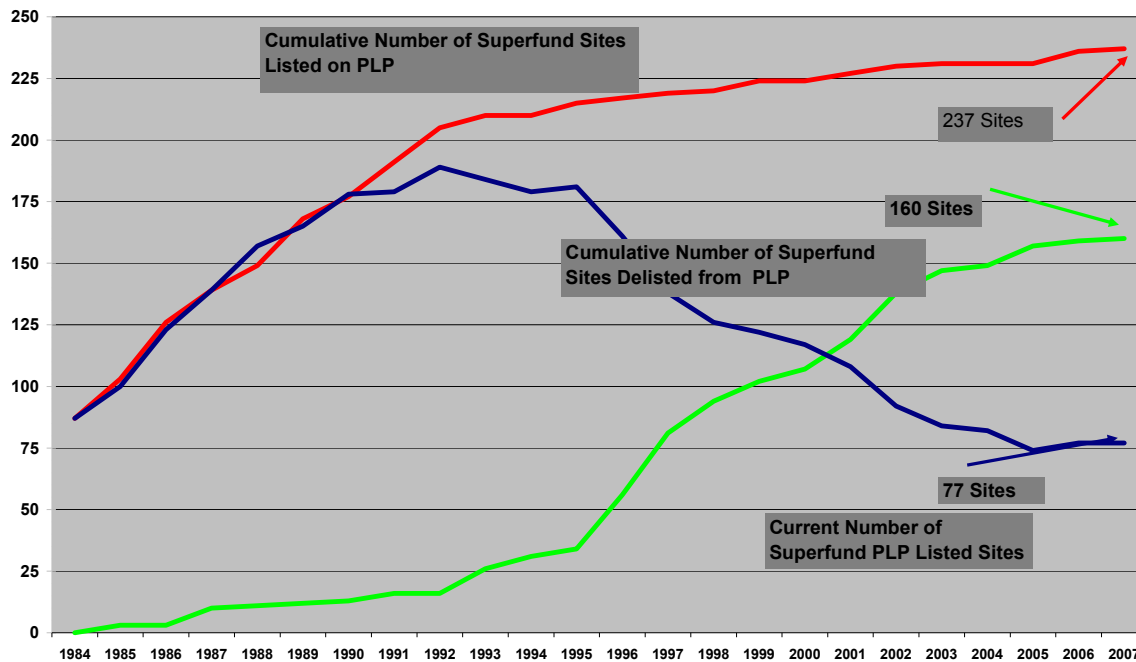
The fourth site, the Washington County Landfill (site) in Lake Elmo, is being addressed under the State of Minnesota's (State's) Closed Landfill Program. The 3M Company has no legal liability for the site, but did agree under the Consent Order to provide up to \$8 million to help fund the State's cleanup of the site.

Feasibility studies of cleanup options for the three Superfund sites are due to the MPCA on various dates in early 2008. When the MPCA has completed its review of the studies, comment periods and public meetings will be scheduled. Cleanup will begin in 2008. Cleanup of the Washington County Landfill will have a similar process and likely similar timetables.

As the cleanup process proceeds for the known source areas, State agencies, including the MPCA, MDH, and the Minnesota Departments of Agriculture and Natural Resources, are broadening their investigations into PFCs to address the larger questions of what the presence of these chemicals means for human health and the environment. For example, the chemicals have been found in fish tissues at levels triggering health-based consumption advisories in lakes not near any known source areas, and in wastewater effluent at some wastewater treatment plants. Studies are underway to learn more about these findings. The 3M Company also agreed in the Consent Order to pay up to \$5 million to the State to help fund these and other studies.

Figure 1

**Superfund PLP Listed Sites in Minnesota
1984 - 2007**



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The MPCA may be contacted at (651) 296-6300,
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