



Minnesota Pollution Control Agency



Report to the Legislature:

Minnesota Superfund Report, FY 2008

Minnesota Superfund Report

2008 Annual Report

Expenditures under the Minnesota Environmental Response and Liability Act (MERLA) During Fiscal Year 2008

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 2008 (FY08) (July 1, 2007 – June 30, 2008) by the MPCA and the MDA for emergency response,

Superfund, and voluntary-cleanup-related activities. The table on page 4 details expenditures for FY08.

The MPCA's and MDA's administrative costs represented salaries for 25 full-time equivalent positions (21 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. FY08 Fund figures are current as of August 22, 2008. 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), as well as for the 19 non-listed sites being addressed by voluntary responsible parties. An additional 540 MPCA projects and 55 MDA projects are currently being 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 3902 reports from the State Duty Officer of emergencies and spills in FY08, 2902 of which were actual "spill" reports. The other 1000 were other types of releases, and were transferred to other environmental programs. The MDA received an additional 126 incident reports. In FY08, 70 (69 MPCA and 1 MDA) emergencies were declared under MERLA authorities.

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.

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 3285 projects. Of those, 2745 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 190 new projects per year) leads the MPCA to expect continued demand for VIC assistance in the coming year.

During FY08, 10 new sites entered the MDA's Agriculture Voluntary Investigation and Cleanup (AgVIC) Program, begun in 1996. Currently, 55 sites remain "open" cases. The AgVIC Program has closed a total of 260 sites to date, of which 14 were closed in FY08. 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 (U.S. EPA's) National Priorities List (NPL, or federal Superfund list). Listing a site on the PLP is a state action, and does not qualify it for listing on the NPL. The U.S. EPA has developed NPL listing and delisting procedures. First, however, land owners or facility operators are provided an opportunity to conduct the investigation and cleanup under the oversight of the MPCA or the MDA.

At sites contaminated with agricultural chemicals, responsible parties who have not initiated 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.

During FY08, one site (South Minneapolis Residential Soil Contamination) was added to the NPL, bringing the total number of NPL sites in Minnesota to 25. There are 77 sites on the PLP; during FY08, one site was removed from the PLP, and one site was added. 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. Such cooperation or cost recovery leverages private funds for cleanups, conserving state funds for truly “orphan” sites, for which no viable responsible party can be identified.

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 for years following delisting, to ensure that risks have been eliminated or controlled.

State Superfund Site-specific and Administrative Costs in FY08

Arrowhead	\$ 132,806
Baytown Township Ground Water Contamination	\$1,300,150
Blaine	\$ 15,424
BN Tie Plant	\$ 9,944
Chemart	\$ 12,838
CMC Heartland (MDA)	\$ 7
Dufours Cleaners	\$ 29,394
Duluth Dump #1	\$ 78,348
Edina Wellfield	\$ 59,844
Esko Groundwater	\$ 50,000
Farmington	\$ 47,944
Isanti Solvent	\$ 68,907
Kettle River Company (MDA site)	\$ 732,174
Lehillier	\$ 87,392
Littlefork	\$ 100,000
Long Prairie	\$ 55,497
MacGillis and Gibbs (State Match)	\$ 100,000
Perham	\$ 293,696
Peter Pan Cleaners	\$ 60,000
Pig's Eye	\$ 36,067
Pilgrim Cleaners	\$ 46,555
Reserve Mining	\$ 576,626
Ritari	\$ 80,867
Rochester Ground Water Contamination	\$ 185,880
Valentine Clark	\$1,396,756
Whiteway Cleaners	\$ 12,782
Winona Ground Water Contamination	\$ 101,161
Hazardous Waste Spills, Emergencies (MPCA)	\$ 740,119
Emergencies (MDA)	\$ 0
Non-emergency Removals	\$ 126,758
PA/SI (MPCA)	\$ 279,227
PA/SI (MDA)	\$ 60,087
PFC Analysis	\$ 331,697
PFC Technical Assistance	\$ 245,849
Monitoring Well Abandonment	\$ 6,412
Technical Assistance	\$ 242,210
NRDA	\$ 100,000
Harmful Substance Compensation	\$ 17,250
Subtotal (site-specific)	\$ 7,820,668
Site-specific legal expenses (MPCA)	\$ 150,000
Site-specific lab analytical services (MPCA)	\$ 131,966
Site-specific legal expenses (MDA)	\$ 12,198
Site-specific lab analytical services (MDA)	\$ 14,778
Subtotal (site-specific support)	\$ 237,108
Total FY08 site-specific expenditures	\$ 8,129,610
Total FY08 administrative costs (MDA=\$500,263)	\$ 3,266,755
Total FY08 expenditures	\$11,396,365

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 FY08, \$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. 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.

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. They were not known to cause environmental problems until 2004, when the Minnesota Pollution Control Agency (MPCA) found PFCs in drinking water supplies in parts of the eastern Twin Cities metropolitan area. Since then, PFCs have been a hot topic for the MPCA as it has sought to identify source areas and secure safe drinking water. The Minnesota Department of Health (MDH) developed health-based criteria for three of the chemicals.

Staff from the MPCA's Superfund and Closed Landfill programs investigated source areas and remediation activities. Four sites where 3M had legally disposed of PFC manufacturing wastes in the past were quickly identified. They included the 3M Oakdale site, the 3M Woodbury site, the 3M Cottage Grove site, and the closed Washington County Landfill. Eventually, nearly all the PFC contamination in east-metro drinking-

water supplies was traced to these sites. Remediation of the three 3M sites is managed by the Superfund Program; remediation of the Washington County Landfill is handled by the Closed Landfill Program.

In May, 2007, the MPCA Citizens' Board approved a Settlement Agreement and Consent Order (CO) negotiated between MPCA staff and 3M. The CO is a legally binding document which lays out timetables, deliverables and other requirements, including funding, for investigating and cleaning up PFCs at the three 3M sites. Since the Washington County site is in the Closed Landfill Program, 3M has no legal liability for the site, but did agree under the CO to provide up to \$8 million to help fund the state's cleanup of the site. MPCA staff and management provide quarterly progress reports to the Citizens' Board on implementation of the CO.

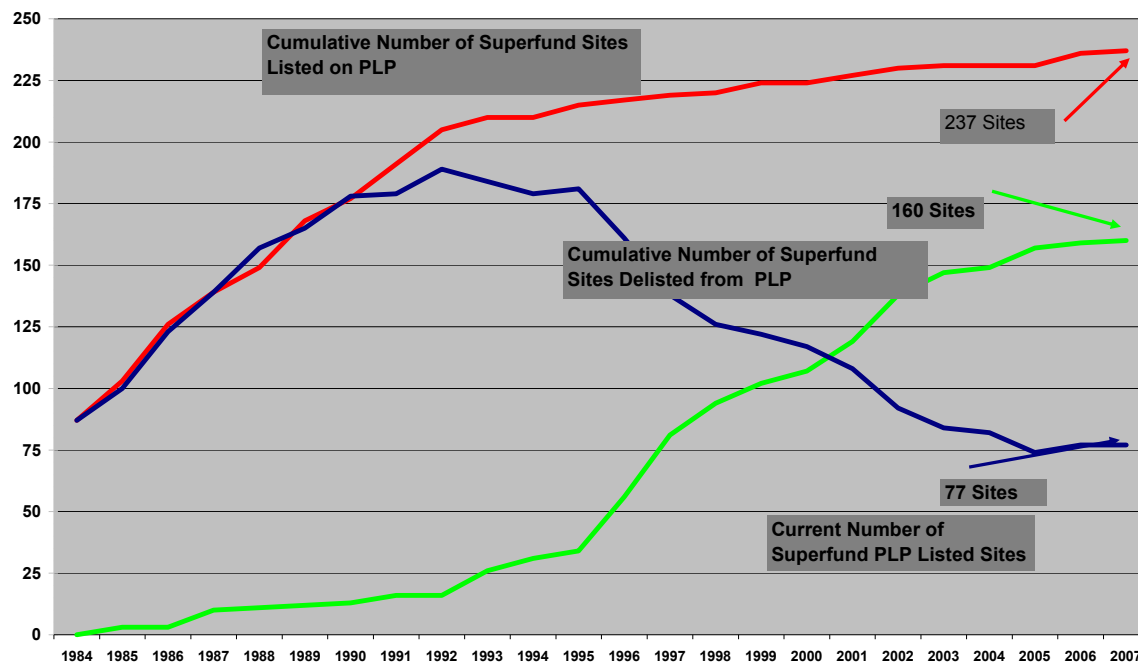
As of February 2009, the MPCA Commissioner had approved cleanup plans for the Washington County, Oakdale, and Woodbury sites; a proposed cleanup plan for the Cottage Grove site will go out for public comment later this spring. Construction of the selected remedies at all four sites should start in spring/summer, 2009. Cleanup plans for the four sites share basic similarities of: 1) institutional controls; 2) excavation of remaining source areas; 3) continued and/or enhanced ground-water extraction and treatment; and 4) long-term monitoring.

Plans for all four sites have gone, or will go, through the MPCA's public participation process used in Superfund cleanups. Public participation is not required in the Closed Landfill Program, but since all four sites are in similar situations, MPCA management chose to apply the Superfund public participation process to the Washington County site as well. All work performed at the 3M sites and MPCA expenses under the Superfund program are funded by 3M under the CO's cost recovery provisions.

Recent news events regarding PFCs illustrate that as the disposal sites and east-metro drinking-water problems have come under control, the MPCA's investigations into PFCs in the state's ambient environment have broadened. For example, findings of PFCs in the tissue of fish living in metro-area lakes have led the MDH to issue new fish-consumption advisories based on PFCs. Likewise, an investigation, begun in the summer of 2008, into whether PFCs used in firefighting foam may have entered soil and ground water at fire-training sites has raised some public concerns. The MPCA is conducting more than a dozen such research projects on PFCs in the ambient environment, which are summarized in a report titled "PFCs in the Ambient Environment: 2008 Progress Report" (available on the Web at <http://www.pca.state.mn.us/publications/c-pfc1-02.pdf>). However, 3M is funding the majority of the projects with up to \$5 million the company committed in the CO to provide to the MPCA for research.

Figure 1

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



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