

Superfund Program Annual Legislative Report for Fiscal Year 2011

Use of the Remediation Fund for Superfund, Emergency Response, and Voluntary Cleanup activities



Minnesota Pollution Control Agency



MINNESOTA DEPARTMENT
OF AGRICULTURE

April 2012

Legislative Charge

Minn. Stat. § 115B.20, subd. 6

Report to the Legislature

Each year, the Commissioner of Agriculture and the Agency shall submit to the Senate Finance Committee, the House of Representatives Ways and Means Committee, the Environment and Natural Resources Committees of the Senate and House of Representatives, the Finance Division of the Senate Committee on Environment and Natural Resources, and the House of Representatives Committee on Environment and Natural Resources Finance, and the Environmental Quality Board, a report detailing the activities for which money has been spent pursuant to this section during the previous fiscal year.

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Estimated cost of preparing this report

(as required by Minn. Stat. § 3.197)

Total staff time: 45 hours	\$1,900
Production/duplication	\$100
Total	<u>\$2,000</u>

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Document number: lrc-s-1sy12

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This report is submitted to the Minnesota Legislature under requirement of Minn. Stat. § 115B.20, subd. 6.

The Minnesota Environmental Response and Liability Act (MERLA, the state “Superfund” law) of 1983 established the Environmental Response, Compensation, and Compliance Account (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 Minnesota Legislature altered the Environmental Fund in the state treasury, eliminating the Account. 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 Account to the Remediation Fund. The MPCA and MDA commissioners access money appropriated from the Remediation Fund to accomplish the same types of investigation and cleanup work that were completed using the 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 cleanup (or direct the cleanup of) sites which pose hazards to public health, welfare, and the environment. As required by Minn. Stat. 115B.20, subd. 6, this report details activities for which Remediation Fund dollars have been spent during Fiscal Year 2011 (FY11) (July 1, 2010 – June 30, 2011) by the MPCA and the MDA for superfund, emergency response, and voluntary cleanup-related activities. The table on Page 8 details expenditures for FY11.

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. FY11 Remediation Fund figures are current as of January 20, 2012. All cumulative income and expenditure figures are approximations. Staff costs to research, write, and review this report totaled approximately \$2,000.

MERLA Responsibilities

The MPCA/MDA Superfund programs fulfill functions specified in MERLA for the 74 sites currently on the state's Permanent List of Priorities (PLP), as well as for the 19 non-listed sites being addressed by cooperative responsible parties. An additional 388 MPCA projects and 38 MDA projects are currently being addressed under Voluntary Investigation and Cleanup programs authorized by the Land Recycling Act of 1992 and performed according to respective agency protocols.

Responding to Emergencies and Spills

Emergency Response personnel at the MPCA are on call and available to respond to environmental emergencies 24 hours a day, 7 days a week, 365 days a year. The MPCA received 3,909 incident reports from the Minnesota Duty Officer in FY11. These incident reports were triaged and some were transferred to other MPCA programs for follow up. The Emergency Response team directly handled approximately 2,296 incident reports. The remaining reports were other types of releases, such as air pollutants, wastewater bypasses, and tank petroleum leaks, and were transferred to other MPCA programs. In FY11, the MPCA Emergency Response team declared 45 emergencies and authorized the spending of approximately \$473,808 under MERLA authorities. When agricultural chemical spills occur, the MDA is the lead state agency which would respond. During FY11, 102 agricultural chemical incidents were reported.

The MPCA and MDA Emergency Response team's roles are to provide advice and oversee cleanups performed by responsible parties. In some situations, a responsible party is not identifiable, or is unable or unwilling to perform the cleanup, and Superfund monies are used to respond to the situation. Examples include fuel spills from unknown sources, mercury spills affecting sensitive populations, mystery chemicals infiltrating a sump in a home, abandoned containers of chemicals or oil, or other situations in which the commissioner of the MPCA or the MDA (or his delegates) has declared emergencies.

Fuel spills from trucks and unknown responsible parties are ongoing problems for the MPCA. Abandoned drums and containers of waste chemicals were not significant in FY11. Mercury spills that have threatened sensitive populations have also decreased in FY11.

Anhydrous ammonia continues to be the most commonly reported agricultural chemical released in Minnesota. Further, although few in number, the MDA is receiving more reports of chlorine based product spills.

Natural disaster and terror preparedness is an important part of the state Emergency Response programs. Contingency planning and preparing are done to prepare for assisting local officials with abandoned chemicals, oils and wastes, and managing contaminated or infected debris. When a disaster occurs, the MPCA and MDA may assist the local units of government and may utilize MERLA funds to recover scattered chemicals, materials, and containers.

Voluntary Investigation and Cleanup

Minnesota has built and maintains programs that enable the properties with known or suspected environmental problems to return to productive use. The voluntary cleanup programs of the MPCA and the MDA, to varying degrees, are involved in most of Minnesota's redevelopment projects on "brownfield" properties. Under the Land Recycling Act these two programs offer a menu of assurances regarding potential liabilities that voluntary parties may obtain after their investigation of, and, if necessary, cleanup of contaminated sites.

Since 1988, the MPCA's Voluntary Investigation and Cleanup (VIC) Program has overseen 3,709 projects. Of those, 3,321 have been cleaned up, found acceptable for purchase, refinancing or redevelopment, have been transferred to other regulatory programs for appropriate action, or have become inactive. Over 34,000 acres of land have been returned to productive use as a result of assurances provided by the VIC Program. About 130 new sites enter the VIC Program each year.

During FY11, 10 new sites entered the MDA's Agriculture Voluntary Investigation and Cleanup (AgVIC) Program. Currently, 38 sites are "open" cases. The AgVIC Program has closed a total of 303 sites to date, of which 18 were closed in FY11. 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) offer a unique, incentive-driven program. This opportunity has been positively received by MDA clientele.

Superfund Investigation and Cleanup

Potential Superfund sites are identified by or reported to the MPCA or the MDA, and when responsible parties do not volunteer to investigate or clean up, the sites then enter a formal assessment process for possible addition to the MPCA's PLP, and/or the U.S. Environmental Protection Agency's (EPA) National Priorities List (NPL, or federal Superfund list).

Listing of a site on the state PLP does not qualify it for listing on the NPL. The EPA has developed NPL listing and delisting procedures. However, prior to listing, responsible parties, land owners, or facility operators are provided an opportunity to conduct an investigation and cleanup under the oversight of the MPCA or the MDA. Should the responsible party be unwilling or unable to conduct the necessary investigations and/or cleanup, the MPCA or MDA would conduct the cleanup action with MERLA funding and seek cost recovery from responsible parties.

For sites under the oversight of the MDA, both responsible and voluntary parties will usually be eligible for partial reimbursement of their cleanup costs from the Agricultural Chemical Response and Reimbursement Account (ACRRA). At the present time, the MDA is the lead state agency for site responses being performed at the South Minneapolis Residential Soil Contamination NPL/PLP site and four PLP only sites: the Cedar Service site in North Minneapolis, the Kettle River Co - Creosote Plant site in Sandstone, the CMC Heartland Lite Yard site in South Minneapolis, and the Page and Hill Forest Products site in Koochiching County. The Page and Hill site was added to the PLP in FY11.

There are currently 74 sites on the PLP for both the MPCA and MDA. During FY11, one site was added and one site was removed. Three additional sites were proposed for deletion from the PLP late in FY11 and final deletion occurred in November 2011. There have been a cumulative total of 244 sites listed on the PLP, with 170 sites delisted. A detailed summary of past delisted sites is available from the MPCA. Of the 74 currently PLP listed sites, 25 are also on the NPL. In addition to sites listed on the PLP, the MPCA provides oversight of Superfund actions by responsible parties at 19 other sites.

After the listing of a site on the PLP or the NPL, and if a responsible party either cannot be identified or is unable or unwilling to take requested action, the MPCA or MDA may use the Remediation Fund to conduct response actions. The agencies then will follow an established process in their site responses.

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. Sites can also be delisted from either the PLP or NPL if responsible parties have completed all necessary response actions and/or if no additional MERLA funding is needed to conduct response actions. Conditions at some responsible party lead sites may require continued monitoring or maintenance for years following delisting, to ensure that risks have been eliminated or controlled.

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 contribute 50 percent (if the site was owned or operated by a state or local governmental entity). During FY11, \$100,000 was spent on state-match requirements for site cleanup.

Due to the successful efforts of the Superfund Site Assessment Program, 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 MPCA and the MDA continue to manage site cleanups and move them to a monitoring or maintenance level, as appropriate. As development in Minnesota continues, new sites with contamination will be discovered and old ones redeveloped. Lower detection limits and changing health-based standards sometimes may trigger investigation or cleanup at sites where action was not previously required. Sites that involve issues such as perfluorochemicals (PFCs) and intrusion of chemical vapors into buildings may require similar actions. Vapor intrusion issues have become a growing area of concern at Superfund sites to such an extent that the EPA is considering revising its Hazard Ranking System to account for potential vapor issues relative to listing vapor sites on the NPL.

Institutional controls will also help to ensure that exposure to residual contaminants does not occur as a result of inappropriate land use at former Superfund and Voluntary Cleanup sites. 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, any such controls already in place.

Superfund Annual Report - FY11 closing numbers

Allotment name	Total
Arrowhead	47,547
Baytown	252,187
Capri	23,854
Centerville Rd	22,760
Chemart	4,922
Duluth Dump	48,425
Edina Well Field	258,314
Emergencies	579,169
Esko GW Plume	71,927
Farmington GW Plume	24,124
Fish Hatchery	27,726
Fridley Area GW (Kurt/FMC)	128,481
Harmful Substance	9,980
Hmong Center	114,042
Isanti Solvent	47,882
Kettleriver (MDA)	803,747
Lehillier	3,527
Littlefork	230,569
Long Prairie	214,471
Mankato Plating	89,102
Mcgillis & Gibbs	100,000
Non-Emergency Removals	112,531
NRDA	16,523
PA / SI	213,013
PA / SI (MDA)	63,884
Perham Noma	178,097
Peter Pan Cleaners	44,680
PFC Analysis	145,321
PFC Tech Asst – 3M Match	236,629
PFC Technical Assistance	29,002
Pigs Eye	24,547
Pilgrim Cleaners	63,603
Reserve Mining	56,642
Ritari	49,092
Rochester GWPlume	166,181
Schloff	18,646
Southview Blvd	127,688
Technical Assistance	157,026
US Steel / St Louis River	18,729
Valentine Clark	27,687
West Duluth	44,571
Whiteway Cleaners	29,059
Winona Cleaners	69,387
Subtotal (site specific)	4,995,294
Site-specific legal expenses (MPCA)	109,148
Site-specific legal expenses (MDA)	3,694
Site-specific lab analytical services(MPCA)	65,674
Site-specific lab analytical services(MDA)	8,238
Subtotal (site-specific support)	186,754
Total FY11 site-specific expenditures	5,182,048
Total FY11 administrative costs (MDA = \$579,720)	3,233,943
Total FY11 expenditures	8,415,991

Perfluorochemicals 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 MPCA found PFCs in drinking water supplies in parts of the eastern Twin Cities Metropolitan Area.

Since then, PFCs have been a high priority 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 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, 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 periodic progress reports to the Citizens' Board on implementation of the CO. MPCA staff and management also provided updates to the East Metro PFC Oversight Working Group established by the Legislature.

As of March 2012, construction of the selected remedies had begun at each of the 3M PFC sites. All excavation activities regarding PFC contaminated soils/sediments at the 3M PFC sites have been completed. A majority of the excavated material from the 3M sites was disposed and managed at the SKB Industrial Landfill in Rosemount. 3M funded the construction of a lined cell at SKB to contain the excavated PFC material from the 3M sites and this cell will only be used for the excavated 3M PFC waste material. Material that was excavated and contained non-PFC hazardous material was disposed out of state in a permitted hazardous waste landfill. MPCA construction activities at the Washington County Landfill were completed in the spring of 2011.

Groundwater control systems are in place at the 3M Oakdale (including treatment) and 3M Woodbury sites, with only the final design of the groundwater control system at the 3M Cottage Grove site yet to be determined. 3M is currently installing necessary piping and treatment systems for a planned extended pump test of the proposed groundwater control system at Cottage Grove in 2013, with final determination of exact number and placement of control wells made by end of 2013. The final groundwater control system at 3M Cottage Grove will also treat groundwater from the 3M Woodbury site.

The MPCA continues to provide either point of use carbon treatment systems or bottled water to approximately 68 residences in Lake Elmo and Cottage Grove, which have private wells impacted with PFCs, and have been issued a drinking water advisory by the MDH. Costs to provide the carbon treatment or bottled water are reimbursed by 3M. All MPCA staff costs and costs incurred by MPCA contractors providing technical assistance to the MPCA for oversight of 3M activities are also reimbursed by 3M.

Cleanup plans for the 3M PFC sites share basic similarities of: 1) institutional controls; 2) excavation of remaining source areas; 3) continued and/or enhanced groundwater extraction and treatment; and 4) long-term monitoring. 3M provides quarterly progress reports to the MPCA regarding activities required under the CO. These progress reports, along with all of the site specific reports for the 3M sites, can be found at www.pca.state.mn.us/cleanup/pfc/pfcsites.html.