Superfund Program Biennial Legislative Report for Fiscal Years 2013 and 2014

Minnesota Pollution Control Agency

MINNESOTA DEPARTMENT OF AGRICULTURE

Legislative charge

Minn. Stat. § 115B.20, subd. 6

Report to the Legislature

Every other 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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Minnesota Pollution Control Agency

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Foreword

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

In 1983, the State enacted the Minnesota Environmental Response and Liability Act (MERLA), Minn. Stat. ch. 115B, establishing the state Superfund Program. This law, which is implemented by the Minnesota Pollution Control Agency (MPCA), provides broad state authority to respond to releases or threatened releases of hazardous substances that may endanger public health, welfare, or the environment. Minn. Stat. §116.155 establishes a state Remediation Fund from which the MPCA and the Minnesota Department of Agriculture (MDA) can spend money to investigate and remediate releases or threatened releases of hazardous substances, pollutants or contaminants, and agricultural chemicals. MERLA was later amended to include sections addressing:

Harmful Substance Compensation (1985)

Investigation and Cleanup by Voluntary Parties- Land Recycling Act (1992)

Landfill Cleanup Program (1994)

Dry Cleaner Environmental Response Law (1995)

The MPCA and MDA commissioners access money appropriated from the Remediation Fund to accomplish investigation and cleanup of hazardous substance releases and for administrative costs associated with those programs. 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 the Metropolitan Landfill Contingency Action Trust.

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 that 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 were spent during Fiscal Years 2013 and 2014 (FY13 - FY14) (July 1, 2012 – June 30, 2014) by the MPCA and the MDA for Superfund-, emergency response-, and voluntary cleanup-related activities. The tables on pages 2 and 3 detail expenditures for FY13 and FY14.

The MPCA's and MDA’s administrative costs represent salaries for 27 full-time equivalent positions in FY13 (23 MPCA and 4 MDA) and 29 in FY14 (25 MPCA and 4 MDA) as well as costs for travel, equipment, non-site-specific legal costs, and supply expenditures associated with responding to emergencies and implementing site cleanups. FY13 and FY14 Remediation Fund figures are current as of November 4, 2014. All cumulative income and expenditure figures are approximations. Direct staff costs to research, write, and review this report totaled about $2,200.

Contents

MERLA responsibilities

The MPCA/MDA Superfund programs fulfill functions specified in MERLA for the 81 sites on the state's Permanent List of Priorities (PLP), as well as for the 89 non-listed sites being addressed by cooperative responsible parties. An additional 443 MPCA projects and 79 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 3,903 incident reports from the Minnesota Duty Officer in FY13 and 4,079 in FY14. These incident reports were triaged and some were transferred to other MPCA programs for follow-up. The Emergency Response team directly handled about 2,830 incident reports in FY13 and 2,909 in FY2014. The remaining reports were other types of releases, such as air pollutants, wastewater bypasses, and tank petroleum leaks, and they were transferred to other MPCA programs. In FY13, the MPCA Emergency Response team declared 49 emergencies and authorized the spending of approximately $205,995 under MERLA authorities. In FY14, the MPCA Emergency Response team declared 43 emergencies and authorized the spending of approximately $459,116 under MERLA authorities. See the tables on pages 2 and 3.

In FY13 and FY14, the former Superior Plating site had been problematic for the MPCA as site redevelopment has exposed contaminated soil to rain. The MPCA has also been involved in many soil vapor-intrusion sites as well.

When agricultural chemical spills occur, the MDA is the lead state agency which would respond. During FY13, 129 agricultural chemical incidents were reported, with one agricultural chemical emergency declared. During FY14, 129 agricultural chemical incidents were reported, with no agricultural chemical emergency declared.

Anhydrous ammonia continues to be the most commonly reported agricultural chemical released in Minnesota. Roughly one-quarter to one-third of all agricultural chemical release reports are related to anhydrous ammonia.

The MPCA and MDA Emergency Response teams' 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 delegates) has declared emergencies.

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 to protect the environment and human health.

Superfund annual report closing numbers FY13

Allotment Name	TOTAL $
Arrowhead	75,773
Baytown	266,163
Brainerd Foundry	32,098
Capri	258,911
Centerville Rd	7,001
Chemart	7,633
Duluth Dump	33,088
Edina Well Field	13,552
EMERGENCIES	205,995
EMERGENCIES (MDA)	5,557
Esko GW Plume	60,885
Farmington GW Plume	21,718
Fish Hatchery	21,250
Fridley Area GW(Kurt/FMC)	61,332
HARMFUL SUBSTANCE	3,651
Hmong Center	32,252
Isanti Solvent	75,206
Kettle River (MDA)	1,434,601
LeHillier	5,826
Littlefork	232,576
Long Prairie	212,108
Mankato Plating	19,590
MacGillis & Gibbs	536,795
MN Valley Dump	8,215
NON-EMERGENCY REMOVALS	176,077
PA / SI	686,198
PA / SI (MDA)	57,818
Page & Hill	528
Perham	141,939
Peter Pan Cleaners	34,413

Allotment Name	TOTAL $
PFC Technical Assistance	44,945
Pigs Eye	17,714
Pilgrim Cleaners	28,600
Ritari	21,825
Rochester GW Plume	99,809
St. Louis Park Vapor	26,174
St. Paul Levee	52,834
Schloff	16,405
Southview Blvd	94,756
Technical Assistance	250,284
Technical Assistance (MDA)	3,500
US Steel / ST Louis River	39,022
Valentine Clark	91,734
West Broadway GW	15,018
West Duluth	79,704
Whiteway Cleaners	43,029
Winona	77,267
Subtotal (site specific)	5,731,442
Site-specific legal expenses (MPCA)	152,700
Site-specific legal expenses (MDA)	0
Site-specific lab analytical services (MPCA)	319,807
Site-specific lab analytical services (MDA)	0
Subtotal (site-specific support)	472,507
TOTAL FY13 site-specific expenditures	6,203,949
TOTAL FY13 administrative costs (MDA = $426,572)	**3,615,272**
TOTAL FY13 expenditures	**$9,819,221**

Superfund annual report closing numbers FY14

Allotment Name	TOTAL $
Arrowhead	9,949
Baytown	464,748
Brainerd Foundry	26,514
Capri	28,852
Centerville Rd	4,309
Chemart	9,133
CMC Heartland (MDA)	534
CMC Minneapolis (MDA	25,000
EMERGENCIES	459,116
EMERGENCIES (MDA)	501
Esko GW Plume	35,631
Farmington GW Plume	31,413
Fish Hatchery	45,593
Fridley Area GW(Kurt/FMC)	47,465
HARMFUL SUBSTANCE	68,777
Hmong Center	21,122
Isanti Solvent	37,493
Kettle River (MDA)	888,993
LeHillier	3,770
Littlefork	164,363
Long Prairie	201,208
Mankato Plating	32,322
MacGillis & Gibbs	478,371
MN Valley Dump	1,769
NON-EMERGENCY REMOVALS	197,312
PA / SI	517,732
PA / SI (MDA)	128,568
Page & Hill	370
Perham	179,658
Peter Pan Cleaners	37,375
PFC Technical Assistance	59,357
Pigs Eye	24,261
Pilgrim Cleaners	13,250
Pine Street Dump	29,555
Ritari	71,840
Rochester GW Plume	107,606
St. Louis Park Vapor	269,083
Schloff	72,927
Southview Blvd	55,386
Technical Assistance	528,763
Technical Assistance (MDA)	517
US Steel / St. Louis River	21,363
Valentine Clark	33,396
Well Abandonment	19,868
West Duluth	16,095
Whiteway Cleaners	36,584
Winona	98,274
Subtotal (site specific)	5,606,092
Site-specific legal expenses (MPCA)	**0**
Site-specific legal expenses (MDA)	0
Site-specific lab analytical services (MPCA)	197,813
Site-specific lab analytical services (MDA)	0
Subtotal (site-specific support)	197,813
TOTAL FY14 site-specific expenditures	**5,803,905**
TOTAL FY14 administrative costs (MDA = $358,572)	**3,253,468**
TOTAL FY14 expenditures	**$9,057,373**

Voluntary investigation and cleanup

Minnesota has built and maintains programs that enable properties with known or suspected environmental problems to be returned 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. As a result of the Land Recycling Act of 1992, 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 4,090 projects. Of those, over 3,600 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.

In FY13, 192 new sites entered the VIC Program. In FY14, 211 sites entered the VIC Program. The number of new projects has steadily increased since 2010, during the most recent downturn in the state's economy.

During FY13, 14 new sites entered the MDA's Agriculture Voluntary Investigation and Cleanup (AgVIC) Program. In FY14, 11 new sites entered AgVIC. Currently, 79 sites are "open" cases. The AgVIC Program has closed 377 sites to date, of which 38 were closed in FY13 and 5 in FY14. 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.

The MPCA VIC and Petroleum Brownfields programs continue to work closely with agency partners in the cleanup and reuse of contaminated properties in Minnesota. The MPCA is a member of the Minnesota Brownfields Association, a nonprofit organization that promotes coordination among governmental units, consultants, and private developers for the redevelopment of Brownfield properties in the state. MPCA Brownfield program staff are members of the Minnesota Brownfields Association Advisory Council, and often plan or participate in seminars/training sessions sponsored by the association. Minnesota Brownfields also sponsors an annual awards program called "The ReScape Awards," that highlights successful Brownfield redevelopment projects in Minnesota.

Superfund site assessment

The Superfund Site Assessment Program is a MPCA-U.S. Environmental Protection Agency (EPA) cooperative program designed to evaluate initial reports of sites to determine whether Superfund resources should be expended to assess environmental risk at these sites. The program works with EPA Region 5 Superfund, and under a Cooperative Agreement, receives limited funding from EPA for staff resources. During the last three years, the MPCA Site Assessment (SA) staff has been working to improve our connections and relationship with EPA. The SA program recently underwent a desk review with the EPA's State Program officer and was commended for increasing the level of quality of submittals and meeting deliverable deadlines.

The MPCA SA Program receives State Duty Officer (spill) reports, referrals from other regulatory programs, and citizen complaints; evaluates these; and determines whether Superfund resources should be expended to assess risk to human health and the environment. During calendar year 2014, approximately 75 initial site assessment inquiries (potential SA Program sites) were initiated, with approximately 65 becoming SA sites. This is similar to calendar year 2013, when approximately 50 new sites came into the SA Program.

During the SA process, existing site data are evaluated to determine the level of risk posed by the site. When observed conditions indicate that a substantial imminent risk exists, the site is eligible for funding for additional investigation. When observed conditions do not indicate a substantial imminent risk, the site is added to the long-term backlog of sites. When observed conditions do not indicate a risk, the site is closed out under SA. Current funding levels allow for about 40 sites to be actively investigated during the year, with the remaining sites adding to the backlog.

Site Assessment has encumbered approximately $540,000 for SA site work during the first half of FY15. During FY14, SA expenditures totaled approximately $518,000, and during FY13 SA expenditures totaled approximately $686,000. See the tables on pages 2 and 3.

Superfund investigation and cleanup

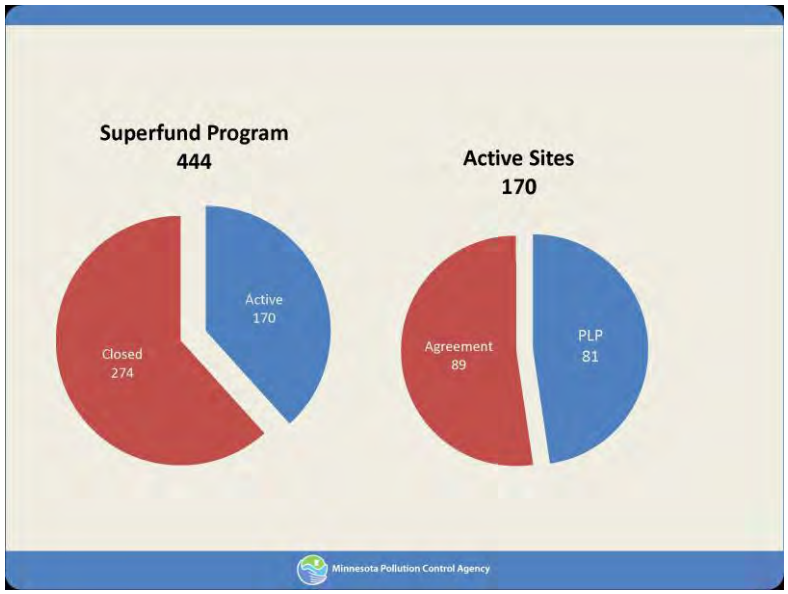
Potential Superfund sites are identified by or reported to the MPCA or the MDA, and when responsible parties do not volunteer to investigate or clean up, the sites enter a formal assessment process for possible addition to the state's PLP and/or the EPA's National Priorities List (NPL), the federal Superfund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

Listing of a site on the PLP does not qualify it for listing on the NPL. The EPA has developed NPL listing and delisting procedures. However, prior to a site being listed, responsible parties, landowners, 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 conducts the cleanup with MERLA funding and seeks 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 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 five PLP only sites: the Cedar Service site in North Minneapolis, the Cedar Service site in Bemidji, 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.

Under MERLA authorities, MDA spent $1,502,077 in FY13 and $1,044,488 in FY14. The majority of the MERLA spending in FY13 and FY14 was on the Kettle River Company site, which is on the PLP, the state Superfund list. Spending on the Kettle River Company site ($1,434,601 in FY13 and $888,993 in FY14) was for long-term investigation and cleanup.

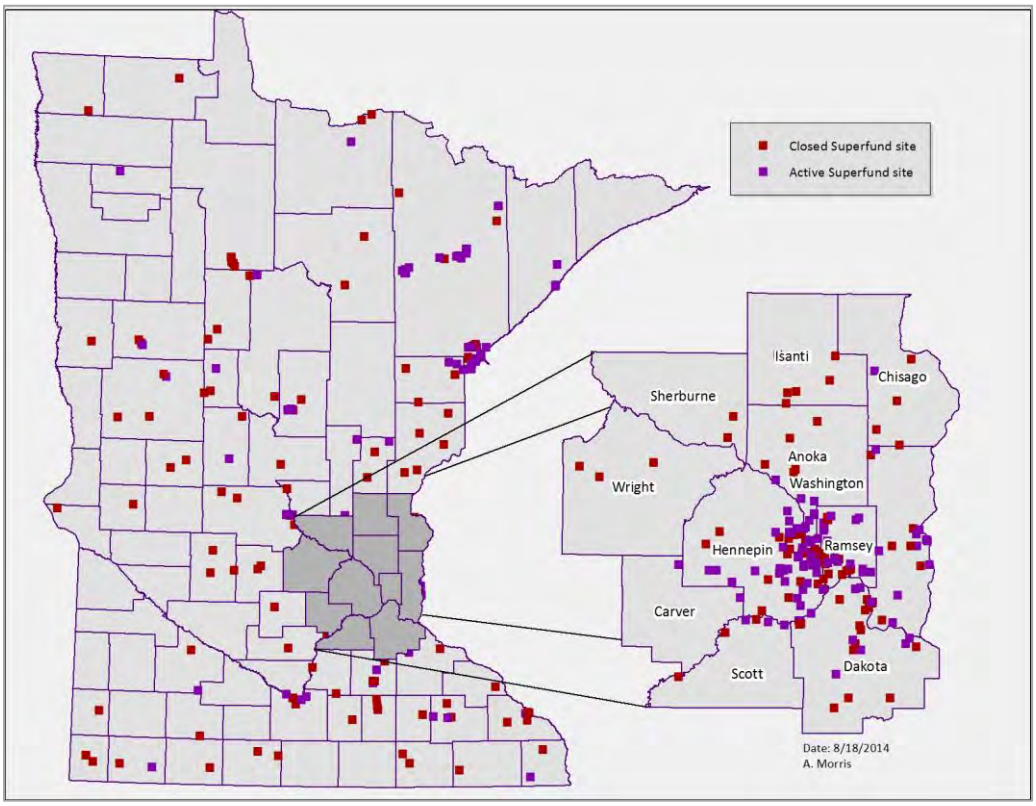
Since its inception, 444 sites have been brought into the state Superfund program. Cleanup and site closure has been completed at 274 of those sites, and 170 sites are currently active. See map on page 6 for statewide distribution of sites. There are 81 sites on the PLP for both the MPCA and MDA as of the end of FY14. One site was removed from the PLP in FY14, and none were removed in FY13. It should be noted that the primary purpose of the PLP (and NPL) is to identify which sites are eligible for state (or federal) funding for the purpose of the MPCA/MDA (or EPA) to conduct fund-financed response actions. The MPCA does have the authority under 115B to provide oversight of investigations and response actions taken by responsible parties. As such and in addition to sites listed on the PLP, the MPCA provides oversight of Superfund actions by responsible parties at 89 other sites. Responsible parties for those other 89 active superfund sites have entered into an agreement to complete cleanup activities. The MPCA Superfund Program has developed a formal agreement that both the responsible party and the MPCA sign, which outlines roles and responsibilities for each party and provides a timeline for completion of appropriate actions to be taken.



A cumulative total of 254 sites have been listed on the PLP. Of those, 173 sites have been delisted. A detailed summary of delisted sites is available from the MPCA. Of the 81 PLP-listed sites, 19 are also on the NPL. See the PLP list of sites on pages 8 and 9. There are 26 sites on the NPL, 7 of which are not on the PLP.

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 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 response actions are 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 the 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 after they have been delisted to ensure that risks have been eliminated or controlled. Site-specific expenditures can be seen in the tables on pages 2 and 3.

Minnesota's 26 NPL sites are eligible for federal funding for response actions 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% of the cost of site-specific remedial actions (when no state or local government has been identified as a responsible party) or pay 50 percent (if the site was owned or operated by a state or local governmental entity).

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 like perfluorochemicals (PFCs) and intrusion of chemical vapors into buildings may require similar actions. Vapor-intrusion issues have become such a growing area of concern at Superfund sites that, to account for potential vapor issues, the EPA is considering revising its Hazard Ranking System for determining which sites will be listed 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 and Investigation sites. The MPCA has developed institutional control tracking mechanisms for former sites to ensure that citizens and local units of government are aware of, and honor, any controls already in place.

Remediation work at sediment sites has evolved and grown in the last 20 years, particularly in the St. Louis River Area of Concern (AOC), which stretches from the Duluth harbor to Cloquet. The AOC was designated by the EPA in 1987. Many of the beneficial use impairments are related to contaminated sediments. There have been many small sediment investigations in the past and the MPCA wanted to assess all reaches of the AOC. From 2006 to present, the MPCA has partnered with the EPA and the U.S. Army Corps of Engineers (USACE) to assess the state of the sediment contamination in the St. Louis River. See the map of the AOCs on page 15.

In 2013, eight sediment remedial sites were identified in the AOC during a Phase 1 Assessment as needing more investigation and cleanup. Some of these sites have responsible parties that are carrying out the remedial work. Others are being addressed through the Brownfields program as a redevelopment site. The remaining sites are being investigated further using EPA Great Lakes Restoration Initiative funds awarded to the MPCA. A Phase 2 Sediment Assessment using EPA Great Lake Legacy funding was completed in late 2014. This work assessed six additional sites for potential cleanup. Future cleanups will be coordinated with EPA Great Lake Legacy funding. All cleanup actions will occur by 2020 to meet the St. Louis River AOC delisting goal of 2025.

MPCA and MDA active Permanent List of Priorities sites

Site Name	City	County	**HRS Score	Date Listed
3M Chemolite Disposal Site	Cottage Grove	Washington	33	Oct-84
Ace Sign	Willmar	Kandiyohi	3	Feb-14
*Arrowhead Refinery Company	Duluth	St. Louis	40	Oct-84
Ashland Oil/Park Penta/Sonford Products Site	St. Paul Park	Washington	32	Apr-86
*Baytown Township Ground Water Contamination	Baytown Township	Washington	38	Dec-88
Bell Lumber & Pole Company	New Brighton	Ramsey	48	Oct-84
*Boise Cascade/Medtronic	Fridley	Anoka	59	Oct-84
Boise Cascade/Onan	Fridley	Anoka	59	Oct-84
Boyer Lumber	Virginia	St. Louis	1	Feb-14
Brainerd Foundry	Brainerd	Crow Wing	2	Apr-10
Brooklyn Park Dump	Brooklyn Park	Hennepin	36	Dec-89
Bulinski Point	Ely	St. Louis	5	Feb-14
Burlington Northern Car Shops	Brainerd	Crow Wing	38	Dec-88
*Burlington Northern Tie Plant	Waite Park	Stearns	47	Oct-84
Capril Beauty Salon	Minneapolis	Hennepin	4	Apr-10
Cedar Service - Bemidji (MDA)	Byron	Olmsted	17	Feb-14
Cedar Service - Minneapolis (MDA)	Minneapolis	Hennepin	17	Dec-90
Centerville Dump	Bemidji	Beltrami	9	Apr-10
Chemical Marketing Corp.	White Bear Township	Ramsey	23	Jun-99
Clothing Care Cleaners	Minneapolis	Hennepin	14	Feb-14
*CMC Heartland Lite Yard Site(MDA)	Rochester	Olmsted	13	Apr-02
Duluth Air Force Base	Duluth	St. Louis	21	Oct-84
Duluth Former City Dump	Duluth	St. Louis	28	Dec-87
Edina Well Field	Edina	Hennepin	50	Jul-06
Electric Machinery	St. Cloud	Stearns	38	Apr-86
Esko Ground Water	Esko	Carlton	8	Jul-06
Farmington Ground Water Plume Site	Fridley	Anoka	6	Jun-99
Finland Air Force Base	Farmington	Dakota	13	Jun-96
Fish Hatchery Dump	Finland	Lake	22	Aug-07
*FMC Corporation - Fridley Plant	St. Paul	Ramsey	66	Oct-84
*Freeway Sanitary Landfill	Burnsville	Dakota	46	Oct-84
*General Mills	Minneapolis	Hennepin	39	Oct-84
Hibbing Gas Mfg.	Hibbing	St. Louis	11	Jul-06
Highway 96 Dump	White Bear Lake	Ramsey	31	Oct-84
Hmong Shopping Center	Brooklyn Center	Hennepin	3	Apr-10
Honeywell, Inc. - Golden Valley Plant	Golden Valley	Hennepin	31	Oct-84
Isanti Solvent Site	Isanti County	Isanti	30	Oct-84
*Joslyn Mfg. & Supply Company	Brooklyn Center	Hennepin	44	Oct-84
Kettle River Company – Creosote(MDA)	Sandstone	Pine	35	Jun-02
Lakeland Ground Water Contamination*	Lakeland	Washington		Feb-14
Little Fork Ground Water Contamination	Littlefork	Koochiching	23	May-95

*Long Prairie Ground Water Contamination	Long Prairie	Todd	32	Oct-84
*MacGillis & Gibbs Company	New Brighton	Ramsey	48	Oct-84
Main Street Solvent Plume, Biwabik	Biwabik	St. Louis	2	Aug-13
Mankato Plating	Mankato	Blue Earth	8	May-95
Mibco	Minnetonka	Hennepin	40	May-92
Minnegasco	Minneapolis	Hennepin	42	Oct-84
Minnesota Valley Landfill	Shakopee	Scott	14	Jul-06
*Oakdale Dump, 3M	Oakdale	Washington	59	Oct-84
Old Freeway Dump	Burnsville	Dakota	66	Jun-93
Page & Hill (MDA)	Big Falls	Koochiching	20	Sep-10
Pollution Controls Inc.	Shakopee	Scott	52	Oct-84
Perham Arsenic Site	Perham	Otter Tail	38	Oct-84
Peter Pan Dry Cleaners	Duluth	St. Louis	3	Jan-03
Pig's Eye Landfill	St. Paul	Ramsey	42.5	Dec-89
Pilgrim Cleaners	Brooklyn Park	Hennepin	12	Dec-96
Pine Street Dump	Hastings	Dakota	32	Dec-91
Poplar Hill Solvent Plume, Hibbing	Hibbing	St. Louis	6	Aug-13
Precision Plating	Minneapolis	Hennepin	4	Feb-14
*Reilly Tar	St. Louis Park	Hennepin	59	Oct-84
Reserve Mining	Silver Bay	Lake	10	Oct-03
Rice County Dump (Former)	Dundas	Rice County	12	Feb-14
*Ritari Post and Pole	Sabeka	Wadena	30	Oct-84
Rochester Ground Water Plume	Rochester	Olmsted	50	Jul-06
St. Louis Park Solvent Plume	St. Louis Park	Hennepin	3	Apr-10
*St. Louis River/Interlake/Duluth Tar	Duluth	St. Louis	32	Oct-84
St. Louis River/U.S. Steel	Duluth	St. Louis	32	Oct-84
St. Paul Levee Property	St. Paul	Ramsey	20	May-92
*St. Regis Paper	Cass Lake	Cass	53	Oct-84
Schloff Chemical	St. Louis Park	Hennepin	7	Dec-89
Southview Boulevard	South St. Paul	Dakota	3	Apr-10
Superior Plating, Inc.	Minneapolis	Hennepin	6	Oct-84
Tonka Main Plant	Minnetonka	Hennepin	31	Dec-85
*Twin Cities Army Ammunition Plant/ New Brighton/ Arden Hills/ St. Anthony Site	Arden Hills	Ramsey	59	Oct-84
*U.S. Naval Industrial Reserve Ordinance Plant (NIROP)	Fridley	Anoka	63	Oct-84
Valentine-Clark	Minneapolis	Hennepin	4	Dec-88
*Waite Park Ground Water Contamination Site	Waite Park	Stearns	32	Dec-85
West Broadway Ground Water Plume(Owatonna)	Owatonna	Steele	6	Jun-99
West Duluth Industrial Site	Duluth	St. Louis	11	Oct-84
Whiteway Cleaners	Minneapolis	Hennepin	4	Jun-98
Winona Ground Water Contamination (Clarks Lane/ Gilmore Avenue)	Winona	Winona	25	Dec-89

* NPL Site

** Hazard Ranking System Score

Dry Cleaner Fund

In 1995, MERLA was amended to include the Dry Cleaner Environmental Response and Reimbursement Law. This law establishes a fund under Minn.Stat. 116.115 that is used to reimburse an owner or operator of a dry cleaning facility for environmental response costs exceeding $10,000, as approved by the MPCA. Contributions to the Dry Cleaner Fund come from yearly registration fees from the owner or operator and from fees from the sale of dry cleaning solvents for use by dry cleaning facilities. These solvents include perchloroethylene, hydrocarbon-based solvents, and non-aqueous solvents. The MPCA will reimburse the owner or operator for all but $10,000 of the environmental response costs incurred if it is determined that the costs are reasonable and were actually incurred. Reimbursement for environmental costs can begin when an MPCA-approved Remedial Action Plan is in place, and for work conducted as part of the plan. The MPCA may not, in a single fiscal year, make expenditures from the account related to a single dry cleaning facility that exceed 20% of the balance in the account at the beginning of the fiscal year. In FY13 the MPCA paid out $610,118 and in FY14 it paid out $436,381 as reimbursement for environmental response costs. By the end of FY14, the MPCA had paid out $9,676,143 as reimbursement for environmental response costs under this provision to MERLA.

To date 49 facilities have applied for reimbursement from the Dry Cleaner Fund. Of these 49 dry cleaning facilities, 19 sites have finished seeking reimbursement and 30 sites are currently active and undergoing investigation or remediation activities and will seek reimbursement at some time.

Harmful substance compensation program

In 1996, the Minnesota Legislature abolished the Harmful Substance Compensation Board and transferred responsibility to manage the program to the MPCA and pay eligible claims out of the Remediation Fund (Minn. Stat. 115B.25 – 115B.37). Since taking over responsibility for review and payment of approved claims, the MPCA had normally received one or two claim requests per fiscal year. Most of those claims found to be eligible have been for reimbursement of expenses to replace private drinking water wells or to install carbon filter systems. No claims were submitted to the MPCA in FY13. However, in FY14, 15 claims were submitted and approved by the MPCA, which were directly related to the lower drinking water standard for trichloroethylene (TCE). Nine of these claims were from the Lakeland area and were claims by homeowners for costs related to replacement of their private well by connecting their residence to the municipal drinking water supply system. Six claims were submitted by residents in the Lake Elmo area, and were for reimbursement of homeowner costs to install a carbon filter to treat their well water to meet the new standards. One additional claim was approved in FY14 for a homeowner's cost to replace a private drinking water well due to impacts from perfluorochemicals (PFCs).

In all, 16 claims were approved for reimbursement under the Harmful Substance Compensation Program. The total amount of these 16 claims was $65,922.

The MPCA will also utilize funding under this program to provide bottled water or carbon filter systems when there is no responsible party identified. The MPCA is also authorized under Minn. Stat. 115B to reimburse local units of government for expenses incurred when responding to emergencies caused by the release of hazardous substances. The MPCA received no requests from local units of government for such reimbursements in either FY13 or FY14.

Perfluorochemicals at Superfund sites

Perfluorochemicals are a family of chemicals made by the 3M Company (3M), and other manufacturers 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.

Four sites where 3M had disposed of PFC manufacturing wastes in the past were identified: the 3M Oakdale site, the 3M Woodbury site, the 3M Cottage Grove site, and the closed Washington County Landfill. 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 that 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. 3M also funded the construction of a lined disposal cell at SKB Industrial Waste Landfill (SKB) in Rosemount to contain only the excavated PFC waste material from the 3M sites.

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. Here's some site-specific information for the three 3M sites:

- **3M Oakdale** – The groundwater treatment system (carbon absorption) began operation in March 2010. Pump-out wells pump approximately 86,000 gallons per day of groundwater, which is discharged to the sanitary sewer after treatment. Approximately 27,000 cubic yards of PFC-contaminated soil were excavated and disposed of at SKB. 3M is now conducting quarterly groundwater and surface-water monitoring under an MPCA-approved sampling plan to evaluate trends in PFC concentrations.
- **3M Woodbury** – Soil excavations for both the Main Disposal Area and Northeast Disposal Area have been completed. About 30,000 cubic yards of soil were excavated and disposed of at SKB or out of state because of non-PFC issues. The groundwater pump-out system continues to operate at approximately 4 million gallons per day, which is piped to 3M's Cottage Grove manufacturing facility. With additional pump-out wells required at the Cottage Grove facility, 3M has been evaluating site conditions at Woodbury to determine whether pumping rates can be reduced without impacting containment of PFCs in on-site groundwater designed to prevent migration toward nearby off-site drinking water wells. Any planned reduction in pumping rates at the Woodbury site will require MPCA approval. A component of any pumping-rate reduction plan will include enhanced monitoring of nearby residential wells by the MPCA and the Minnesota Department of Health (MDH).
- **3M Cottage Grove** – Soil excavation for each of the on-site disposal areas (D1, D2 and D9) has been completed (nearly 60,000 cubic yards of soil removed in total from the three disposal areas). The sediment-removal project at the East Cove was also completed in January 2012. About 12,000 cubic yards of sediment (1.5 acres) were dredged out of East Cove and taken to SKB. Wetland restoration of the East Cove is currently underway.

3M has completed construction of and is now operating a carbon treatment system that treats all of the groundwater from the pump-out wells at Cottage Grove and Woodbury before it is used in the plant. This required a "re-piping" of the entire water supply/distribution system at the plant.

3M also installed two additional groundwater extraction wells and has begun an extended pump test to determine whether capture of PFC-contaminated groundwater at the site is complete or additional extraction wells will be needed. These two new wells can each pump up to 1.15 million gallons of water per day. This extended pump test will also be used to determine the overall balance of water being pumped from each of the production/pump-out wells at Cottage Grove and the pump-out wells at Woodbury, which will both maintain capture of PFC-contaminated groundwater and provide for the water supply needs at the Cottage Grove plant.

In summary, 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 of and managed at SKB in Rosemount. This cell at SKB has been closed. Material that was excavated and contained non-PFC hazardous material was disposed of out of state in a permitted hazardous waste landfill. Groundwater control and treatment systems are also in place at each of the 3M sites, with only the final number of groundwater control wells at the 3M Cottage Grove site yet to be determined.

The MPCA continues to provide either point-of-use carbon treatment systems or bottled water to about 75 residences in Lake Elmo and Cottage Grove that 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.

MPCA and MDH continue to monitor private drinking water wells in south Washington County for PFCs, and about 200 residential wells are sampled each year. The MDH also continues to monitor municipal wells in south Washington County for PFC concentrations. While PFC levels remain at low levels in municipal wells, such as those for the city of Cottage Grove, the concentrations remain below drinking water criteria. Oakdale remains the only city that has a municipal well that requires carbon treatment.

Public participation in the Superfund process

Providing information to the public and public participation is an important component of the Superfund process. A public notice component is defined in state statute for selection of final remedial actions at listed sites, along with a public notice component when sites are listed to or delisted from the PLP. Superfund staff often meets with local government officials and community groups and hold public meetings to provide updates of site-specific activities.

One example of this is the public communication work that occurred at the General Mills Superfund site in response to the potential for vapor intrusion into nearby residences. The MPCA response action involved sampling over 340 homes and installing mitigation systems in 185 homes over a period of one year. Public communication work was a critically important element enabling this work to take place. In coordination with the MDH and the city of Minneapolis Health Department, the MPCA and MDH established several channels of communication with individuals, the local community group, and other interested stakeholders, including the University of Minnesota. The communication efforts involved two public meetings; “office hour” sessions, during which residents could meet one-on-one with MPCA and MDH representatives; meetings with the community group (Southeast Como Improvement Association), and responding to many calls and e-mails from residents and property owners. A project-specific webpage and e-mail distribution list were established. Two project newsletters were mailed to residents and property owners in the neighborhood. As the work of installing mitigation systems to address the possibility of vapor intrusion was concluding, a cleanup technology open house was held in the community. A variety of cleanup technologies were shown in a poster session. Each station was staffed

by remediation experts from a consulting company who answered residents' questions. Communication work is an ongoing part of the General Mills cleanup, and serves as a model for communication work at other vapor-intrusion sites.

In the past, the main way to communicate with the public and promote public participation was through traditional media like news releases. Now that has changed. The MPCA uses multiple forms of outlets, both traditional and social media, to engage the public, including Facebook, Twitter, Gov Delivery (news releases, email updates, newsletters), and You Tube. By using a combination of media we are able to share details of upcoming outreach activities, answer project and issue questions in real time, and engage citizens in the conversation.

Social media and on-line news groups, such as the *Patch News*, provide more current and up-to-date information to the public, such as on-going Superfund site activity. *Patch* reporters are likely to attend city council or public meetings when site updates are provided. The MPCA has begun its own Facebook and Twitter pages to provide updates on agency activities. Facebook and Twitter have also provided the opportunity for citizens to become engaged in environmental issues. One such group that was established is the Fridley Cancer Cluster Facebook Group. Fridley area residents began the on-line discussion over their concerns of a potential cancer cluster in Fridley related to contamination associated with the Superfund sites in Fridley. This Facebook group grew to more than 2,000 members and included environmental activist Erin Brockovich, who held a public meeting in Fridley to discuss the group's concerns. Because of concerns raised by this group, the MPCA, EPA and MDH held an open house in Fridley to answer questions about the Superfund sites in the city and address citizens' concerns. One major outcome of these meetings was the formation of a Citizens Advisory Group that will give Fridley residents a mechanism to discuss environmental issues related to the Superfund projects and provide updates on site activities.

The long-standing Twin Cities Army Ammunition Plant (TCAAP) Restoration Advisory Board (RAB) provides a platform for community involvement with respect to cleanup decisions made for the New Brighton/Arden Hills Superfund Site. The RAB provides an opportunity for local citizen input into the cleanup process. This input is critical in maintaining community acceptance of the decisions made by the USACE and the regulators. The RAB consists of community members and non-community members. The community members are citizens who live in the area affected by contamination from TCAAP. Non-community members consist of representatives from the USACE, the MPCA, the EPA (Region V), and Alliant Techsystems.

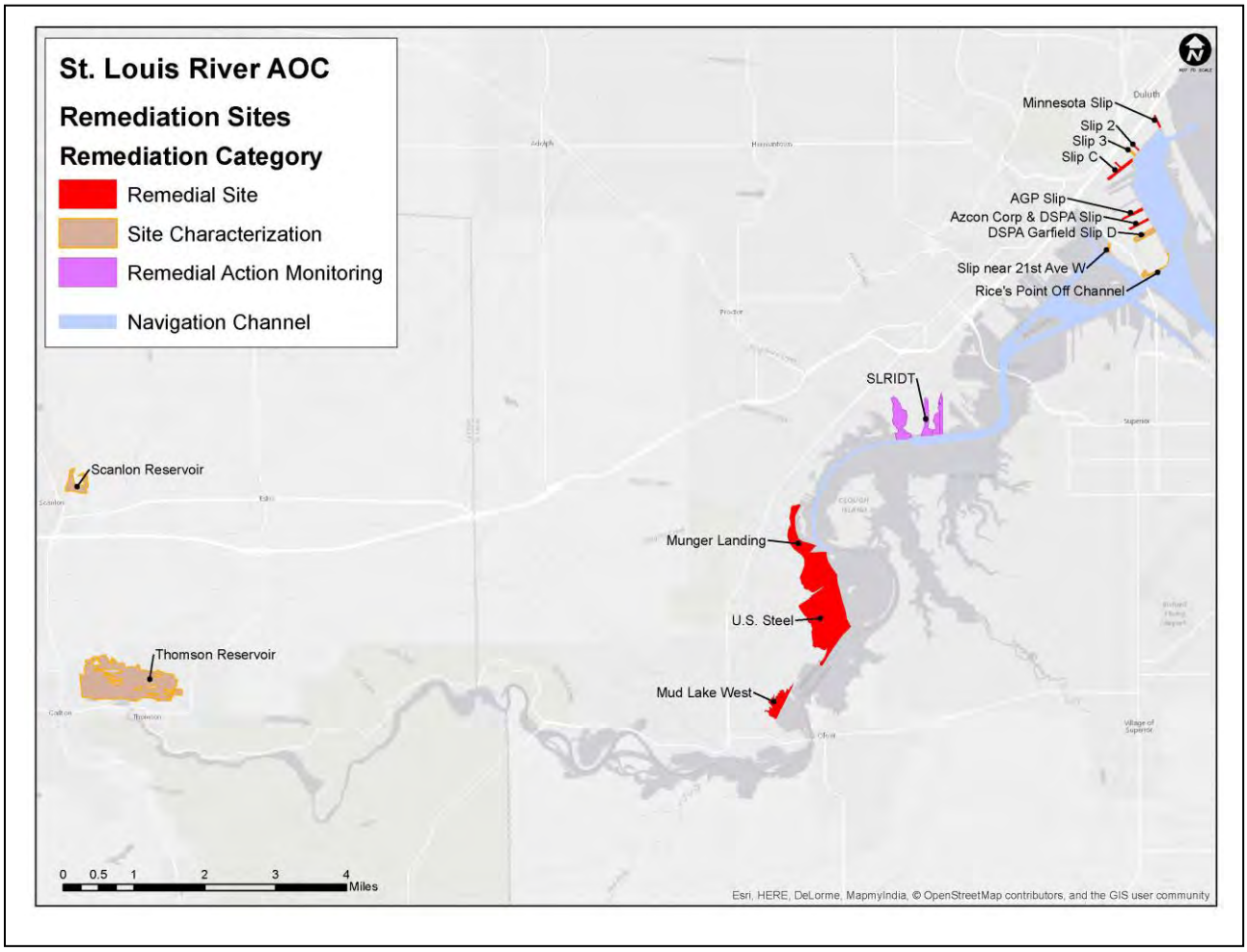
Emerging priorities for the Superfund Program

The MPCA and the Superfund Program need to have adequate capacity to respond to a number of emerging environmental health priorities and lowering of several standards that will require significant attention over the next several years. These issues will necessitate (1) additional assessments and work at currently active sites, (2) greater degree of investigations and cleanups at a larger number of future sites than had been anticipated, and; (3) reassessment of closed sites to ensure that they do not pose a continued threat to public health and the environment.

The following issues will likely result in significant increase in MPCA Superfund activities over the next several years:

- **Trichloroethylene (TCE):** In 2013, MDH lowered the safe drinking water and safe indoor air standards for TCE. This will be a driver for additional Superfund Program activities in all three modes outlined previously.

- **1,1,2,2-Tetrachloroethylene [also known as perchloroethylene (PCE) or perc]:** Following a review of information on perc's toxicity to determine if the health based guidance value for groundwater, air or other environmental media should be updated, MDH lowered both the safe drinking water and safe indoor air standards for perc. This lowering of standards for perc will be a driver for additional Superfund Program activities in all three modes outlined above.
- **Perfluorochemicals (PFCs):** In August 2013, MDH added an additional PFC compound, perfluorohexane sulfonate (PFHxS), to its Chemicals Under Review list. MDH is expected to establish formal drinking water guidance for this chemical following completion of the review. MDH has already started issuing advisories to private wells with detections of this chemical, necessitating response action from the MPCA Superfund Program. Establishment of formal drinking water guidance for PFHxS will necessitate additional assessments and reassessments at current, future and closed sites.
- **Lead:** In 2012, the federal Centers for Disease Control and Prevention (CDC) recommended the use of a blood lead reference level of 5 micrograms per deciliter (µg/dL) (as opposed to the previously recommended 10 µg/dL) in children to trigger medical and prevention actions. MDH has recommended the use of CDC's revised lower lead reference level of 5 µg/dL for modeling exposure levels and pathways, and developing cleanup guidance. The EPA has also announced it will soon release a new version of the lead model that contains revised exposure parameters in addition to the CDC's new blood lead level. MPCA will need to examine the adoption of new lead levels for the residential and industrial cleanup standards once the revised EPA standards are released and additional guidance is received from MDH.
- **Carcinogenic polycyclic aromatic hydrocarbons (cPAHs):** In 2013, MDH published a revised guidance to assess health risks from exposures to cPAHs in air, water, soil and other media. The revised MDH guidance modifies the list of cPAHs that are of the most concern at sites as well as making changes in the method of calculating the human health risks from the revised list of cPAH compounds now deemed to be of most significance.
- **Vapor intrusion:** Vapor intrusion remains an evolving issue in terms of technical and regulatory policies as well as public awareness and engagement. In the past, contaminated sites were viewed in terms of their effects on groundwater, not their ability to contaminate indoor air. It is now evident that significant MPCA Superfund Program resources will need to be dedicated to thoroughly investigate and, if needed, remediate vapor intrusion at current and future sites. As the scientific and technical understanding of vapor intrusion grows at both the national and state levels, it is apparent that a systematic reassessment of closed sites, even those considered adequately addressed for soil and groundwater risks will also need to be conducted on a statewide scale.
- **Groundwater/drinking water protection:** The MPCA Superfund Program and MDH will be partnering to investigate and determine the best course to clean up and protect public and private water supplies that have been impacted by releases of hazardous substances. Currently the two agencies have prioritized approximately 20 community water supply wells with contamination that exceeds MDH drinking water standards, requiring the MPCA Superfund Program to investigate and, if required, provide short-term drinking water treatment while a long-term groundwater remedy is being developed. These wells had previously not been prioritized for investigation and treatment as they meet the legally required federal drinking water standards, but exceed revised state of Minnesota standards that are more stringent. Again, this effort to ensure drinking water in these communities is safe will impose an additional significant demand on the Superfund Program resources in terms of both staff time and project funding.



For additional information about the MPCA's Superfund Program, please visit www.pca.state.mn.us.

For additional information about the MDA's Incident Response Program, please visit www.mda.state.mn.us.