

INTRODUCTION

Superfund Program Background

The Superfund Remedial Program protects the public and its resources, making communities safer, healthier, and more economically viable. It is responsible for implementing the federal program aimed at longer term cleanup at the nation's largest, most complex contaminated sites.

The Comprehensive Environmental Response, Compensation, and Liability Act, 1980 PL 96-510, as amended (CERCLA), was passed by the United States Congress in 1980 and authorized the federal government to respond directly to releases, or threatened releases, of hazardous substances that may endanger public health, welfare, or the environment. The CERCLA also established a trust fund (referred to as the "Superfund"), which can be used to pay for the cleanup of hazardous substance contamination. State involvement in the Superfund Program is also specifically provided for in the CERCLA and is further explained under the Michigan Participation section, on pages I-2 and I-3, of this report. The United States Environmental Protection Agency (EPA) is the federal agency responsible for implementing the CERCLA.

Pursuant to the CERCLA, the EPA can take legal action to force the parties responsible for the contamination to conduct a cleanup. If potentially responsible parties (PRPs) cannot be found, or are unwilling to cooperate, the EPA can use money from the Superfund to complete a cleanup at sites on the National Priorities List (NPL). Under these circumstances, the EPA can later sue the PRPs for reimbursement of cleanup costs to the Superfund; plus, if the PRPs have refused to follow an order to perform the cleanup, a penalty of up to three times the EPA's cost of the cleanup can be imposed.

The Superfund Process

When the state determines that a site should be evaluated for its potential to be designated as a Superfund site, it requests the EPA to place it on the candidate site list. A Preliminary Assessment is conducted using available information on the site in order to determine if enough is known about the site to pursue one of the Superfund remedial processes. The cleanup processes are: Emergency Removal, Non-Time-Critical Removal, and Remedial Action after NPL listing. If additional data are needed, a Site Inspection is completed. The Site Inspection may involve sampling of soil, groundwater, surface water, air, or wastes at the site. The data from the Site Inspection are used to justify an emergency removal or non-time-critical removal action and/or score the site using the Hazard Ranking System. If the site score is high enough and has the Governor's concurrence, the site can be listed on the NPL, a list of the most serious contamination sites in the nation. Sites listed on the NPL are eligible for cleanup using Superfund money if there are no PRPs willing or able to conduct the cleanup. It should be noted that if site cleanup is proposed or implemented pursuant to Part 201, Environmental Remediation, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended, at any time during the Superfund evaluation process prior to nomination to the NPL, investigation using the Superfund process can be deferred.

The Preliminary Assessment/Site Inspection process may reveal that the site poses an imminent and substantial endangerment to public health or the environment that would justify an Emergency Removal. An example of such an endangerment situation would be abandoned drums or lagoons of hazardous waste, which are easily accessed by humans or wildlife. As a general rule, groundwater cleanup is not conducted in a removal action, unless it is necessary to prevent or eliminate contamination of municipal water supplies above drinking water criteria. Money is available through the Superfund Emergency Removal Program to quickly eliminate the immediate hazards at a site whether or not it is on the NPL. If placed on the NPL, the site would then proceed through the normal Superfund cleanup process to deal with any concerns beyond those addressed by the emergency removal.

A non-time-critical removal action may be appropriate for a site where an imminent and substantial endangerment may not exist, but there is still a significant risk to public health or the environment. Non-time-critical removal actions are best suited to situations where there are only a few obvious actions for cleanup, remedy selection can be easily accomplished, and implementation completed within a fairly short time.

The first step of the process toward cleanup of an NPL site is to conduct a thorough investigation of the nature and extent of contamination at the site. This is referred to as a Remedial Investigation (RI). Based on this information, an evaluation of possible cleanup technologies, known as a Feasibility Study (FS), is completed and an appropriate remedy for cleaning up the site is proposed by the EPA or the state. After the public has had an opportunity to comment on the RI/FS and the proposed remedy, the EPA or the state selects a final remedy and documents this selection in a Record of Decision (ROD). Next, the plans and specifications for the cleanup, known as the Remedial Design (RD), are prepared, and the Remedial Action (RA) is implemented. For groundwater restoration remedies, the ten years of operation following the RA construction and shakedown are known as Long-Term Response Action (LTRA).

It may take many years for the RA to completely clean up the site. During this period, and after the LTRA, Operation and Maintenance (O & M) of the remediation system is required. After the cleanup goals have been achieved, the site can be deleted from the NPL.

Michigan Participation

The CERCLA specifically provides for state involvement in the Superfund Program. For example, state acceptance of the proposed cleanup remedy is one criterion which the EPA must evaluate before selecting a site remedy. States must also concur with the EPA that the cleanup is complete before a site can be removed from the NPL. States are required to fund 10 percent of the cost of any RA paid for by the Superfund. In addition, the state is required to fund 100 percent of the O & M costs after the first year of operation of the RA for source control measures and after the ten years of LTRA for groundwater restoration measures. RAs funded by Superfund cannot be implemented until the state signs a contract providing assurance that the state will provide the required funding, referred to as State Match funding, and agrees to provide for long-term O & M. Thus, both states and the EPA have recognized the necessity for state involvement in the Superfund Program.

The CERCLA provides a funding source for state involvement through Cooperative Agreements (CAs). Through Multi-Site CAs, Michigan receives funding to assist the EPA with

the management of site activities. Activities covered may include on-site assistance, review of technical documents and issues, community relations activities, legal assistance during negotiations with the PRPs, or oversight of cleanup activities conducted by the PRPs. The CERCLA also allows states to take primary responsibility for the management of a cleanup through a Site-Specific CA. Under a Site-Specific CA, the EPA provides funding to the state to assume any or all of the functions that the EPA would normally perform while managing a site cleanup. The EPA also provides Superfund Core Program CAs that are used to fund non-site-specific activities that develop and maintain a state's ability to participate in the CERCLA response program. Also, through a CA, the MDEQ conducts Preliminary Assessments/Site Inspections and site scoring activities on behalf of the EPA and nominates the most serious and potentially costly sites to be listed on the NPL.

Michigan participates fully with the EPA in the Superfund Program through the Michigan Department of Environmental Quality (MDEQ), Remediation and Redevelopment Division, Superfund Section. Michigan has had up to 83, and currently has 65, sites on the NPL (See map, Figure 1). In 2014 the McLouth Steel Gibraltar Plant site was proposed for listing on the NPL. There have been 18 sites deleted from the NPL. The MDEQ has, or has had, lead agency responsibility for response actions at many of these sites. Addressing the worst sites through the Superfund Program conserves state funds that can then be used to address other Michigan sites of environmental contamination using the authority of Part 201. To further conserve state funds that are used to address site emergencies, the MDEQ frequently recommends appropriate sites to the EPA's Emergency Removal Program. In addition, the MDEQ participates with the EPA in the Regional Response Team, which conducts contingency planning activities for spills of oil and other hazardous substances and coordinates spill response actions. In addition to performing response actions at state-lead sites, the MDEQ provides assistance at the EPA and PRP managed sites to ensure that Michigan cleanup requirements, such as Part 201, are met.

Michigan's involvement in Superfund is also necessary to evaluate the RA and O & M costs of cleanup remedies proposed by the EPA. The MDEQ's participation in the remedy selection process favors remedies which attain cleanup standards and minimize State Match and O & M costs. The average cost for Superfund remedies nationwide is approximately \$30 million, and the range of costs for remedies selected at Superfund sites in Michigan is from \$1 million to \$210 million. Cost for O & M at individual sites can range up to \$4.6 million per year. Obviously, it is in Michigan's financial interest to ensure that remedies are selected that meet state requirements and minimize State Match and O & M costs. In addition, it is imperative that the state participates in the design and construction of the facilities that the state will be required to fund, operate, and maintain for long periods of time.

Brownfield Redevelopment

Michigan has focused substantial efforts in working to foster redevelopment of brownfields, sites for which business expansion or economic development is hindered by the existence of, or potential for, environmental contamination. The federal Superfund Program is supplying funding to local units of governments and states for their redevelopment efforts. Between fiscal year (FY) 1999 and FY 2004, a total of \$1,495,607 in federal funds was awarded to Michigan for this program. This funding primarily assisted in implementation of the brownfield redevelopment aspects of the Clean Michigan Initiative.

To further support brownfield redevelopment, the CERCLA was amended by the Small Business Liability Relief and Brownfield Revitalization Act, 2002 PL 107-118, on January 11, 2002. The Act authorizes funding for brownfield assessment and cleanup, as well as for state response programs. Since FY 2005, Michigan has received \$12,273,220 through CAs to enhance the state's brownfield redevelopment efforts, including brownfield assessments. Of that amount, \$870,412 was received in FY 2014. The Act also provided certain liability protection for certain contiguous property owners, prospective purchasers, and extremely small contributors of hazardous substances.

Brownfield assessments at properties in Michigan are done at the request of a local unit of government, without making the site subject to the federal Superfund process. Sampling is conducted to determine whether contamination may be present at concentrations which would define the property as a facility pursuant to Part 201, to recommend a level of mitigation for the property, and to determine whether asbestos is present at quantities regulated by the National Emission Standards for Hazardous Air Pollutants.

Superfund Money in Michigan

Since the beginning of the program in 1980, federal Superfund money has been awarded to the state to address 76 NPL sites. Page I-8 lists the federal grant dollars awarded in FY 2014. In FY 2014 the state spent or committed to \$3,170,420 in site response actions at Superfund sites, not including the match commitments identified in Table 1. A summary of Superfund funding in Michigan can be found in Table 1, on the next page.

TABLE 1

SUPERFUND FUNDING IN MICHIGAN

FUNDING SOURCE	FUNDS PRIOR TO FY 2014	FUNDS IN FY 2014**	TOTAL BY SOURCE
SUPERFUND STATE CONTRACTS (Federal, Direct)	\$ 225,012,710	\$ 32,339,796	\$ 257,352,506
SUPERFUND STATE CONTRACTS (State Match)	\$ 24,408,734	\$ 3,593,310	\$ 28,002,044
SUPERFUND SITE ASSESSMENTS (Federal, CA)	\$ 9,244,067	\$ 282,787	\$ 9,526,854
SUPERFUND SITE AWARDS (Federal, CA)	\$ 106,221,670	\$ 3,428,355	\$ 109,650,025
STATE FUNDS (State Match, CA)	\$ 8,960,475	\$ 980,915	\$ 9,941,390
PRP COMMITMENTS*	\$ 582,207,593	\$ 0	\$ 582,207,593
SUBTOTAL SITE ACTIVITY	\$ 956,055,249	\$ 40,625,163	\$ 996,680,412
BROWNFIELD REVITALIZATION CA (Federal)	\$ 11,402,808	\$ 870,412	\$ 12,273,220
BROWNFIELD CA (Federal) (closed)	\$ 1,495,607	\$ 0	\$ 1,495,607
SUPERFUND CORE CA (Federal)	\$ 14,325,893	\$ 112,500	\$ 14,438,393
BROWNFIELDS & CORE CA (State Match)	\$ 1,742,268	\$ 12,500	\$ 1,754,768
TOTAL FUNDING*	\$ 985,021,825	\$ 41,620,575	\$ 1,026,642,400

*These totals do not include complete information on expenditures by the EPA or liable parties for response actions, which account for well over half of the Superfund-related expenditures. Please note that the beginning balance for PRP commitments has been decreased to correct an error in prior years, and no information was obtained regarding PRP commitments in FY 2014.

**The funding shown in Superfund State Contracts is the amount committed to cleanups in these contracts. In some cases, these funds have not yet been expended. The match associated with site awards is awarded in full, even when the federal funds are only partially awarded, as long as the EPA has approved the total funding amount.

Cleanup Progress

Details on progress toward addressing Superfund sites in Michigan can be found in Table 2, on the next page. To date, 18 sites have been deleted from the NPL (see page I-9). As evidenced by the data in the table, significant progress has been made in the cleanup of the 65 sites remaining on the NPL. The EPA considers construction of the remedy to be complete at 56 sites (at these sites, the remedy is in operational status and the cleanup goals are not yet achieved).

We are also working to facilitate the redevelopment or reuse of Superfund sites. Currently, the EPA considers 35 NPL sites in Michigan as ready for anticipated use, including the Hedblum Industries and Rose Township Dump sites, which were designated in 2014. The EPA recognizes 23 NPL sites as currently being in reuse.

Many of the Michigan sites that have appeared on the NPL have been divided into operable units by the EPA in order to more effectively address different aspects of the site. Each of these operable units may have its own remedy and go through the various remedial stages independent of activities at other parts of the site. Therefore, each site may have several remedies. An example of this would be contaminated soil being removed at one operable unit while wells are being installed to delineate contamination in the same site's groundwater operable unit. The EPA, state, or the PRP groups may address different operable units at a site at different times, or concurrently.

TABLE 2

CLEANUP PROGRESS AT FEDERAL NPL AND REMOVAL SITES IN MICHIGAN

ACTIVITY*	PRIOR TO FY 2014	FY 2014	TOTAL
REMOVAL ACTIONS	383	28	411
WATER SUPPLY REPLACEMENTS	25	0	25
RI/FS STARTS	133	2	135
RI/FS COMPLETIONS	123	2	125
RODS and ROD AMENDMENTS	154	3	157
RD STARTS	100	1	101
RD COMPLETIONS	94	0	94
RA STARTS	111	3	114
RA (CONSTRUCTION) COMPLETIONS	95	2	98
ONGOING O & M, LTRA	62	63	63
SITE DELETIONS	18	0	18
SITE ADDITIONS	83	0	83
FIVE-YEAR REVIEWS	166	10	176

*Note: More than one of these activities may occur at an individual site.

2014 Superfund Legislative Report

Superfund Site Summaries have been prepared for all of the Michigan sites currently on the NPL. Each summary discusses the contamination problem at the site, the cleanup actions taken, the projected schedule for future cleanup activities, the amount of Federal Superfund money awarded to the site, and State Match utilized.

The Site Summaries appear in alphabetical order by county. Appendix A contains an index to the Site Summaries, organized alphabetically by site name.

Appendix B is an alphabetical list of terms with definitions as they apply to their use in this document.

**MDEQ - SUPERFUND
FEDERAL GRANT DOLLARS AWARDED IN FY 2014**

<u>CA #</u>	<u>FEDERAL AMOUNT</u>	<u>STATE MATCH</u>	<u>DATE</u>	<u>SITE/PROJECT</u>
V00E01389-0	\$3,179,700	\$980,915	9/16/14	Provides partial federal funding and all of the state funding for Spartan Chemical Company remedial action.*
VC02E00777-3	\$0	\$0	9/29/14	Rebudgets funding between revised tasks on the Superfund Core Program grant.
RP96507707-2	\$0	\$0	9/16/14	Extends the end date of the FY 2014 Brownfields 128(a) grant.
RP96507708	\$870,412	\$0	8/6/14	Provides funding for the Brownfields 128(a) activities.
V9658503-2	\$48,655	\$0	5/20/14	Provides funding for O & M activities at the J & L Landfill site.
V00E00999-2	\$200,000	\$0	3/24/14	Provides funding and two-year date extension for Management Assistance activities at the Kalamazoo River site.
V02E00778-0	\$282,787	\$0	3/11/14	Provides funding to conduct Pre-Remedial activities.
V01E00776-2	\$308,780	\$0	3/11/14	Provides funding for Management Assistance activities at federal lead sites.
VC02E00777-2	\$112,500	\$12,500	2/26/14	Provides funding for the Superfund Core Program.
V99588402-5	\$0	\$0	11/25/13	Extends the end date of the Spartan Chemical Company site grant.
TOTAL	\$5,002,834	\$993,415		

*Superfund has a match requirement of 10% on remedial actions only. When the EPA cannot award the full amount of the federal funding at once, they award a partial amount of the federal funding, but the total amount of the state match based on the total funding requested. Until subsequent awards bring the federal funding up to the amount requested, it appears on the surface as though the match ratio is higher.

MICHIGAN SITES DELETED FROM THE FINAL NPL
(Alphabetically by County)

<u>COUNTY</u>	<u>SITE NAME</u>	<u>DATE DELETED</u>
Alpena	Ossineke Residential Wells	January 31, 1996
Benzie	Metal Working Shop	December 23, 1992
Charlevoix	Charlevoix Municipal Well	December 2, 1993
Genesee	Berlin and Farro	June 24, 1998
Grand Traverse	Avenue E Groundwater	March 20, 2007
Ionia	H & K Sales	May 21, 1998
Kent	Folkertsma Refuse	April 10, 1996
Kent	Kent City Mobile Home Park	March 20, 1995
Lenawee	Anderson Development Co.	January 26, 1996
Livingston	Spiegelberg Landfill	June 13, 2011
Marquette	Cliffs/Dow Dump	November 17, 2000
Mason	Mason County Landfill	September 9, 1999
Monroe	Novaco Ind.	July 14, 1998
Muskegon	Whitehall Municipal Wells	February 11, 1991
Oakland	Cemetery Dump	April 19, 1995
Ottawa	Waste Management of Michigan - Holland Lagoons	January 14, 2013
Wayne	Carter Industrials	March 25, 1997
Wayne	Lower Ecorse Creek	July 1, 2005

MICHIGAN SITES PROPOSED FOR THE NPL
(Alphabetically by County)

<u>COUNTY</u>	<u>SITE NAME</u>	<u>PROPOSED DATE</u>
Bay	Bay City Middlegrounds	February 13, 1995
Iosco	Wurtsmith Air Force Base	January 18, 1994
Wayne	McLouth Steel Gibraltar Plant	September 22, 2014