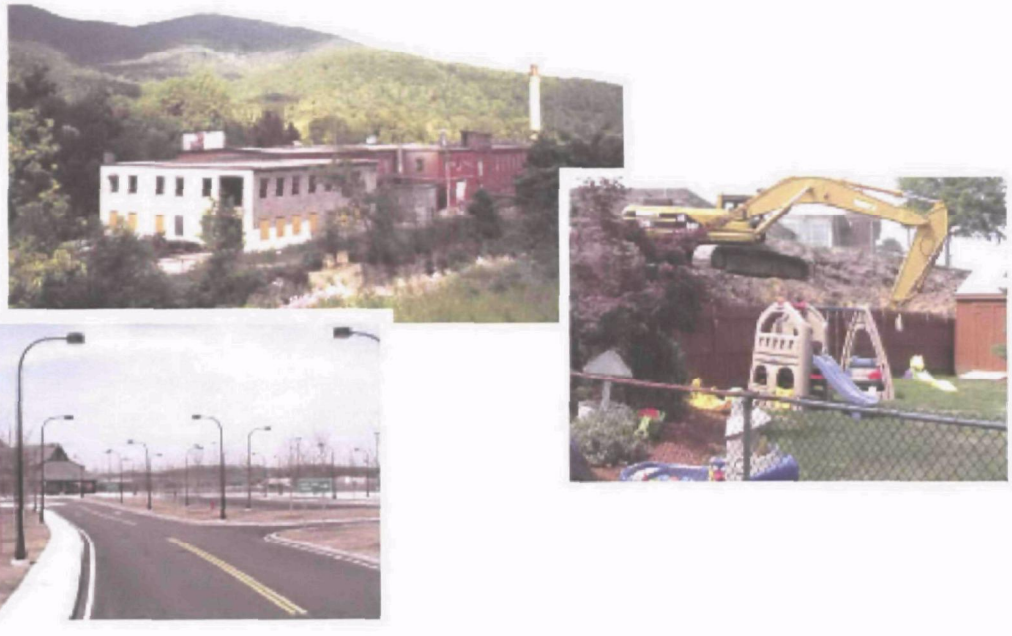
EPA United States Environmental Protection Agency New England

Superfund: Cleaning up New England



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February 2005

Introduction

The EPA's Superfund program was established in 1980 to locate, investigate and clean up hazardous waste sites throughout the United States. In New England, the Superfund program has carried out or is currently involved in the cleanup of over 650 such sites since the law went into effect.

Once a potentially hazardous waste site is reported to EPA, the agency performs an assessment of the site. During this assessment period, EPA tries to determine whether the site presents a hazard to human health and the environment. Data gathered is used to score the site according to the Hazard Ranking System (HRS). The HRS helps evaluate the dangers posed by hazardous waste sites and is the principal mechanism EPA uses to place uncontrolled waste sites on the National Priorities List (NPL).

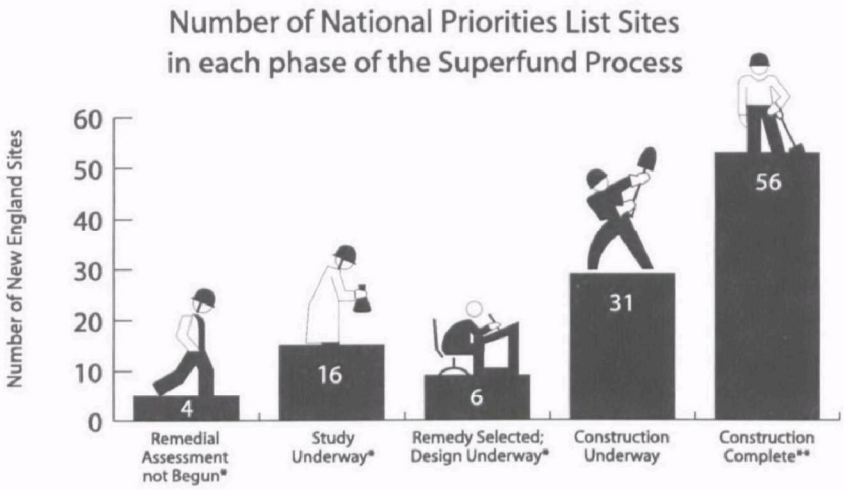
The NPL is a published list of hazardous waste sites that are eligible for extensive, long-term cleanup actions under the Superfund program. At any time during the site assessment process EPA may decide that the site poses an immediate threat to human health. In these cases, EPA will conduct a removal action, also called a short-term cleanup, to eliminate the risk.

EPA, a state, tribe or potentially responsible party (PRP) will clean up any site that may pose a real or potential threat to human health and the environment. One of EPA's top priorities is to get the PRPs, those responsible for the contamination, to clean up the site. If a PRP cannot be found, is not viable or refuses to cooperate, then EPA, the state or the tribe may clean up the site using Superfund money. EPA may seek to recover the cost of cleanup from those parties that do not cooperate.

This brochure provides information about the Superfund cleanup process, the successful clean up of long and short-term response actions across New England and some resources to help you get involved in cleanup efforts near you.

Superfund Facts

EPA has worked aggressively to clean up hazardous waste problems in New England. In cooperation with state counterparts, final cleanup activities are completed or underway at 78 percent of New England's 113 National Priority List (NPL) sites.



* may include sites where early action has occurred ** long-term monitoring, operation, and maintenance ongoing

Source: Superfund e-facts, October 2004

- 56 NPL sites have all cleanup construction completed and 31 sites have cleanup construction underway in New England.
- 10 New England sites have been deleted from the NPL.
- In the past 20 years, EPA has supervised the completion of over 500 short-term cleanups in New England.
- EPA has helped promote economic development by removing 1,642 sites in New England from the list of waste sites in the Comprehensive Environmental Response, Compensation and Liability Information System.
- The Superfund program in New England has spent over $1.6 billion to clean up NPL sites and $234 million to clean up non-NPL sites.
- Responsible parties have committed more than $2.3 billion to clean up waste sites in New England via direct payments to the Superfund Trust Fund or funding of studies and cleanup work.

Funding To New England States

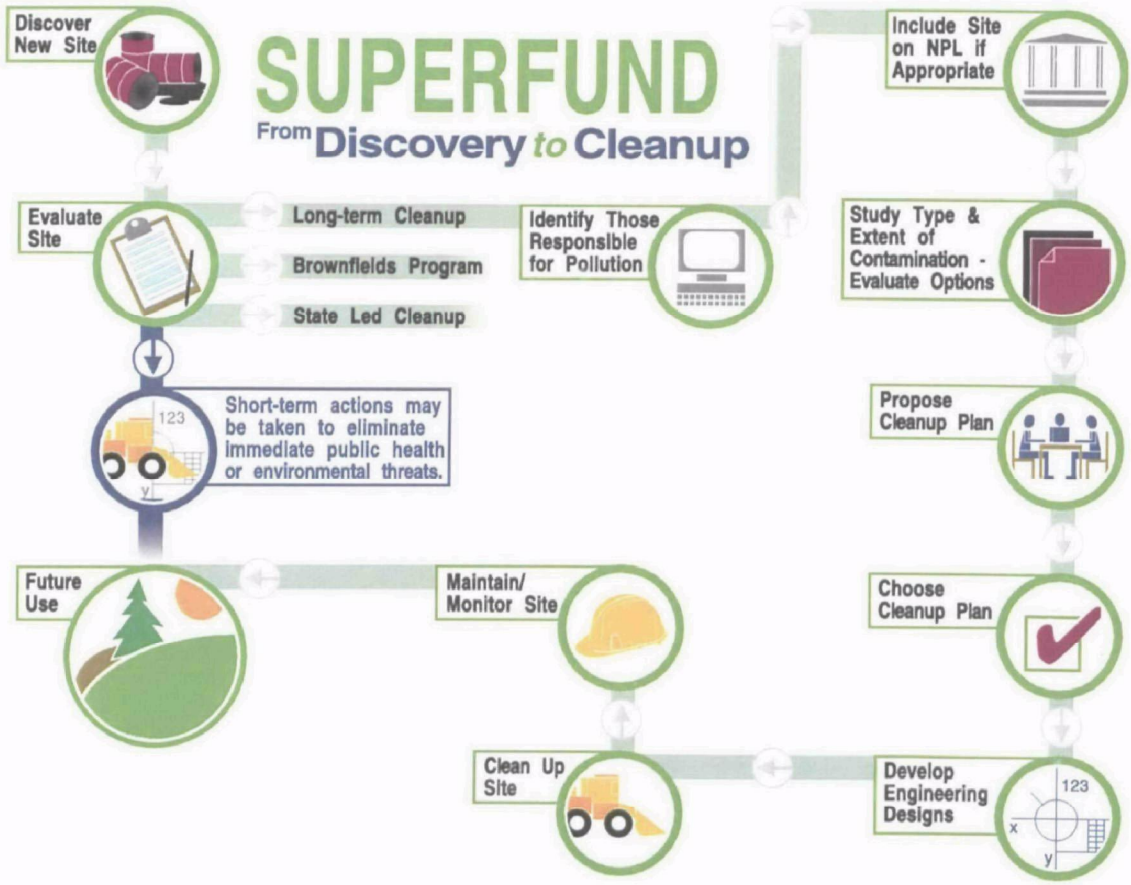
Cumulative Federal Superfund Dollars Expended at National Priorities List Sites in New England (1980-2004)

CT: $209 million	NH: $207 million
MA: $968 million	RI: $95 million
ME: $148 million	VT: $62 million

NEW ENGLAND TOTALS:
$1,689,000,000

Source: EPA New England, September 2004

How the Cleanup Process Works



Returning Superfund Sites to Beneficial Reuse

Vacant and underutilized Superfund sites can continue to blight the surrounding communities even after the cleanup is complete. That is why EPA has been working closely with communities, property owners, developers and other key partners to return some of our nation's worst contaminated sites to safe and productive use.

While protecting human health and the environment remains EPA's primary mission, the agency is committed to completing the transformation of Superfund sites from stumbling blocks to building blocks for community revitalization. All across the country, formerly contaminated properties are now being used for retail stores, commercial offices, manufacturing, agriculture, parks and even residential homes and playing fields.

At Superfund sites nation-wide, more than 244,090 acres of land are already in reuse or ready for reuse and over 30,000 jobs and $1.3 billion in annual income have been created. More information about EPA's efforts to reuse Superfund sites is available online at: www.epa.gov/superfund/programs/recycle

Raymark Industries, Inc., Superfund's site in Stratford, Conn., before and after cleanup

Long-Term Cleanups

In most cases, sites that require long-term cleanup are on the National Priorities List (NPL). The NPL lists hazardous waste sites that are eligible for extensive, long-term cleanup actions under the Superfund program. EPA has developed an assessment system called the Hazard Ranking System (HRS) to evaluate the dangers posed by waste sites to public health or the environment. Sites that score high enough on the HRS are eligible for the NPL.

Stratford Crossing Shopping Center, former site of Raymark Industries, Inc.

Long-Term Cleanup Sites in the Spotlight

Raymark Industries, Inc.
Stratford, Conn.

In 2002, a major portion of the cleanup and redevelopment at the Raymark Superfund site in Stratford, Conn., which spans 250 acres in 82 locations throughout the town, was completed. The 34-acre East Main Street property surrounding the former Raymark Industries, Inc., automotive parts manufacturing facility is now home to the Stratford Crossing Shopping Center, which contains a Home Depot, Shaw's Supermarket and Wal-Mart and employs over 650 people.

Throughout its operation, Raymark discharged contaminated process waters from the manufacture of automotive brakes, clutch parts and other friction components into a number of lagoons. As the solids in these process waters settled out, the lagoons were periodically excavated and the contaminated material was disposed on the site of the facility and at 82 locations throughout the town of Stratford, impacting a total of 250 acres. The contaminants discharged included asbestos, lead, polychlorinated biphenyls and a variety of volatile organic solvents.

Besides cleaning up the 34-acres surrounding the former Raymark facility, EPA performed numerous cleanups between 1992 and 1995 at 47 residential and municipal properties that had received Raymark waste material. The excavated material was transported back to former Raymark facility and capped. Between 2001 and 2004, EPA worked with the Connecticut Department of Environmental Protection to install sub-slab ventilation systems in over 100 residential homes to address potential indoor air impacts resulting from volatilization of contaminated groundwater originating from the former Raymark facility. EPA envisions future remedy decisions for other portions of the site will incorporate reuse considerations as envisioned in a plan developed by the town through an EPA grant.

More information on this site is available online at: www.epa.gov/ne/superfund/sites/raymark

The new town center of Corinna after clean-up activities

Eastland Woolen Mill Company
Corinna, Maine

The closure of Eastland Woolen Mill Company and abandonment of the mill complex in 1996 was a devastating blow to the town of Corinna, Maine. The economy and quality of life of this town with just over 2,000 residents were directly tied to the fate of the mill, which encompassed much of Corinna's downtown area. The EPA worked with the town, state, U.S. Army Corps of Engineers (ACE) and others to coordinate the cleanup and reuse of the former mill site. The EPA provided a grant to the town for the creation of a comprehensive reuse plan that incorporated commercial, residential and recreational elements. The resulting cleanup activities included the demolition of the mill complex and seven other in-town buildings, the relocation of the main street, the construction of a new bridge and the re-routing of the Sebasticook River. The EPA, ACE and their consultant, Weston Solutions, Inc., received the 2004 Build America Award from the Association of General Contractors of America for the cleanup and reuse of the Eastland site.

Eastland operated a wool and blended wool textile facility from 1909 to 1996. Liquid wastes from the mill were discharged to the East Branch of the Sebasticook River until the local sewage treatment plant was built in 1969. Groundwater contamination was discovered in 1983 when a state employee noticed the strange odor and taste of the drinking water at a local restaurant. Chlorobenzene, used as part of the mill's wool dying process, was also found in soil, surface water and river sediment.

After the contamination was discovered, carbon filters were installed on 15 private wells and in 1995 a new water line was constructed to homes with impacted wells. As part of initial cleanup actions, the Maine Department of Environmental Protection removed 55,000 pounds of hazardous substances from the mill. Following the placement of the site on the Superfund National Priorities List, EPA excavated and

treated an additional 100,000 tons of contaminated soil. The final cleanup of the former mill complex area, which is expected to be completed between 2005 and 2006, will meet residential cleanup standards.

More information on this site is available online at: www.epa.gov/ne/superfund/sites/eastland

Find a Cleanup Site

You can search for cleanup sites in New England by name, street, town or zipcode online at www.epa.gov/ne/superfund. The website also allows you to lookup sites on the National Priorities List (NPL) and those awaiting NPL decision and identify short and long-term cleanup projects in your state.

Anderson Regional Transportation Center, located on a portion of the Industri-Plex site

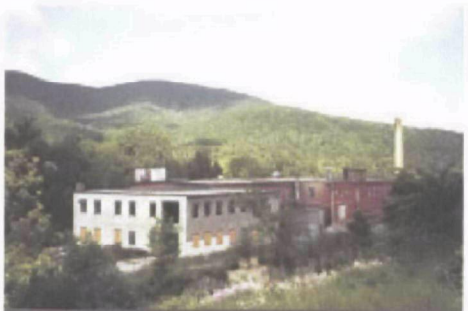
Industri-Plex Site
Woburn, Mass.

Over 100 years of chemical manufacturing and processing at the Industri-Plex Superfund site in Woburn, Mass., caused extensive soil and groundwater contamination. The 245-acre site got a new look for the new millennium when a major portion of the contaminated site was cleaned up and transformed in 2000 into a large commercial and retail district, a state and regional transportation center and restored wetlands.

From 1853 to 1969, a succession of manufacturers produced chemicals, insecticides, munitions and glue products made from raw and chrome-tanned animal hides on the site. Since 1969, a variety of industrial and commercial establishments have occupied portions of the site and approximately 60 acres are currently used for warehousing and distribution. More than 100 acres of soil contaminated with lead, arsenic and chromium were present on the site, and groundwater beneath the site was contaminated with benzene, toluene, arsenic and chromium.

The many partnerships formed at this site were key to its successful cleanup and redevelopment. EPA and the state of Massachusetts originally worked together in 1980 and 1981 to remove the immediate threats at the site. Later, two trusts were created to manage cleanup and redevelopment as part of a 1989 settlement between EPA, the Massachusetts Department of Environmental Protection, the city of Woburn and 24 current and former landowners. Because of the size of the Industri-Plex property, three principal public transportation and infrastructure initiatives and two private redevelopment initiatives are either completed or underway at the site. Besides cleaning up this severely blighted area, the redevelopment of the Industri-Plex site created hundreds of local jobs and increased public revenues.

More information on this site is available online at: www.epa.gov/ne/superfund/sites/industriplex



Former Pownal Tannery building complex

Pownal Tannery
Pownal, Vt.

In 2004, cleanup construction was completed at the Pownal Tannery Superfund site, a 28-acre set of parcels along the Hoosic River in North Pownal, Vt. The site was a former hide tanning and finishing facility owned by the Pownal Tanning Company, Inc. The site cleanup was designed to allow reuse as envisioned in a plan developed by the town through an EPA grant.

The tannery declared bankruptcy in 1988 and was abandoned for five years until EPA began work at the site. Three sources of contamination on the site were identified: the former tannery building complex, a capped sludge landfill and a lagoon system. The contaminants included solvents, preservative chemicals, polychlorinated biphenyls, inorganic elements and dioxins.

Since EPA began work at the site in 1993, the former landfill has been permanently capped, the building complex was removed and the contaminated soils and sludge were consolidated in the lagoon area and capped. Because the town envisioned part of the site being reused for recreation, the cap over the consolidated waste area was designed to support future recreational fields. This included providing proper grading and building the cap to resist flooding events and prevent exposure to the underlying waste material. The town also intends to build a new wastewater treatment facility, so wastes were removed from the desired location of the facility to facilitate its future construction. The Vermont Department of Environmental Conservation will continue to monitor and maintain the site.

More information on this site is available online at: www.epa.gov/ne/superfund/sites/pownal

Short-Term Cleanups

Hazardous waste sites that do not require a long-term cleanup process are considered short-term cleanups (also referred to as "removal actions"). Although the cleanup process for these sites may not be as lengthy as for long-term cleanups, these sites may still affect the health and environment of those who live near the site. There are three categories of short-term cleanups: classic emergencies, time-critical actions and non-time critical actions.

One specific type of short-term cleanup is the site of an oil spill. Refer to a list of New England oil spill sites online at: http://www.epa.gov/ne/superfund/findsite/oisspill.htm

To report an oil spill or other environmental emergency such as a chemical release, call the National Response Center at 1-800-424-8802.

Contaminated soil removal activities

Short-Term Cleanup Sites in the Spotlight

Witchcraft Heights
Salem, Mass.

While the Witchcraft Heights Elementary School underwent a major renovation between June 2002 and August 2003, workers building a new access road discovered buried tannery waste. Tests of the surrounding soil revealed high concentrations of arsenic. Soil at two residential properties across the street from the new access road was also found to contain arsenic at concentrations exceeding the state's imminent hazard level.

In June 2002, the Massachusetts Department of Environmental Protection requested assistance from EPA's Superfund program to address the potentially contaminated residential properties that surround the school. Between the summers of 2002 and 2003, EPA completed a major sampling effort, collecting over 1,600 soil samples from 57 residential properties. A total of 21 of the properties were determined to require remediation.

During the following winter, excavation and removal of contaminated soil was selected as the preferred remedy for this site. State and local officials were consulted, and it was discussed with nearby residents at a neighborhood meeting. Excavation of contaminated soil (and heavy truck traffic) and restoration of the site was completed over the summer vacation. By September 2004, restoration of the site was completed with the exceptions of removing the hay bales and a silt fence placed between the work area and residential properties. This will be done in the spring of 2005 and will afford an opportunity to address any erosion that may occur in the winter.

Contaminated soil and drum removal work

Troy Mills
Troy, N.H.

From 1967 to 1978, Troy Mills, Inc., a landfill now in bankruptcy, buried several thousand 55-gallon drums of solid and liquid wastes generated at its off-site facility located in the town of Troy, N.H. The drummed wastes occupied two acres of the 10-acre landfill and consisted primarily of volatile, semi-volatile organic and inorganic contaminants.

Removal activities took place between May and December 2004, including locating and excavating 7,678 55-gallon drums, consolidating their content and shipping it off-site and, to the extent practicable, excavating the surrounding contaminated

soils from the landfill and shipping them off-site. A total of 2,100 tons of sludge from the drum shredding and consolidation operations have been generated and shipped off-site. A total of 25,000 gallons of flammable liquids from the drums excavated have been recovered and shipped off-site. In addition, 21,000 tons of contaminated soil from around the buried drums have been excavated and shipped off-site. All wastes were shipped to licensed treatment and disposal facilities. A total of 2,100 trucks were used to transport wastes and other material to and from the site.

EPA actively worked with the New Hampshire Department of Environmental Services, the towns of Troy and Fitzwilliam, N.H., and residents to complete the removal activities. The final phase of work at this site is the restoration of the excavated areas to promote a natural environment and is scheduled to take place in the spring of 2005.

A Connell Street Tiverton, R.I.

Remnants of mercury-bearing hat waste were discovered during sampling and excavation activities at the A Connell Street site, a 0.3-acre privately-owned residential property that includes a single-family residence and a small sandwich shop. The site is located within the Bay Street Suspected Fill Area, which includes approximately 100 properties in the vicinity of coal gasification waste that is being investigated and cleaned up by the New England Gas Company with oversight from the Rhode Island Department of Environmental Management (RIDEM). The A Connell Street site is being addressed separately by EPA since the nature and the origin of the contamination, mercury, is distinct from that of the Bay Street Suspected Fill Area.

Excavated mercury-contaminated soil awaiting off-site disposal

According to RIDEM files, the A Connell Street site was used for the disposal of waste from a local hat factory approximately 100 years ago. Surface soils were contaminated with mercury at levels up to 823 parts per million, which is 35 times higher than Rhode Island residential standards.

Ongoing removal activities include excavation and off-site disposal of mercury-contaminated surface soils, capping contaminated soil that may remain at depth or which cannot otherwise be excavated and backfilling excavated areas. Areas disturbed by site activities will be restored during the spring of 2005.

Community Involvement

The Superfund program includes an aggressive citizen involvement component that enables those who live near a site to get involved in the cleanup of contamination by participating in the critical decisions that may affect their health and the environment.

Superfund's Community Involvement Coordinators reach out to community residents, local and state leaders and environmental and citizen groups to identify the public's concerns, keep interested citizens informed and involved and work with EPA's technical staff to be sure that issues and concerns are considered and addressed. The EPA New England Superfund community involvement staff is available to answer any questions regarding a Superfund site in your community or an area that you think may be a site. Contact James Murphy at 617-918-1028.

In addition, the Technical Assistance Grant (TAG) program provides money for activities that help your community participate in decision-making at eligible Superfund sites. An initial grant up to $50,000 is available to qualified community groups so they can contract with independent technical advisors to interpret and help the community understand technical information about their site. TAGs are available at Superfund sites that are on the EPA's National Priorities List (NPL) or proposed for listing on the NPL, and for which a response action has begun. EPA's NPL is a list of the most hazardous waste sites nationwide. Since the first TAG was awarded in 1988, more than $20 million has been awarded directly to community groups.

Superfund: Setting the Record Straight

Myth: *Superfund is running out of money.*

FACT: Funding for Superfund, the nation's primary program to clean up sites contaminated with hazardous wastes, has remained consistent.

- Annual appropriations by Congress for Superfund have remained relatively steady at approximately $1.3 billion to $1.5 billion during both the Clinton and Bush administrations.
- The FY 2005 budget includes approximately $1.26 billion for Superfund. This Superfund budget is essentially the same as the FY 2004 Superfund enacted budget.

Myth: *Because Congress did not renew the Superfund Tax, U.S. taxpayers are now paying for all Superfund cleanup activities.*

FACT: The majority of Superfund cleanup activities are paid for by the person or group responsible for the pollution. EPA remains committed to the "polluter pays" principle.

- Approximately 70 percent of Superfund cleanup activities have historically been paid for by parties responsible for the contamination (called "PRPs"). EPA is continuing to pursue PRPs and PRP resources.
- The only time cleanup costs are not borne by PRPs is when the parties cannot be found or are not able to pay.
- Since 1980, EPA has secured more than $23 billion in cleanup commitments from PRPs.

Myth: *Since the Superfund Tax expired in 1995, no new sites are getting added to EPA's list for cleanup.*

FACT: Sites continue to be added to the National Priorities List (NPL) for Superfund cleanup.

- 11 new sites were added to the NPL in FY 2004.
- Congress continued to allocate full funding to Superfund since the tax expired, while EPA continues to identify sites for cleanup and to do the work to clean contaminated sites.
- EPA is identifying ways to redirect funding from other portions of the Superfund appropriation toward cleanup construction.
- EPA is working to address a current backlog of cleanup construction projects awaiting funding.

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Superfund in New England Online

Visit www.epa.gov/ne/superfund for additional stories and information on how EPA's Superfund program is cleaning up hazardous waste sites throughout New England communities.

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